

making sense of the new english household projections

Ludi Simpson and Neil McDonald review the latest DCLG household projections for England and make suggestions for how they might be used intelligently

Household need is difficult to assess at present because it is not clear to what extent significant changes in household formation and dissolution are temporary effects of economic cycles, or structural changes that should be taken as part of a new landscape. We have each reviewed the evidence in the past two years,^{1,2} and in this article we attempt to bring the story up to date and to advise how best to use the new household projections.

Household projections are the starting point for objectively assessing housing need for Local Plans. The latest update of housing projections for each local authority area in England was published by the Department for Communities and Local Government (DCLG) in February.³ They are a step forward from the 2011-based interim projections produced in 2013, but they are not the full Census-based update that had been hoped for.

A growing population is the main source of estimates of growing housing need, and these projections incorporate the latest, 2012-based, sub-national population projections from the Office for National Statistics (ONS) that reach to the year 2037. This extension is a major advantage over the interim projections, which extended only to 2021.

The other major component of household projections is the projection of 'household representative rates' – the proportion of each age, sex and relationship group which is in a statistical sense the head of a household. This is calculated separately for those in couples, for those not in couples who have never married, and for those who are widowed,

separated or divorced. For example, spending more of our lives outside a couple makes a significant difference to the future demand for housing.

The new projections make use of more information from the 2011 Census to estimate these household representative rates than was available for the previous interim projections. This extra information includes the age, sex and relationship status of the population in households. However, the 2011 Census has not yet yielded the age, sex and relationship status of those who are household representatives, which is required for fully updated household projections for England and for each local authority area. The DCLG's analysis of this extra information is 'planned to be in a secondary publication later in the year after further interrogation'.⁴ In the recent projections, the DCLG has decided to provide a quick-fix solution by estimating what we don't yet know, using information from past projections, in order to help the formulation of Local Plans.

What do the new projections say?

England

The new projections suggest that the number of households in England will grow from 22.3 million in 2012 to 27.5 million in 2037. The annual growth rate is 1% a year for the first ten years. It then tails off a little.

The projected growth for England is very slightly slower than in the 2011-based projections: 220,000 households a year between 2012 and 2021, rather

Table 1**Interim and revised projected change in the number of households, 2011-21**

	2011-based projection (Interim, 2013)	2012-based projection (February 2015)	Revision, as % of interim projected change
Kensington and Chelsea	+2,950	+100	-97%
Oadby and Wigston	+1,500	+350	-78%
Barrow-in-Furness	+1,100	+350	-70%
Rutland UA	+1,850	+800	-56%
Tendring	+10,100	+4,850	-52%
East Lindsey	+7,600	+3,650	-52%
:			
:			
Sefton	+4,000	+6,050	+51%
Hackney	+12,950	+19,950	+54%
Brighton and Hove UA	+8,000	+12,600	+58%
Wycombe	+3,750	+5,950	+58%
Leicester UA	+7,000	+11,200	+60%
North East Lincolnshire UA	+1,550	+2,550	+62%
Rushmoor	+1,900	+3,100	+64%
Brent	+10,150	+16,900	+67%
Reading UA	+2,750	+4,700	+71%
Halton UA	+1,900	+3,200	+71%
Stevenage	+2,200	+3,850	+75%
Worcester	+2,000	+3,750	+87%
Newham	+14,100	+26,600	+89%
Walsall	+4,150	+7,850	+89%
Lincoln	+1,200	+2,450	+105%
Greenwich	+8,600	+17,800	+107%
Wirral	+3,350	+6,950	+108%
Watford	+2,350	+5,400	+130%
Blackburn with Darwen UA	+950	+2,400	+155%
Blackpool UA	+300	+1,000	+244%
Burnley	-300	+600	+294%
Cambridge	-1,450	+2,900	+299%
Oxford	-1,400	+3,550	+358%
Liverpool	+2,450	+14,400	+483%

Source: DCLG Live Tables for 2001- and 2012-based household projections
City of London and Isles of Scilly excluded

than 221,000. However, at the local authority level a much more diverse picture emerges.

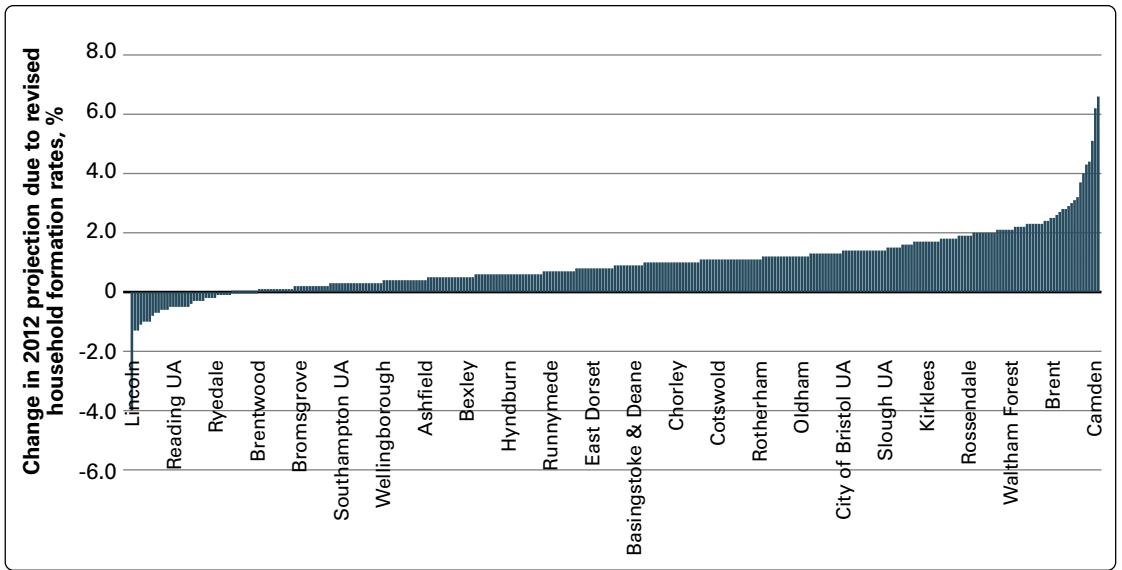
What is driving the increases in the number of households?

The big driver is the growing and ageing population: 93% of the increase in the number of households in England between 2012 and 2037 is due to the projected growth in the population and the increasing proportion of older people (who tend to live in smaller households, either alone or just with a partner). Only 4% of the increase is due to changes in household representative rates. This means that the assumptions made by the ONS in the population projections which the DCLG have used in the new projections have a big influence on the projected changes in household numbers.

Compared with the 2011-based interim projections for England as a whole, the downward revisions to the projected population lead to a decrease in household growth between 2012 and 2021 by 9%, while the revisions to the projected household representative rates have almost exactly the same effect in the opposite direction. The net result is that the two projections are very close.⁵

Results for local authorities

At the local authority level there are sizeable differences between the new and old projections. For 30% of authorities (districts and unitaries) the new projection for the number of households in 2021 is more than 2% higher or lower than in the old set. This may seem a small change, but the



Above

Fig. 1 The impact of revised household formation rates

Source: DCLG Live Tables

number of households in England is increasing by about 1% a year so the difference amounts to two years' average growth.

For planning purposes the change in the number of households is more relevant than the absolute number. There are 50 local authority areas for which the new projections suggest a household increase that is more than 20% higher than the 2011-based projections, and 66 for which the new figure is more than 20% less. There are 30 for which the difference is more than 50% (see Table 1).

These large differences in the projected household growth rates are due to the way in which the new population and household representative rate projections affect individual local authority areas.

The impact of the new household representative rates (see Fig. 1) is, in almost all areas, to increase the projected number of households. There are 39 local authority areas for which the change is more than 2% of the number of households previously projected for 2011, and only one for which the new projection is more than 2% less than the previous one. This general direction of change is a result of the partial Census information used in the revision, but it is not clear what elements of it have been influential. The complete Census information may well provide further changes, and not necessarily in the same direction.

The impact of using the new population projections (see Fig. 2) is mostly to reduce the projected increase in households. There are 102 authorities for which the reduction is more than 2%, and 16 for which there is an increase of more than 2%. A

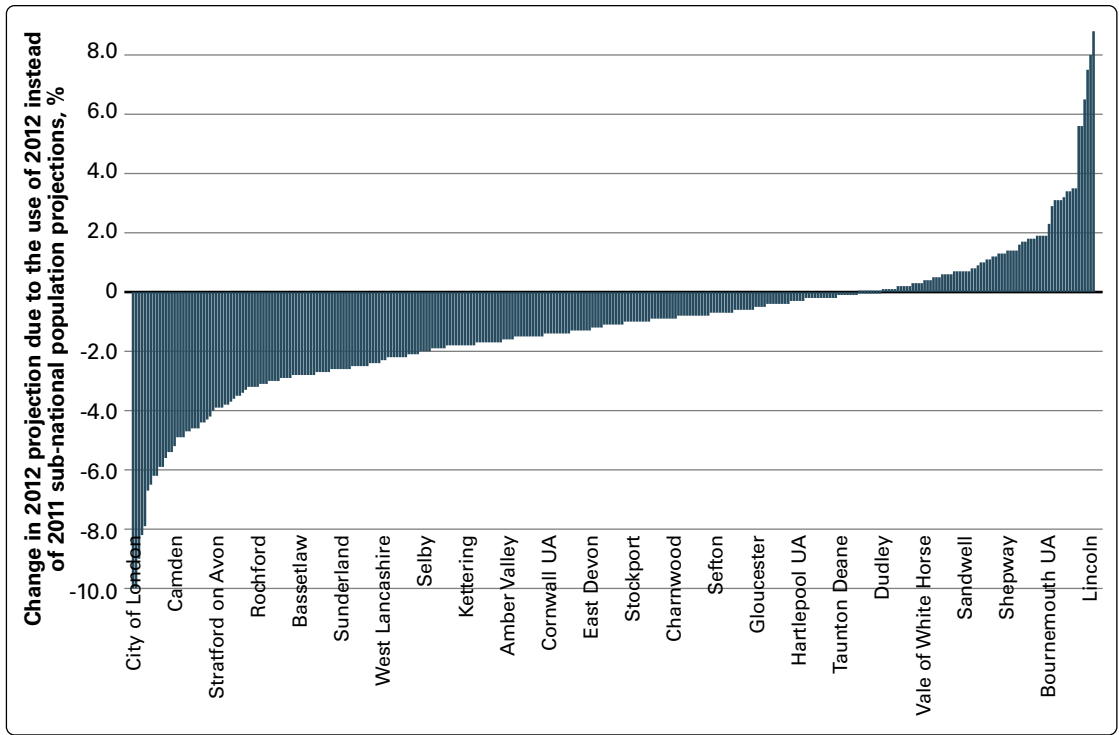
factor here is likely to be that the 2012-based population projections assume a smaller net inflow into England from abroad than the 2011-based projections.

Are the new projections sound trend-based projections?

Implications of not taking full account of the 2011 Census

While population change is the main driver of changing household demand at the moment, the uncertainty over future household formation is significant. The current information does confirm beyond doubt that a long-term trend towards smaller average household size has slowed since at least 2001. But the extent to which this change is concentrated in particular age, sex and relationship groups is not yet established.

The information to be analysed later this year will add to our understanding of the shifts that took place between 2001 and 2011 and as a consequence may change the projected future change in number of households. It is quite reasonable to expect that the impact of the extra information on future household formation will be at least as much as has been incorporated in these new projections – which for England as a whole was to increase extra household need by 9%. The new information could either reduce or increase the assessment of housing need. Since the extra information is local, its impact will vary between local authorities.



Above

Fig. 2 The impact of revised population projections

Two local authority areas – City of London and Isles of Scilly UA – registered changes greater than -10% (-25.5% and -10.6%, respectively)

Source: DCLG Live Tables

Projections for migration flows between local authority areas

As is its normal practice, the ONS has used the flow rates within England during five years prior to the base date, together with moves between the countries of the UK, to project future flows between local authority areas.⁶ The argument for using a five-year period rather than a longer one is that the shorter the period, the more quickly changes in trends are picked up. The counter-argument is that a shorter period is more susceptible to cyclical trends, an argument that has particular force when the five-year period in question – 2007-12 – neatly brackets the deepest and longest economic downturn for more than a generation.

Perhaps the best example is provided by London. Fig. 3 shows how flows to and from the rest of the UK have changed since 2001.

Flows out of London to the rest of the UK fell significantly during the economic downturn: the net outflow in 2007-12 was half that in the preceding period. Although the ONS model is more complex than keeping net flows constant, nonetheless projecting forward the experience of that period underestimates future outflows and overestimates the likely growth in London's population *if*

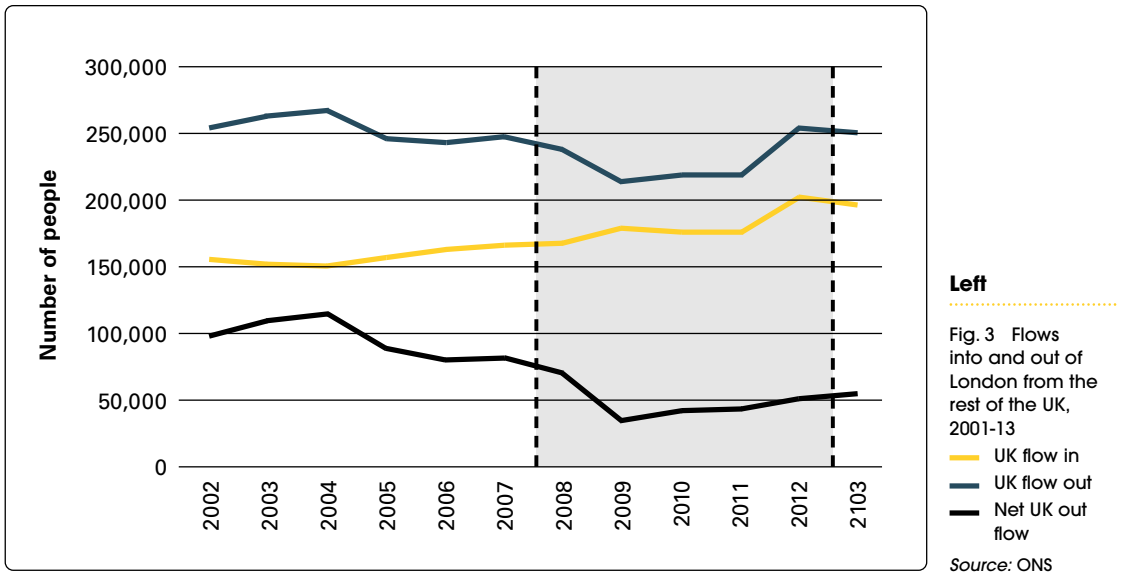
migration patterns recover. It is partly for this reason that the Greater London Authority has produced its own projections which suggest a net outflow over the period 2012-37 that is 380,000 larger than that suggested by the ONS's latest projections.

A large number of local authority areas are affected by this issue. For 60% of authorities the net flow of migrants within the UK in 2007-12 was different by more than 50% from the period 2002-07. While this is comparing a boom period with a recession, it serves to indicate the impact of the choice of reference period for trend projections.

Unexplained items in the historical data

In theory, if you start with the 2001 Census figure for the population in an area in 2001 and add births and the migration flows and then subtract deaths, you should arrive at the 2011 Census population. However, there is always a discrepancy which remains despite the ONS's best efforts in revising the data. This is known as the 'unattributable population change' (UPC).

Given that our registration systems for births and deaths are of a high quality, the discrepancy is likely to be in the Census estimates for 2001 or 2011 or in



the migration flows. If the discrepancies are in the migration flows, then projecting forward based on the estimated past flows will introduce errors into the projections.

The ONS investigations have found no clear evidence to suggest whether the discrepancies are in the Census numbers (in which case they would not affect the projections) or in the migration flows. If the discrepancies are in the migration flows, ONS suggests that, as a result of the work it has done recently to improve the estimation of international migration flows, the errors are most likely to be in the earlier part of the decade between the Censuses and so would not affect trends based on 2007-12. ONS has therefore not taken UPC into account in producing the 2012-based population projections.⁷

This may be a reasonable judgement for England as a whole since, as the ONS explains, the UPC for England is within the confidence interval for the international migration estimates and the sum of the confidence intervals for the 2001 and 2011 Censuses. However, that argument is less persuasive at the local authority level, where for many local authority areas UPC is large compared with both the population change recorded between the two Censuses and the confidence intervals on the Census numbers.

There are 91 local authority areas for which UPC is more than 50% of the recorded population change between the two Censuses, and 85 for which it is more than twice the confidence interval in the 2011 Census population counts. This makes discounting UPC at the local authority level difficult to justify in those areas. At very least, a sensitivity test should be carried out to determine how much difference adjusting for UPC might make.

Uncertainties in the projection of household representative rates

The DCLG's method of projecting the number of households formed in a local authority area depends on estimating how household representative rates will change for three different 'relationship groups' for both sexes in each of 15 age groups: people in couples; others whose marital status is single and never married; and others who have been previously married. There are therefore two key elements:

- projecting what the split between the three relationship groups will be in the future; and
- projecting how household representative rates will change.

The split between the three relationship groups matters because the household representative rates are different for the different groups: previously married people have lower household representative rates than couples, and single (never-married) people have lower rates still. For the age groups under 40 the differences are very substantial.

For at least some local authority areas the projected changes in the split between the relationship groups actually have a bigger impact on household numbers than the projected changes in the household representative rate.⁸ It is therefore of concern that the new projections are based on ONS's 2008-based projections for marital and relationship status, as these were issued with substantial uncertainty intervals and have not been updated since. If the current methodology is to be retained, it is important that these projections are updated.

As already discussed, a major concern with the household representative rate projections is that they are not fully based on 2011 Census data.

International migration

Net international migration to the UK has averaged 240,000 a year over the last ten years, with a generally downward trend. The population projection used in the household projections assumes a long-term net inflow of 165,000, lower than the lowest figure seen in the last ten years – see Fig. 4, which also shows the ONS’s high- and low-variant projections. All the ONS variants currently seem plausible and should be tested as alternative scenarios. At the England level, the higher international migration variant has the effect of increasing the annual increase in the number of household between 2011 and 2021 in the DCLG 2011-based projection by 9%.

Using the new projections

The case for evidence-based planning

The current uncertainty is more than usual and irritating, but is no reason to reject the projections as a starting point for planning. They incorporate the evidence we know.

Projections are the starting point, not the answer

The National Planning Policy Framework (NPPF) is clear that the official projections should be taken as a starting point for assessment of housing need, and not accepted and used blindly. The official projections are ‘trend based’, in that they continue the historical trends in population and household formation, which are the result of a range of past

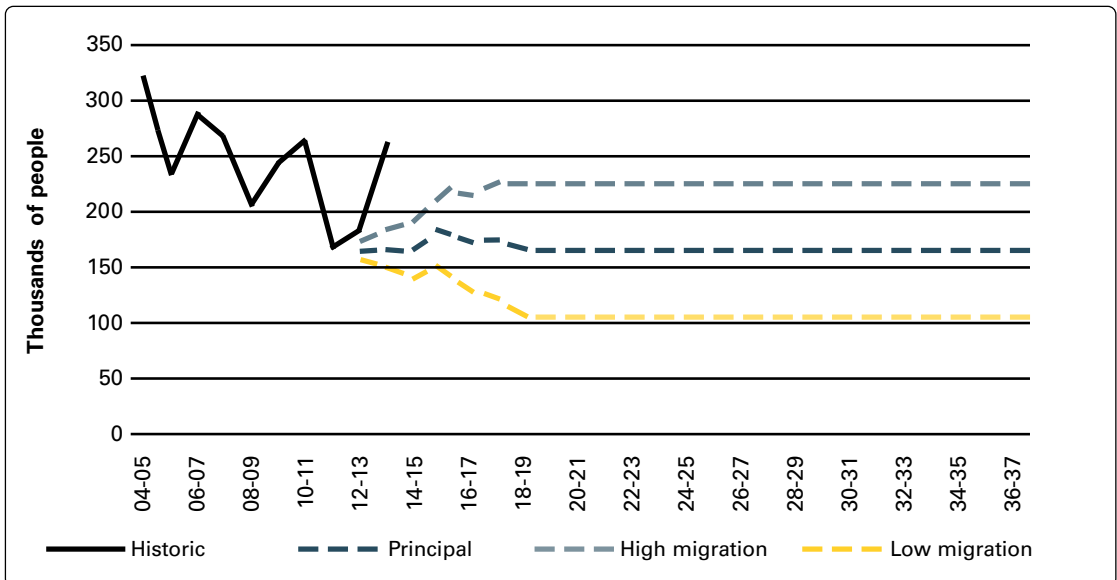
economic and social factors. Projecting forward based on past trends is, in effect, assuming that the factors which have caused those trends will continue to apply. If there is convincing evidence that future social and economic factors are dependably foreseeable and have different impacts, then this evidence should be included in the assessment of housing need.

In a period of uncertainty, it is especially important that extra local evidence is considered to improve the assessment of housing need. But it is also useful to use a locally plausible range of projections to indicate uncertainty in that assessment, as we consider below.

In the 1990s the identification of ‘concealed families’ in official household projections was ended, as it seemed that a period of suppressed household formation due to lack of housing had come to an end. Concealed families are couples and single parents living within other families’ households. Their number reduced from 935,000 in 1951 to 165,000 in 2001. In 2011 the number had increased to 289,000.⁹ It may be time to consider a measure of concealed families in household projections again as a measure of suppressed demand that is not included in the trend-based assessment of housing need.

Why we should not revert to the 2008-based household representative rates

Planners and the population specialists who support planning can consider a range of scenarios to represent current demographic trends. Current



Above

Fig. 4 Net international migration to the UK
Source: ONS – 2012 national population projections

trends, or 'business as usual', are the starting point of plans, but we recognise that the evidence for what is the current trend does not point in a single accepted direction. Scenarios will represent plausible levels of future international and national migration, and alternative household representative rates that are also plausible, given the evidence about current trends.

In this context it is no longer sensible to appeal to previous household projections including the 2008-based set as if they were evidence of an underlying trend in household formation. They were produced at a time when household formation had already changed, starting before the economic downturn of the mid-to-late 2000s, and are in themselves only evidence of the optimism of that period.

The scenarios described below are an aid to estimating the objectively assessed housing need as required in Local Plans. There are, of course, other factors which may need to be taken into account, including whether market signals or economic growth projections suggest that additional housing is needed beyond that suggested by a demographic analysis.

A suggested set of alternative scenarios

We recommend that local planners explore the following scenarios and that the DCLG find the means of providing them as a standard set in the future. They are not a set of scenarios to be cherry-picked according to the convenience of their results. They are to be considered as alternatives if their assumptions are deemed plausible according to local and national evidence presented in a Local Plan. They do not include policy-led, aspirational scenarios:

● **Population change – alternative scenarios of specifying the current trend:**

- **Flows of migration within the UK in the 2000s:** Migration within the UK returns to the level and age composition experienced during the previous ten years 2002-2012, rather than being based on the past five years as in the official projections.
- **UK migration adjusted to include 'unattributable population change' in the 2000s:** This was estimated by ONS for the 2000s but not included in the official projections because there is no nationally consistent evidence to attribute it to a particular migration flow or Census errors. There may be local evidence that it should be included.
- **Variant international migration:** In line with the higher and lower variants of the national population projections.

● **Household formation – alternative scenarios of specifying the current trend:**

- **Household formation increasing:** No further decrease in household representative rates for

any age-sex-relationship group, leaving increases in place.

- **Household formation not increasing:** No further increase in household representative rates for any age-sex-relationship group, leaving decreases in place.

In each case this is not a complete technical specification of the alternative scenario. It would be helpful to all Local Plans if a national body were to support their development and production. The NPPF also emphasises that the housing market area for which housing need should be assessed may not coincide with a single local authority. In larger conurbations the variation between scenarios will be helpfully reduced.

Conclusions

The new projections are a step forward but a somewhat uncertain one. They take account of some more recent evidence and extend to a full 25 years, but they do not benefit from the full information that is potentially available from the 2011 Census.

It is good that the DCLG has committed to further work to make fuller use of the 2011 Census, so that the changing relationship between people and households is clarified at the earliest opportunity. What is less helpful is that this may result in projections for some local authority areas changing significantly once again. In the light of this, where the new projections suggest higher housing requirements than indicated by the 2011-based projections, there may be a case for local authorities safeguarding additional land in their plans but not releasing it until the DCLG's further work confirms that it is needed.

It is important that all users of the projections are realistic about the uncertainties involved – which will remain even when further analysis has been carried out. The best way of dealing with this is for a range of scenarios to be prepared so that the implications of the inevitable uncertainties for a particular local authority can be understood. We have suggested a range of scenarios for the 'trend' projection, with the most appropriate for assessing housing need depending on local assessment of demographic circumstances. It would be efficient and helpful to the development process if the DCLG were to provide such a range.

There are of course other aspects of the relationship between household projections and Local Plans that would benefit from review, as well as the methods of household projection themselves, which could be assessed and simplified, taking into account the different approaches used elsewhere in the UK.

We have not considered the constraints and aspirational developments which shape a Local

Development Plan after housing need has been assessed.

The new projections are a helpful step forward, but the uncertainty in future housing need should be addressed by further developing an appropriate base of evidence as a matter of urgency.

● **Ludi Simpson** is Professor of Population Studies at the University of Manchester, and **Neil McDonald**, previously a Director at the DCLG and Chief Executive of the National Housing and Planning Advice Unit, currently works as an independent adviser. The views expressed are personal.

Notes

- 1 L. Simpson: 'Whither household projections?'. *Town & Country Planning*, 2014, Vol. 83, Dec., 541-44
- 2 N. McDonald and P. Williams: *Planning for Housing in England: Understanding Recent Changes in Household Formation Rates and their Implications for Planning for Housing in England*. Research Report 1. Royal Town Planning Institute, Jan. 2014.
www.rtpi.org.uk/media/819060/rtpi_research_report_-_planning_for_housing_in_england_-_january_2014.pdf
- 3 *2012-based Household Projections: England, 2012-2037*. Department for Communities and Local Government, Feb. 2015. www.gov.uk/government/statistics/2012-based-household-projections-in-england-2012-to-2037
- 4 *Household Projections 2012-based: Methodological Report*. Department for Communities and Local Government, Feb. 2015, p.6.
www.gov.uk/government/statistics/2012-based-household-projections-methodology
- 5 *Methodological Report* (see note 4), p.24
- 6 *Methodology: 2012-based Subnational Population Projections*. Office for National Statistics, May 2014.
www.ons.gov.uk/ons/dcp171776_364077.pdf
- 7 *2012-based Subnational Population Projections for England: Report on Unattributable Population Change*. Office for National Statistics, Jan. 2014.
www.ons.gov.uk/ons/about-ons/get-involved/consultations-and-user-surveys/consultations/consultation-on-the-2012-based-subnational-population-projections-for-england/snpp-consult-upc.pdf
- 8 The DCLG 2011-based projections assume that the proportion of couples in the population falls between 2011 and 2021 for all age groups up to and including 75-79. If the relationship splits in 2021 were the same as in 2011, the change in the number of households would be 7% higher. In contrast, the changes in household representative rates between 2011 and 2021 are responsible for increasing the change in the number of households by only 3.2%
- 9 Sources: For 1951-2001: A.E. Holmans: *Historical Statistics of Housing in Britain*. Cambridge Centre for Housing and Planning Research, University of Cambridge, 2005; for 2011: Census Table DC1110EW. The figures are for England and Wales. In 2011 the number of concealed families in England alone was 276,000

British Society for Population Studies
Half Day Meeting

The 2012-based Household Projections for England: Methodological Issues

Monday 18th May 2015, 2:00 pm - 5:30 pm

London School of Economics (LSE),
Ground Floor Lecture Room STC.S78,
St Clement's Building, Clare Market,
London WC2A 2AE

The official projections of household numbers in England are of vital importance for debate and decision-making about the amount of land for housing development. Future needs for housing have been a hot topic in the General Election Campaign. Initial results from the 2012-based projections of households in England were published by the Department for Communities and Local Government (CLG) in February 2015. Further work is promised, as the full set of Census data needed for a complete review of long-term trends was not available in time.

This event aims to examine the methodology and data used for the 2012-based projections and to provide an update on CLG's intentions for further analysis. It will include contributions from CLG, academics and local authority practitioners and will allow attendees the chance to ask questions and make their views known.

Programme:

- 13.30 Registration (No refreshments)
- 14.00 Welcome from Tony Champion, BSPS President
- 14.05 Chair's Introduction, John Hollis, BSPS past President
- 14.10 Bob Garland (CLG)
- 14.40 Questions and discussion
- 15.00 Tea Break (Refreshments provided)
- 15.20 Ludi Simpson (University of Manchester)
- 15.40 Neil McDonald (University of Cambridge)
- 16.00 Questions and discussion
- 16.20 Ben Corr (Greater London Authority)
- 16.40 Greg Ball (former demographer, Birmingham CC)
- 17.00 Questions and discussion

Members and non-members welcome. There is no charge, but please register in advance by emailing pic@lse.ac.uk or by phoning the BSPS secretariat on 020 7955 7666. Room directions will be sent in advance of the meeting.