# **West Oxfordshire: Three Demographic Projections using the first 2011 Census Results**

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# **Executive Summary**

- 1. These projections have been prepared by John Hollis who retired from the post of Demographic Consultant working for the Greater London Authority in July 2011, where his substantial role was to prepare demographic analyses and projections (population, households and economically active residents) in the preparation and monitoring of the various incarnations of the London Plan. He also prepared, under contract, demographic projections for the Berkshire authorities, Oxfordshire County Council (and districts), and authorities in West of England (the former county of Avon). He was also demographic adviser to SEERA and has written an assessment of future developments for POPGROUP.
- 2. He is a Fellow of the Royal Statistical Society (RSS) and has been President of the British Society for Population Studies (BSPS) and Chair of the Local Authorities Research and Intelligence Association (LARIA).
- 3. He has also been the Chair of the CLIP (Central and Local Government Information Partnership) Census Advisory Group on both the 2001 and 2011 Censuses and a member of the CLIP Population Sub-group, which discusses methodology for population and household estimates and projections with ONS and DCLG. He has been a member of the ONS Expert Panel advising on assumptions for National Population Projections and the DCLG Advisory Group on Household Projections, focussing on the 2010 redevelopment of the modelling process. Since retirement he is one of four external experts assisting ONS with quality assurance of the results of the 2011 Census.
- 4. This note outlines the inputs and results of updated projections for West Oxfordshire that take into account the first results of the 2011 Census. It demonstrates the implications of three projection scenarios:
  - A Natural Change Post 2016 the housing requirements of the population resident in the District on the basis of expected development up to 2016 and natural change 2016 -2031. It updates the projections report of May 2011 by incorporating the first results from the 2011 Census,
  - B Constant Labour Force Post 2016 the required number of new homes to maintain the resident labour force at 2016 levels, and
  - C South East Plan Housing Based rolling forward South East Plan levels of housing development up to 2031.

#### Projection A - Natural Change Post 2016

- 5. The natural change projection methodology represents the minimum number of homes to meet the local need for housing for a given population projected forward on the assumptions of future survival using nationally consistent rates by age and gender. The projection reflects the actual supply and planned supply of new homes between 2011 and 2016 (1,800 homes).
- 6. From 2016 to 2031 the projections reflect the additional number of new homes required by the survivors of the population present at 2016 were they to remain resident in the District. The resulting minimum additional new homes required to meet the needs of the population 2016-31 amounts to 2,500 homes. This figure assumes all additional homes are occupied by usual residents. Any increase in vacancies, second homes or holiday

lets would be in addition. The 'natural change' projection shows a decline in the resident labour force of 4,200 between 2016 and 2031.

7. Under the natural change scenario the minimum housing requirement 2011-2029 is 4,000 and the labour force declines by 3,200 over this period.

#### Projection B - Constant Labour Force Post 2016

8. Projection B shows that the decline in the labour force could be halted and a constant labour force would result if a further 3,100 new homes were provided between 2016 and 2031. Under this scenario the minimum housing requirement 2011-2029 is therefore 6,700 and the labour force remains at its peak in 2016.

#### Projection C - South East Plan Housing Based

- 9. Projection C provides a final comparator, that of the rate of growth of new homes if the South East Plan housing targets were to be rolled forward on a pro-rata basis over the period 2016-31. This would mean that 4,300 new homes would be provided, but that the resident labour force would be likely to fall by 1,800 between 2016 and 2031.
- 10. Under this scenario the housing requirement 2011-2029 is 5,500 and the labour force declines by 1,100 over this period.
- 11. It must be stressed that the calculations of the labour force are based on an ONS projection of 2001 Census economic activity rates published in 2006. As such the projections take into account that older people will form a greater proportion of the workforce in future. However, these projections do not take account of changes in retirement legislation which mean that there would be expected to be a few hundred more economically active residents in their late 60s by 2031 in all projections, but it is not at the moment clear just how many.
- 12. As stated in the previous report (May 2011), ONS projections do not provide a robust basis for establishing a local housing target as they are termed policy neutral, reflecting trends of estimated migration levels in the five years prior to the base year. They do not have regard to current or future local housing completions data or to other local circumstances. The CLG conversion of ONS population projections to household projections uses rates projected from past census data and, at present, do not include any local data on household formation since 2001, although more recent national data based on the Labour Force Survey are utilised.

## Introduction & Background

- 13. The draft Local Plan for West Oxfordshire (previously called the 'Core Strategy') has been delayed for a number of reasons and to comply with national policy, the Council has decided to roll the plan period forward from 2026 to 2029. The initial results of the 2011 Census are also now available and for these reasons, updated housing projections have been prepared to help inform the overall housing target for the District.
- 14. Set out below is a brief summary of the key findings of the 2011 Census and an explanation of the data inputs that have been used to inform the updated projections. This is followed by a detailed analysis of the three housing projections that have been prepared.

#### What does the 2011 Census tell us about West Oxfordshire?

- 15. Table 1 below compares the Census 2011 figures to previous projections. The main information obtained from the 2011 Census is that the number of households in West Oxfordshire did not increase as rapidly as expected from the District's monitoring of the housing stock. The difference is about 1,100, nearly 3 per cent of the total. This could be due to a combination of events: more second homes and holiday lets; more homes vacant; more closures than monitored. It is unlikely that an increase in second homes would be so significant, but the other factors are potentially related to the changes that have occurred to MoD housing in the District. The expectation of there being an additional 1,100 households meant that the previous District's projections assumed more migration into West Oxfordshire and a consequent increase in the average household size. Later more detailed Census releases will help confirm any changes to second home ownership and MoD housing.
- 16. There has been significant growth in the District, which was indicated by each of the recent projections, all of which overshot the total population and underestimated the growth of the communal establishment (CE) population. This was despite all projections overshooting the numbers of the elderly population which contributes most to the communal population. All projections utilise the CLG 2008-based projection of household representative rates and these implied, wrongly as it now seems, that the average household size had risen since 2001.

Table 1: Comparisons of the 2011 Census with estimates for 2001 and recent projections for 2011: thousands except Average Household Size (AHS)

_	2001	2011	2011	2011	2011
_	ONS/CLG MYE	ONS/CLG 2008-based Projection	ONS 2010-based Projection	West Oxon 2011 Projection	Census
0-4	5.7	6.4	6.6	6.5	6.3
5-9	6.3	6.2	6.2	5.8	5.8
10-14	6.1	6.2	6.2	6.3	6.1
15-19	5.0	6.1	6.1	7.0	6.0
20-24	4.0	4.7	4.8	6.9	5.3
25-29	5.1	5.6	5.6	7.0	6.0
30-34	7.3	6.0	6.0	5.6	6.2
35-39	8.0	7.0	7.0	6.5	6.9
40-44	7.3	8.1	8.3	8.8	8.1
45-49	6.4	8.4	8.4	8.5	8.4
50-54	7.1	7.3	7.3	7.6	7.2
55-59	5.9	6.4	6.3	6.6	6.2
60-64	4.7	6.9	6.9	7.2	7.0
65-69	4.1	5.8	5.8	5.9	5.6
70-74	3.8	4.4	4.4	4.5	4.5
75-79	3.1	3.6	3.6	3.6	3.7
80-84	2.1	2.9	2.9	2.9	2.7
85+	1.6	3.1	2.9	3.1	2.7
Total	93.7	105.0	105.6	110.3	104.8
Households	38.5	43.2	43.2	44.3	43.2
CE Pop	2.0	2.2	2.2	2.2	2.4
РН Рор	91.7	102.8	103.2	108.0	102.4
AHS	2.378	2.380	2.389	2.437	2.370

Households and other items in italics under ONS 2010-based Projection are calculations based on the relationships in the CLG 2008-based household projection for 2011.

Due to rounding figures may not add to totals.

## **Data Inputs**

- 17. The 2011 Census results that have been used in these projections are:
  - Usual resident population by five year age groups and gender (104,800),
  - Total communal establishment population (2,400), and
  - Total household spaces occupied by at least one usual resident (43,200).

The Census also indicates that the District had 100 short-term migrants, persons intending to remain in the UK for between 3 and 12 months, but these are not considered in the projections.

- 18. As the Census 2011 data currently available is limited and has not yet been reflected in CLG household assumptions, the incorporation of these results requires the following processes:
  - Convert the 2011 Census population to single years of age/gender by rolling forward the ONS 2010 mid-year estimate population and constraining within each five-year age group.
  - Apply CLG projected 2011 relationship status rates to the population to establish persons in couples, previously married or single.
  - Estimate the communal establishment population by age/gender/relationship status using CLG assumptions and subtract from usual resident populations to estimate the private household population.
  - Apply CLG projected 2011 household representative rates to the private household population by age/gender/relationship status.
  - Compare projected 2011 total communal population and total households to Census results.
  - Adjust CLG assumptions and rates to establish the same communal population and household total as the Census. (NB it is assumed that CLG representative rates for couple households are unchanged, meaning all adjustments relate to lone parent, one person and other household types.)
  - Rates for years 2002-10 and all years to 2031 are also adjusted. Before 2011 this is done by progressive annual adjustments between 2001 (no adjustment) and 2011 (100% adjustment). After 2011 all adjustments are the same as used in 2011.
- 19. West Oxfordshire Council has provided annual actual and anticipated net new homes in the district between 2011 and 2016. Other inputs are:
  - Base Population 2011 Census population as described above
  - Births and Deaths ONS MYE Change Analyses for West Oxfordshire for 2001-02 to 2009-10 and estimated for 2010-11
  - Fertility and Survival Trends ONS 2010-based projections for England and West Oxfordshire
  - Age-specific Migration ONS MYE 2001 to 2010 analyses of change for West Oxfordshire by gender and single years of age with an adjustment for 2010-11 using the Census population. In previous projections the migration information had been drawn from ONS MYE changes between 1991 and 2001 as the model was projecting all years after 2001.
  - Relationship Status CLG 2008-based household projections for West Oxfordshire 2001-2031, by gender and five-year age groups

- Communal Establishment Population CLG 2008-based household projection assumptions for West Oxfordshire 2001-2031, by gender, relationship status and five-year age groups
- Household Representative Rates CLG 2008-based household projections for West Oxfordshire 2001-2031, by gender, relationship status and five-year age groups

## **Projection A - Natural Change Post 2016**

- 20. Having incorporated adjustments for the Census results Projection A goes through the following stages:
  - Stage 1. A housing led demographic projection annually from 2011 to 2016 using actual and planned housing developments during this period
  - Stage 2. A 'natural change' population projection from 2016 to 2031 based on the projected population at 2016 from Stage 1. This is to establish the theoretical size and age structure of the population aged over 15 which would form households in 2021, 2026 and 2031 under natural change assumptions (ie births and deaths but no migration)
  - Stage 3. A household projection for 2021, 2026 and 2031 based on the 'natural change' population that determines the additional numbers of homes needed to house the natural change population in each five-year period.
  - Stage 4. The final stage assumes that the new homes projected to be required under Stage 3 are built and occupied in open market conditions to give a population forecast from 2016 to 2031. This is another housing led demographic projection annually from 2016 to 2031 that includes the impact of migration in all years.

# Stage 1 Housing-led Demographic Projection 2011-16

Table 2: Housing-led Projection for West Oxfordshire, thousands except Average Household Size.

	2001	2006	2011	2016
Couple Households	25.3	26.0	26.8	27.2
All Other Households	13.3	15.0	16.4	17.8
Total Households	38.5	40.9	43.2	45.0
Private Household Population	93.7	98.1	102.4	105.9
Average Household Size	2.430	2.396	2.368	2.353
Communal Population	2.0	2.2	2.4	2.5
Total Demulation	05.7	400.0	404.0	400.4
Total Population	95.7	100.3	104.8	108.4

21. Table 2 shows the original ONS/CLG estimates for 2001 as well as a conversion of the ONS 2006 MYE using the CLG rates for 2006 as adjusted in view of the 2011 Census results. This projection then converts the annual numbers of actual and planned net new homes in the district between 2011 and 2016 to populations and households by type using the (adjusted) gender and age-specific relationships from the CLG 2008-based household projection for West Oxfordshire including:

- total population and private household population
- relationship status<sup>1</sup>, and
- household representative rates
- 22. Beyond 2011, the development data is linked to a with-migration population projection based on recent rates of change by single years of age and gender. The projection starts with the 2011 Census population and uses known birth and death totals up to mid-2010, estimates for 2010-11 and future trends in fertility and survival based on the ONS 2010-based projections for both England and West Oxfordshire.
- 23. The key element of the projection is the increase in households from 2001 to 2011 of 4,650. The District expects a further 1,796 homes to become available by 2016. In this projection it is assumed that each new home is an additional occupied household, leading to an increase in population of 3,660 between 2011 and 2016 following the rise of 9,000 between 2001 and 2011. The projected growth 2011-16 is made up of 2,170 excess of births over deaths and 1,480 net migration into West Oxfordshire.

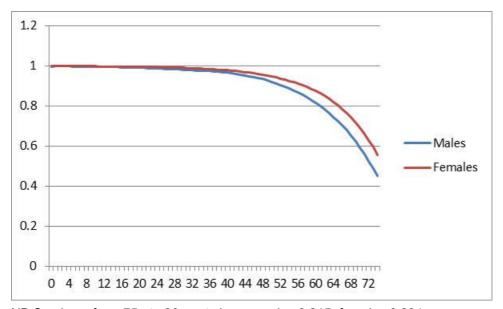
# Stage 2 'Natural Change' Population Projection 2016-31

- 24. The purpose of the 'natural change' population projection is to look forward from the projected population in 2016 to establish the surviving populations aged 15+ (by age and gender) at each of the years 2021, 2026 and 2031. Interest is only in the over 15s as this is the population to which household representative rates are applied in order to estimate households.
- 25. Figure 1 shows the proportions of the population who would be expected to survive the full 15 years between 2016 and 2031 (by single years of age and gender) according to the ONS 2010-based natural change population projection for England. Survivorship in West Oxfordshire is currently a little better than that of England as a whole, therefore the resulting populations presented here may be considered as a minimum, but any difference would be small. Table 3 shows that the population aged 15+ changes little over the 15 years, increasing from 89,000 to 92,700 as the numbers of under-15s in 2016 age to replace those projected to die. The increase is fastest after 2026 when those projected to be born between 2011 and 2016 reach age 15-19. However, Figure 2 shows that, apart from the additional numbers in the lowest age groups, the resulting 2031 population has an older age profile than that of 2016, with a peak moving from the early 50s in 2016 to the late 60s in 2031. There is also significant growth in the over 90s.

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<sup>&</sup>lt;sup>1</sup> 'Relationship status' has replaced 'marital status' in the CLG projections and shows all persons aged 15 and over (by gender and 5-year age groups) as being 'in a couple', 'previously married' or 'single'.

Figure 1: Proportion of population surviving 15 years from 2016: Persons aged 0 to 74 in 2016 by gender: ONS 2010 Natural Change Population Projection for England



NB Survivors from 75+ to 90+ not shown: males 0.215; females 0.234.

Table 3: 'Natural Change' Population aged 15 and over, 2016-31, West Oxfordshire, thousands

	Males	Females	Persons
2016	43.1	45.9	89.0
2017	43.2	46.0	89.1
2018	43.2	46.0	89.3
2019	43.4	46.1	89.5
2020	43.5	46.2	89.7
2021	43.5	46.3	89.8
2022	43.7	46.4	90.0
2023	43.8	46.5	90.3
2024	43.9	46.6	90.5
2025	44.0	46.7	90.7
2026	44.2	46.8	91.0
2027	44.4	47.0	91.4
2028	44.6	47.2	91.8
2029	44.8	47.4	92.1
2030	44.9	47.5	92.5
2031	45.1	47.7	92.7

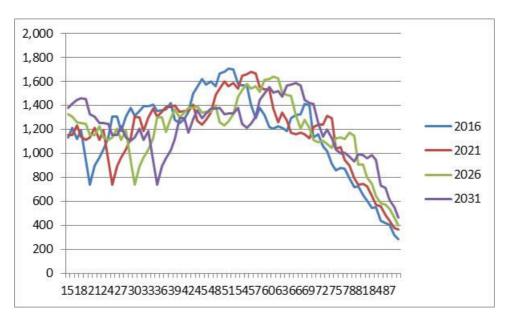


Figure 2: 'Natural Change' Population aged 15 and over, 2016-31, West Oxfordshire.

Data for age 90+ not shown to maintain scale.

# Stage 3 Household Projection based on the Natural Change Population

- 26. This projection is achieved by applying to the 'natural change' population in each of the years 2021, 2026 and 2031 the relationships between total population and households (by gender, age and relationship status) as found in the results of the CLG 2008-based household projection for West Oxfordshire. These relationships have been adjusted to account for the 2011 Census as outlined above.
- 27. The age structure is important in assessing the number of households likely to be formed by the natural change population as an older population forms more households than a younger population of the same size. The older population requires more but, on average, smaller households and this is a significant component of the projected increase in households between 2016 and 2031.
- 28. The projected total increased numbers of households over the 15 years is 2,490:
  - 2016-21 917
  - 2021-26 805
  - 2026-31 768
- 29. Adding the total planned supply of homes 2011-16 (1,796) to the numbers of households formed by the natural change population 2016-31 (2,490) identifies the minimum number of homes required to meet the local need for housing for the projected population between 2011-2031. This total is almost 4,300 homes. The minimum number of homes required at each of the years between 2026 and 2031 is set out below:
  - 2011-2026 3,500
  - 2011-2027 3,700

- 2011-2028 3,800
- 2011-2029 4,000
- 2011-2030 4,100
- 2011-2031 4,300
- 30. Over the period 2011-2026 the requirement is 3,500 homes. This number is lower than earlier projections using the same model due to improved data assumptions, notably moving to a base of the 2011 Census and using migration trends from 2001-11 rather than 1991-01. In addition the ONS 2010-based (rather than 2008-based) national and local projections have informed the mortality assumptions after 2016. Over the proposed Local Plan period 2011 2029, the requirement is 4,000 homes.

# Stage 4 Demographic Projection 2016-31

Table 4: West Oxfordshire: Population and Household Projection: 2001-31; thousands except Average Household Size

	2001	2006	2011	2016	2021	2026	2029	2031
Couple Households	25.3	26.0	26.8	27.2	27.1	26.9	26.7	26.6
All Other Households	13.3	15.0	16.4	17.8	18.8	19.8	20.5	20.9
Total Households	38.5	40.9	43.2	45.0	45.9	46.7	47.2	47.5
Private Household Population	93.7	98.1	102.4	105.9	106.6	106.8	106.6	106.5
Average Household Size	2.430	2.396	2.368	2.353	2.322	2.286	2.260	2.243
Communal Population	2.0	2.2	2.4	2.5	2.6	2.7	2.8	2.9
Total Population	95.7	100.3	104.8	108.4	109.2	109.5	109.5	109.4

- 31. The final stage of the projection is to assume that the additional households based on the 'natural change' projection (Stage 3) are supplied as the net annual average numbers of new homes in each of the five-year periods. This is done on the same basis as the housing led projection from 2011 to 2016, as described above. This means that 'normal' migration flows into and out of West Oxfordshire are modelled. The additional 2,490 homes 2016-2031 are all assumed to be occupied and result in a further increase in the total population of 1,000 to reach 109,400 by 2031. It will be noted that the population actually peaks at 109,500 in 2026. The increase from 2016 to 2031 is made up of an excess of births over deaths of 2,250 and a net migration loss of 1,190.
- 32. Figure 3 shows that net migration into the district is projected to fall after 2011 and to be away from the district after 2016. The overall level of net migration between 2016 and 2031 shown in Figure 4 demonstrates a major inflow of those in their 30s and 40s in 2031 with additional post-retirement inflows. The major losses are in the 20s with additional losses in the 50s and 60s. It is important to note that these are ages at the end of a 15-year migration period so moves would on average have taken place 5 to 10 years earlier.



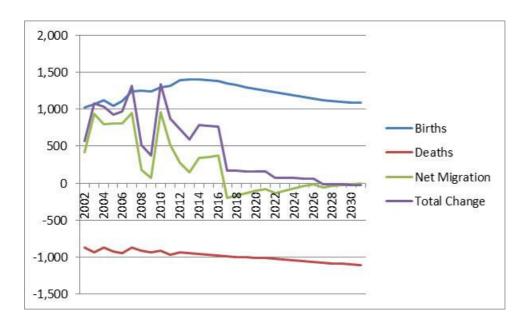
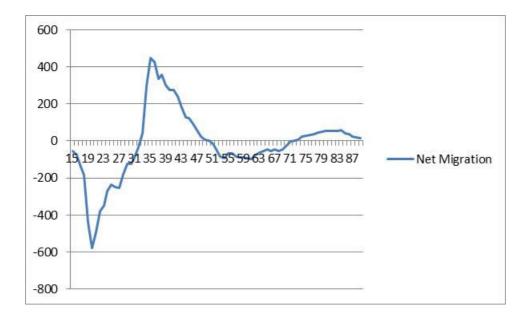
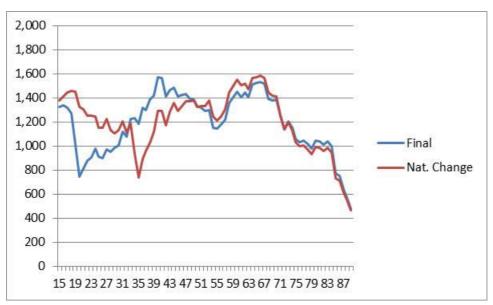


Figure 4: West Oxfordshire: Net Migration between 2016 and 2031 by age at 2031



33. Figure 5 shows the differences between the final projection for the district and the 'natural change' population at 2031. Net migration makes little difference to the population after the 50s but has considerable impact on the age structure of the younger parts of the population due to students leaving the district and families arriving in their 30s and 40s.

Figure 5: West Oxfordshire: Population at 2031. Final and 'Natural Change' projections compared



Data for age 90+ not shown to maintain scale.

34. The projection implies that the resident labour force of the district would reach a peak of 56,800 in 2016 and then decline, reaching 52,600 in 2031.

Table 5: West Oxfordshire: Projection of Resident Labour Force: thousands

2001	2006	2011	2016	2021	2026	2029	2031
51.6	53.8	56.2	56.8	55.6	53.9	53.1	52.6

# **Projection B - Constant Labour Force Post 2016**

- 35. This projection was run in order to establish the level of increase in the number of homes in the District that were likely to result in a constant labour force of 56,800 between 2016 and 2031. This was done in the following steps:
  - From the 'natural change' projection, calculate labour force per household in 2021, 2026 and 2031. For 2021 this is {LF<sub>2021</sub> / HH<sub>2021</sub>}, where LF is labour force and HH is households.
  - Estimate the number of additional households in 2016-21, 2021-26 and 2026-31 that would be required to raise the labour force to the required level. For 2021 this is:
    {(LF<sub>2016</sub> –LF<sub>2021</sub>) / (LF<sub>2021</sub> / HH<sub>2021</sub>)}
  - Assume that these numbers of new households represent additional homes and that they are provided, with the additions in each five-year period spread evenly across the years.
  - Run a population and household projection with this level of new homes and convert the resulting resident population to the resident labour force.
  - Calculate the changes in the projected labour force in each five-year period and iterate the above process until the labour force remains constant over the 15 years.

It is necessary to iterate to a solution as the age structure of the net immigrant population to the District that will occupy the new homes is not the same as that of the already resident population.

- 36. The resulting numbers of required new homes in each five-year period are as follows:
  - 2016-21 1,797
  - 2021-26 2,050
  - 2026-31 1,775

This amounts to 5,620 new homes over the 15 years and compares to 2,490 under the 'natural change' assumption. Put another way, to raise the resident labour force by 4,200 at 2031 will require an additional 3,100 resident households. The full results summary for population and households is shown below.

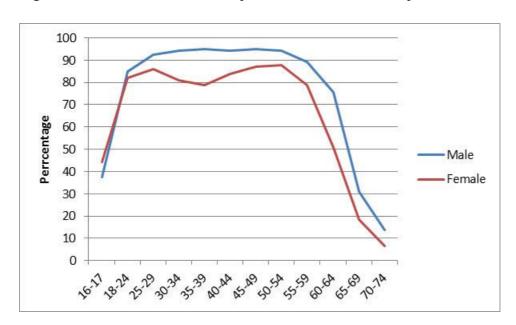
Table 6: West Oxfordshire: 'Labour Force' led Population and Household Projection: 2001-31; thousands except Average Household Size

	2001	2006	2011	2016	2021	2026	2029	2031
Couple Households	25.3	26.0	26.8	27.2	27.6	28.0	28.2	28.3
All Other Households	13.3	15.0	16.4	17.8	19.2	20.8	21.7	22.3
Total Households	38.5	40.9	43.2	45.0	46.8	48.8	49.9	50.6
Private Household Population	93.7	98.1	102.3	105.9	109.0	112.6	114.1	115.0
Average Household Size	2.430	2.396	2.368	2.353	2.330	2.306	2.286	2.273
Communal Population	2.0	2.2	2.4	2.5	2.6	2.8	2.9	3.0
Total Population	95.7	100.3	104.7	108.4	111.6	115.4	117.0	118.0

## **Analysis of Results of Projection B**

- 37. The resident labour force, or economically active population, of an area reflects both the age and gender structure of the residents and local economic activity rates. The rates are also specific to age and gender and will reflect a number of issues, such as whether there is a large student population, the educational attainment of the population and the nature and buoyancy of the local labour markets where the majority of local residents will find employment.
- 38. To project the future labour force of an area requires two things, a population projection and a set of economic activity rates. The rates are based on the 2001 Census rates for West Oxfordshire and the ONS projection of the rates for Great Britain. The latest ONS projection<sup>2</sup> only projects the rates to 2020, the year by which, at the time, the male and female state retirement ages were planned to be equalised at 65. Subsequent Government decisions have brought this date forward to 2018 and now plan to raise the state retirement age to 66 by 2020 and 67 by 2036. These changes will almost certainly raise economic activity levels by a few percentage points at ages 60-64 and 65-69 above the levels forecast in the latest ONS projection between now and 2031. However, this projection assumes that rates for 2020 remain fixed to 2031. Figure 6 shows these rates to be over 70 per cent between ages 18-24 to 55-59 (females) and 60-64 (males).

Figure 6: West Oxfordshire: Projected Economic Activity Rates: 2020-31



<sup>&</sup>lt;sup>2</sup> 'Labour Market Trends, January 2006.

39. As there is little projected change in rates after 2016 the main feature of the West Oxfordshire population determining the resident labour force will be the age structure. Figure 7 shows a significant aging of the population with increases at all ages above 60 between 2016 and 2031.

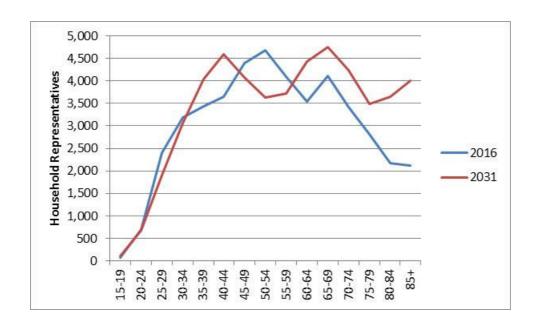
2,000 1,800 1,600 1,400 1,000 800 400 2001 2016 2031 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85

Figure 7: West Oxfordshire: Population by age: 2001, 2016 and 2031

Data for age 90+ not shown to maintain scale.

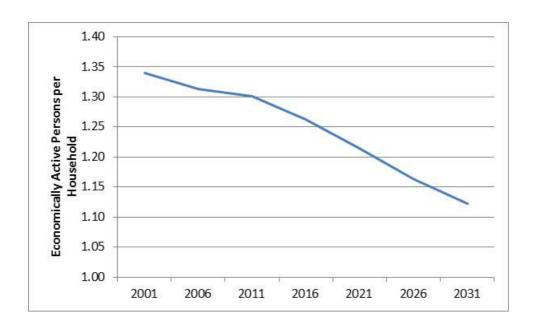
40. Figure 8 shows that there are increases in the numbers of households whose representatives are aged over 60. Between 2016 and 2031 their numbers are projected to rise from 18,200 to 24,600, and there will be relatively few economically active persons in these households.





41. The main consequence of the ageing of the population is that the number of economically active resident in the average household in West Oxfordshire will continue to fall. Figure 9 shows the decline from 1.26 in 2016 to 1.13 in 2031. This decline is equivalent to 11.1 per cent, therefore to maintain a constant labour force the number of households needs to rise by 12.5 per cent in 15 years<sup>3</sup>.

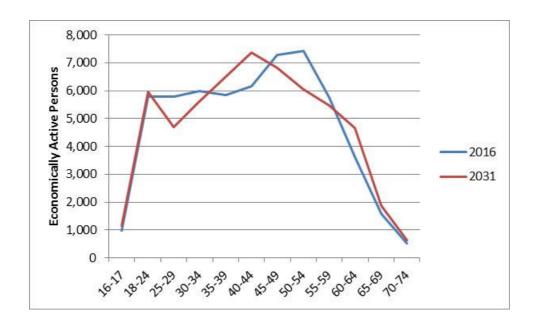
Figure 9: West Oxfordshire: Economically Active Persons per Household: 2001 to 2031



42. The impact of these components put together shows that the age structure of the economically active residents of West Oxfordshire, while remaining constant in total, will show several changes. Notably a reduction of 1,500 at ages 25-34, an increase of 1,800 at ages 35-44, a significant reduction at ages 45-59 of 2,100 and an increase of 1,400 at ages over 60. These are shown in Figure 10.

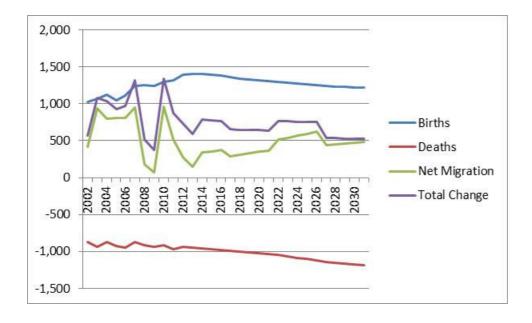
 $<sup>^{3}</sup>$  **12.5** =  $100*\{(100/(100 -$ **11.1))** $- 1\}$ 

Figure 10: West Oxfordshire: Age Structure of Economically Active Resident Population: 2016 and 2031



43. The requirement to provide 6,700 homes between 2011 and 2029, of which 5,600 homes would be between 2016 and 2031, means that there would be a net migration inflow into West Oxfordshire of about 6,800, an average of 450 people per year between 2011 and 2031. This compares with an average of 640 between 2001 and 2011 and 300 projected between 2011 and 2016.

Figure 11: West Oxfordshire Components of Population Change: 2001 to 2031



## **Projection C - South East Plan Housing Based**

- 44. This projection is a housing led projection which assumes that the housing requirement of the South East Plan is rolled forward to 2031.
- 45. Up to 2016 the projection is the same as Projection A. After 2016 new homes would be provided based on the rate shown by the South East Plan, that is approximately 285 per year up to 2031, a total of 4,268 in the fifteen years..

Table 7: West Oxfordshire: 'SE Plan' Population and Household Projection: 2001-31; thousands except Average Household Size

	2001	2006	2011	2016	2021	2026	2029	2031
Couple Households	25.3	26.0	26.8	27.2	27.4	27.5	27.6	27.6
All Other Households	13.3	15.0	16.4	17.8	19.0	20.3	21.1	21.7
Total Households	38.5	40.9	43.2	45.0	46.4	47.8	48.7	49.3
Private Household Population	93.7	98.1	102.4	105.9	108.0	109.9	110.8	111.3
Average Household Size	2.430	2.396	2.368	2.353	2.327	2.297	2.275	2.260
Communal Population	2.0	2.2	2.4	2.5	2.6	2.7	2.9	3.0
Total Population	95.7	100.3	104.8	108.4	110.6	112.6	113.6	114.3

Table 8: West Oxfordshire: 'SE Plan' Projection of Resident Labour Force: thousands

2001	2006	2011	2016	2021	2026	2029	2031
51.6	53.8	56.2	56.8	56.3	55.5	55.1	55.0

46. This projection sits between the 'natural change' and 'constant labour force' projections in respect to growth in household, population and labour force between 2016 and 2031. It shows an additional 5,500 households between 2011 and 2029, with 4,300 households containing an additional 5,900 residents between 2016 and 2031. However, the resident labour force declines by 1,800 over the 15 years from a peak in 2016.

# **Next Steps**

47. In the coming months more data based on the 2011 Census will emerge. This data will help clarify the West Oxfordshire population and housing changes since 2001. In September 2012 ONS plans to publish mid-year estimates for 2011; between November 2012 and February 2013 more detailed Census data will help to pinpoint changes in the housing stock and economic activity; later in 2013 it is expected that CLG will issue household projections based on 2011 Census data.