
Mark Pont, Assessment Programme Lead

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Deputy National Statistician – Population and Public Policy
Office for National Statistics
(by email)

17 December 2018

Dear Iain

HOUSEHOLD PROJECTIONS FOR ENGLAND

As you are aware, we recently completed our check of the compliance with the [Code of Practice for Statistics](#) of ONS's [Household Projections for England](#). I am pleased to confirm that these projections should continue to be designated as National Statistics subject to addressing the findings from this review.

We initiated this check following our [public commitment](#) in March to review these projections. This was in light of the transfer of responsibilities for producing the projections from the Ministry of Housing, Communities and Local Government (MHCLG) to ONS in early 2017; and in light of the recent methods changes introduced by ONS following public consultation. We considered the Trustworthiness, Quality and Value of the projections in relation to the *Code*.

We've appreciated the positive and constructive way that the team has engaged with us during the development of these projections and our compliance check.

We found many positive examples around ONS's production and presentation of the latest (2016-based) Household Projections for England. These include:

- ONS publicly [consulting](#) users on its proposals to update the methods used to produce these projections, and seeking users' feedback about what additional information would support the projections' interpretation and use.
- Setting up a research programme to explore options in response to the consultation, and establishing a Household Projections Collaborative Group, comprised of independent experts, to advise ONS on its research. ONS has signalled its intention to continue to seek advice from this group for its future developments, which we welcome.
- ONS's openness and transparency about its [proposals](#), how it responded to users' feedback, and publishing detailed guidance on the methods used, the quality of, and quality assurance of the projections.
- The main statistics report presents the key messages clearly and impartially, with clear signposting to supporting guidance.
- ONS taking steps to assess and publish information about the [accuracy](#) of the projections, comparing them with previous projections and other sources of household estimates, and explaining the likely reasons for differences, to help inform future developments.

Overall, we welcome the team's proactive and open approach to develop these projections.

We identified some areas where we consider that ONS could enhance the clarity and insight presented by these projections, and improve the accessibility of key assumptions used, in order to meet the high standards required of National Statistics:

- The team should review and refine the range of methods guidance published to enhance its accessibility to users. Specifically, we consider that ONS could enhance users' understanding of quality by presenting the key assumptions used in the 2016-based projections, how they compare to previous assumptions, along with clear justification about their choice. This should be clearly accessible from the main statistics report.
- In light of lower population projections and methodology changes including ONS's decision to base the Household Representative Rates used to produce the projections on two Census points – 2001 and 2011, there is a noticeable difference between the 2016-based projections compared to the previous 2014-based projections. This difference is evident both overall and at Local Authority-level. ONS should investigate Local Authority-level projection outliers, and provide supplementary analysis and guidance about the key drivers for these results. ONS should also continue to monitor users' feedback to identify what other analyses would help to aid users' interpretation.
- ONS had originally planned to produce and publish additional 'variant projections' alongside its [Stage 2 projections](#)¹ published on 3 December. The team told us when it started this planned work, it became apparent that user needs were varied and more time was needed to ensure that additional variants would best meet these needs. Due to the importance of these projections, we encourage ONS to prioritise publishing these additional 'variant projections' in the near future, in a way that is most helpful to users.
- We welcome that you have started to, in collaboration with others across the UK, revisit and update published guidance about the coherence and comparability of projections produced for each of the four countries of the UK. We look forward to these outputs being published in the near future.

We have presented these findings in more detail in **Annex 1** of this letter.

Thank you for engaging effectively with us during this review. I would welcome an update from you by end June 2019 about how you have addressed these areas. Please let me know if there is any aspect of this letter that you wish to discuss.

I am copying this letter to Rich Pereira, ONS Deputy Director Centre for Ageing and Demography, Sarah Crofts Head of the ONS Centre for Ageing and Demography and Joanna Harkrader, responsible Statistician for Household Projections.

Yours sincerely



Mark Pont
Assessment Programme Lead

¹ ONS published the 2016-based projections in 2 stages: Stage 1 presents projected numbers of households in England by age and sex of the Household Reference Person; Stage 2 presents projected numbers of households by household type.

Annex 1: Detailed findings

National Statistics status brings with it a commitment to the *Code of Practice for Statistics*. Complying with this framework ensures statistics are of **public value**, are **high quality** and are produced in a way **worthy of trust**. We found a number of positive aspects in the way that ONS produces and presents these statistics. We also identified areas that we think ONS should strengthen in line with the *Code*, in order to continue to be designated as National Statistics.

1. Demonstrating trustworthiness

ONS formally took over responsibility for producing the household projections in January 2017, to improve the consistency between these projections and ONS's National and Subnational population projections. Since then, ONS has been very open in seeking users' views as part of its plans to develop the projections since taking over responsibility for their production, and in responding to users' feedback:

- In June 2017, ONS published its [response](#) to its consultation, in which it committed to set up a research programme to look at how the methodology could be improved in light of users' feedback; and its intention to establish a Household Projections Collaborative Group to advise it on its research.
- On 20 June 2018, ONS published an [article](#) to update on findings from its research programme, and present its proposed methodology. ONS also communicated its intention to publish the projections in two stages, with the 20 September publication projecting numbers of households by age and sex of the Household Reference Person; followed by publishing breakdowns of households by household type.
- In its 20 September [publication](#), ONS confirmed that it planned to publish the [second stage projections](#) on 3 December 2018.

We think the team's openness and transparency about its developments to the projections, and it drawing on expert views to help shape these developments, is commendable.

Despite the positive steps taken, the 2016-based projections have been unexpected by some users and show projected household growth being noticeably lower than the 2014-based projections (see paragraph [3a.](#)). The team should reflect on this to help inform its approach to publishing further supporting information over the coming months, and its future developments to the projections.

For future publications, ONS has publicly communicated its intention to maximise efficiencies in the projections' production and publish them soon after its publication of [Subnational Population Projections](#) statistics (a key data source). We welcome these plans.

2. Methods, Quality and Quality assurance

a. Suitable data sources

ONS uses a number of data sources to produce the projections – these are described clearly in Section 6 of [Household projections in England QMI](#). Section 3 of ONS's main [Methodology article](#) also explains the rationale for the data sources used. These sources are:

- mid-2001 to mid-2017 population estimates by age and sex
- [2016-based subnational population projections](#)
- 2001 Census data
- 2011 Census data
- prison population data from [offender management statistics quarterly](#)

ONS has also communicated its intention to carry out further research into the potential for other data sources – particularly administrative data sources – to be used to provide more-recent trends for projecting Household Representative Rates. We welcome this.

b. Sound methods

ONS publishes a range of detailed information about the methods used to produce these projections across a number of articles:

- Its June 2018 [article](#) summarises ONS's proposals for the methods used to produce the projections, and how it has responded to users' feedback during its consultation.
- ONS's [Methodology document](#) presents an overview of the methodology, with supporting detail on the different assumptions used. This is supplemented by a 'log of assumptions', including a comparison of the key differences in the methods compared to previous 2014-based projections.
- The [Household projections in England QMI](#) describes how the team processes and analyses the data sources, the strengths and limitations of the projections, and the extent of coherence and comparability of the projections compared to the previous projections, following the recent changes to methods.
- An [article](#) to assess the accuracy of the projections through comparisons with household estimates and other data sources, to attempt to explain some of the key drivers for differences between the latest 2016-based projections and previous projections; and compared to household estimates from the Labour Force Survey.

The team told us that it published a large volume of methods guidance in response to users' feedback for more technical detail. We think the steps taken to present analysis of how the latest projections compare to previous projections is very positive and should help ONS in future to assess the robustness of its assumptions. However, within the large volume of information, there is some duplication, and other areas that could be more accessible.

We think there is scope for ONS to improve its methods guidance by:

- **rationalising its published methods information, and seeking to summarise its approach to producing the projections in a simple diagram (such as that presented in its June 2018 [article](#)).**
- **presenting the key assumptions used more prominently and accessibly, including explaining how they differ from previous projections, and providing a clear justification about choices made. This should be clearly signposted from the main statistics report, in a way that will help ONS respond to potential challenge about the methods used.** We suggest this could be done effectively by presenting a summary table of the main assumptions used, how they differ from the 2014-based projections, along with ONS's rationale for its choice of assumptions.

c. Assured data quality – Quality, strengths and limitations, and quality assurance

ONS has published a range of helpful information about the quality, and its quality assurance, of the projections:

- [Household projections in England QMI](#) presents the quality of the projections against the different quality dimensions, as well as setting out the strengths and limitations of the projections in the context of their potential uses.
- ONS's [Methodology document](#) summarises its approach to conduct sensitivity analysis to help distinguish the effects of changes made to the 2016-based household projections methodology from the effects of moving from using 2014-based to 2016-based subnational population projections. ONS has published the results of the analysis in detailed tables at Local Authority level to support users' interpretation of the projections.
- ONS has also published five 'variant projections' in the [main statistics report](#), to illustrate what the projections would look like if one or more assumptions about the population are varied. These variant scenarios derive from the population variants produced for the [Subnational population projections for England: 2016-based](#).

- The projections use one administrative data source – the number of prisoners held in prison establishments in England and Wales. ONS has published [details of its quality assurance](#) of this administrative data source.

The team also sought advice from the Methodology Directorate Quality Assurance (MDQA) to provide independent challenge and assurance to its proposed approach. We think ONS's approach to quality assuring the data and seeking additional reassurance and challenge is very positive.

3. Increasing the Value of the statistics

a. *Relevance to users*

Following ONS taking over responsibility for producing these projections from January 2017, the team has taken positive steps to [publicly consult](#) on the methods used to produce the projections, and explore what additional information would support the projections' use. ONS received 42 responses, and committed to set up a programme of research to look at how the methodology could be improved in the light of this feedback.

ONS has recognised that a number of users raised concerns about its intention to project household representative rates (HRRs) using the 2001 and 2011 Census points, instead of additional historic Census points used in the previous projections. This concern relates in part to this resulting in a downward trend in household formation for younger age groups. While ONS did investigate alternative options, it has explained its rationale (in Section 10 of its [Methodology document](#)) for not including additional Census points. In October 2018, ONS also published a [blog](#) to explain what the latest 2016-based projections mean.

Despite ONS's openness about how it has responded to users' feedback, some users have questioned how they should interpret the latest 2016-based projections, given their noticeable difference compare to previous projections. ONS told us that users from a range of local authorities have contacted the team to request further guidance about the reasons for differences between the 2014-based and 2016-based projections, and how these differences should be interpreted.

ONS should investigate the projection outliers at a Local Authority level, and provide supplementary analysis and guidance about the key drivers for these results. ONS should also continue to monitor users' feedback to identify what other analyses would help to aid users' interpretation, to maximise the projections' use.

b. *Clarity, insight and accessibility*

ONS provides clarity and insight in the statistics report and supporting data in a number of ways:

- The key statistical messages are drawn out prominently at the start of the main [statistics report](#), including a supporting comment by the responsible statistician. The report also clearly signposts users to supporting guidance about the methodology, quality and analysis to aid users' interpretation.
- ONS has included a helpful interactive map on the main statistics publication web page, allowing users to quickly see the projected percentage changes in number of households for each local authority in England.
- As describe in paragraph 2c, ONS presents five 'variant projections' in the statistics report to illustrate what the projections would look like if one or more assumptions about the population are varied, to provide an indication of uncertainty. ONS had originally planned to produce additional variants within the Stage 2 projections (published on 3 December), but told us that it became apparent that user needs were varied and more time was needed to ensure that additional variants would best meet these needs. ONS has committed to developing additional variant projections, in a way that will help to provide more insight, after it publishes the Stage 2 projections. **We encourage ONS to prioritise this planned development work.**
- ONS has fulfilled its commitment to publish supporting data tables to the same level of detail as had been published by MHCLG for previous projections, to ensure consistency and accessibility

of the data. ONS also publishes data that underpin its variant projections and its sensitivity analysis, to allow expert users to recreate their own variants for planning purposes.

- Advice is presented about the purpose of the projections, to “provide statistics on the potential future number of households in England and its local authorities up to 2041. They show the household numbers that would result if the assumptions based in previous demographic trends in population and household formation were to be realised in practice.” ONS makes clear that these are not intended to be forecasts, but should be used as a starting point for calculating the future housing needs of a local areas.

There is scope for ONS to increase insight about the extent of comparability and coherence between these projections with equivalent household projections for Scotland, Wales and Northern Ireland. While ONS does signpost users to these other projections (in Section 10 of its [Methods article](#)), this does not include advice about the extent of consistency and comparability. ONS told us that there is [guidance](#) published about comparability across the UK, published by Welsh Government statisticians in 2011. This guidance is not linked from *Household projections in England*, and will not reflect the recent methods changes introduced by ONS.

We welcome that ONS has, in collaboration with others across the UK, begun to revisit and update published guidance on the coherence and comparability of projections produced for each of the four countries of the UK. This should include useful guidance for users wishing to assess comparability of the four outputs.

c. Innovation and improvement

As described in section 1, ONS been very transparent and proactive about its plans to review and refine methods, and in its approach to publicly consult users on its plans. We recognise that ONS has invested significant efforts in these developments, and in establishing and seeking advice from the Household Projections Collaborative Group on its research, and the MDQA panel to provide additional challenge to ONS’s quality assurances. These methods changes have been aimed at simplifying and increasing their transparency, to support the projections’ interpretation. We encourage ONS to maintain this open approach in developing the projections further in future.