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City of London

Implications of 2014-based Sub-National Population and Household Projections

September 2016

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1 INTRODUCTION

- 1.1 This report seeks to consider information in the most recent ONS subnational population projections (SNPP) and CLG household projections for the City of London.
- 1.2 This report essentially builds on some of the information in the City of London Strategic Housing Market Assessment (SHMA), which was published in June 2016. This report should be treated as an addendum to the SHMA and is not a replacement or an update of the SHMA but simply considers the data outputs of applying more up-to-date official data. Much of the analysis in this report follows similar analysis in the SHMA although within this report no full description of methodology or rationale is provided. The data in this report is drawn entirely from published data from ONS and CLG and does not therefore add anything to information already in the public domain – the report does however seek to bring this data together in one place to allow consideration of the various analyses that make up household (and housing) growth estimates across the City.
- 1.3 The latest set of subnational population projections (SNPP) were published by ONS on the 25th May 2016. They replace the 2012-based projections. Subnational population projections provide estimates of the future population of local authorities, assuming a continuation of recent local trends in fertility, mortality and migration which are constrained to the assumptions made for the 2014-based national population projections.
- 1.4 The SNPP are not forecasts and do not attempt to predict the impact that future national or local policies, changing economic circumstances, or other factors might have on demographic behaviour. The primary purpose of the subnational projections is to provide an estimate of the future size and age structure of the population of local authorities in England. These are used as a common framework for informing local-level policy and planning in a number of different fields as they are produced in a consistent way.
- 1.5 On the 12th July, CLG published a new set of (2014-based) household projections. These take the SNPP data and apply estimates of the proportion of the population living in institutional accommodation and estimates of the proportion of people (by age and sex) who are considered to be a ‘head of household’ – from this information an estimate of household growth is derived.
- 1.6 Studying the latest population and household projections is important given that Government Planning Practice Guidance (PPG) on Housing and Economic Development Needs Assessments is clear that latest official projections should be the start point for assessing overall housing need. However, to provide a full assessment of the objectively assessed level of housing need (OAN) it will also be necessary to consider a range of factors including migration trends, market signals, and affordable housing need. The PPG also sets out that the calculation of OAN should include

consideration of the link between jobs and population growth. However, in accordance with the SHMA, it is recognised that an economic-led approach would not be appropriate in the City of London.

- 1.7 To be consistent with the SHMA, all analysis has looked at the 22-year period from 2014 to 2036 although it should be noted that the latest projections provide information on population and households up to 2039.

2 OVERALL POPULATION GROWTH

2.1 This section sets out the projected population growth in the 2014-based SNPP and compares the findings to the 2012-based SNPP figures.

2.2 The table below shows projected population growth from 2014 to 2036 in the City of London and compares this to growth across the capital and nationally. The data shows that the population of the City is projected to grow by around 2,700 people. This is a 33% increase – notably above the projected increase for London (26%) and more than double the figure for the country as a whole (15%).

Table 1: Projected Population Growth (2014-36) – 2014-based SNPP

	Population 2014	Population 2036	Change in population	% change
City of London	8,072	10,769	2,697	33.4%
London	8,538,689	10,740,505	2,201,816	25.8%
England	54,316,618	62,403,947	8,087,329	14.9%

Source: ONS

2.3 It is also possible to compare the 2014-based SNPP with the previous full set of projections – the 2012-based SNPP. This comparison is shown for the City of London in the table below. This shows that the latest projections show a slightly lower level of population growth (146 people fewer – about 5% lower growth) over the 2014-36 period.

Table 2: Projected Population Growth (2014-36) – comparison of projection releases

	2012-based SNPP	2014-based SNPP	Difference
City of London	2,843	2,697	-146

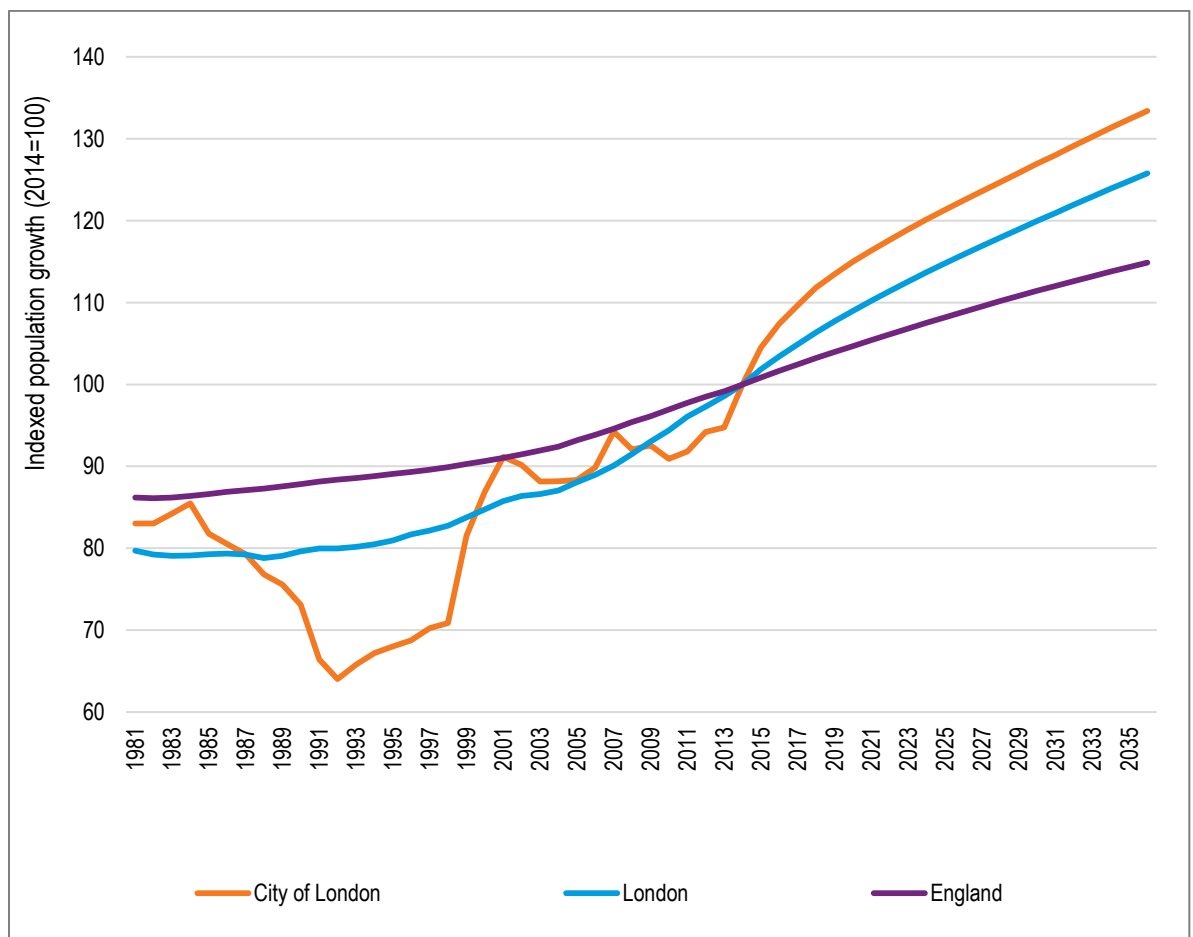
Source: ONS

2.4 Figure 1 shows past and projected population growth in the period 1981 to 2036. The graph has been indexed to 2014 data. The data shows significant year-on-year variations in population estimates for the City with an apparent population decline in the 1981-91 decade followed by a period of strong growth (1991-2001). It is possible that this 'trend' is to some extent influenced by the quality of recording of population data with the Census. For example, if the population in 1991 has been recorded as being too low then it is possible between 1981 and 2001 that population levels were actually fairly stable. Over the decade from 2001, there is still some variation in population year-by-year although generally this is less noticeable than for the 1981-2001 period.

2.5 Whilst some of the variation may be attributed to Census recording, it is also likely that year-by-year recording will cause notable changes. Because the City of London has a relatively small population, and because there are high levels of both in- and out-migration (on a per capita basis), any small errors in the recording of population movements can be magnified when expressed as year-by-year

changes. Overall, the analysis below would suggest that it is quite difficult to accurately track the population of the City over time. All of these points are consistent with data as previously presented in the SHMA.

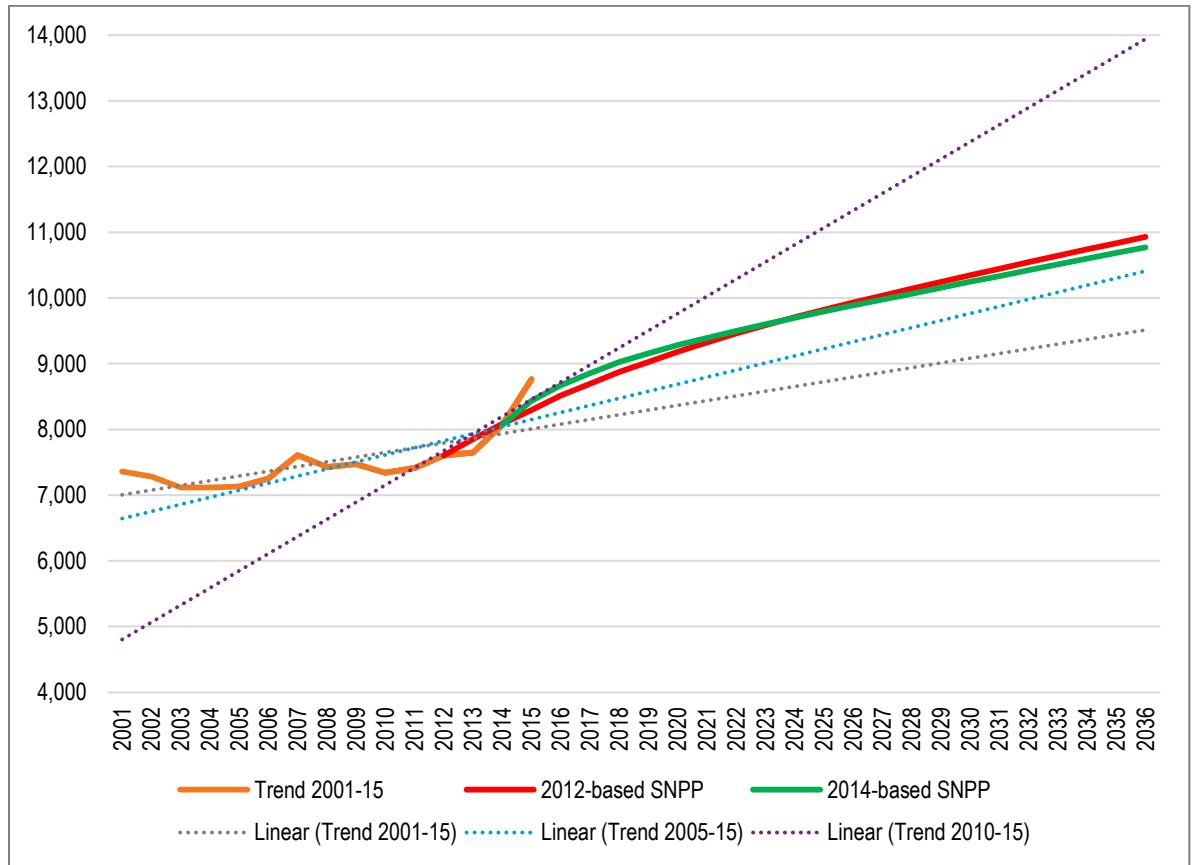
Figure 1: Indexed Population Growth (1981-2036)



Source: ONS

2.6 It is also worthwhile to focus this data on the more recent period (from 2001) and this is shown in Figure 2. This also includes the trend from the 2012-based SNPP. The data also plots linear trend lines considering overall population growth for the past 5-, 10- and 14-years (a 5-year period is broadly the trend period used by ONS when constructing the SNPP). The data shows that the population is expected to grow broadly in line with longer-term past trends for much of the period to 2036 but at a level some way below trends over the 2010-15 period.

Figure 2: Past and Projected Population Growth (2001-2036) – City of London



Source: ONS

3 COMPONENTS OF POPULATION CHANGE

3.1 The 2014-based SNPP projects an increase of 2,700 persons over the 2014-36 period. Of these, around 27% is a result of projected natural increase (more births than deaths). This is slightly lower than the proportion projected in the 2012-based SNPP (37%). The remaining 73% of population growth in the 2014-based SNPP is due to the projected net number of migrants – 163% due to international migration and a notable level of net internal out-migration (i.e. moves to other parts of the Country). The proportion of growth attributed to international migration is slightly lower in the 2014-based SNPP than was the case for the 2012-based version (197 per annum vs. 218)¹.

Table 3: Projected Components of population change – 2012- and 2014-based SNPP (2014-36)

	2012-based SNPP		2014-based SNPP	
Natural Change	47	37%	33	27%
Internal Migration	-139	-110%	-110	-91%
International Migration	218	172%	197	163%
Total Change	129	100%	123	100%

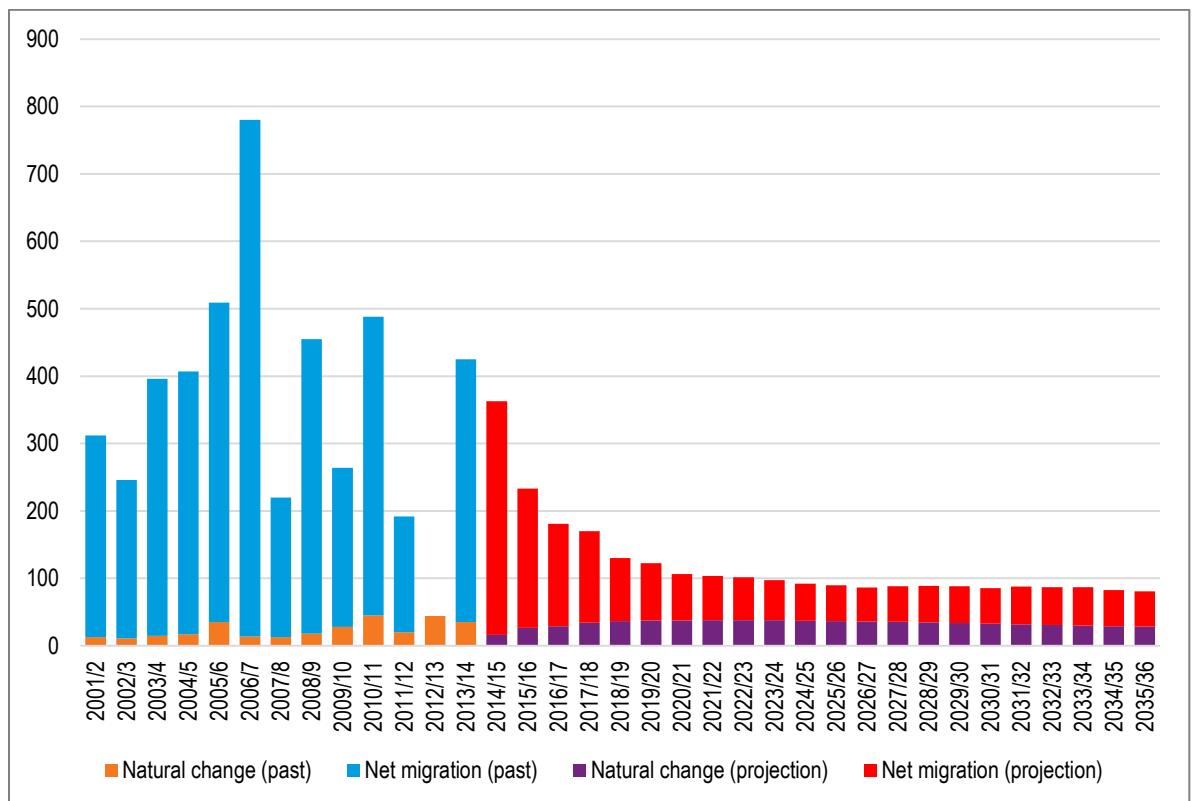
Source: ONS

3.2 Figure 3 overleaf brings together data about migration (both past trends and the future projection) along with information about natural change. This mainly shows how variable migration has been in the past, with net figures ranging from 0 in 2012/13 up to 766 in 2006/7; natural change has been broadly constant and is projected to continue to be so in the future. Net migration is generally projected to fall over time, which to a significant degree is driven by national projections expecting international migration to fall. Over the whole projection period (2014-36) the level of natural change is projected to be 33 per annum, with net migration averaging about 88 people each year, starting from around 350 in 2014/15 and decreasing to around 50 by 2036.

3.3 The figure of zero net migration in 2012/13 looks like a bit of an anomaly given that all other years show positive net migration. It is difficult to say why the figure for this year is zero, with the data simply reflecting figures as recorded by ONS. However, given the small population of the City and the fairly mobile nature of the population, it is possible that the figure does not properly reflect what happened over that 12-month period. The main reason for the lower level of net migration in 2012/13 is due to ONS recording a lower level of internal in-migration (i.e. people moving to the City from other parts of the United Kingdom) – in 2012/13, ONS put this figure at 628, compared with an average (2001-15) of 844 gross internal in-migrants per annum.

¹ It should be noted that the figures in the table do not quite add up; this is mainly due to small adjustments made by ONS to ensure consistency with national projections.

Figure 3: Past and Projected Components of Change (2001-2036) – City of London



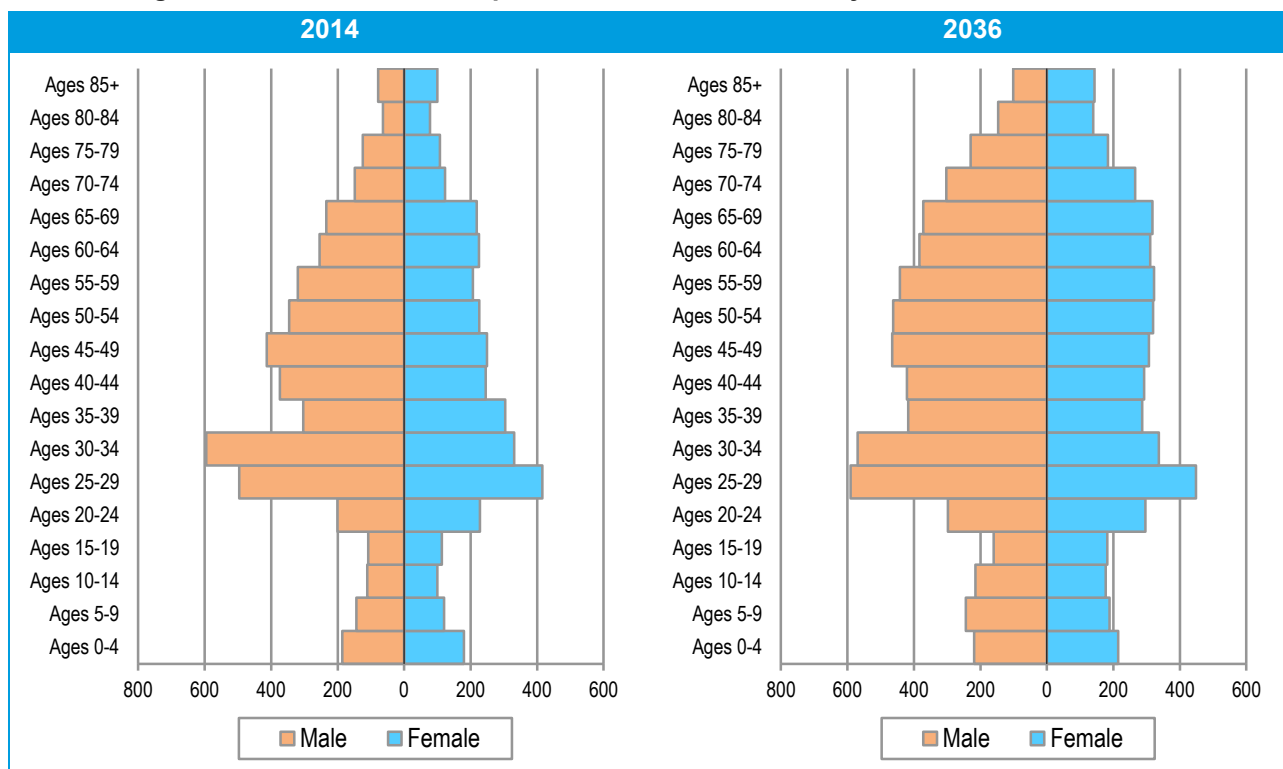
Source: ONS

3.4 In interpreting the past trend data above it should be noted that there is an additional component of change that has not been shown. This is unattributable population change (UPC) which is essentially a correction to the data made by ONS for the 2001-11 period where Census data has suggested that ONS estimates are wrong. This report has not considered the issue of UPC in any detail and a more thorough discussion can be found in the original SHMA.

4 AGE STRUCTURE CHANGES

4.1 With the overall change in the population will also come changes to the age profile. The figure below shows population pyramids for 2014 and 2036. The 'pyramids' clearly show a dominance of population of people in their late 20s and early 30s (and particularly for males). This general age profile remains as the projection moves through to 2036 although the data also shows the growth in population overall and the ageing of the population with a greater proportion of the population expected to be in groups aged 65 and over. A growing population towards the top of the pyramid to a large extent will reflect improving life expectancy.

Figure 4: Distribution of Population 2014 and 2036 – City of London



Source: ONS

4.2 Table 4 summarises the findings for key (5 year) age groups. The largest growth will be in people aged 65 and over. In 2036 it is projected that there will be 2,199 people aged 65 and over. This is an increase of 923 from 2014, representing growth of 72%. Looking at the other end of the age spectrum the data shows that there are projected to be around 50% more people aged under 15 with an increase of 23% in the population age 15-64.

Table 4: Population Change 2014 to 2036 by five-year age bands – City of London

Age group	Population 2014	Population 2036	Change in population	% change from 2014
Under 5	366	433	67	18.4%
5-9	264	432	168	63.8%
10-14	211	392	181	85.7%
15-19	221	341	120	54.5%
20-24	429	593	164	38.3%
25-29	912	1,039	127	13.9%
30-34	926	907	-19	-2.1%
35-39	608	704	96	15.8%
40-44	619	713	94	15.2%
45-49	662	773	111	16.8%
50-54	572	782	210	36.7%
55-59	527	765	238	45.1%
60-64	479	695	216	45.1%
65-69	452	689	237	52.5%
70-74	272	567	295	108.5%
75-79	232	413	181	77.9%
80-84	142	285	143	100.8%
85+	178	245	67	37.4%
Total	8,072	10,769	2,697	33.4%

Source: ONS

- 4.3 It is also useful to compare the age structure projections from the 2014-based SNPP with similar figures in the 2012-based version. The simplest way to compare the figures is to look at the age structure in 2036 – this is shown in Table 5 overleaf.
- 4.4 The analysis shows that there are some notable differences between the two projection runs. In particular the 2014-based SNPP shows a far higher estimate of the number of children, along with a reduction in age groups 20-54, and a higher proportion of older people. The changes in projections of the number of children will not however have any impact on levels of household growth as people aged under 15 are not considered as being a household head.

Table 5: Difference in age structure in 2036 (2012- and 2014-based SNPP) – City of London

Age group	2012-based	2014-based	Difference	% difference from 2012-based
Under 5	363	433	70	19.4%
5-9	326	432	107	32.8%
10-14	274	392	118	43.1%
15-19	276	341	66	23.8%
20-24	664	593	-71	-10.7%
25-29	1,212	1,039	-173	-14.3%
30-34	1,070	907	-163	-15.2%
35-39	840	704	-136	-16.2%
40-44	839	713	-125	-15.0%
45-49	832	773	-59	-7.1%
50-54	802	782	-20	-2.5%
55-59	756	765	9	1.2%
60-64	661	695	33	5.1%
65-69	617	689	73	11.8%
70-74	528	567	39	7.4%
75-79	371	413	42	11.4%
80-84	268	285	17	6.2%
85+	229	245	15	6.6%
Total	10,929	10,769	-160	-1.5%

Source: ONS

5 2015 MID-YEAR POPULATION ESTIMATES

5.1 On the 23rd June 2016, ONS published a new set of mid-year population estimates (MYE). These provided an estimate of population size and structure in 2015 and the level of births, deaths and migration in the 2014/15 period. Whilst the publication of one year of additional data should not be seen as indicating any particular trend it is worth briefly comparing the MYE with changes projected in the SNPP. The table below shows that between 2014 and 2015, the ONS MYE estimates a population growth of 688 people, this can be contrasted with a lower figure (of 365) that was previously projected.

Table 6: Projected and estimated level of population growth 2014-15

	2015 MYE	2014-based SNPP	Difference
City of London	688	365	+323

Source: ONS

5.2 The one year of extra data has not been used in this report to seek to suggest any changes to the trend-based SNPP. However, it is useful to consider the implications on population growth of including the 2015 MYE data in analysis projections. This analysis, shown in the table below, essentially overwrites the population data in the SNPP for 2015 with that in the MYE, moving forward from 2015. The same assumptions as in the SNPP are used (birth and death rates and actual numbers for migration data). For consistency with the SHMA, a MYE adjusted projection to the 2012-based SNPP has also been provided.

5.3 The table below shows that adding in the 2015 MYE data and then rolling forward the assumptions in the 2014-based SNPP gives rise to a higher level of projected population growth than is contained in the latest SNPP. Across the City, the adjusted projection shows population growth of 3,048 people, compared with 2,697 in the SNPP as published.

Table 7: Projected population growth (2013-2036) – 2014-based SNPP (with 2015 MYE adjustment)

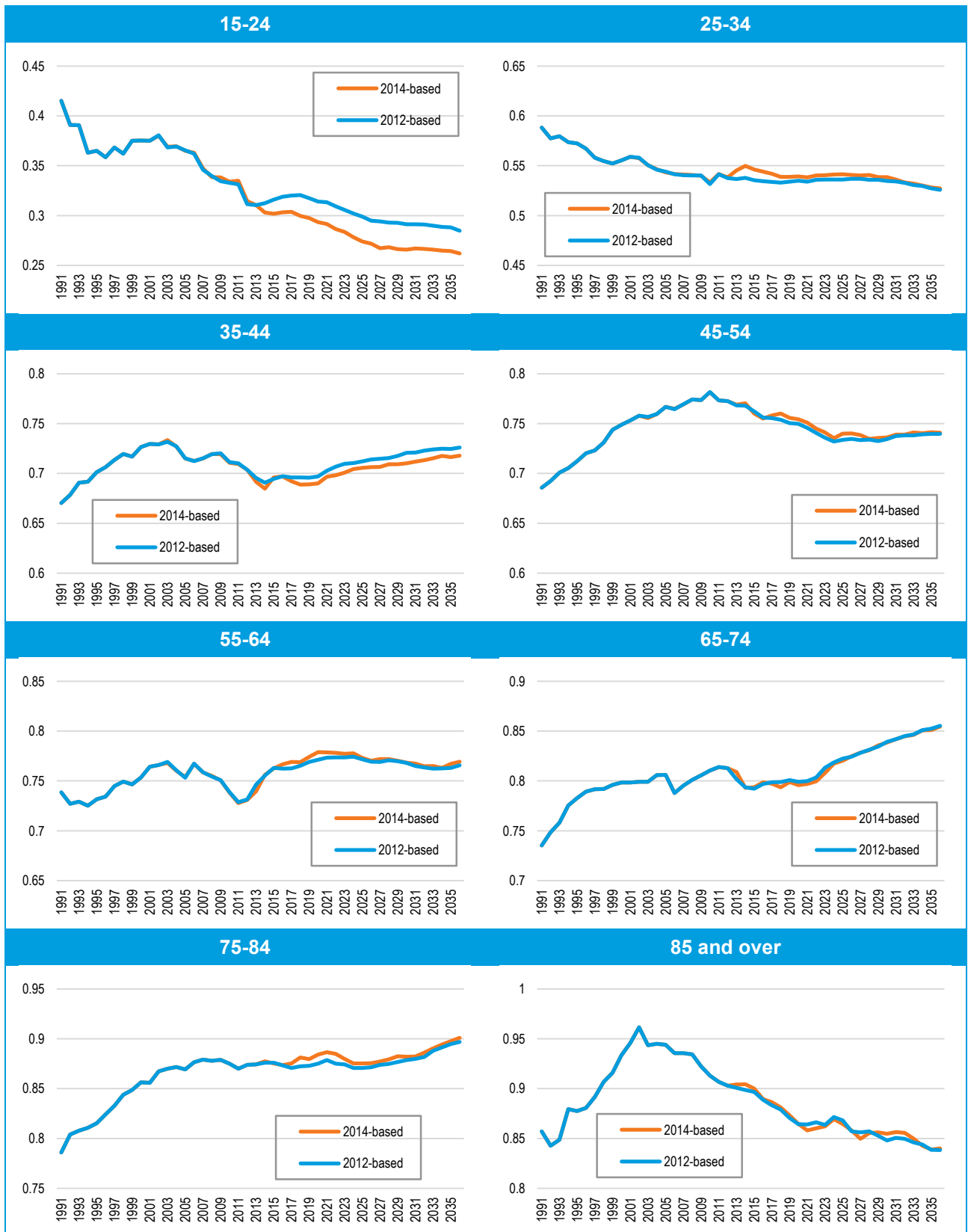
	Population 2014	Population 2036	Change in population	% change
2014-based SNPP (+MYE)	8,072	11,120	3,048	37.8%
2012-based SNPP (+MYE)	8,072	11,246	3,174	39.3%

Source: Derived from ONS data

6 HOUSEHOLD GROWTH PROJECTIONS

- 6.1 Having studied the population size and the age/sex profile of the population the next step in the process is to convert this information into estimates of the number of households in the area. To do this the concept of headship rates is used. Headship rates can be described in their most simple terms as the number of people who are counted as heads of households (or in this case the more widely used Household Reference Person (HRP)).
- 6.2 On the 12th June 2016, CLG published a new set of (2014-based) household projections. The projections contain two core analyses:
- 6.3 The Stage 1 household projections project household formation based on data from the 1971, 1981, 1991, 2001 and 2011 Censuses with outputs for age, sex and marital status. For younger age groups greater weight was given in the CLG projections methodology to the dampened logistical trend than the simple logistics trend; the effect of which is to give greater weight to the shorter-term trends.
- 6.4 The Stage 2 household projections considered household types and the methodology report accompanying the projections is clear that these projections are based on just two points – the 2001 and 2011 Censuses. Overall outputs on total household growth are constrained to the totals from the Stage 1 Projections. This means that both sets of projections show the same level of overall household growth (when set against the last set of SNPP) but some of the age specific assumptions differ. Differences can however occur between the Stage 1 and 2 headship rates when modelled against different population projections (due to differences in the age structure).
- 6.5 Overall, it is considered that the Stage 1 projections should be favoured over the Stage 2 figures for the purposes of considering overall household growth; this is for two key reasons: a) the Stage 1 figures are based on a long-term time series (dating back to 1971 and using 5 Census data points) whereas the Stage 2 figures only look at two data points (2001 and 2011) and b) the Stage 2 figures are constrained back to Stage 1 values, essentially meaning that it is the Stage 1 figures that drive overall estimates of household growth in the CLG household projections themselves. The analysis to follow therefore focuses on Stage 1 figures.
- 6.6 For City of London, there is an additional reason for using the Stage 1 figures; this is simply that CLG do not publish Stage 2 figure separately for the City (data is merged with that for Westminster). The analysis below compares figures from the 2012- and 2014-based household projection releases (for Stage 1 projections). As can be seen there is very little difference between the figures in each of the releases. Where there are differences, it is typical for the 2012-based data to show a slightly higher level of headship; although differences really are very modest.

Figure 5: Projected household formation rates by age of head of household



Source: Derived from CLG data

- 6.7 By applying the above headship rates, it is possible to estimate the projected household growth. This is shown in the table below.
- 6.8 It should be noted that the analysis also takes account of the institutional population and information about this has also been drawn from the 2014-based CLG household projections (other than the 2012-based scenarios which take relevant data from that projection).
- 6.9 Just looking at the unadjusted projections, the 2014-based SNPP is therefore suggesting a 14% lower increase in households; this is despite the population projections being only 5% lower. The higher proportionate increase in households is due to the age structure differences in the projections and in particular the higher projected number of children in the 2014-based SNPP and lower numbers of people in the 20-54 age band.
- 6.10 The 2014-based SNPP shows a growth in households of around 1,652 over the 22-year period (75 per annum). Adjusting the 2014-based SNPP projections to take account of the 2015 MYE results in a higher household growth of 1,834 (83 per annum).
- 6.11 Analysis based on the 2012-based SNPP tend to show higher levels of household growth and this is due to the 2012-based SNPP projecting higher population growth as well as a relatively high level of population growth in the 2015 MYE.
- 6.12 The SHMA considered the 2012-based SNPP adjusted to the 2014 MYE. The lower population estimate of the 2014 MYE means that this projection estimated a lower household growth of 1,814 (82 per annum) – slightly lower than the 2014-based SNPP with 2015 MYE figure.

Table 8: Projected Household Growth 2014-36 – range of scenarios

	Households 2014	Households 2036	Change in households	Per annum
2012-based SNPP	4,727	6,656	1,928	88
2012-based SNPP (+2014 MYE) – SHMA Figure	4,752	6,566	1,814	82
2012-based SNPP (+2015 MYE)	4,752	6,852	2,100	95
2014-based SNPP	4,749	6,401	1,652	75
2014-based SNPP (+2015 MYE)	4,749	6,583	1,834	83

7 HOUSING NEED

- 7.1 As well as providing estimates of household growth under different scenarios, it is also possible to make estimates of the number of additional homes to which this might equate. To do this a vacancy allowance is applied. For consistency with the SHMA, a vacancy allowance has been estimated from 2011 Census data and seeks to look at the uplift from occupied homes that should be applied to the data. For the City of London, the vacancy allowance is set at 26.1%. It is assumed that such a level of vacant homes will allow for movement within the housing stock and includes an allowance for second homes.
- 7.2 The analysis shows that the 2014-based SNPP and household projections results in a need for 95 dwellings per annum in the City. Updating the projections to include the latest MYE data – for 2015 – results in a higher need of 105 dwellings per annum. This reflects the most up to date estimation of demographically based housing need.
- 7.3 For comparison, Table 9 also shows the outputs of the 2012-based SNPP. The 2012-based SNPP identifies a need for 111 dwellings per annum. The SHMA used the 2012-based SNPP updated for the 2014 MYE, this identified a need for 104 dwellings per annum. For comparison purposes, updating the 2012-based SNPP for the 2015 MYE would result in a need for 120 dwellings per annum.

Table 9: Estimated housing need including vacancy allowance

	Per annum	2014-36
2012-based SNPP	111	2,432
2012-based SNPP (+2014 MYE) – SHMA Figure	104	2,288
2012-based SNPP (+2015 MYE)	120	2,648
2014-based SNPP	95	2,084
2014-based SNPP (+2015 MYE)	105	2,313

8 CONCLUSIONS

- 8.1 This report has been produced as an addendum to the 2016 City of London SHMA. The SHMA included demographic analysis based on using the 2012-based SNPP and Household projections and the 2014 Mid-Year Estimates (MYE) of population. Since then, more up to date projections have been published. This addendum report considers the latest population and household projections – the 2014-based SNPP and 2014-based Household projections, and the 2015 MYE – and the implications these have on the demographically derived housing need figure for the City of London.
- 8.2 In terms of overall population growth, the 2014-based SNPP shows a growth of 2,697 persons in the City of London over the period 2014-36. This is 146 fewer persons than shown in the 2012-based SNPP. The 2014-based SNPP shows a slightly lower rate of natural change, a slightly lower net growth due to international migration but a lower net loss due to internal out-migration.
- 8.3 There are differences in the projected age structure changes between the two projections. The 2014-based SNPP shows a greater increase in the number of persons under 20 years of age and those aged 55 years and above. Conversely, the 2014-based SNPP shows a smaller growth in the population aged 20 to 54 years of age than was shown in the 2012-based SNPP.
- 8.4 The SHMA updated the SNPP to take account of the latest MYE data (for 2014). A new set of MYE (for 2015) has since been published and should be taken into account. The 2015 MYE estimates a higher population growth than was previously estimated (688 persons vs 365 persons). This means that adjusting to include the 2015 MYE will mean a higher population growth than using the 2014 MYE.
- 8.5 The 2014-based household projections have been used to calculate the overall growth in households over the 2014-36 period. The 2014-based SNPP with adjustments for the 2015 MYE shows a household growth of 1,834 over this period (83 per annum). This is very slightly higher than the SHMA figure of 1,814 (82 per annum).
- 8.6 Applying a vacancy rate for vacant dwellings and an allowance for second homes we can convert household growth to dwelling need. The 2014-based SNPP, updated to take account of 2015 MYE data, results in a demographically based housing need of 105 dwellings per annum. The SHMA was based on the 2012-based SNPP adjusted to take account of the 2014 MYE, this identified a demographically based housing need of 104 dwellings per annum – just one fewer than the latest figures.

- 8.7 The analysis in this addendum report shows that the housing need figure identified in the latest demographic projections is virtually in line with the SHMA. We can therefore conclude that the findings of the SHMA remain robust.
- 8.8 The methodology set out in the SHMA included a 20% uplift to the demographically derived housing need figure in order to reflect affordability constraints in the City. For comparative purposes, applying the same methodology to the updated demographic need figure outlined in this addendum would result in a full OAN of 2,776 dwellings over the 2014-36 period (126 dwellings per annum).