

WEST OXFORDSHIRE LOCAL PLAN EXAMINATION

HOUSING AND DEMOGRAPHY IN THE BURFORD CHARLBURY SUB-AREA

Introduction

- 1 This note, prepared by Peter Brett Associates (PBA) for the Council, considers potential housing provision in the Burford Charlbury sub-area of West Oxfordshire District. The examining Inspector has asked whether it is reasonable to plan for major development in this environmentally sensitive area. To help answer the question, the Council has commissioned PBA to provide evidence on two issues: the level of local housing need and the demographic implications of alternative levels of housing development.
- 2 To answer these questions, we have created a range of demographic scenarios, which estimate the future population and labour force based on alternative assumptions. Below, we first discuss the scenarios and then draw the implications for planning policy.
- 3 Our analysis throughout relates only to the demand / need side of the planning balance. We do not comment on supply-side factors such as land availability, constraints or the environmental impacts of development.
- 4 It is important to note also that demographic projections merely carry forward ('project') past demographic trends for different demographic groups. Projections are different from forecasts – which aim to predict what will happen, and may show future demographic trends different from past trends.

Demographic scenarios

Overview

- 5 The pre-submission draft Local Plan made provision for 805 homes in the Burford–Charlbury sub-area in the period 2011–2031. Proposed main modifications published in November 2016 increased this to 1,026 homes over the same period. More recently in September 2017, the Council submitted some further suggested modifications to the Local Plan which increased this to 1,213 homes.
- 6 Due to the availability of data at the local level (specifically mid-year population estimates – MYE) the analysis set out in this note focuses on the period 2015–2031. It therefore utilises the latest proposed housing number for the sub-area (1,213 homes) but excludes past housing completions from 2011–2015 (153 homes). This results in an assumed provision of 1,060 homes within the sub-area from 2015–2031 (i.e. 1,213 minus 153).
- 7 Having regard to this overall level of provision, five alternative projection scenarios for 2015–31 have been provided for this project by the demographer John Hollis, using his suite of demographic projection models. Technical details are in the Appendix below. The scenarios comprise:

- *PBA Trends scenarios*

These projections provide a broad indication of housing need, based on past demographic trends. There are two trends projections, which carry forward migration from different base periods.

- *Natural change scenario*

This projection estimates what would happen if there was no migration (house moves) either in or out of the area, so the only drivers of demographic change were births and deaths associated with the existing population. The projection is not a measure of housing need, nor does it portray a likely future. It serves a different purpose: by comparing it with the Trends projections described above, we can see how much of the projected population growth and housing demand is due to migration, as opposed to births and deaths in the existing population.

- *Draft plan scenarios*

This projection estimates what will happen to the sub-area's population and households if 1,060 net new homes are built and occupied in 2015-31.

8 The demographic projections above are not consistent with those the Oxfordshire Strategic Housing Market Assessment (SHMA) 2014, on which the Local Plan housing requirement is based. For this note we have used more recent data but also cruder methods. This is inevitable, because demographic information for areas smaller than local authorities is more limited, and partly for this reason projections for small areas are more uncertain.

9 Below, we summarise the alternative scenarios in Tables 1 and 2, and then discuss their results in turn.

Table 1 Demographic scenarios, Burford Charlbury Sub-area

Change 2015-31	Trends 2010-15	Trends 2005-15	Natural change scenario	Local Plan 10-15	Local Plan 05-15
Total population	3,382	1,235	-779	1,834	1,767
Population aged					
0-4	218	80	51	158	130
5-15	363	-12	-564	81	130
16-64	1,170	-211	-1,200	153	268
65+	1,630	1,378	934	1,442	1,239
Homes	1,880	834	-292	292	1,060
Labour force	1,537	273	-658	615	673

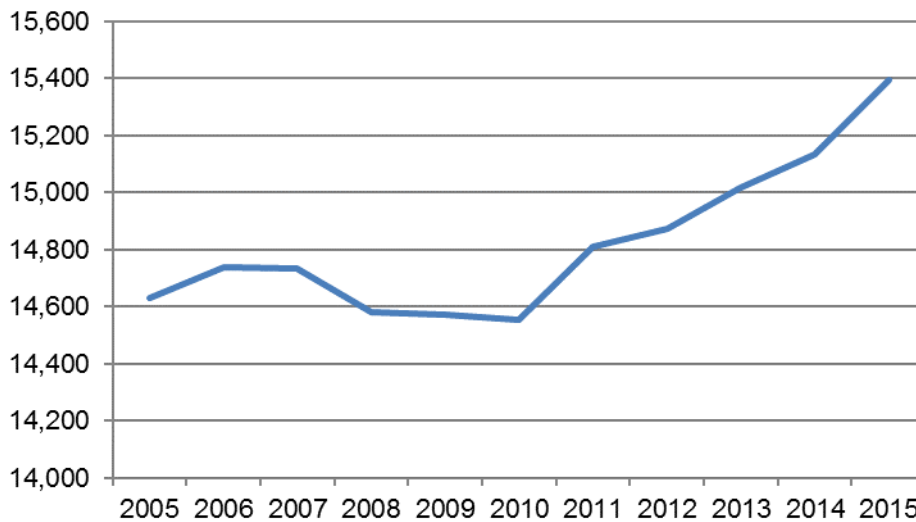
Table 2 Population profiles, Burford Charlbury Sub-area

	2015	2031 Trends 2010-15	2031 Trends 2005-15	2031 Natural change scenario	2031 Local Plan (10-15)	2031 Local Plan (05-15)
Total population	15,397	18,779	16,632	14,618	17,232	17,165
Population aged						
0-4	732	950	812	783	890	862
5-15	1,962	2,326	1,950	1,399	2,044	2,093
16-64	8,732	9,902	8,521	7,532	8,884	9,000
65+	3,971	5,601	5,349	4,905	5,413	5,210
% of the population aged						
0-4	5%	5%	5%	5%	5%	5%
5-15	13%	12%	12%	10%	12%	12%
16-64	57%	53%	51%	52%	52%	52%
65+	26%	30%	32%	34%	31%	30%

The Trends scenarios

- 10 In producing a broad assessment of housing need for the sub-area, we have been guided by national policy and guidance. The Planning Practice Guidance (PPG) sets out a method for the objective assessment of housing need, where the starting point is the official demographic projections issued by the Office for National Statistics (ONS). But this method, and indeed the concept of objectively assessed need, are only applicable to local authorities and combinations of local authorities. For a smaller area such as the Burford Charlbury sub-area there is no set assessment method and there are no official projections. Therefore we have made our own projections, consistent with the data and method used by ONS.
- 11 Demographic projections carry forward (project) population trends from a past period known as the base period. We have produced two alternative projection scenarios, based on different base periods for migration:
 - The Trends 2010-15 scenario carries forward trends from the previous five years
 - The Trends 2005-15 scenario carries forward trends from the previous 10 years.
- 12 These two base periods were very different, as shown in the chart below. According to the ONS Mid-Year Population Estimates (MYEs), from 2005 to 2010 the area's population was virtually unchanged, while from 2010 to 2015 it increased steeply. Therefore, Trends 2010-15 shows much more growth than Trends 2005-15.

Figure 1 Population of Burford Charlbury Sub-area, 2005-15



Source: ONS Mid-Year Population Estimates

- 13 Once population is translated into numbers of households and numbers of homes, the Trends projections respectively show 834 additional homes in the period 2015–2031 (Trends 2005-15) and 1,880 additional homes in the period 2015–2031 (Trends 2010-15). As measures of housing need both these numbers should be regarded as minimums. That is because, in line with the PPG, when need is assessed for local authority areas the demographic projections may be uplifted to take account of various factors, including market signals and future job growth (labour demand). In the case of Oxfordshire, the SHMA 2014 made a large uplift, mainly for future job growth. This suggests that in each sub-area, including Burford Charlbury, housing need will also be above the demographic projections. However, we have not estimated the share of the uplift that might accrue to the Burford Charlbury sub-area.
- 14 Which of the Trends projections should be preferred is difficult to judge. In general, one would expect the projection with the longer based period to be more robust, unless there are special factors at play. This applies particularly to small areas, where the historical data is volatile and not necessarily reliable. It suggests that the lower of the two projections, at 834 homes, should be preferred. The higher projection, 1,880 homes, suggests that this is subject to an upside risk.
- 15 In summary, we estimate the minimum housing need for the period 2015-31, as 834 homes.
- 16 If these 834 houses were built and occupied over the period, the projection suggests that:
 - The area’s population, which in 2015 was 15,397, would grow by 1,235 people
 - This growth would be more than accounted for by people aged 65+, whose number would increase by 1,378.
 - The number of children under five would grow by 80.
 - The number of school-age children (5-15) would be unchanged (the projection shows a reduction by 12 children, which is insignificant).

- Numbers in the core working ages, 16-64, would fall fractionally, by 211 people – just 2% of the 2015 number, which means virtually no change.
- The area's labour force would increase, also fractionally, by 273 people (3%) – also an insignificant change (the reason for the increase is increasing economic activity rates, especially among older people, who are retiring later due to rising State pension ages and life expectancies).

The natural change scenario

- 17 In the natural change scenario, as mentioned earlier we assume that there is no migration either in or out of the area after mid-year 2015. All population and household change is driven by deaths of, and births to, people who were living in the area at that date.
- 18 In this scenario, housing need is negative, as the number of homes required falls by 292. Changes in the area's demographic profile are as follows:
- Population falls slightly by 779 people (5%)
 - The only age groups that see increasing numbers are the over-65s and children under five. Numbers of school-age children (5-15) fall by 564.
 - Numbers in the core working ages, 16-64, fall by 1,200 (14%).
 - The area's labour force also falls, though by a much smaller number, 658 people (8%) (as before, this is due to rising activity rates).
- 19 In summary, this scenario suggests that housing need, as well as the future growth in total population, school-age children and the resident labour force, will be driven by migration into the area. If there were no such migration, there would be no need for additional housing, and the population would fall in all age groups except pre-school children and over-65s.

The Local Plan scenarios

- 20 In these scenarios, as noted earlier we estimate the demographic consequences that would flow from 1,060 additional homes being built and occupied in 2015-31. For this we have made two scenarios, called Local Plan 10-15 and Local Plan 05-15. The difference between these two scenarios is that the age and sex profile of migration is taken from different past periods – 2005-15 and 2010-15 respectively. This makes little difference to the results.
- 21 In the Local Plan (1,060-home) scenario:
- The area's population grows by around 1,800 people.
 - 70-80% of this growth is in the 65+ age group. In the other age groups numbers also increase, but by insignificant amounts.
 - The area's labour force increases by around 600-700 people, around 8% of the 2015 number.

- 22 Not surprisingly, this is higher growth than the Trends 2005-15 discussed earlier, in which 834 homes are built.
- 23 The Local Plan scenario, like all our scenarios, is a projection rather than a forecast. As such, it carries forward into the future the age profile of past migration. If that profile changes for any reason, the actual profile of past migration may be different.

Conclusion

- 24 Our scenarios have provided broad assessments of housing need for the Burford Charlbury Sub-area in the period 2015-31, and the likely impacts of different levels of housing provision. Due to data and technical limitations, our results are only broadly indicative. The scenarios suggest that:
 - Based on past demographic trends, the minimum housing need for the area is for 834 net additional homes over the period. If this number of homes is provided, the area's population, which in 2015 was 15,397, will grow by 1,235 people. The only age groups where population grows will be the under-fives and (on a much larger scale) the over-65s. The area's labour force will increase fractionally, by 273 people (3%).
 - All the projected growth in the area is driven by net in-migration – that is, more people moving into the area than leaving the area. If there were no migration, housing need would be a small negative, population would fall in all age groups except over-65 and under-fives, and the labour force would fall by 658 people (8%).
 - If 1,060 net new homes are built and occupied, the population will grow by around 1,800 people. The bulk of this increase will be in the over-65s; numbers in other groups will increase by insignificant amounts. The resident labour force will increase by 600-700 people, around 8% of the 2015 number.

APPENDIX

West Oxfordshire: Burford Charlbury Demographic Projections

Note by John Hollis

Demographic consultant

1. Background

It is required to investigate the implications of recent demographic trends in the Burford Charlbury subarea of West Oxfordshire.

2. LSOA (Lower Super Output Area) and Subarea Data

- LSOA to subarea conversion (by geographic area)
- ONS LSOA mid-year estimates by single years of age and gender for 2002 to 2015¹
- 2011 Census LSOA total household spaces and occupied household spaces
- 2011 Census LSOA communal establishment population by five-year ages and gender

3. Method

- Accumulate all LSOA data for the Burford Charlbury subarea
- Project the population to 2031 based on scenarios of recent migration and of natural change
- Apply the DCLG household projection assumptions by gender (but not by relationship status) for years from 2011 to 2031 (includes the communal population aged 75 and over by five year age groups and gender and the household representative rates by five year age groups and gender)
- Apply vacancy factors to the household totals to estimate homes (OAHN)

4. Notes on Data and Methods

The district has received large net population increases since 2011 as a result of special changes in the ONS mid-year estimate annual change analyses. These changes are understood to be due to movements into and out of the RAF base at Brize Norton (Carterton subarea). They impact the district's communal population but not the household population. While projections at district level should take account of these changes, as they did not occur in Burford Charlbury no special allowances have been made in these projections.

Unattributable population change (UPC) in the years 2001 to 2011 is not determined for the LSOA estimates (which are constrained to the district estimates) therefore the Burford Charlbury projections are effectively 'with UPC'.

ONS has not produced a consistent 2011 mid-year estimate so, for completeness, the values were interpolated using 2011 Census data and the mid-year estimate for the district. The detailed structure of the 2011 'estimate' has not had any impact on the projections.

¹ All ONS data presented in this note are © Crown Copyright

5. Projection Scenarios

Three projections have been undertaken. The first two are based on the most recent five and ten years of change as determined by the mid-year estimates. These projections are based on 2010-15 and 2005-15 respectively. The third scenario is based on natural change only after 2015. This is an 'artificial' scenario designed purely to investigate the direction and pace of change of the existing population age structure.

6. Change 2001-15

Burford Charlbury's population was estimated to have changed little between 2001 and 2011 with growth from 14,592 to 14,809 persons. By 2015 the population had risen to 15,397.

It must be stressed that the 2015 figure is an estimate by ONS that is not branded as a 'national statistic' due to the uncertainties of estimating population at smaller areas than a local authority. The accelerated change in the last few years not only gives the base point for the projections (2015) but also determines the trajectory of change. Had the base been chosen as the 2011 estimate (with no knowledge of the 2015 estimate) the trajectory of change would have been flat over the previous 5 or 10 years but given we have the 2015 estimate the more recent five-year trajectory is quite steep with annual growth 2010-15 of 168 persons. This has a major impact on the projection results.

In general projections for small areas are less certain than those at district level due to more uncertainty about the quality of the data being used.

7. Projection Results

Table 1 show the main results for 2011, 2015 and 2031. The main point is that the five-year trends projection indicates household growth at over twice the pace of the ten-year trends. In 2011 Burford Charlbury had the highest level of net vacancy (9.72%) of any of the district's five subareas. This figure includes second homes and any other homes not used as a primary residence. This compares with the district average of 5.17%. In assessing the numbers of homes the 2011 vacancy level is assumed to persist.

Using 2011 Census economic activity rates for the district and the Cambridge Econometrics projection of rates to 2031 shows that, if the mid-year estimates are correct, the resident labour force grew by 143 (1.8%) in the four years from 2011 to 2015. However the ratio of labour force to households, that is already low at 1.17 in 2015, is expected to continue to fall. This is a reflection of the ageing of the population that is apparent when looking at Figure 1 that shows the age structures at 2015 and the projected structures at 2031. All projections show fewer persons in the key working ages of the 40s and 50s at 2031 compared to 2015. There is also a clear increase in persons aged 60+ in all projections.

Although the natural change projection shows an artificial future in which all current residents of Burford Charlbury are assumed to have no opportunity of moving elsewhere nor is there any new blood moving into the area, the projection does usefully show then decline that would occur over the 2015-31 period as well as the dearth of potential workers.

If the resident labour force is not to decline in Burford Charlbury in the face of a growing elderly population and declining workers per household then it would be necessary to

increase homes up to 2031 by a figure similar to that shown by the 2005-15 trends projection for 2015-31, that is about 52 homes per year.

Table 1: Burford Charlbury Projections Summary

	2010-15	2005-15	Natural
	Trends	Trends	Change
Population			
2011	14,809	14,809	14,809
2015	15,397	15,397	15,397
2031	18,779	16,632	14,618
2011-31	3,970	1,823	-191
p.a.	198	91	-10
Households			
2011	6,574	6,574	6,574
2015	6,844	6,844	6,844
2031	8,542	7,598	6,581
2011-31	1,968	1,024	7
p.a.	98	51	0
2015-31	1,698	753	-264
p.a.	106	47	-16
Homes			
2011-31	2,180	1,134	7
p.a.	109	57	0
2015-31	1,880	834	-292
p.a.	118	52	-18
Labour Force			
2011	7,837	7,837	7,837
2015	7,980	7,980	7,980
2031	9,518	8,254	7,322
2011-31	1,680	416	-515
p.a.	84	21	-26
2015-31	1,537	273	-658
p.a.	96	17	-41
Labour Force per Household			
2011	1.19	1.19	1.19
2015	1.17	1.17	1.17
2031	1.11	1.09	1.11

Figure 1: Burford Charlbury Age Structure: 2015 and 2031

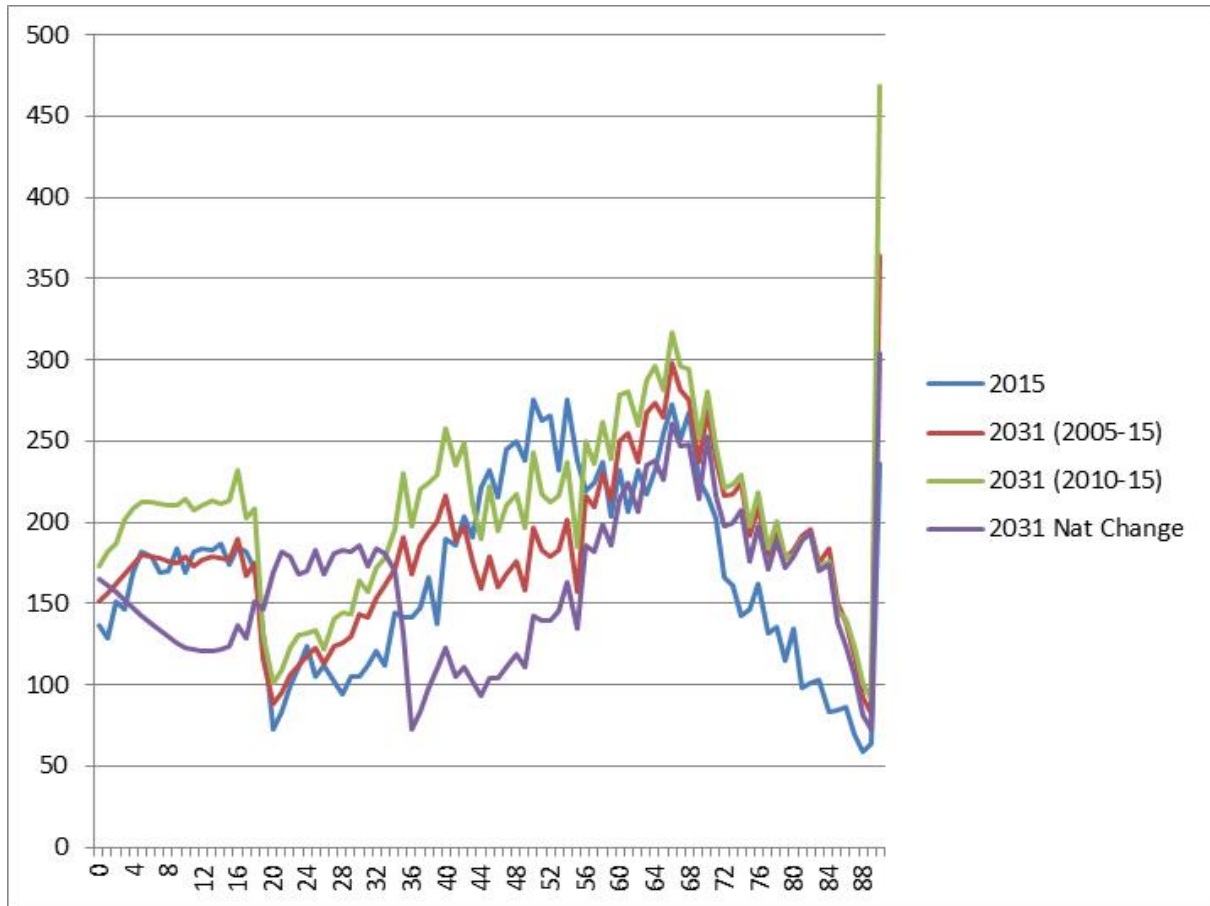


Table 2: Burford Charlbury Young People: 2015 and 2031

	0-4	5-10	11-15	16-19
2015	732	1,053	909	670
2031 (2005-15)	812	1,066	884	647
2031 (2010-15)	950	1,271	1,055	773
2031 Nat Change	783	791	608	562

Table 2 shows that the 2005-15 trends projection broadly maintains the child and school populations at 2015 levels with over 10% growth in the 0-4s. The 2010-15 trends projection shows considerable growth at all child ages.

8. Projection Charts

Figure 2: Burford Charlbury Population: 2001 to 2031

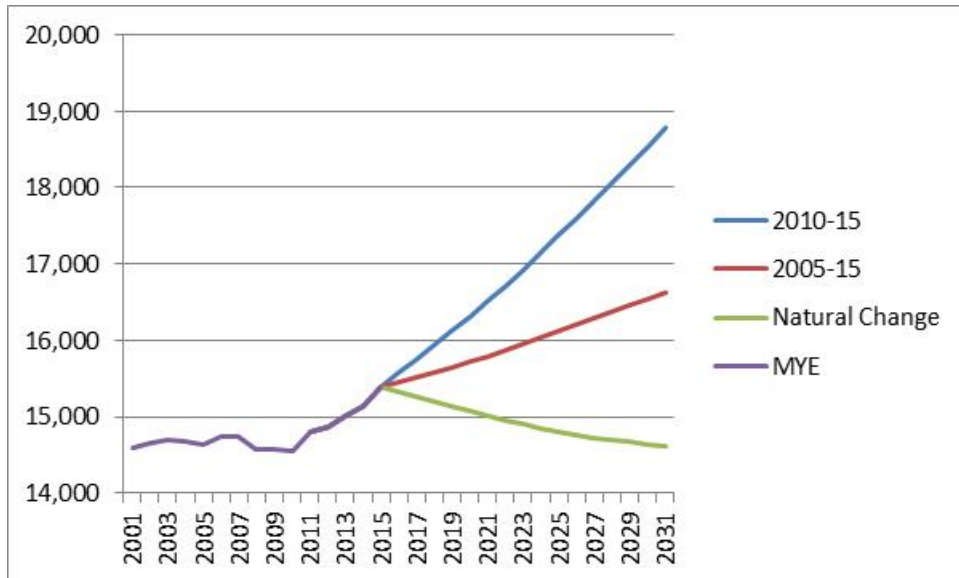


Figure 3: Burford Charlbury Households: 2011 to 2031

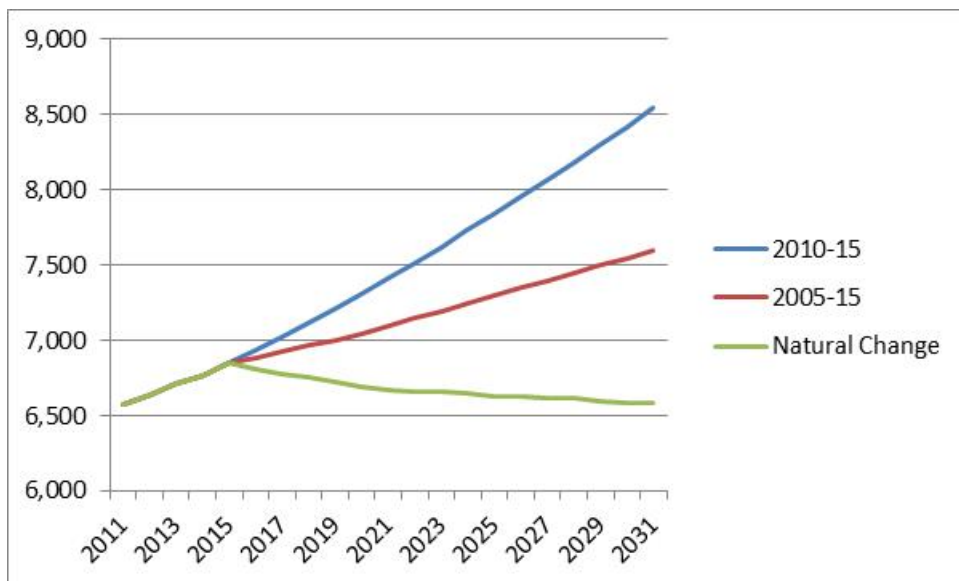
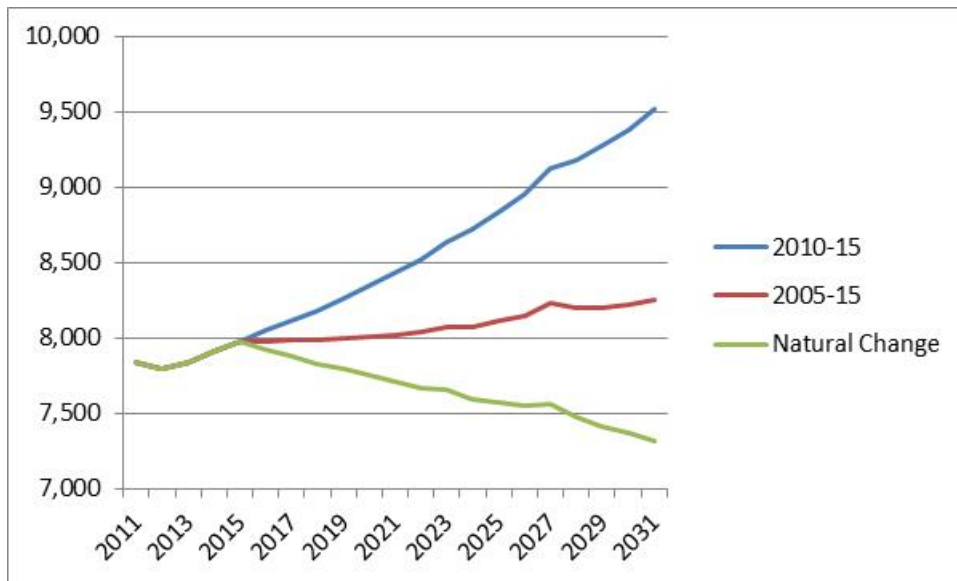


Figure 4: Burford Charlbury Resident Labour Force: 2011 to 2031



9. Conclusions

Estimates and projections for local authority subareas should not be expected to be as accurate as those for the district as a whole, therefore these results could be based on poor data and/or the modelling approach could be less applicable. There is less uncertainty in using a longer trend base for the projections.

Burford Charlbury has been estimated to have had significant population growth since 2011 that influences the trajectory of trend based projections.

A natural change projection shows significant declines of residents in the key working ages and strong growth in the elderly population.

The projection based on 2005-15 population trends shows the resident labour force growing slowly from 2015 to 2031 and a requirement for 52 additional homes per year between 2015 and 2031. It also shows a steady level of the school age population but with strong growth in the 0-4s.

The resident labour force per household is projected to decline from the low level of 1.17 in 2015 to as low as 1.09 in 2031.

West Oxfordshire: Burford Charlbury Demographic Projections

Note by John Hollis

Demographic consultant

1. Background

It is required to investigate the implications of recent demographic trends in the Burford Charlbury subarea of West Oxfordshire.

2. LSOA (Lower Super Output Area) and Subarea Data

- LSOA to subarea conversion (by geographic area)
- ONS LSOA mid-year estimates by single years of age and gender for 2002 to 2015¹
- 2011 Census LSOA total household spaces and occupied household spaces
- 2011 Census LSOA communal establishment population by five-year ages and gender

3. Method

- Accumulate all LSOA data for the Burford Charlbury subarea
- Project the population to 2031 based on scenarios of recent migration and of natural change
- Apply the DCLG household projection assumptions by gender (but not by relationship status) for years from 2011 to 2031 (includes the communal population aged 75 and over by five year age groups and gender and the household representative rates by five year age groups and gender)
- Apply vacancy factors to the household totals to estimate homes (OAHN)

4. Notes on Data and Methods

The district has received large net population increases since 2011 as a result of special changes in the ONS mid-year estimate annual change analyses. These changes are understood to be due to movements into and out of the RAF base at Brize Norton (Carterton subarea). They impact the district's communal population but not the household population. While projections at district level should take account of these changes, as they did not occur in Burford Charlbury no special allowances have been made in these projections.

Unattributable population change (UPC) in the years 2001 to 2011 is not determined for the LSOA estimates (which are constrained to the district estimates) therefore the Burford Charlbury projections are effectively 'with UPC'.

ONS has not produced a consistent 2011 mid-year estimate so, for completeness, the values were interpolated using 2011 Census data and the mid-year estimate for the district. The detailed structure of the 2011 'estimate' has not had any impact on the projections.

¹ All ONS data presented in this note are © Crown Copyright

5. Projection Scenarios

Three projections have been undertaken. The first two are based on the most recent five and ten years of change as determined by the mid-year estimates. These projections are based on 2010-15 and 2005-15 respectively. The third scenario is based on natural change only after 2015. This is an 'artificial' scenario designed purely to investigate the direction and pace of change of the existing population age structure.

6. Change 2001-15

Burford Charlbury's population was estimated to have changed little between 2001 and 2011 with growth from 14,592 to 14,809 persons. By 2015 the population had risen to 15,397.

It must be stressed that the 2015 figure is an estimate by ONS that is not branded as a 'national statistic' due to the uncertainties of estimating population at smaller areas than a local authority. The accelerated change in the last few years not only gives the base point for the projections (2015) but also determines the trajectory of change. Had the base been chosen as the 2011 estimate (with no knowledge of the 2015 estimate) the trajectory of change would have been flat over the previous 5 or 10 years but given we have the 2015 estimate the more recent five-year trajectory is quite steep with annual growth 2010-15 of 168 persons. This has a major impact on the projection results.

In general projections for small areas are less certain than those at district level due to more uncertainty about the quality of the data being used.

7. Projection Results

Table 1 show the main results for 2011, 2015 and 2031. The main point is that the five-year trends projection indicates household growth at over twice the pace of the ten-year trends. In 2011 Burford Charlbury had the highest level of net vacancy (9.72%) of any of the district's five subareas. This figure includes second homes and any other homes not used as a primary residence. This compares with the district average of 5.17%. In assessing the numbers of homes the 2011 vacancy level is assumed to persist.

Using 2011 Census economic activity rates for the district and the Cambridge Econometrics projection of rates to 2031 shows that, if the mid-year estimates are correct, the resident labour force grew by 143 (1.8%) in the four years from 2011 to 2015. However the ratio of labour force to households, that is already low at 1.17 in 2015, is expected to continue to fall. This is a reflection of the ageing of the population that is apparent when looking at Figure 1 that shows the age structures at 2015 and the projected structures at 2031. All projections show fewer persons in the key working ages of the 40s and 50s at 2031 compared to 2015. There is also a clear increase in persons aged 60+ in all projections.

Although the natural change projection shows an artificial future in which all current residents of Burford Charlbury are assumed to have no opportunity of moving elsewhere nor is there any new blood moving into the area, the projection does usefully show then decline that would occur over the 2015-31 period as well as the dearth of potential workers.

If the resident labour force is not to decline in Burford Charlbury in the face of a growing elderly population and declining workers per household then it would be necessary to

increase homes up to 2031 by a figure similar to that shown by the 2005-15 trends projection for 2015-31, that is about 52 homes per year.

Table 1: Burford Charlbury Projections Summary

	2010-15	2005-15	Natural
	Trends	Trends	Change
Population			
2011	14,809	14,809	14,809
2015	15,397	15,397	15,397
2031	18,779	16,632	14,618
2011-31	3,970	1,823	-191
p.a.	198	91	-10
Households			
2011	6,574	6,574	6,574
2015	6,844	6,844	6,844
2031	8,542	7,598	6,581
2011-31	1,968	1,024	7
p.a.	98	51	0
2015-31	1,698	753	-264
p.a.	106	47	-16
Homes			
2011-31	2,180	1,134	7
p.a.	109	57	0
2015-31	1,880	834	-292
p.a.	118	52	-18
Labour Force			
2011	7,837	7,837	7,837
2015	7,980	7,980	7,980
2031	9,518	8,254	7,322
2011-31	1,680	416	-515
p.a.	84	21	-26
2015-31	1,537	273	-658
p.a.	96	17	-41
Labour Force per Household			
2011	1.19	1.19	1.19
2015	1.17	1.17	1.17
2031	1.11	1.09	1.11

Figure 1: Burford Charlbury Age Structure: 2015 and 2031

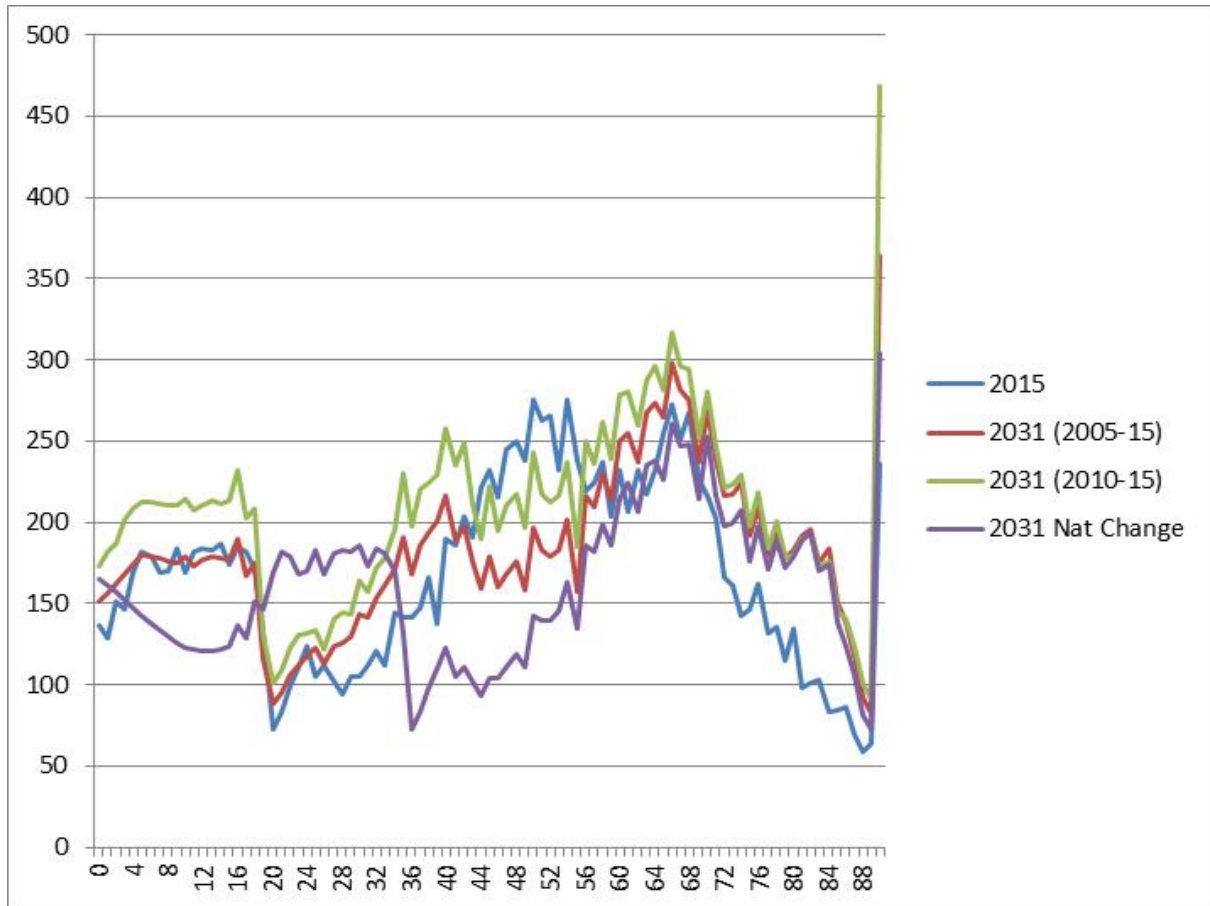


Table 2: Burford Charlbury Young People: 2015 and 2031

	0-4	5-10	11-15	16-19
2015	732	1,053	909	670
2031 (2005-15)	812	1,066	884	647
2031 (2010-15)	950	1,271	1,055	773
2031 Nat Change	783	791	608	562

Table 2 shows that the 2005-15 trends projection broadly maintains the child and school populations at 2015 levels with over 10% growth in the 0-4s. The 2010-15 trends projection shows considerable growth at all child ages.

8. Projection Charts

Figure 2: Burford Charlbury Population: 2001 to 2031

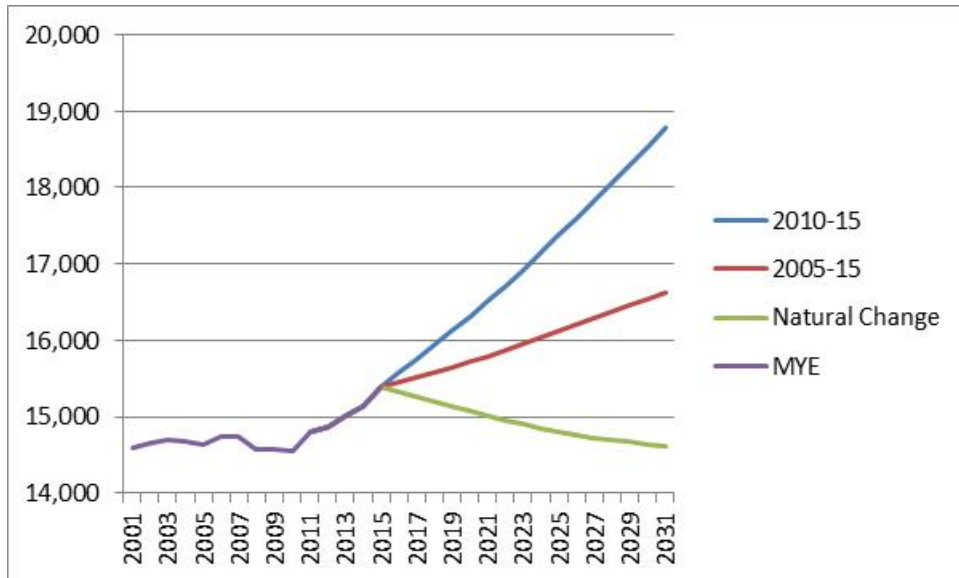


Figure 3: Burford Charlbury Households: 2011 to 2031

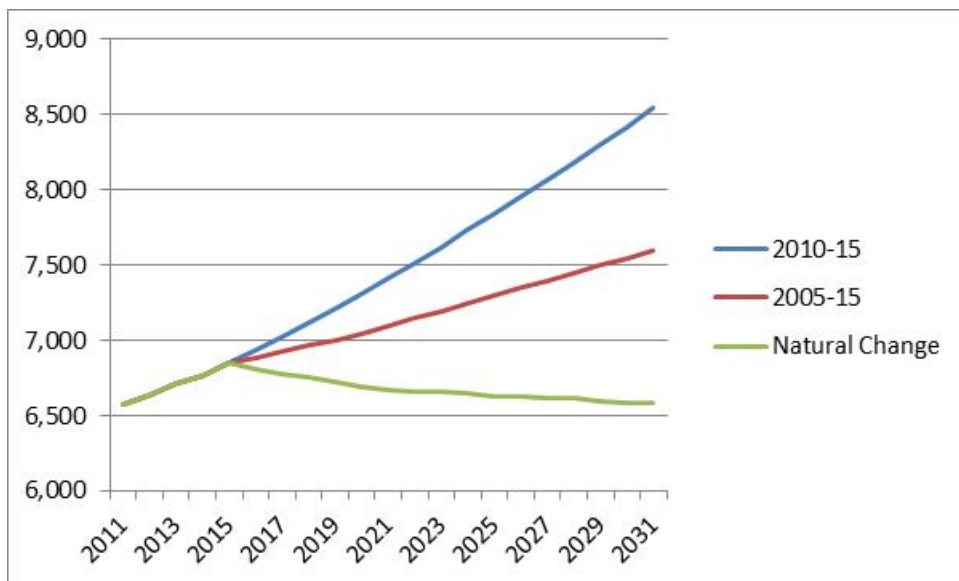
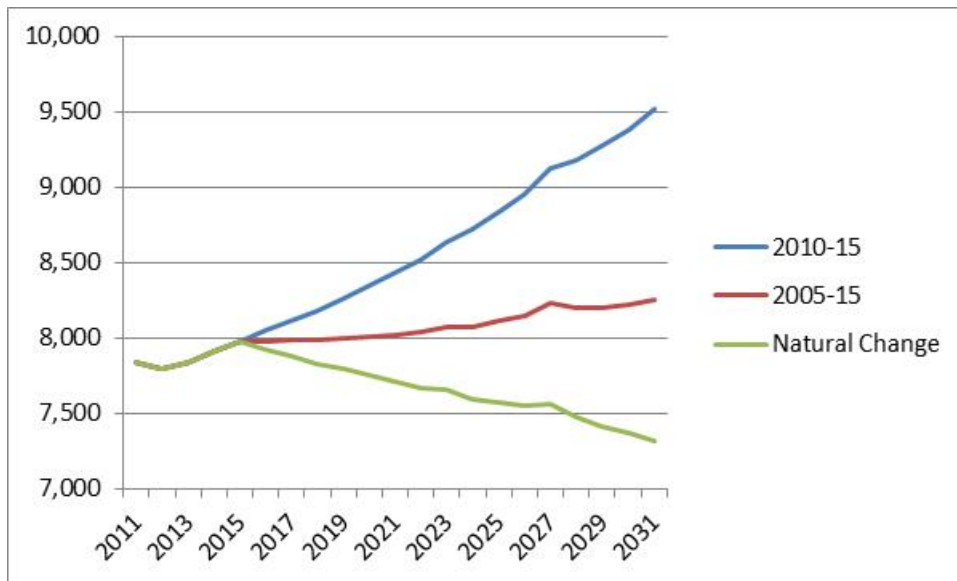


Figure 4: Burford Charlbury Resident Labour Force: 2011 to 2031



9. Conclusions

Estimates and projections for local authority subareas should not be expected to be as accurate as those for the district as a whole, therefore these results could be based on poor data and/or the modelling approach could be less applicable. There is less uncertainty in using a longer trend base for the projections.

Burford Charlbury has been estimated to have had significant population growth since 2011 that influences the trajectory of trend based projections.

A natural change projection shows significant declines of residents in the key working ages and strong growth in the elderly population.

The projection based on 2005-15 population trends shows the resident labour force growing slowly from 2015 to 2031 and a requirement for 52 additional homes per year between 2015 and 2031. It also shows a steady level of the school age population but with strong growth in the 0-4s.

The resident labour force per household is projected to decline from the low level of 1.17 in 2015 to as low as 1.09 in 2031.