

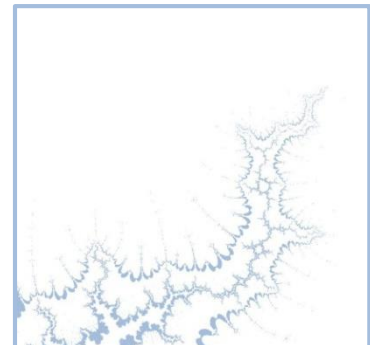
**Economic Forecasting to Inform
the Oxfordshire Strategic
Economic Plan and Strategic
Housing Market Assessment**

**Final report for Vale of White Horse District
Council and partners**

28 February 2014

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| 28/2/14 | Anthony Barker, Director |

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Executive Summary

- Cambridge Econometrics and SQW were commissioned by Vale of White Horse District Council and partners to prepare a set of economic forecasts for Oxfordshire, to be used in the county's Strategic Housing Market Assessment (SHMA) and the Local Enterprise Partnership's (LEP) Strategic Economic Plan (SEP).
- The forecasts developed for the study, using Cambridge Econometrics' Local Economy Forecasting Model (LEFM) were developed in three stages:
 - **Baseline** projections, assuming that historical trends in relative growth in Oxfordshire compared with the wider South East (or UK) economy (on an industry-by-industry basis) seen over the past 15 years or so continue into the future.
 - **Alternative Population-based** projections, in which the Baseline population projections (ONS 2011-based SNPP) for Oxfordshire are replaced with an alternative set that correct particular anomalies (relating to the student population) in the ONS projections.
 - a final, **Planned Economic Growth** forecast, which reflects policy influences on economic growth such as proposals relating to the Science Vale Enterprise Zone, Oxfordshire City Deal, NW Bicester Eco Town and other planned infrastructure investment.
- The Baseline projections suggest that if historical trends in the relative growth performance of the Oxfordshire economy were to continue, employment in the county would increase by 36,400 (approximately 1,800 jobs per annum, or 0.4-0.5% pa) between 2011 and 2031. This is, on average, considerably slower than seen over 2001-11 (about 2,900 jobs pa, or 0.8% pa).
- The Alternative Population-based projections, which better reflect likely population growth in the county, suggest that employment growth in the county could actually average 0.6% pa over 2011-31, before the impact of above-trend policy impacts are added.
- The Planned Economic Growth forecasts suggest that a further (above trend) 27,750 direct jobs and 10,500 indirect jobs could be created in the county by 2031, due to proposals relating to the Science Vale Enterprise Zone, Oxfordshire City Deal, NW Bicester Eco Town and other planned infrastructure investment. This would mean a total increase in employment of around 88,000 over 2011-31, or 4,400 pa (1% pa). This compares with growth of around 3,000 pa (0.8% pa) seen over 2001-11. Sustained employment growth of 1% pa over a 20 year period would be an achievement, especially in the current economic environment, but is by no means unprecedented.
- When the jobs growth by district, based on the Planned Economic Growth forecasts, is compared with land allocated for development by district (taking into account that not all jobs locate on B Class land), it appears that there is sufficient land allocated in all districts except South Oxfordshire, where there could be a shortfall in relation to the requirement indicated under the Planned Economic Growth forecasts.

1 Introduction

In September 2013 Cambridge Econometrics and SQW were commissioned by Vale of White Horse District Council and partners (Oxfordshire Local Enterprise Partnership, Oxford City Council, Oxfordshire County Council, Cherwell District Council, South Oxfordshire District Council, West Oxfordshire District Council) to prepare a set of economic forecasts for Oxfordshire, to be used in the county's Strategic Housing Market Assessment (SHMA) and the Local Enterprise Partnership's (LEP) Strategic Economic Plan (SEP).

A Planned Economic Growth forecast was developed for the study, using Cambridge Econometrics' Local Economy Forecasting Model (LEFM), in three stages:

- **Baseline** projections, effectively assuming that historical trends in relative growth in Oxfordshire compared with the wider South East (or UK) economy (on an industry-by-industry basis) seen over the past 15 years or so continue into the future. The projections are consistent with CE's baseline economic forecasts for the nations and regions of the UK. Growth in some sectors (public administration, education, health, residential & social care, and retailing) is also influenced by population growth. The input assumptions for population growth in Oxfordshire in the Baseline projections are the ONS 2011-based interim subnational population projections (SNPP).
- **Alternative Population-based** projections, in which the input population projections for Oxfordshire are replaced with an alternative set that correct particular anomalies (relating to the student population) in the ONS projections.
- a **Planned Economic Growth** forecast which reflects policy influences on economic growth such as proposals relating to the Science Vale Enterprise Zone, Oxfordshire City Deal, NW Bicester Eco Town and other planned infrastructure investment

This report describes the methodology and development of the assumptions and forecasts, provides a description and comparison of the results, and draws out the policy implications for Oxfordshire and its districts.

Chapter 2 describes the methodology and results for the Baseline projections. Chapter 3 provides the same information for the Alternative Population-based projections. Chapter 4 provides a narrative and sets out the assumptions for the direct 'above trend' impact on employment for the Planned Economic Growth forecasts, and the results (including indirect and induced jobs) are described in Chapter 5. Finally, Chapter 6 considers the risks that need to be considered in delivering this scale of jobs growth, and how they should be factored into the overall forecasting work.

2 Baseline Projections

2.1 Introduction

This chapter presents the Baseline projections developed for each of the local authorities and Oxfordshire as a whole. Section 2.2 discusses the modelling framework and key assumptions underlying the Baseline projections, while the remaining sections describe the projections themselves.

2.2 LEFM and the Baseline projections

The Baseline projections were developed in LEFM

The Baseline employment projections presented in this chapter are developed using Cambridge Econometrics' Local Economy Forecasting Model (LEFM) tailored to the economy of Oxfordshire and its component districts (Cherwell, Oxford, South Oxfordshire, Vale of White Horse, West Oxfordshire).

LEFM is a demand-led model that models the relationships between firms, households, government and the rest of the world in a highly disaggregated framework (eg 45 industries), which enables the impact on the economy (employment and value added) of demand-side factors (such as an increase in demand due to stronger world growth) to be analysed. The disaggregated nature of the model is important because it allows the model to distinguish the very different relationships that exist between particular industries. For example, electronics is distinguished from other, more basic, manufacturing sectors that operate in completely different markets.

Only demand-side impacts are modelled

In LEFM, the impact on a local economy of faster population growth, say, is shown through the increased demand for goods or services in industries that are particularly dependent on population growth (eg retailing, public administration, health, education, leisure services, construction), which would feed through into higher output and employment (and into household incomes and spending) in those sectors.

The demand-side impact of a faster-growing population will not typically impact on firms in the electronics sector in the local area, say, as demand for goods from this sector will come almost entirely from the rest of the UK or world. The impact of supply-side factors, such as an increasingly-skilled workforce in the area attracting firms in particular sectors, is, as in other similar models, not modelled in LEFM.

Population is an input to LEFM...

In common with most sub-national economic models, population in LEFM is one of a number of inputs to the model – that is, population in LEFM is taken as given and does not change if economic growth in the local area changes.

...and the Baseline uses the ONS 2011-based interim SNPP

The population projections used for the Baseline projections are based on the ONS' 2011-based interim Sub-National Population Projections (SNPP) made consistent with the latest mid-year estimates (to 2011). As they are interim projections, the 2011-based SNPP only provide projections to 2021. For 2022 onwards the projected trends in the 2010-based SNPP are assumed to continue and so growth rates from the 2010-based SNPP have been applied.

The Baseline projections assume the continuation of past relationships The Baseline projections are based on the assumption that historical relationships between growth in the local area relative to the South East or UK (depending on which area that industry has the strongest relationship with), on an industry-by-industry basis, continue into the future. Thus, if growth in an industry in the local area outperformed the same industry in the region (or UK) as a whole in the past, then it will be assumed to do so in the forecast period. Similarly, if it underperformed the South East (or UK) in the past then it will be assumed to underperform the region (or UK) in the future.

The projections are consistent with CE's regional forecast, from May 2013 The projections are consistent with CE's forecast for the regions and nations of the UK, as developed using the Multi-Sectoral Dynamic Model (MDM-E3) of the UK economy and published in May 2013.

The results for Oxfordshire and its districts are projections rather than forecasts. They represent the results of model-based analysis, but have not been refined in the light of qualitative information, legislative changes or other 'soft' information.

Adjustments were made to the Baseline projections for education After reviewing the initial model-based Baseline projections, and following discussion with Oxfordshire County Council and the local authorities, the pure model-based projections for the education sector in Oxfordshire *have* been adjusted. This is because the education sector in Oxfordshire is thought to have particular characteristics that mean that benchmarking all its growth against the South East or UK is not appropriate going forward.

For example, prospects for growth in the education sector in Oxfordshire (particularly Oxford), is dependent to a large degree on demand for university-based research and demand from students throughout the UK and rest of the world (for university places), rather than demand from the school-age population in the county catchment area. With this in mind, the model-based Baseline projection for employment, which takes account of relative population growth in the county (and cuts in government education budgets at the UK level), was thought to be too low, and so adjustments were made to reflect the expectation that the education sector in Oxfordshire will suffer less of a downturn in employment growth in the short and medium term than the model-based projections would suggest.

According to the ONS' Business Register and Employment Survey (BRES), almost half of all employment in education in Oxfordshire is in higher education, compared with only around one-fifth in the South East as a whole. The adjustment made is to assume that the half of employment in higher education in Oxfordshire remains constant over the forecast period (rather than falling, in the short term, in line with CE's assumptions for education as a whole). The other half (pre-school, primary, secondary and 'other') is assumed to move in line with CE's general assumptions for education, reflecting government spending cuts, as in the model-based Baseline projection. The adjustment is made to better reflect the particular drivers behind the education sector in Oxfordshire compared with the standard method for developing baseline projections in LEFM for other areas. The adjusted projection should still be seen as a 'business-as-usual' projection (ie what would happen if past relative

trends continued into the future) rather than any sort of policy adjusted forecast (as described in Chapters 4 and 5).

The result of the adjustment is presented in Figure 2.1, which shows that in the adjusted Baseline projection employment in education in Oxfordshire is around 11,000 higher than in the purely model-based (ie unadjusted) Baseline, in 2031.

The adjustments to the Baseline employment projection for education, by district, are shown in Table 2.1. The adjustment to the projection for employment in education in Oxfordshire as a whole was allocated to the districts based on the relative size of the education sector in each district. Thus, the impact of the adjustment is largest (7,800 in 2031) for Oxford city.

Figure 2.1: Baseline projection of employment in education, before and after adjustment

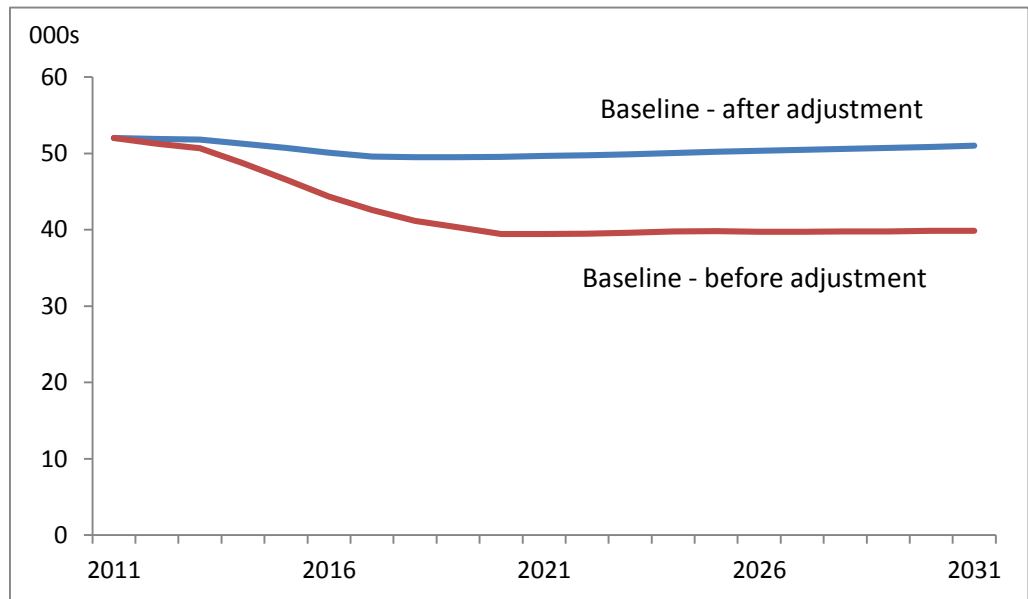


Table 2.1: Impact of adjustments to Baseline projection of employment in education

| | 2011 (000s) | 2021 (000s) | 2031 (000s) |
|---------------------|----------------|----------------|----------------|
| Oxfordshire | 0.0 | 10.2 | 11.1 |
| Cherwell | 0.0 | 0.9 | 0.9 |
| Oxford | 0.0 | 7.1 | 7.8 |
| South Oxfordshire | 0.0 | 0.7 | 0.8 |
| Vale of White Horse | 0.0 | 0.8 | 0.9 |
| West Oxfordshire | 0.0 | 0.7 | 0.7 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

The projections are neutral to new policy at local level

Except insofar as particular policies were in force during the period over which the historical relationships have been estimated (around 15 years), and insofar as new policies are taken into account in CE’s forecasts at a national and regional level (which drive the local area projections), the Baseline projections by local authority are policy neutral. For example, they would not take into account a new policy that favours a particular sector in the local area, or a decision to release land for economic development at a different rate than in the

past. As mentioned above, the UK regional forecasts underlying the Baseline projections were published by Cambridge Econometrics in May 2013. They take into account analysis of government spending plans as published in HM Treasury's Public Expenditure Statistical Analysis in July 2012 and Autumn Statement in December 2012.

There are no constraints on labour supply

In the forecasts developed for this study, it is assumed that employment growth is not restricted by labour market constraints, except insofar as such constraints have existed in the recent past (which would be reflected in the historical relationships that are estimated). If, in the forecast period, the labour supply in the local area is not sufficient to satisfy the level of employment projected, then the shortfall is assumed to be made up by increased net in-commuting.

Employment in LEFM is measured as 'jobs'

The measure of employment in LEFM and throughout this report is *jobs*, some of which are part time; the metric is not full time equivalent jobs. This means that the actual number of *people* employed in each area can be less than this figure, if, for example, someone has more than one part-time job. Estimates from the Annual Population Survey suggest that less than 4% of workers hold more than one job. The measure includes self-employment, whether on a full-time or part-time basis.

2.3 Headline findings for the Baseline projections

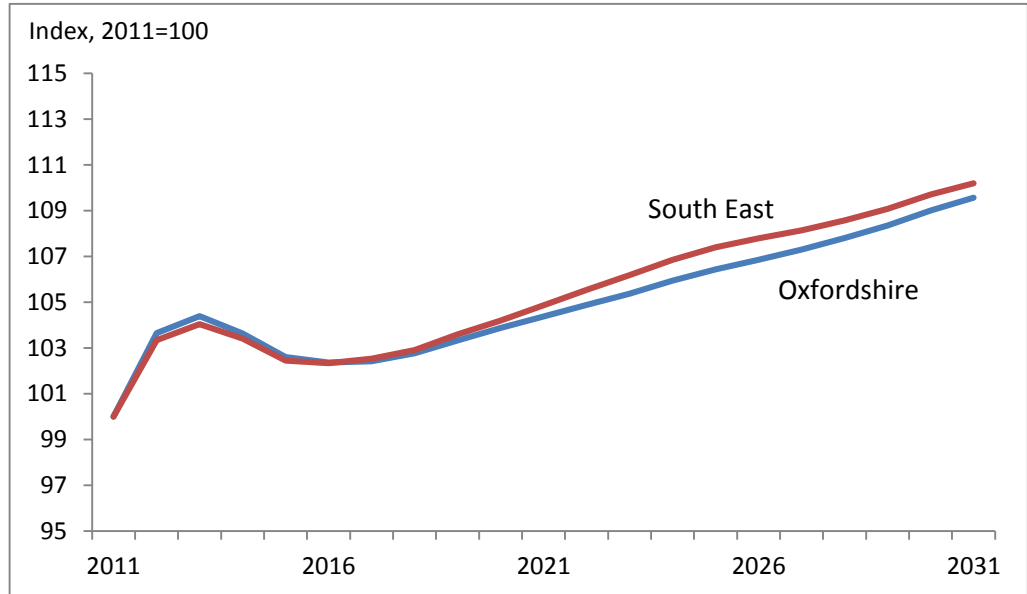
As discussed above, the Baseline projections are model-based projections in which historical relationships between growth in Oxfordshire and growth in the South East or UK, on an industry-by-industry basis, are expected to continue into the future. Rather than being a forecast of what we expect to happen in the future, it is a projection of what the Oxfordshire economy could look like if past trends (in terms of relative growth relationships, rather than trends in growth per se) were to continue into the future, with no change in policy. It should therefore be seen as a starting point, from which to build the further stages in which alternative population projections and changes in policy (be that government policy or changing business investment patterns, say) are taken into account. The further stages are described in subsequent chapters.

Overall growth in employment in for Oxfordshire

Figure 2.2 shows the Baseline projection for total employment in Oxfordshire, compared with CE's forecast for the South East. The data are indexed to 2011=100, so that they can be presented and compared in the same chart. The chart shows that employment in Oxfordshire is projected to grow at a slightly slower rate than the South East average in the medium term, and then at about the same rate in the longer term.

Table 2.3 shows levels, changes in levels, and growth rates, for employment in Oxfordshire, the districts and the South East and UK. It shows that over 2011-31 (2011 is the last year for which official ONS employment data were available for Oxfordshire and the districts at the time the forecast was developed) employment in Oxfordshire is projected to increase by 36,400 (approximately 1,800 jobs per annum, or 0.4-0.5% pa). This is, on average, considerably slower than seen over 2001-11 (about 2,900 jobs pa, or 0.8% pa). This result reflects the industry mix in Oxfordshire and CE's UK Regional forecast for prospects in particular sectors (especially education, health and residential & social care).

Figure 2.2: Employment projections in the Baseline



Slightly slower projected growth in employment in Oxfordshire compared to the South East over the whole period means that Oxfordshire's share of South East employment is projected to fall very slightly, from 8.7% in 2011 to 8.6% in 2031.

Growth projections by sector

Table 2.2 and Figure 2.3 show the Baseline projections for Oxfordshire, by sector. They show that by far the biggest generator of jobs over the forecast period is expected to be financial & business services. The sector is projected to account for almost two thirds of the total increase in employment in Oxfordshire over 2011-31, even though it only accounted for around one fifth of total employment in 2011. By 2031 it is projected to account for just over 24% of employment in the county.

Growth in employment in accommodation & food services is also projected to be quite strong over the forecast period, with growth of 1.5% pa over 2011-21 and 0.9% pa over 2021-31.

Employment in government services is projected to see a slight fall overall (even with the adjustments made to education) between 2011 and 2021, due to the impact of the government's austerity measures on employment in the short and medium term. In the longer term, growth is projected to pick up once again.

Manufacturing employment is projected to see some growth over 2011-21, but to see a fall over 2021-31.

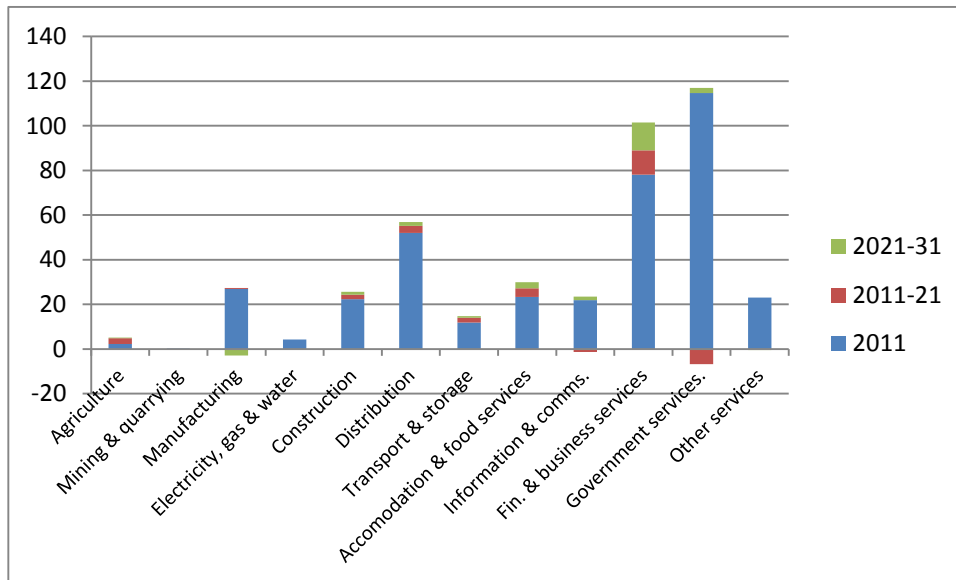
Table 2.2: Employment projections by broad sector in the Baseline, Oxfordshire

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------------|--------------|--------------|-------------|------------|-------------|------------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture etc | 2.3 | 4.8 | 5.1 | 2.5 | 7.7 | 0.4 | 0.7 |
| Mining & quarrying | 0.2 | 0.2 | 0.1 | 0.0 | -1.3 | 0.0 | -3.3 |
| Manufacturing | 26.9 | 27.3 | 24.4 | 0.4 | 0.2 | -2.9 | -1.1 |
| Electricity, gas & water | 4.3 | 4.1 | 4.1 | -0.1 | -0.3 | 0.0 | 0.0 |
| Construction | 22.2 | 24.3 | 25.6 | 2.1 | 0.9 | 1.3 | 0.5 |
| Distribution | 52.0 | 55.2 | 56.8 | 3.2 | 0.6 | 1.7 | 0.3 |
| Transport & storage | 11.8 | 14.0 | 14.6 | 2.2 | 1.8 | 0.6 | 0.4 |
| Accommodation & food services | 23.4 | 27.2 | 29.9 | 3.9 | 1.5 | 2.7 | 0.9 |
| Information & communications | 21.9 | 20.5 | 22.1 | -1.3 | -0.6 | 1.6 | 0.8 |
| Financial & business services | 78.1 | 88.9 | 101.5 | 10.8 | 1.3 | 12.6 | 1.3 |
| Government services | 114.7 | 107.8 | 110.2 | -6.8 | -0.6 | 2.3 | 0.2 |
| Other services | 23.0 | 22.9 | 22.5 | -0.1 | 0.0 | -0.5 | -0.2 |
| Total | 380.6 | 397.3 | 417.0 | 16.7 | 0.4 | 19.7 | 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.

Source: Cambridge Econometrics, January 2014.

Figure 2.3: Employment (000s) in 2011 and projected change in jobs 2011-21 and 2021-31 in the Baseline– broad sectors in Oxfordshire



Growth projections by district The Baseline projections for the districts of Oxfordshire are based on the assumption that historical relationships between the relative growth in each district and Oxfordshire as a whole, on an industry-by-industry basis, continue into the future. In a similar way to the projections for Oxfordshire as a whole, therefore, the projections for overall growth in each district will depend on these historical relationships, industry mix, and the projections for growth by industry in Oxfordshire.

The Baseline projections (see Table 2.3) show employment growth picking up in *Cherwell*, following a fall between 2001 and 2011 (-0.4% pa), to grow faster (0.6% pa) than the South East (0.5% pa) as a whole over 2011-21 and at about the same rate (0.5%pa) over 2021-31. In absolute terms, Cherwell is projected to see the greatest increase in job numbers (4,800) among the Oxfordshire districts over 2011-21.

Employment growth in *Oxford*, on the other hand, is projected to slow from the rapid growth of 2% pa seen over 2001-11, to see no overall increase over 2011-21 and then grow slightly more slowly than the South East as a whole, at 0.4% pa, over 2021-31. The rapid growth in employment in Oxford over 2001-11 was driven mainly by very rapid (7.8% pa) growth in employment in education: 16,000 of the 22,000 additional jobs in the city during that period were in education. The Baseline projection (even after the adjustment described in Section 2.2 above) projects an overall decline in employment in education in Oxford in the short and medium term (reflecting the impact of the government's austerity measures on some parts of the sector), and even by 2031 employment in the sector in the city is projected to be slightly below that in 2011.

Despite this, and due to its relative size, Oxford is still projected to see one of the largest absolute increases in jobs (5,000) among the Oxfordshire districts over 2021-31 (see Figure 2.4).

Table 2.3: Employment projections in the Baseline

| | 2001-11 | | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|--------------------------------|---------|--------|---------|---------|---------|---------|--------|---------|--------|
| | (000s) | (% pa) | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Oxfordshire | 29.6 | 0.8 | 380.6 | 397.3 | 417.0 | 16.7 | 0.4 | 19.7 | 0.5 |
| Cherwell | -3.6 | -0.4 | 79.4 | 84.6 | 89.2 | 5.2 | 0.6 | 4.7 | 0.5 |
| Oxford | 22.0 | 2.0 | 123.2 | 123.2 | 127.8 | 0.0 | 0.0 | 4.6 | 0.4 |
| South Oxfordshire | 2.5 | 0.4 | 65.1 | 69.4 | 72.8 | 4.3 | 0.6 | 3.4 | 0.5 |
| Vale of White Horse | 5.7 | 0.9 | 67.2 | 71.7 | 76.4 | 4.4 | 0.6 | 4.7 | 0.6 |
| West Oxfordshire | 3.0 | 0.7 | 45.7 | 48.4 | 50.8 | 2.7 | 0.6 | 2.4 | 0.5 |
| South East | 166.6 | 0.4 | 4387.2 | 4601.0 | 4834.9 | 213.8 | 0.5 | 234.0 | 0.5 |
| UK | 1281.0 | 0.4 | 31175.0 | 33460.5 | 35075.7 | 2285.5 | 0.7 | 1615.2 | 0.5 |
| Oxfordshire as % of South East | 17.8 | 0.4* | 8.7 | 8.6 | 8.6 | 7.8 | 0.0* | 8.4 | 0.0* |

Notes: * percentage point per annum difference from South East growth.
 Figures are rounded to the nearest 100 jobs.
 Source: Cambridge Econometrics, January 2014.

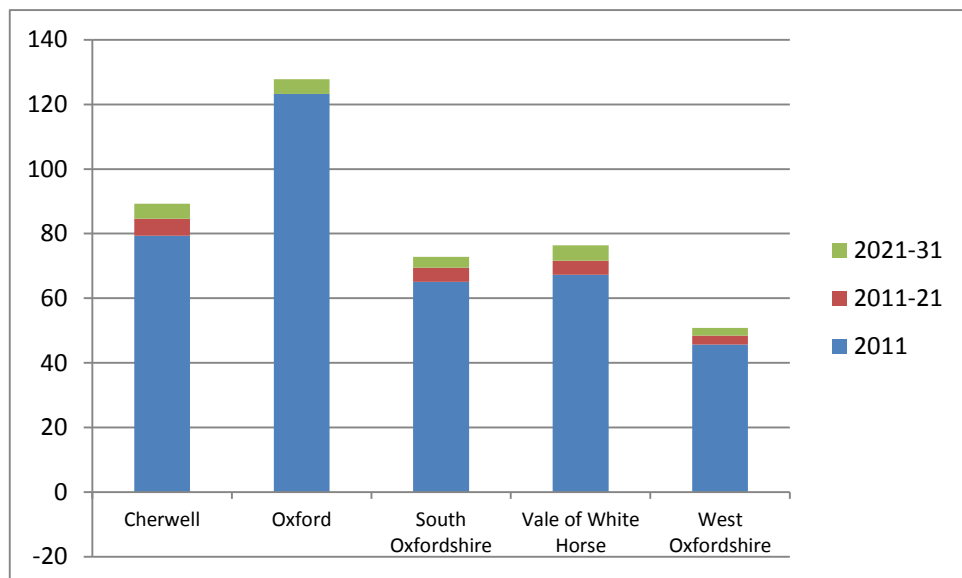
Employment growth in *South Oxfordshire* is projected to accelerate from 0.4% pa seen over 2001-11, to grow faster (0.6% pa) than the South East over 2011-21 and at the same rate as the South East (0.5% pa) over 2021-31.

Vale of White Horse is projected to continue to see employment grow faster than the South East as a whole, at 0.6% pa over the whole period 2011-31.

Similarly, *West Oxfordshire*, is projected to see employment growth of 0.6% pa over 2011-21 and 0.5% pa over 2021-31.

Growth in all the districts is projected to be largely driven by the Accommodation & food services and Financial & business services sectors. Financial & business services is projected to grow by 1.9% pa in *Cherwell* over 2011-31 and Accommodation & food services is projected to grow by 1.8% pa in *South Oxfordshire* over 2011-31.

Figure 2.4: Employment (000s) in 2011 and projected change in jobs 2011-21 and 2021-31 in the Baseline– Oxfordshire districts



3 Alternative Population-based Projections

3.1 Introduction

The Baseline projections presented in Chapter 2 use as their population assumptions the ONS 2011-based interim Sub-National Population Projections (SNPP) (and 2010-based SNPP from 2022 onwards). These inputs to the Local Economy Forecasting Model (LEFM) have an impact on projected growth in population-related industries such as retailing, public administration, health, education, residential & social care, as well as on other services through household spending.

The 2011-based SNPP have been found to under-report population in Oxfordshire due to under-reporting of the student population. The Steering group for the Strategic Housing Market Assessment (SHMA) therefore commissioned JG Consulting to produce a set of alternative population projections for the county and districts.

This approach incorporates the population projections for Oxfordshire developed as part of the SHMA. These projections were adjusted to take account of more recent data from the Office of National Statistics (ONS). The main adjustments are summarised below but this is explained more fully in the SHMA report.

In the four districts outside Oxford City the alternative population projection used the 2011- and 2010-based Sub-National Population Projections as a base position and made relatively small adjustments to take account of more recent data from ONS about levels of migration (in 2010/11 and 2011/12) and population growth in the 2001-11 period (informed by Census data). This saw population growth being higher in South Oxfordshire and Vale of White Horse and lower in Cherwell and West Oxfordshire when compared with the published ONS projections (i.e. the 2011-based projections rolled forward with reference to the 2010-based figure).

In Oxford, however, it was clear that population growth in the 2011- and 2010-based projections was far too low in comparison with past trends. After closer inspection of the data underpinning the official projections and in consultation with the City Council, it was concluded that this was most probably due to an over-recording of international out-migration. To develop an alternative population projection for Oxford a bespoke approach was therefore taken linking age/sex specific population growth over the 2001-11 decade and using this to prepare a migration matrix. An additional adjustment was made to the fertility rates used in the model to reflect actual number of births compared with the female population of child-bearing ages. Overall, this projection produced outputs which were more closely aligned to observe past trends in respect of both overall population growth and the age structure of the population.

After incorporating the alternative population projections, the forecast for employment in education in Oxford continued to look low compared to historical growth, particularly due to the on-going growth of the University of Oxford and

the importance of private education in the district. Historic data and trends were analysed, and a further adjustment was made so that the increase in employment in education over 2011-31 better reflects trend-based growth in employment in education in Oxford, without double counting the increase in jobs anticipated in the Planned Economic Growth forecast described in Chapter 4.

As with all models of this type, there are no supply-side linkages in the model such that an increased supply of a labour force with particular skills, say, would lead to expansion in a sector that requires those skills.

This chapter presents the results of the Alternative Population-based projections developed using the Local Economy Forecasting Model (LEFM), in which the Baseline population projections were replaced with the alternative population projections from JG Consulting, and in which the additional employment adjustments in education in Oxford were also included.

The alternative population projections are thought by Oxfordshire County Council to give a more likely picture of population growth in the future, and so these projections will effectively become the 'Baseline' on which the Planned Economic Growth forecasts will be constructed.

3.2 **Headline findings for the Alternative Population-based projections**

The alternative population projections show much faster growth than the Baseline over 2011-31

Figure 3.1 and Table 3.1 show the alternative population projections and Baseline (based on 2011-based and 2010-based SNPP) population projections for Oxfordshire. They show that the alternative projections have much faster growth over the whole forecast period, to 2031, than the Baseline population projections (SNPP). Population in Oxfordshire is projected to be 45,000 (6%) higher in 2031 under the alternative projections than in the SNPP.

Overall, population in Oxfordshire is projected to increase by 62,000 (9%) over 2011-31 in the Baseline projections and by 107,000 (16%) over the same period in the Alternative Population-based projections. For comparison, in the ten year period over 2001-11, population in Oxfordshire increased by 48,000 (8%).

Population in Oxford is projected to grow much faster than the Baseline in alternative projections

Within Oxfordshire, the differences between the two sets of population projections are varied. For Cherwell, the alternative population projections project a slightly lower increase (2,000 less) than the Baseline projections, and in West Oxfordshire project a slightly greater increase (1,100 more). For both South Oxfordshire and Vale of White Horse, the alternative population projections show population in 2031 about 5,000 higher than in the Baseline. The greatest variation in the projections is for Oxford, where the assumptions for the student population differ most from the SNPP Baseline. Total population in Oxford is projected to see only a very small increase (400) over 2011-31 in the Baseline projections, but to increase by almost 37,000 in the alternative population projections.

In terms of population growth, the annual average growth rates (% pa) in the alternative population projections for Oxfordshire as a whole, and for Oxford in particular, match more closely the rates seen over 2001-11.

Table 3.1: Population in the Baseline and Alternative Population-based projections

| | 2011 (000s) | 2001-11 | | Baseline | | | Alternative Population | | |
|---------------------|----------------|---------|--------|----------------|-------------------|--------|------------------------|-------------------|--------|
| | | (000s) | (% pa) | 2031 (000s) | 2011-31 (000s) | (% pa) | 2031 (000s) | 2011-31 (000s) | (% pa) |
| Oxfordshire | 655.0 | 47.6 | 0.8 | 716.8 | 61.8 | 0.5 | 762 | 107.2 | 0.8 |
| Cherwell | 142.3 | 10.3 | 0.8 | 162.9 | 20.5 | 0.7 | 161 | 18.3 | 0.6 |
| Oxford | 150.2 | 14.7 | 1.0 | 150.6 | 0.4 | 0.0 | 187 | 36.8 | 1.1 |
| South Oxfordshire | 135.0 | 6.7 | 0.5 | 146.1 | 11.1 | 0.4 | 151 | 16.3 | 0.6 |
| Vale of White Horse | 121.9 | 6.1 | 0.5 | 134.5 | 12.5 | 0.5 | 139 | 17.4 | 0.7 |
| West Oxfordshire | 105.4 | 9.7 | 1.0 | 122.7 | 17.3 | 0.8 | 124 | 18.4 | 0.8 |
| South East | 8,653.0 | 629.6 | 0.8 | 10,007.0 | 1,354.0 | 0.7 | | | |
| UK | 63,233.0 | 4,119.5 | 0.7 | 72,558.2 | 9,325.2 | 0.7 | | | |

Notes: Figures are rounded to the nearest 100 people.
Source: Cambridge Econometrics, January 2014.

Overall growth in employment in Oxfordshire

Figure 3.1 and Table 3.2 show the employment projections in the Alternative Population-based and Baseline projections. The impact on employment of the alternative population projections has a similar profile to the difference between the two sets of population projections, as expected, with the employment impact widening throughout the forecast period. The impact on employment is less than proportionate. We wouldn't expect a 10% increase in population, say, to lead to a 10% increase in employment in the county. By 2031, total population in the alternative projections is 6% (45,500 people) higher than in the Baseline projections, while employment is only 3% (13,500 jobs) higher in the same period.

Figure 3.1: Employment in the Baseline and Alternative Population-based projections - Oxfordshire

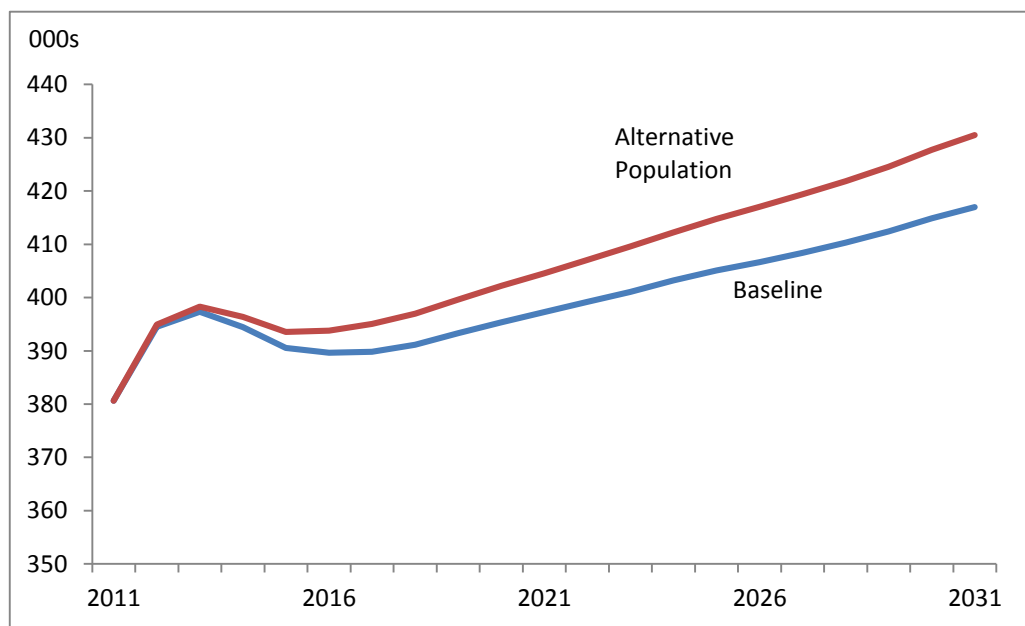


Table 3.2: Employment in the Baseline and Alternative Population-based projections

| | 2011 | 2001-11 | | 2031 | Baseline | | Alternative Population | | |
|---------------------|----------|---------|--------|---------|----------|--------|------------------------|--------|---------|
| | (000s) | (000s) | (% pa) | | (000s) | (000s) | (% pa) | 2031 | 2011-31 |
| | | | | | | | (000s) | (000s) | (% pa) |
| Oxfordshire | 380.6 | 29.6 | 0.8 | 417.0 | 36.4 | 0.5 | 430.5 | 49.9 | 0.6 |
| Cherwell | 79.4 | -3.6 | -0.4 | 89.2 | 9.9 | 0.6 | 90.1 | 10.8 | 0.6 |
| Oxford | 123.2 | 22.0 | 2.0 | 127.8 | 4.5 | 0.2 | 136.6 | 13.4 | 0.5 |
| South Oxfordshire | 65.1 | 2.5 | 0.4 | 72.8 | 7.8 | 0.6 | 74.2 | 9.1 | 0.7 |
| Vale of White Horse | 67.2 | 5.7 | 0.9 | 76.4 | 9.1 | 0.6 | 77.9 | 10.6 | 0.7 |
| West Oxfordshire | 45.7 | 3.0 | 0.7 | 50.8 | 5.1 | 0.5 | 51.7 | 6.1 | 0.6 |
| South East | 4,387.2 | 166.6 | 0.4 | 4,835.9 | 447.7 | 0.5 | | | |
| UK | 31,175.0 | 1,281.0 | 0.4 | 5,075.7 | 3,900.7 | 0.6 | | | |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Growth projections by sector Table 3.3 and Figure 3.2 compare the employment projections, by sector, for Oxfordshire. They show that the biggest impact on employment is in Government Services (8,900 jobs), as this includes public administration, health, and education, for which growth prospects are closely linked to population growth in LEFM (and for which further adjustments were made to education in Oxford as part of this stage). At a more disaggregated level, the impact is greatest in education and health. There is also an increase of 1,300 jobs compared to the Baseline in Distribution, which includes retailing, due to higher household spending from the higher population. Similarly, higher household spending leads to higher employment (about 800 jobs) in Accommodation and food services, which includes bars, cafes and restaurants. There are also impacts in some other services, such as Financial & business services, as a result of higher demand from the higher population, but also through the knock-on effects from the businesses directly impacted by higher population (eg retailers requiring business services).

Although the increased population is specifically designed to represent higher student numbers, rather than a higher general population, the impacts described above are consistent with this: increased student numbers will create higher employment in education, more demand for health services (even if students remain registered outside Oxfordshire they will still use health services within the county), and increased retail spending and spending at bars and restaurants.

Figure 3.2: Projected change in employment by sector over 2011-31 in the Baseline and Alternative Population-based projections, Oxfordshire (000s)

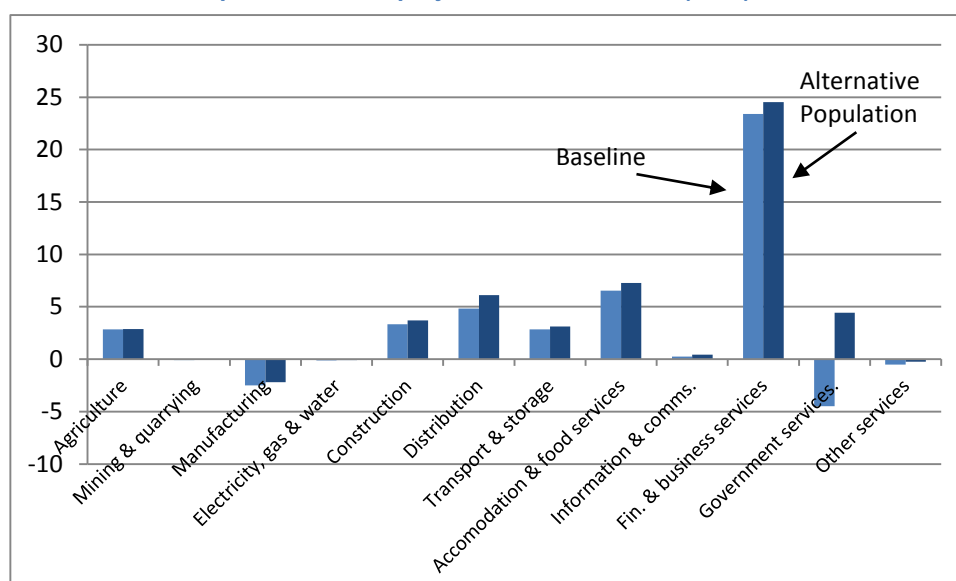


Table 3.3: Employment by sector in the Baseline and Alternative Population-based projections

| | 2011 | | | Baseline | | | Alternative Population | | |
|-------------------------------|--------|--------|--------|----------|--------|--------|------------------------|--------|--------|
| | (000s) | (000s) | (% pa) | (000s) | (000s) | (% pa) | (000s) | (000s) | (% pa) |
| Agriculture etc | 2.3 | -3.5 | -8.9 | 5.1 | 2.9 | 4.2 | 5.2 | 2.9 | 4.2 |
| Mining & quarrying | 0.2 | -0.6 | -12.8 | 0.1 | -0.1 | -2.3 | 0.1 | -0.1 | -1.7 |
| Manufacturing | 26.9 | -12.6 | -3.8 | 24.4 | -2.5 | -0.5 | 24.7 | -2.2 | -0.4 |
| Electricity, gas & water | 4.3 | 2.0 | 6.3 | 4.1 | -0.1 | -0.1 | 4.2 | -0.1 | -0.1 |
| Construction | 22.2 | -3.1 | -1.3 | 25.6 | 3.3 | 0.7 | 25.9 | 3.7 | 0.8 |
| Distribution | 52.0 | -3.0 | -0.6 | 56.8 | 4.8 | 0.4 | 58.1 | 6.1 | 0.6 |
| Transport & storage | 11.8 | -0.3 | -0.2 | 14.6 | 2.9 | 1.1 | 14.9 | 3.1 | 1.2 |
| Accommodation & food services | 23.4 | 7.9 | 4.2 | 29.9 | 6.5 | 1.2 | 30.6 | 7.3 | 1.4 |
| Information & communications | 21.9 | 5.2 | 2.8 | 22.1 | 0.3 | 0.1 | 22.3 | 0.4 | 0.1 |
| Financial & business services | 78.1 | 3.1 | 0.4 | 101.5 | 23.4 | 1.3 | 102.6 | 24.5 | 1.4 |
| Government services | 114.7 | 32.5 | 3.4 | 110.2 | -4.5 | -0.2 | 119.1 | 4.4 | 0.2 |
| Other services | 23.0 | 1.9 | 0.9 | 22.5 | -0.5 | -0.1 | 22.8 | -0.2 | -0.1 |
| Total | 380.6 | 29.6 | 0.8 | 417.0 | 36.4 | 0.5 | 430.5 | 49.9 | 0.6 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Growth projections by district

Table 3.2 shows how the employment projections in the Alternative Population-based projections compare to the Baseline across the local authorities. The pattern of differences in employment projections broadly follows the pattern of differences in population projections. The impacts across the districts within a particular sector are proportional to the relative size of that sector in each of the districts. For example, the impact on employment in education in Oxford is greatest because it accounts for the greatest share of employment in that sector in the county. Thus, districts that do not see a particularly large increase in

population in the alternative population projections compared to the Baseline may still see a relatively large impact on employment. This will happen if they have a relatively large number of businesses in a sector that is impacted by higher overall population (because the districts are assumed to serve a county-wide catchment in the model).

The biggest positive difference (Alternative Population-based versus Baseline) in employment terms is in Oxford, with 8,800 extra jobs projected by 2031 in the Alternative Population-based projections. South Oxfordshire and Vale of White Horse each see employment in 2031 higher by around 1,400-1,500 jobs. Employment in Cherwell also increases slightly, despite its population in the alternative projections being lower than in the Baseline, as a result of businesses in the district being able to benefit from opportunities offered by a larger population in Oxfordshire as a whole.

Table 3.4 shows the impact of the alternative population projections on employment by broad sector in each district. The table shows that in the sectors that are directly impacted by population (Government services) the biggest impact is seen in Oxford. This is expected given where the biggest change to the population projections has been made, and the share of those sectors that are in Oxford, as well as the adjustment made to employment in education. Similarly, the greatest increase in retail jobs (Distribution) is also seen in Oxford. For the other services (eg Financial & business services, and Accommodation and food services) the impacts are more evenly spread across the districts, due to the proportion of employment in those sectors in each district.

Table 3.4: Impact of Alternative Population-based projections on employment by district and sector – 2031 (000s)

| | Oxfordshire | Cherwell | Oxford | South Oxfordshire | Vale of White Horse | West Oxfordshire |
|-------------------------------|-------------|----------|--------|----------------------|---------------------------|---------------------|
| Agriculture etc | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Manufacturing | 0.3 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |
| Electricity, gas & water | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Construction | 0.4 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| Distribution | 1.3 | 0.1 | 0.7 | 0.2 | 0.2 | 0.1 |
| Transport & storage | 0.3 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 |
| Accommodation & food services | 0.8 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 |
| Information & communications | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Financial & business services | 1.1 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 |
| Government services | 8.9 | 0.0 | 7.5 | 0.5 | 0.6 | 0.3 |
| Other services | 0.3 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| Total | 13.5 | 0.9 | 8.8 | 1.4 | 1.5 | 0.9 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

4 Developing the Assumptions for the Planned Economic Growth Forecasts

4.1 Introduction

The Brief for this study requests the production of a Planned Economic Growth forecast to reflect policy influences on economic growth such as proposals relating to the Science Vale Enterprise Zone, Oxfordshire City Deal, and planned infrastructure investment. The Brief requests that the assessment of planned economic growth includes a geographical dimension for areas within Oxfordshire, and also potential cross boundary influences.

The Planned Economic Growth forecast avoids double counting. Trend forecasts are based in part on the patterns of growth in Oxfordshire in the past, and they therefore incorporate the influence of policies applied at that time. The point of the Planned Economic Growth forecast is to consider what effects recent changes - such as those mentioned above, and which would not be reflected in the trend forecasts - are likely to have on jobs growth to 2031.

It is also important to focus on net change. Most of the Planned Economic Growth job impacts considered in this section are unlikely to involve displacement within Oxfordshire: for example, an increase in research funding, and related jobs, at Oxford University could possibly result in displacement of research funding from elsewhere in the UK, but not from elsewhere in the county. However, there are examples where local displacement could occur: for example, in considering the effects on jobs of the designation of the Science Vale Enterprise Zone we have used the net additional jobs figure that was included in the EZ submission document rather than the gross additional employment expected within the EZ area. This is because the EZ could potentially attract firms to relocate from surrounding areas, due to the fiscal incentives available.

Therefore, the Planned Economic Growth forecasts only take account of the net change in jobs (ie excluding displacement) resulting from planned economic growth over and above what could be expected on the basis of past trends.

The approach we have taken involved the following process:

- A review of the relevant policy documents and any jobs forecasts they contain¹

¹ The principal policy and other documents reviewed include the latest versions of the district council local plans and employment land reviews, the submitted Oxfordshire City Deal submission 2013; the draft NW Bicester Eco Development Economic Strategy 2013; the Oxfordshire Innovation Engine report 2013; Invest Oxfordshire information sheets on various sectors; Oxford Economic Growth Strategy; the Oxford Bioescalator Business Plan 2013; the Science Vale Enterprise Zone Bid document; OBN Biocluster report (2011) and UK Biofinancing Overview (2012); Study into the UK Motorsport and Performance Engineering Cluster (2003); press release from the Department for Business Innovation and Skills, "UK space industry set to rocket with £240 million of investment (2012).

- Interviews with all the local authorities, and a selection of other organisations (eg Oxford Airport)
- A meeting with the client group to calibrate and adjust initial thinking
- Internal team discussions to decide how expectations for above trend growth should be factored into a Planned Economic Growth forecast. This is mainly a question of deciding which sectors to allocate the additional jobs to.

We also drew extensively on our knowledge of the Oxfordshire economy and business community derived from recent consultancy commissions, including the Oxfordshire Innovation Engine, the Bioescalator Business Plan and the NW Bicester eco development economic strategy. The first of these involved in-depth interviews with over 100 businesses and other relevant organisations in Oxfordshire. The other two studies also involved substantial consultations.

It is important to note that the forecasting model has multiplier effects built in. Therefore we have not tried to assess these separately.

The following sections summarise views on potential policy led employment growth which were input into the Planned Economic Growth forecast.

4.2 Factors likely to stimulate growth above trend

Research activities - Oxford

University of Oxford

The University employs over 4,000 staff, including post doctorates, in the STEM (science, technology, engineering and mathematics) and medical fields and there are over 3,000 postgraduate students working in these disciplines. Over the last five years, the University has secured more external grant income for STEM and medical research than any other UK university, rising by an average of 9% per year to over £400m in 2011/12². There are particular strengths in biological sciences, medicine, mathematics and statistics, for which it is ranked first in UK. It was also placed in the top five in general engineering, materials science and computer science.

These strengths result in significant growth. For example, the number of post-doctoral students in computer science has doubled during the last five years. The Medical Sciences Division is one of the largest in Europe with 2,500 staff and 800 postgraduate students involved in medical research. Over £1.2 billion has been invested in biomedical academic research in Oxford over the past five years, which has underpinned the area's profile in the commercialisation of bioscience.

The University is undertaking a staged redevelopment of the whole of its Science Area, based on a masterplan which, when fully implemented over the next 5-10 years, will add 33% to existing floorspace. In addition, the former Radcliffe Hospital site is currently being redeveloped to accommodate an additional 122,500 sqm of educational and research floorspace. Recruitment of 1,000 new post doc researchers is planned, which in turn will lead to a requirement for more supporting staff. Additional research space is also likely

²HESA Planning Plus 2013

to be required for the Medical Science Division due to its success in attracting research funding.

The University has also been purchasing individual sites on the Osney Mead industrial estate (Botley Road), which over recent years has been under-utilised. The estate comprises 18.3 hectares, and in the region of 51,600 sqm of principally Class B floorspace. It is likely that the site will be more actively used by the University and will create new jobs, which could include a mix of research and development, office and educational activities.

The significant increase in floorspace for research and teaching provided by these developments will enable a step change in growth over and above past trends. The demonstrated capability of the University to attract increasing research funding means that these opportunities for growth are likely to be realised.

Oxford Brookes University

Oxford Brookes University is one of the strongest new universities in the UK and has distinctive expertise in the life sciences, computer science, engineering and the built environment. It has strong local business linkages, including with the motorsport and auto engineering sectors.

Oxford Brookes is also implementing a masterplan for its main Headington campus, which will lead to a slight reduction in total floorspace but much more efficient usage. This will give scope for some increase in student numbers, resulting in an increase in employment on the site. However, this may be offset by reductions of employment on other sites.

Implications for employment forecasts

Most of the employment growth is likely to occur in the University of Oxford, primarily as a result of the substantial increase in space for research and teaching in the Science area, the former Radcliffe Hospital site, and the Churchill site (which accommodates most of the research activities undertaken by the Medical Sciences Division). Currently there are 4,000 staff and 3,000 post graduate students in the STEM and Medical Sciences areas combined. Assuming that floorspace available for these subjects will increase by 30% (i.e. the same as in the Science Area) as a result of developments already in the pipeline, and that employment increases proportionately, this would result in another 1,200 employees and 1,000 post graduates. However, these figures relate only to the plans already being implemented. The availability of further space at Osney Mead, and the likely continued growth of STEM and medical science research throughout the period to 2031, suggest that new jobs could substantially exceed this figure.

None of the above estimates take account of growth in the arts and social sciences, and in central university and college administration, which we assume will continue but in line with past trends.

We therefore consider that expansion of the University of Oxford to 2031 could result in **2,000 additional jobs** in the education sector, over and above the adjusted trend based forecasts.

Research activities – Harwell, Science Vale EZ and Culham

Harwell and Science Vale EZ

Harwell Oxford hosts two major facilities - the Diamond Light Source synchrotron and the ISIS neutron source - the Science and Technology Facilities Council's (STFC) Rutherford Appleton Laboratory (RAL), which

includes the Central Laser Facility, and other smaller research and innovation infrastructure. This includes the MRC Mammalian Genetics Unit Biological Solid State NMR Protein Laboratory, the Satellite Applications Catapult Centre and the European Space Agency Business Incubation Centre. STFC and the Diamond Light Source together employ nearly 2,000 people. We do not have figures for the other facilities, although the whole Harwell site currently accommodates 4,500 people.

There are strengthening research links with Oxford University, which could have a significant impact on Harwell's international profile and attractiveness. There is also an increasing number of researchers from other UK universities, major corporates and international organisations who spend periods of time at Harwell using the various facilities.

The increasing interest in attracting other R&D based activities to Harwell is demonstrated by the decision by UKAEA to enter into a joint venture with Goodman and the successful bid for Enterprise Zone (EZ) status. Take up of employment space within the EZ is already factored into Local Plans and their provision for housing. However, there is scope for considerable further development at Harwell beyond the EZ, including both intensification of the publicly funded research activities and additional business space. The total area available for development amounts to 99ha, of which 64ha is within the EZ. There is scope, therefore, for employment on site well in excess of that envisaged in the EZ proposals.

The UK Science Vale Enterprise Zone, which includes 64ha at Harwell and 28ha at Milton Park, is expected to accommodate 8,400 jobs, of which 5,040 are net additional (source: bid submitted by Oxfordshire Local Enterprise Partnership to the Department for Communities and Local Government, pp 52-53). If these are distributed proportionately to land, then 5,800 jobs would be at Harwell (net 3,500). At the same density, the whole Harwell site would accommodate nearly 9,000 jobs (5,400 net), in addition to the 4,500 already based there. Table 4.1 summarises the current and prospective employment situation on the Enterprise Zone and the rest of the Harwell site.

Table 4.1: Jobs potential on the UKSV Enterprise Zone and the rest of Harwell

| | SVUK Enterprise Zone | | Rest of Harwell – already developed | Rest of Harwell – to be developed | Total Harwell |
|--|----------------------|-------------|--|--------------------------------------|---------------|
| | Harwell | Milton Park | | | |
| Land (ha) | 64 | 28 | n/a | 35 | n/a |
| Existing employment | | | 4,500 | | 4,500 |
| Potential (gross) new employment | 5,800 | 2,600 | | 3,200 | 9,000 |
| Net new employment (allowing for displacement) | 3,500 | 1,600 | | 1,900 | 5,400 |
| Note: gross to net based on estimates in EZ submission | | | | | |

Culham Culham Science Centre has 2,000 jobs currently, and has capacity to accommodate another 1,000 jobs. The Joint European Torus (JET) facility will be moving to France within the next few years, but employment growth on the site seems assured due to its strong and distinctive science base.

Jobs growth beyond 3,000 is constrained currently by significant traffic issues in the local road network, but if the rail improvements between Oxford and Didcot are implemented as proposed in the City Deal submission (which would include a new station at Culham), this cap could be lifted in the longer term.

Implications for employment forecasts

The UKSV enterprise zone (EZ) status was awarded in 2011 on the basis that the designated areas would be fully developed by 2016. In practice, this was always an ambitious timescale, and the prolonged downturn in economic activity has made it impossible. However, on the Milton Park part of the EZ, MEPC has undertaken some speculative office development (see <http://www.mepc.com/miltonpark/101and102ParkDrive/Home.aspx>) and on the Harwell site, STFC are in the process of changing their JV partner in order to ensure development is brought forward more quickly. Both sites and the strategic location are attractive to the market, and the economy is recovering. Take up of land is therefore likely to accelerate, although the scale of the EZ suggests that it will take 10 years or more for it to be fully developed and occupied.

We assume these jobs will be classified to a mix of R&D (within ‘Other Professional Services’), IT services, electronics and pharmaceuticals.

Some growth of employment in the ‘big science’ research facilities at Harwell (which are not within the designated EZ) is likely, due to increased demand from academic and corporate researchers to use the facilities and the strengthening links with the University of Oxford.

The potential for strengthening of the links between Harwell and the University of Oxford were highlighted in the Oxford Innovation Engine report (paragraphs 7.8), and although there are already informal links (for example, Oxford University researchers are the most numerous users of the Diamond Synchrotron at Harwell), in the past the institutions have not actively promoted the relationship. However, there is recent evidence of increasing activity in this direction: for example, a joint publication entitled “University of Oxford & Harwell Oxford: A partnership for discovery and innovation” (September 2013) described and promoted collaboration opportunities, and included a quote from Dr Tim Bestwick, Executive Director of Business and Innovation at STFC, stating that “Working together there is tremendous opportunity for the University of Oxford and Harwell Oxford to stimulate and support the growth of high technology companies.” (http://www.admin.ox.ac.uk/media/global/wwwadminoxacuk/localsites/researchsupport/documents/impactandke/Harwell&Oxford_8pp.pdf). In addition, a Google search identified various job advertisements at Harwell that refer to close links with Oxford University. These factors suggest that some above trend growth is also likely in employment in the research facilities at Harwell.

We also assume that by 2031 Culham will accommodate 1,000 additional jobs, part of which is likely to be above trend.

In total therefore, we estimate the increase in jobs above trend could be as follows:

- **5,400 (net) at Harwell and Milton Park**, primarily in the EZ but also on other land at Harwell, including some relatively small scale above trend growth in the research facilities linked in particular to greater University of Oxford involvement there. These jobs should be classified to a mix of Other Professional Services, IT services, electronics and pharmaceuticals
- **500 at Culham**, in a mix of Other Professional Services, IT services, electronics, and pharmaceuticals.

The geographical split would be 500 in South Oxfordshire and 5,400 in Vale of White Horse.

Space Science and Satellite technologies

As discussed above, expectations regarding the growth of research and related business activity at Harwell are covered by land allocations, both within and beyond the Enterprise Zone. However, the growing importance of Oxfordshire vis-à-vis space science could have particularly significant implications for jobs growth above and beyond existing commitments. The UK Space Agency, the European Space Agency (ESA), the International Space Innovation Centre and the new Satellite Applications Catapult are all based at Harwell.

The Government estimates that space science will grow from a £9bn industry now to one worth £40bn by 2031, generating 100,000 new jobs³. Harwell has a unique concentration of nationally significant research and commercialisation facilities in this sector, which will undoubtedly attract firms and jobs to the area. A reasonable assumption is that one tenth of the national growth in space science jobs by 2031 will be based in and around Harwell.

Implications for employment forecasts

This means that there may be approximately 10,000 new jobs in space science and satellite technologies located in and around Harwell by 2031. A proportion of those jobs (say 4,000) will be located on the existing sites at Harwell and Culham and are therefore included in the figures above. Of the remainder, some (say 2,000) will be located outside Oxfordshire (e.g. at Reading Science Park, since the University of Reading hosts the NERC National Centre for Earth Observation which has links with Harwell). That leaves another **4,000 jobs within the county**, most of which are likely to cluster around Harwell in Vale of White Horse, with the remainder located further north where business space is lower cost and expected to be in plentiful supply, and there are relevant manufacturing and engineering skills (eg around Bicester and Banbury). These jobs will be additional to those already in the local economy since they relate to the commercialisation of new technologies, and therefore there is unlikely to be a displacement effect. They are likely to be classified to a mix of 'Other transport equipment' (which includes manufacture of satellites and related equipment),

³ "UK space industry set to rocket with £240 million of investment": press release from the Department for Business Innovation and Skills, 9 November 2012

R&D and IT services. We suggest the assumption should be that 2,500 will locate in Vale of White Horse and 1,500 in Cherwell.

Bioscience sector

The Biocluster Report 2011: Transition, published by OBN, identified 163 bioscience firms across Oxfordshire. This represented an increase of 14% between 2008 and 2010 (i.e. through the financial crisis and recession) with most of the growth in stock resulting from new start-ups and spin-outs (rather than company relocations). The report also notes that between 2008 and 2010, the ten largest Oxfordshire-based fundraisers received some \$313 million – approximately one sixth of the total investment in the UK bioscience over the same period and indicative of the potential within the sector for further growth.

One company, Oxford Nanopore Technologies, accounted for approximately one third of the investment. A case study on the firm which is included in the recently published Oxfordshire Innovation Engine report by SQW⁴ states that “at an appropriate time in the company’s development, Oxford Nanopore Technologies is likely to open a manufacturing facility in Oxfordshire which may start by employing 50-100 people.”

The local development of manufacturing may not be an appropriate option for the growth of all bioscience firms (e.g. some will remain focused on R&D and licence their technologies to be manufactured elsewhere, some are purely service organisations), but it is reasonable to assume that other firms in Oxfordshire will follow the growth path sketched out by Oxford Nanopore (the OBN report classifies 24 other bioscience firms in Oxfordshire to the same sub sector as Oxford Nanopore). If one other bioscience firm every two to three years follows this path over the period to 2031, and these facilities continue to grow after initial establishment, then this would create at least 1,500 new jobs over the period, and possibly considerably more. The most likely location for such manufacturing facilities is the north of the county, where property costs are lower and there are strong manufacturing skills in the workforce.

In addition, the Medical Science Division of the University of Oxford has attracted a substantial amount of investment by corporates and charities in Oxford (mainly co-located with the Medical Sciences Division at the Churchill site), and this is likely to continue. The proposed bioescalator alone could create around 500 new jobs, and this facility should accelerate the formation and growth of bioscience firms linked to the research base. Development of the Northern Gateway will provide business space to accommodate larger bioscience and other technology based firms, which will complement existing provision at Oxford Science Park and Oxford Business Park. The Northern gateway alone is able to accommodate up to 7,000 jobs when fully developed and occupied.

Implications for employment forecasts

Based on the growth potential of the bioscience sector in Oxfordshire, we estimate that **1,000 new jobs (above trend) could be created in Cherwell, and 1,500 new jobs (also above trend) in Oxford**. There will also be new job creation in the south of the county, but we assume this is already accounted for

⁴ <http://www.sqw.co.uk/news#david-willetts-launches-sqw-report-the-oxfordshire-innovation-engine-realising-the-growth-potential>

in the above figures for the Harwell, Milton Park and Culham. These jobs are most likely to be categorised to R&D or pharmaceuticals.

Health sector

The NHS is investing in centres of excellence, of which Oxford is one. Oxford is a leading global centre for cancer research, and Nuffield Orthopaedic does a lot of international work. The scale of research at the University Medical Science Division and the investment it has attracted has already been mentioned. These factors suggest further expansion of health sector employment in Oxford is likely, in contrast to expectations for the NHS in general which are relatively flat due to constraints on government spending. Healthcare is labour intensive, and generates jobs at all skill levels, hence the jobs impact of additional growth is likely to be considerable. It should also be noted that the health sector is already experiencing difficulty recruiting for lower paid positions due to housing costs.

Implications for employment forecasts

The concentration of NHS investment on centres of excellence, and the attractions of Oxford for the private and charitable health sector, could result in an additional **2,500 jobs in Oxford** to 2031 above trend, which would amount to growth of just over 10% in employment in the sector over this period. The trend growth is largely related to the growth and ageing of the population, whereas the above trend growth is related to an increased focus of research and specialist healthcare on the health facilities in Oxford. Therefore these additional jobs would be most likely be classified to a mix of R&D and healthcare.

Advanced engineering

Within the advanced engineering sector in Oxfordshire, auto engineering is particularly important. BMW in Oxford has been a major success story, although employment has remained constant at about 4,000 for the last 10 years, despite increased production. However, BMW announced in December 2013 that they will increase employment by 1,000 in their UK manufacturing plants over the next three years, with the majority of that increase at Cowley. We understand that the increase at Cowley is expected to be 700 permanent jobs. BMW are also developing plans to expand onto the former Rover sports ground to create additional manufacturing jobs, and are talking to major suppliers regarding the possibility of consolidating some activities at the Cowley site, although the outcome of these talks is uncertain.

In the motorsport sector, some of the firms within Oxfordshire have major expansion potential. For example:

- Caterham F1, located in West Oxfordshire, has 200 employees at present and is likely to grow to 400 assuming it retains the F1 team. It is also possible that it will move Caterham Cars to Oxfordshire from Kent. The site has plenty of room for employment growth
- Williams already employ 500 people at Grove and are expanding into other business areas, such as energy efficiency, exploiting the technologies and expertise developed through their motorsport activities. They also have substantial space for expansion
- Prodrive employ 360 people at their Banbury HQ, and 500 in total in the UK. They are in the process of moving to a new site in Banbury which

will provide 50% more floorspace and a much more efficient layout, enabling a substantial expansion of employment.

Growth can also be expected in some other areas of advanced engineering. Oxfordshire has long established expertise in instrument engineering, magnet technology and cryogenics, and if the automotive and motorsport sectors grow there will be a corresponding increase in demand in specialist supply chains such as in composites and aerodynamics (expertise which is also in demand in other sectors such as aerospace). Begbroke Science Park (in Cherwell District) is likely to be a focus for R&D activities in advanced engineering, but manufacturing and service activities are likely to be more widely dispersed around the county.

Implications for employment forecasts

Nationally, employment in the engineering sector is expected to continue to decline. However, Oxfordshire has specialisms which are likely to lead to growth locally. In some areas, the pattern of future growth may be no different from past trends, but the expansion plans of some existing firms in the advanced engineering sector, and the knock-on impact in the supply chain for the motorsport and automotive sectors (including a wide range of firms based in Oxfordshire), suggests that there is likely to be an additional 3,000 jobs in these industries (SICs for engineering services, motor vehicles and electronics) to 2031, including **1,000 in Oxford, 1,000 in Cherwell, 500 in West Oxfordshire, and 500 in Vale of White Horse**, where the major firms are located.

Environmental technologies and green construction

The NW Bicester Eco Development is expected to support the creation of one job per dwelling. When fully developed it is likely to comprise up to 6,000 dwellings, although the draft Cherwell Local Plan expects at least 1,800 homes and jobs to be delivered in the period to 2031. A significant proportion of the jobs are expected to be in eco construction and environmental goods and services, to exploit the opportunities relating to the Eco Development itself and also the consequent branding of 'Eco Bicester' (which has, for example, stimulated a large energy efficiency retrofit programme for the existing housing stock in Bicester). For example, at least 150 construction jobs are expected to be created to build the development over a 30 year period, many involving training (including apprenticeships) in sustainable construction methods. Currently there are 400 people employed in construction in Bicester, so this would involve a significant increase.

There will also be opportunities to supply specialist products and services to construct the Eco Development (in areas such as ground source heating, solar photovoltaics, water recycling, etc), and an Eco Business Centre (part funded by Government grant, and likely to accommodate around 100 jobs) is expected to stimulate jobs in the sustainable construction and environmental goods and services sectors.

All construction in the county (and elsewhere in the country) will be affected by changes to building regulations which will introduce tougher standards regarding energy efficiency, etc. Hence the market for new methods and materials will grow, but the Eco Development at Bicester is likely to attract particular attention as the first designated ecotown in the country.

Implications for employment forecasts

There are firms in these sectors in the county already that can supply some of the required goods and services, but the Eco Development is expected to stimulate a step change in jobs growth, particularly in and around Bicester. Cherwell Council's assumptions regarding the speed of development of eco homes and jobs on the development are conservative (largely because of other housing sites in Bicester which are likely to be developed over the same period). The assumed rate is 100 per year, although it could easily be twice that rate, particularly as demand for housing is likely to increase in response to economic growth. It would therefore be reasonable to assume an additional **150 jobs in construction** and **1,000 in environmental goods and services** over the period to 2031. Whilst many of these additional jobs will be in Cherwell, some are likely to be distributed more widely across the county.

Retail

Despite the general downturn in the High Street retailing sector in recent years as a consequence of both the squeeze on incomes and a shift towards on-line retailing, there is a significant amount of development activity underway and planned in Oxfordshire which suggests that the sector will continue to experience employment growth in future ahead of national trends.

In Oxford, a planning application for redevelopment and expansion of the Westgate Centre has been received. The timescale is for construction to start in 2015 and completion by 2017. John Lewis has committed to the new scheme. The net additional retail is between 54,500 sqm and 81,900 sqm (compared with the current 34,000 sqm). It also includes associated services (Class A2-A5 uses), which range from 6,200 sqm to 27,000 sqm new additional floorspace, and a new cinema (D2) of 5,990 sqm. The redevelopment is expected to create 3,400 net new jobs, although it could also result in some short term displacement. This would result in an increase in retail employment in Oxford of over 40%.

Elsewhere in Oxford, district retail centres have remained buoyant. Templar Square in the south of the city is due to be refurbished: this will not increase floorspace but it will make the existing space more secure.

Elsewhere in the county there are schemes underway or planned at:

- Abingdon - completion of the town centre retail development
- Banbury – various sites around the town centre are identified in the local plan for redevelopment/regeneration for town centre uses including retail
- Bicester - including further expansion of retail and other services in the town centre which is expected to create 1,000 new jobs, as well as proposed expansion of Bicester Village Outlet Centre
- Didcot - phase 2 of the town centre retail development will comprise 26,600 sqm and, together with other schemes proposed in South Oxfordshire totalling 32,800sqm is expected to generate 1,500 new jobs
- Witney - at least two national supermarket chains are seeking to establish in the town.
- Botley – the West Way shopping centre development is expected to create about 700 new jobs, the majority of which will be in retail.

Implications for employment forecasts

Of these developments, the only three which can be argued to be above trend, at least in part, are the West Way development in Botley, and the major expansions of the Westgate Centre in Oxford and of the Bicester Village Outlet Centre.

The Westgate Centre development will lead to a major, one-off employment increase in the city, but it could be argued that over the period to 2031 a large proportion of this reflects trend growth in response to growing demand – it is simply all concentrated into one major development. However, the scale of the development (which is likely to treble or quadruple the size of the existing centre) suggests that a proportion will be above trend, and act to increase the draw of Oxford to a wider retail catchment population.

The Outlet Centre at Bicester Village is likely to undergo a major expansion, taking over the adjacent site currently occupied by Tesco (in turn, Tesco plans to move to a larger site nearby which should enable the planning permission for Bicester Business Park to be implemented). The outlet centre draws on a national and international market, as evidenced by the regular Bicester Village coach service from London and the highly international composition of the visitor population.

Many of the jobs created by the West Way shopping centre development are expected to be within the trend growth of service provision related to population increase over the next 20 years, and some will also displace jobs from other areas. However, the retail sector, where the majority of employment is to be created, is likely to have some above trend impact on growth in employment.

These three retail developments in Oxfordshire could result in an additional (i.e. above trend) **1,000 jobs in Oxford, 1,000 in Cherwell and 200 in Vale of White Horse** to 2031.

Warehousing and distribution

Oxfordshire is also benefitting from investment in retail distribution, with demand for large distribution centres in Didcot from the likes of Amazon and Tesco. There are currently planning applications or pre-application discussions underway for around 300,000 sqm of B8 space on several sites linked to Didcot Power Station in Vale of White Horse which, based on the applicants' jobs estimates, would create around 4,500 jobs, compared with the 'uplift' of 1,500 jobs assumed by Vale of White Horse Council in relation to local plan land allocations. The applicant's jobs estimates appear unduly optimistic, perhaps driven by a desire to secure planning permission, but nevertheless, significant jobs growth seems likely.

Expansion of warehousing and distribution in Cherwell is also likely when Graven Hill in Bicester comes forward for development. The draft Local Plan states that at least 2,470 jobs are expected to be created on the site, including a mix of B1, B2 and B8 (warehousing) uses. However, the site is particularly well suited to logistics, more so than most other employment sites in Bicester: it is already a logistics base for the army, and has a direct rail link as well as excellent access to the M40. This scale of growth of logistics jobs in Bicester is well in excess of what would be expected based on recent trends.

Implications for employment forecasts

Existing development proposals suggest that there is potential for growth of employment in warehousing and distribution in the order of **1,000 jobs in Cherwell, and 1,500 in Vale of White Horse.**

Major infrastructure investment

The investment in a new station at Water Eaton, the new owners' intentions to expand business air traffic at Oxford Airport, and the University's ambition for further development at Begbroke, all suggest that the area immediately to the north of Oxford is likely to be subject to development pressure in the period to 2031. The draft Cherwell Local Plan makes most provision for employment and housing growth in the district to 2031 at Bicester, but does also refer to a minor Green Belt review to accommodate a small technology park of 6.5ha (23,000 sqm) at Langford Lane adjacent to Oxford Airport. At B1 employment densities⁵, this could accommodate around 2,000 employees.

In addition, at Oxford Airport operations-related development has permitted development rights. The owners have plans for it to expand to provide daily flights to various UK and European destinations as well as an increase in maintenance and other aerospace related activities on the site. There are 800 employees in 20 companies on the airport at present, and further growth of these organisations is expected, but over and above this, employment could increase by another 1,000 in the next 10 years if the plan to introduce scheduled flights is implemented.

The recent and on-going improvements to rail links through Oxfordshire, including the fast service from Banbury and Bicester to London Marylebone, the Oxford to Bicester link, improvements to Oxford station, and further ahead progress with east west rail and on improving capacity between Oxford and Didcot, will all act to stimulate economic activity and demand for housing.

The latter will originate from both local people and commuters. For example, the draft Cherwell local plan proposes 7,000 new homes in Bicester between 2011 and 2031, and a similar scale of jobs growth. The plan notes the high level of commuting both into and out of Bicester and seeks a better balance in future between the scale and type of jobs and housing growth. However, the huge improvements in accessibility that Bicester will experience through completion of the above rail improvements may well, in practice, increase commuting which may in turn fuel demand for more housing than is currently planned. Equally, however, it should also make Bicester more attractive to firms, leading to more jobs growth and enabling more residents to find jobs locally

Implications for employment forecasts

The infrastructure improvements identified above are likely to affect demand for housing irrespective of employment growth. However, specifically in relation to employment forecasts, it could be argued that most of the investment is needed to support the growth already factored into local plans. The main exception to this could be the potential for both employment and housing to the north of Oxford in Cherwell District linked to Water Eaton station, investment in Oxford Airport, the proposed Oxford Technology Park and the potential for further employment at Begbroke Science Park. **Plans for Oxford airport and the**

⁵ HCA/Offpat Employment Densities Guide, 2nd Edition (2010) suggest that typical B1 office densities range between 10 and 12 sq m per employee (full time equivalent).

nearby technology park could add 2,000 jobs in the next 10 years, over and above trend. This allows for the fact that some jobs at the technology park will already be included in the sector specific comments above. The additional 1,000 jobs at the airport would be mainly in aerospace but including some in retail and catering. The technology park would be likely to accommodate a mix of R&D, engineering services, electronics and aerospace.

In addition, the longer term, larger scale development opportunities in the area could result in further jobs growth, but this is speculative and could not currently be considered to be part of a 'Planned Economic Growth' forecast.

4.3 Factors which could depress growth below trend

Public sector spending reductions

The Government's spending plans envisage a continued squeeze on public sector jobs. The forecasts therefore indicate lower growth in public sector employment than would be expected from past trends, except in Oxford where the composition of public sector employment is unusual, with a high proportion of employment in the universities and the health sector, both of which (as explained elsewhere in this section) are likely to grow.

The other area of public sector jobs where declines are expected is in the Defence sector. There is substantial defence related employment in Oxfordshire, but the trend is to replace MOD jobs with private sector jobs in locations such as Brize Norton and Graven Hill (Bicester). Therefore although the sector classification may change, the number of jobs is unlikely to be very different.

Publishing

Oxfordshire has some very large employers and a high proportion of jobs in publishing. There is an increasing trend to move some publishing functions offshore, due to pressure to reduce costs combined with fact that market growth is overseas, particularly in Asia. However, interviews with two major Oxfordshire based publishing companies for the Oxford Innovation Engine report suggest that local employment is likely to remain stable, with all of the growth taking place overseas.

Implications for employment forecasts

The trends for employment in publishing in Oxfordshire suggest that little overall change is likely to 2031. We suggest that this should remain the assumption in the Planned Economic Growth forecasts.

Competition from major surrounding areas

There are various major development proposals in surrounding areas which could affect business growth in Oxfordshire, due to competition for scarce skills. These include:

- In Cherwell, competition for auto engineers from Jaguar Land Rover (JLR) and from the expansion of motorsport related employment in south Northamptonshire, particularly at Silverstone where a major technology and business park development is proposed. Interviews with Oxfordshire firms such as Prodrive in Banbury have identified intense competition for scarce skills, with JLR and F1 teams apparently willing and able to pay

higher salaries. Competition is also likely from a proposed 18ha business park as part of the proposed new settlement at Gaydon/Lighthorne at M40 Junction 12 in Stratford on Avon District.

- In Science Vale, competition from employers in Thames Valley for labour supply generally, and IT and engineering skills in particular. The major employers in the Thames Valley are multinationals with strong strategic reasons for retaining their presence in the area (assuming the role of Heathrow as major hub airport is not threatened) and in many cases an ability to pay high salaries to attract and retain good quality staff. The demographics of South Oxfordshire and Vale of White Horse show an ageing workforce with limited growth in working age population, which suggests that competition for staff will increase significantly as the EZ is developed. Competition will also be provided by the proposed University of Reading Science Park, which will eventually provide around 80,000 sqm of business space, and for which an access road is expected to be completed in 2016.
- In Oxford, competition from Reading and London for the growth of business, financial and professional services. Many such firms have a twin presence in Oxford and Reading, but regard Reading as the main business centre (possibly partly because of the lack of modern office accommodation in central Oxford). Increasingly, high tech firms look to London for funding and specialist professional services, thereby bypassing local service providers.

Implications for employment forecasts

The above factors are risks which could impact on employment growth in Oxfordshire. However, the strength of the Oxfordshire economy, the potential for commercial exploitation of R&D undertaken in the county by both private and public sectors, and the growth potential of firms in some key sectors, all suggest that competition from surrounding areas will not adversely affect employment growth. The exception may be if infrastructure or labour market constraints in Oxfordshire are significantly worse than in surrounding areas, particularly those to the south and east which offer a strategic location which is at least as good, if not better (i.e. closer to London and Heathrow). Currently there is no indication that this is likely: other areas have similar constraints. Therefore we do not propose any changes to the Planned Economic Growth employment forecasts as a result of competition from surrounding areas.

4.4 Conclusions

Table 4.2 indicates that there could be growth of 27,750 net direct jobs (i.e. allowing for displacement but excluding multiplier effects) due to the impact of growth oriented economic policies and known investment plans. Table 4.2 breaks this total down by time period, district and sector. It should be noted that these figures are estimates based on the best available information, which comprises a mixture of primary and secondary data, and professional judgement based on a thorough knowledge of the Oxfordshire economy and key institutions.

Two thirds of the additional growth is expected to be in the period to 2021, largely because this reflects the impact of investments that are currently at

planning or implementation stages. It would be reasonable to assume that other investments will come forward over the following 10 years which may boost expectations for growth in the period 2021-31, but in the main these cannot be anticipated.

The areas where employment growth based on past trends may be underestimated include:

- Oxford, where it seems likely that there will be significant growth of employment in education (university related), bioscience and healthcare (also partly university related), and retail. There is also likely to be an increase in corporate R&D linked to the Universities, the most likely areas including biomedical, engineering and computing. This may be slightly offset by some decline in publishing, though the expectation from firms in this sector is no net growth. We estimate additional growth of 8,100 jobs, all of which would be accommodated within existing employment-generating sites (though most not on B Class land)
- Science Vale, where there is strong potential for both inward investment and growth of existing businesses in the specialist technology areas relating to the area's research and companies base: space science and satellite communications, the physical sciences, and biomedical. There is also scope for significant growth of distribution in this area. We estimate additional growth of around 10,000 jobs is likely to occur in Vale of White Horse, and 600 in South Oxfordshire. Most of these jobs are likely to be located on existing employment sites, particularly within the EZ and on other land at Harwell
- Cherwell, including in particular Bicester and possibly the area around Kidlington and Water Eaton. In Bicester there is the potential for employment growth, based on the availability of relatively cheap accommodation and a growing labour supply, in the bioscience, advanced engineering and warehousing and distribution sectors, and also in environmental technologies and construction relating to the Eco Development. At Oxford Airport and nearby (Oxford Technology Park and Begbroke) there are plans for significant jobs growth. In the wider area north of Oxford, including Water Eaton, there is long term potential for growth of R&D activities, although this is not currently part of approved policy. We therefore estimate additional growth of over 8,000 jobs in Cherwell to 2031, all of which could be accommodated on land identified for development in the draft local plan.
- In West Oxfordshire there is potential for rapid growth of existing firms, particularly in engineering, motorsport and food production. However, it seems very unlikely that growth will exceed local plan allocations for B uses. We estimate additional growth of around 600 jobs, although this could be greatly affected by the investment decisions of a few firms. Employment land allocations can accommodate this scale of additional growth.

Table 4.2: Summary of above trend jobs growth in Oxfordshire to 2031

| Type of jobs | Total | 2011-21 | 2021-31 | Cherwell | Oxford | South Oxfordshire | Vale of White Horse | West Oxfordshire | Sector |
|------------------------------------|---------------|---------------|--------------|--------------|--------------|-------------------|---------------------|------------------|---|
| University | 2,000 | 1,000 | 1,000 | | 2,000 | | | | Education |
| Culham research | 500 | 250 | 250 | | | 500 | | | R&D, IT services, electronics, pharmaceuticals |
| Enterprise Zone | 5,400 | 5,400 | | | | | 5,400 | | R&D, IT services, electronics, pharmaceuticals |
| Satellite technology | 4,000 | 2,000 | 2,000 | 1,500 | | | 2,500 | | R&D, IT services, other transport services |
| Bioscience | 2,500 | 1,250 | 1,250 | 1,000 | 1,500 | | | | R&D, pharmaceuticals |
| Healthcare | 2,500 | 1,250 | 1,250 | | 2,500 | | | | Healthcare, R&D |
| Advanced engineering | 3,000 | 1,500 | 1,500 | 1,000 | 1,000 | | 500 | 500 | Motor vehicles, electronics, electrical equipment, architectural & engineering services |
| Construction | 150 | 150 | | 150 | | | | | Construction |
| Environment technologies | 1,000 | 500 | 500 | 600 | 100 | 100 | 100 | 100 | Other professional services |
| Retail | 2,200 | 2,100 | 100 | 1,000 | 1,000 | | 200 | | Retail |
| Distribution | 2,500 | 1,500 | 1,000 | 1,000 | | | 1,500 | | Warehousing & postal |
| Oxford airport and technology park | 2,000 | 1,000 | 1,000 | 2,000 | | | | | Air transport, R&D, electronics, retail, food & beverage services, architectural & engineering services |
| Total | 27,750 | 17,900 | 9,850 | 8,250 | 8,100 | 600 | 10,200 | 600 | |
| Source: SQW | | | | | | | | | |

5 Planned Economic Growth Forecasts

5.1 Introduction

The assumptions described in Chapter 4 represent the *direct* impact on employment (over and above what would be expected in a business-as-usual projection) that we might expect due to new policy and planned investment. As well as the direct impacts, we would also expect there to be: *indirect* impacts through local supply chain activity (for example, increased activity in most sectors is likely to lead to increased purchases of financial or business services, say, some of which will be supplied by local firms), and; *induced* impacts through increases in household spending (eg on retailing), due to increased local employment and household income.

The Local Economy Forecasting Model (LEFM) incorporates: an input-output framework, so that the indirect impacts through supply chain activity can be estimated, and; linkages between wages, household incomes, spending and demand for local services so that induced impacts can be estimated.

The direct additional employment by sector in Oxfordshire, from Chapter 4, are added to the employment from the Adjusted Population-based projections in LEFM and the model run to create the Planned Economic Growth forecast with direct and indirect impacts. The results are presented below.

5.2 Headline findings for the Planned Economic Growth forecasts

Overall growth in employment in Oxfordshire

Figure 5.1 shows total employment in Oxfordshire under the Baseline and Alternative Population-based projections and Planned Economic Growth forecast. The chart shows that the Planned Economic Growth forecast is significantly higher than the Alternative Population-based projections, from which it was developed.

Figure 5.1: Employment in the Baseline and Alternative Population-based projections and Planned Economic Growth forecasts - Oxfordshire

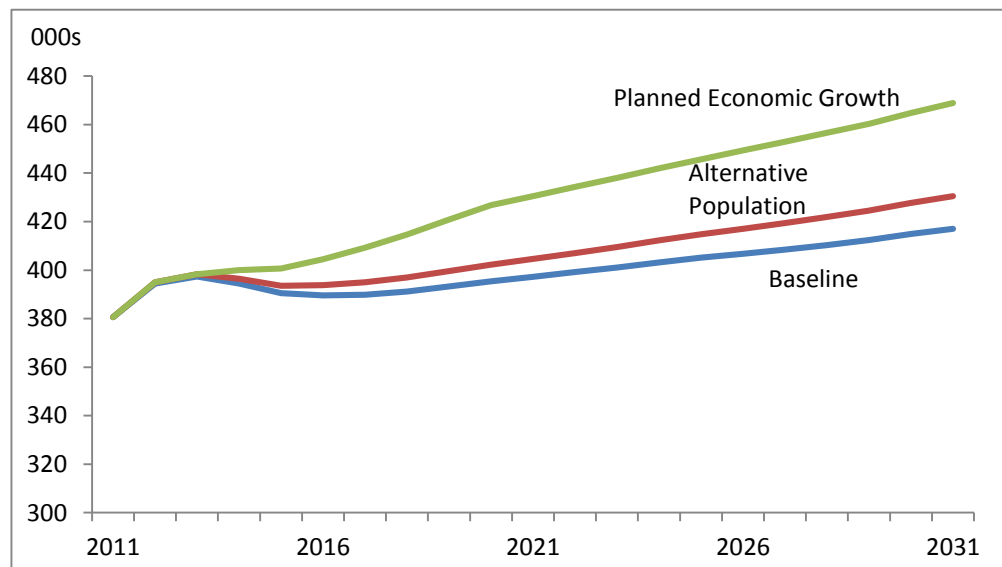


Table 5.1: Employment by sector in the Alternative Population-based projections and Planned Economic Growth forecasts in Oxfordshire

| | Alternative Population | | | | Planned Economic Growth | | | |
|-------------------------------|------------------------|----------------|--------------------------|------------|-------------------------|----------------|--------------------------|------------|
| | 2011 (000s) | 2031 (000s) | 2011-31 (000s) (% pa) | | 2011 (000s) | 2031 (000s) | 2011-31 (000s) (% pa) | |
| Agriculture etc | 2.3 | 5.2 | 2.9 | 4.2 | 2.3 | 5.2 | 2.9 | 4.2 |
| Mining & quarrying | 0.2 | 0.1 | -0.1 | -1.7 | 0.2 | 0.1 | -0.1 | -1.7 |
| Manufacturing | 26.9 | 24.7 | -2.2 | -0.4 | 26.9 | 32.8 | 5.9 | 1.0 |
| Electricity, gas & water | 4.3 | 4.2 | -0.1 | -0.1 | 4.3 | 4.2 | -0.1 | -0.1 |
| Construction | 22.2 | 25.9 | 3.7 | 0.8 | 22.2 | 26.5 | 4.3 | 0.9 |
| Distribution | 52.0 | 58.1 | 6.1 | 0.6 | 52.0 | 61.7 | 9.7 | 0.9 |
| Transport & storage | 11.8 | 14.9 | 3.1 | 1.2 | 11.8 | 19.1 | 7.3 | 2.4 |
| Accommodation & food services | 23.4 | 30.6 | 7.3 | 1.4 | 23.4 | 31.2 | 7.8 | 1.5 |
| Information & communications | 21.9 | 22.3 | 0.4 | 0.1 | 21.9 | 25.2 | 3.3 | 0.7 |
| Financial & business services | 78.1 | 102.6 | 24.5 | 1.4 | 78.1 | 116.1 | 38.0 | 2.0 |
| Government services | 114.7 | 119.1 | 4.4 | 0.2 | 114.7 | 123.5 | 8.9 | 0.4 |
| Other services | 23.0 | 22.8 | -0.2 | -0.1 | 23.0 | 23.2 | 0.2 | 0.0 |
| Total | 380.6 | 430.5 | 49.9 | 0.6 | 380.6 | 468.8 | 88.2 | 1.0 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics and SQW, January 2014.

Table 5.1 shows that total employment in Oxfordshire in this stage is forecast to increase by around 88,000 over 2011-31, or 4,400 pa (1% pa). This compares with growth of around 3,000 pa (0.8% pa) seen over 2001-11. Sustained employment growth of 1% pa over a 20 year period would be an achievement, especially in the current economic environment, but is by no means unprecedented.

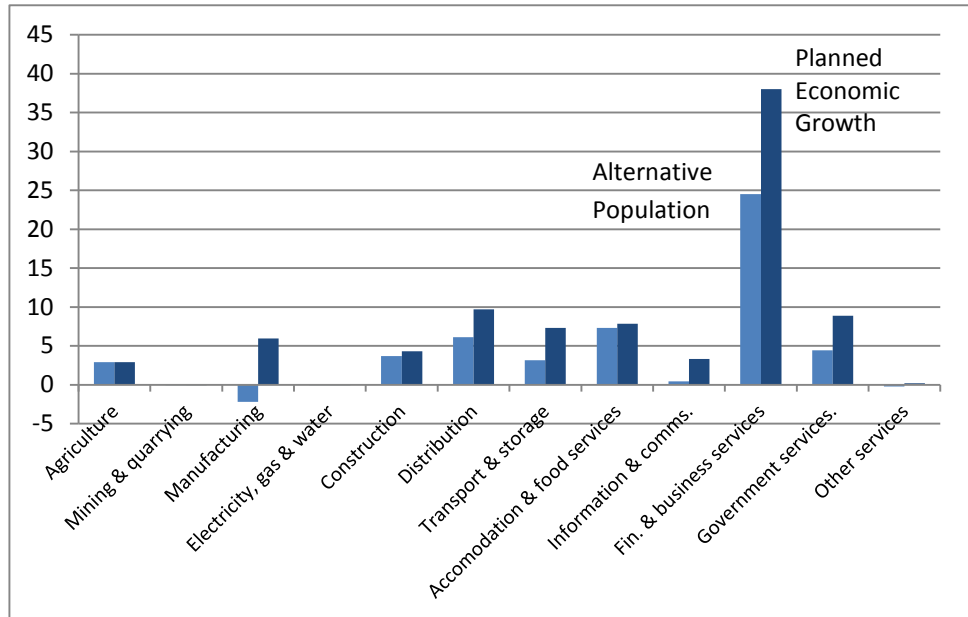
Compared to the Alternative Population-based projections, employment in the county in the Planned Economic Growth forecast increases by an additional 38,000 jobs. This consists of the 27,750 jobs described in Chapter 4, and 10,500 additional indirect and induced jobs (in sectors such as business support services) stimulated by these activities.

Growth projections by sector

Table 5.1 and Figure 5.2 compare employment growth by sector in Oxfordshire in the two stages of the forecast. The sectors with the greatest additional employment in the Planned Economic Growth forecasts are those in which the additional direct jobs described in Chapter 4 were allocated: manufacturing, distribution, transport & storage, information & communications, financial & business services and government services.

The additional indirect (supply chain) and induced (household spending) jobs associated with the direct jobs are mainly in business support services: financial & business services. While many of the direct jobs in the sectors described in Chapter 4 will be in R&D, the majority of the other jobs that are stimulated will be in distribution, transport & storage and government services.

Figure 5.2: Projected change in employment (000s) 2011-31 in the Alternative Population-based projections and Planned Economic Growth forecast – broad sectors in Oxfordshire



Growth projections by district

Figure 5.3 shows the distribution of the additional jobs in the Planned Economic Growth forecasts within Oxfordshire.

Vale of White Horse is projected to have the biggest increase in jobs over the increase projected in the Alternative Population-based projections, with 12,400 extra jobs projected by 2031 in the Planned Economic Growth forecast. 10,200 of these additional jobs are jobs directly associated with the development assumptions described in Chapter 4, including 5,400 in the Enterprise Zone in Harwell. In contrast, only 1,800 additional jobs would occur in West Oxfordshire (600 direct, with the rest indirect due to the Planned Economic Growth direct jobs across the county).

Figure 5.3: Projected change in jobs (000s) 2011-31 in the Alternative Population-based projections and Planned Economic Growth forecasts – Oxfordshire districts

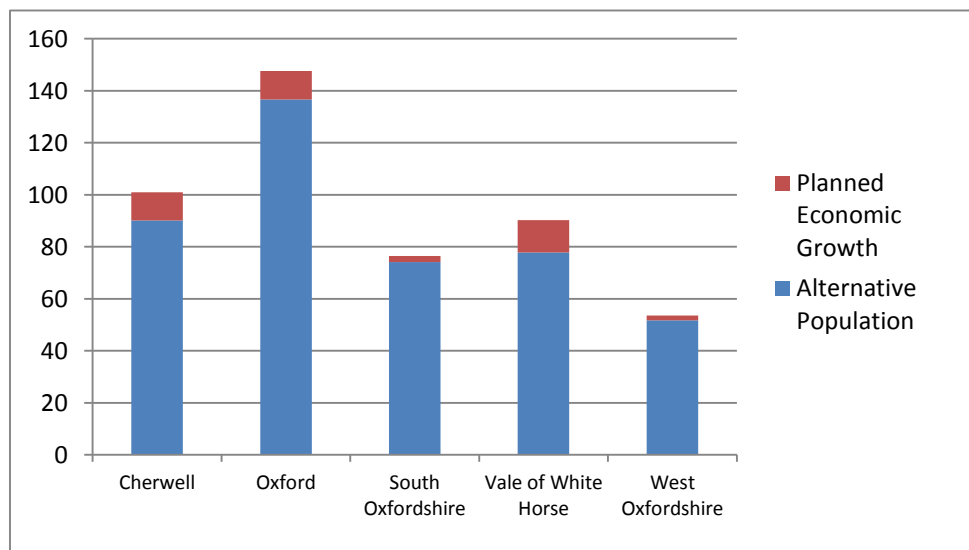


Table 5.2: Employment in the Alternative Population-based projections and Planned Economic Growth forecasts

| | Alternative Population | | | | Planned Economic Growth | | |
|---------------------|------------------------|----------------|--------------------------|-----|-------------------------|--------------------------|-----|
| | 2011 (000s) | 2031 (000s) | 2011-31 (000s) (% pa) | | 2031 (000s) | 2011-31 (000s) (% pa) | |
| Oxfordshire | 380.6 | 430.5 | 49.9 | 0.6 | 468.8 | 88.2 | 1.0 |
| Cherwell | 79.4 | 90.1 | 10.8 | 0.6 | 100.9 | 21.6 | 1.2 |
| Oxford | 123.2 | 136.6 | 13.4 | 0.5 | 147.6 | 24.3 | 0.9 |
| South Oxfordshire | 65.1 | 74.2 | 9.1 | 0.7 | 76.5 | 11.5 | 0.8 |
| Vale of White Horse | 67.2 | 77.9 | 10.6 | 0.7 | 90.2 | 23.0 | 1.5 |
| West Oxfordshire | 45.7 | 51.7 | 6.1 | 0.6 | 53.5 | 7.9 | 0.8 |
| South East* | 4,387.2 | 4,834.9 | 447.7 | 0.5 | | | |
| UK* | 31,175.0 | 5,075.7 | 3,900.7 | 0.6 | | | |

Notes: * Figures for South East and UK are for CE's baseline forecast.
Figures are rounded to the nearest 100 jobs.

Source: Cambridge Econometrics and SQW, January 2014.

The Planned Economic Growth forecasts have greater disparity in employment growth across Oxfordshire than is the case in the Alternative Population-based projections. The additional jobs located in the Vale of White Horse results in the district having the strongest employment growth of 1½% pa over 2011-31. In contrast, the growth in South Oxfordshire and West Oxfordshire will be just ¾% pa. Nevertheless growth in all other districts would be almost double the rate projected for them in the Alternative Population-based projections.

Table 5.3 shows the direct and indirect impact of the Planned Economic Growth forecasts over and above the Alternative Population-based projections, by district. The table shows that the indirect jobs impact in a district can be greater than the direct jobs impact in that district (South Oxfordshire and West Oxfordshire). This is because the indirect impacts (mainly Financial & business services) are not necessarily generated in the same district as the direct impacts, and are related to the proportion of the relevant sector in each district.

Table 5.3: Direct and indirect employment impacts in the Planned Economic Growth forecasts - 2031 (000s)

| | Direct | Indirect | Total |
|---------------------|--------|----------|-------|
| Oxfordshire | 27.7 | 10.5 | 38.3 |
| Cherwell | 8.2 | 2.6 | 10.8 |
| Oxford | 8.1 | 2.9 | 11.0 |
| South Oxfordshire | 0.6 | 1.7 | 2.3 |
| Vale of White Horse | 10.2 | 2.2 | 12.4 |
| West Oxfordshire | 0.6 | 1.2 | 1.8 |

Notes: Figures are rounded to the nearest 100 jobs.

Source: Cambridge Econometrics and SQW, January 2014.

6 Risk Assessment of the Planned Economic Growth Forecasts

6.1 Introduction

Section 5 on the Planned Economic Growth forecasts concluded that there could be an additional 88,200 jobs in Oxfordshire between 2011 and 2031, compared with 49,900 additional jobs in the adjusted population forecast. This section considers the risks that need to be considered in delivering this scale of jobs growth, and how they should be factored into the overall forecasting work.

The risks considered include market conditions, labour market competition from neighbouring areas, delays in the delivery of strategic infrastructure, access to housing and the capacity of existing employment sites (including those allocated, or proposed to be allocated, in local plans) to accommodate this scale of growth.

6.2 Market conditions

Market conditions are clearly crucial to the speed of economic growth and the scale of private investment. The country is currently emerging from a prolonged economic downturn which has depressed business investment and growth since 2008. All the economic indicators currently point to recovery: for example, the Markit/CIPS UK services survey for November 2013 recorded the fastest rate of growth in the UK services sector for the last 16 years, and the PwC Economic Outlook report (also for November 2013) notes that UK manufacturers have benefited from somewhat stronger trends recently in key European export markets, and that the UK construction sector has also picked up from a low base in the past six months.

These indicators of growth are of course short term, whereas the forecasts look ahead to 2031. Over the next 18 years there are bound to be further economic cycles, including periods of growth and downturn. In addition, the government is still committed to further reductions in public spending, and this will directly affect employment in some sectors, and indirectly in others.

As far as possible, the econometric forecasts take account of factors such as the Government's policy to reduce public spending, but they cannot anticipate the timing of economic cycles. If the economic recovery continues, it is quite possible that growth over the next five years will be above that in the forecasts, but over the next 20 years it is reasonable to assume that the 'booms and busts' will even out and that the forecasts are the best indication currently of the scale of growth over the period as a whole.

6.3 Labour market competition

Oxfordshire is surrounded by strong economies which are also growing, and the jobs market in London is an increasing draw for residents in the county. This means that employers in Oxfordshire wishing to expand their workforce will be competing for labour with firms across a much wider geography than Oxfordshire. In the south of the county, where growth is expected to be fastest,

competition is also likely to be greatest due to the strength of the Thames Valley and London economies.

However, it is also the case that Oxfordshire has some very strong economic assets and attractions. The Universities and research institutes in the county are outstanding internationally, not just within UK, and the Science Vale Enterprise Zone provides incentives to firms which are not available to firms in nearby areas. Many of the additional jobs that are expected to be stimulated by policy interventions will be in high value activities, and are likely to pay well. This will make them attractive to a labour force which has a choice of where to work.

The Oxfordshire Innovation Engine report noted that “shortages of scientific and technical skills were identified by most respondents to our business survey as a constraint to growth....However, these concerns reflect national, and in some cases global shortages.” (paragraph 3.20). In other words, there are labour market constraints, but no worse than in other areas. And in some respects, Oxfordshire’s situation close to the Thames Valley and London to the south, and the West Midlands conurbation to the north, is regarded as an advantage in labour market terms, because firms based in Oxfordshire can draw on the specialist management and marketing skills available in those areas (paragraph 3.21).

6.4 Infrastructure delivery

Delays in the delivery of key infrastructure may constrain growth. For example, the Oxfordshire Innovation Engine report identifies congestion on the A34 and in and around Oxford, and broadband access in some of Oxfordshire’s rural areas, as significant concerns for firms. There are also local access issues for some employment sites: for example, around the Peartree site in north Oxford, and access to Harwell remains poor.

In addition, there has been very little business space constructed over the last five years, except to order for specific end users. There has been almost no supply of business space on a speculative basis, even in the Science Vale Enterprise Zone. However, the property market is recovering, along with the rest of the economy, and therefore an increase in construction of commercial premises over the next few years is likely. For example, at Harwell STFC are in the process of changing their commercial joint venture partner in order to speed up development in the EZ, at Milton Park some speculative development has started, and market research for the economic strategy for NW Bicester indicates demand for business space there and a willingness to construct as soon as land is made available through the planning system.

Over the next 20 years it is certainly possible that failure to improve some key elements of Oxfordshire’s infrastructure could frustrate firms and persuade them to invest elsewhere – and continued reductions in public expenditure are likely to increase the probability of delays to improving key infrastructure.

However, the jobs growth potential identified in Chapter 4 is, generally, not dependent on specific infrastructure improvements which could be delayed. In addition, there are investments underway or planned by the private sector – for example by the University in the Science Area in Oxford, at Oxford Airport, and the NW Bicester Eco Development – which will stimulate jobs growth.

Furthermore, firms' frustration with low levels of infrastructure investment, identified in the Oxfordshire Innovation Engine report, is not a problem that is unique to Oxfordshire: it is at least as bad in most surrounding areas.

6.5 Inter-relationship between employment forecasts and housing requirements

There is a possibility that the housing requirements linked to a high rate of economic growth may be impossible to satisfy due to practical limitations on housebuilding rates. If housing requirements are not met, the consequence would be rising housing costs which could in turn constrain the ability of firms to recruit, and therefore to grow. This would introduce an element of circularity in the forecasts – economic growth forecasts are used to determine housing requirements, but undeliverable housing requirements impact on economic growth potential and therefore lead to a downward revision of the economic growth forecasts.

We have considered this possibility by comparing the forecast rates of economic growth in the Planned Economic Growth forecasts contained in this paper with those produced by Experian in their High Economic Growth scenario for the SHMA, and with past rates of economic growth in Oxfordshire and also those in some comparator high growth areas in Cambridgeshire and Buckinghamshire. These comparisons are shown in Table 6.1.

The overall conclusion is that the rates of employment growth forecast under the Planned Economic Growth forecast are modest in comparison with past rates of growth in Oxfordshire or in the comparator areas.

The Planned Economic Growth forecast shows growth of 1% per annum 2011-31 for Oxfordshire, and by district forecast annual growth rates range from a high of 1½% (Vale of White Horse) to a low of ¾% (South Oxfordshire and West Oxfordshire). The fact that Vale of White Horse is highest is not surprising given the concentration of employment generating assets in the district – in particular, the research facilities at Harwell and the Enterprise Zone.

The average annual employment growth rate in the Planned Economic Growth forecast is 0.4 percentage points (pp) above the rate for the adjusted population forecast (0.6%), but 0.5 pp below (ie two thirds of) the rate for the Experian high economic forecast.

In comparison, between 1981 and 2000 Table 6.1 shows that employment in Oxfordshire grew by an average annual rate of 1.7% pa. By district, growth rates ranged between 3.5% pa (West Oxfordshire) and 0% pa (Oxford City). For the period 1990 to 2011 (which includes the impact of the recent recession) the average annual growth rate dropped to 0.7% pa for Oxfordshire, and ranged between 1.1% pa (West Oxfordshire) and 0.4% pa (Oxford City) in the districts. For the period 2000-2011 Oxfordshire's employment growth dropped further to 0.4% pa.

Considering comparator areas, employment growth in Cambridgeshire averaged 2.3% pa over the period 1981-2000, and 1.2% pa 1990-2011. The highest average annual employment growth in the comparators was in Milton Keynes, where it averaged 4% pa 1981-2000 and 1.5% pa over 1990-2011.

Table 6.1: Housing completions and employment growth in Oxfordshire and selected other local authorities

| Period | Oxfordshire | Cherwell | Oxford | South Oxfordshire | Vale of White Horse | West Oxfordshire | Cambridgeshire | South Cambridgeshire | Huntingdon | Buckinghamshire | Aylesbury Vale | Milton Keynes |
|--|-------------|----------|--------|-------------------|---------------------|------------------|----------------|----------------------|------------|-----------------|----------------|---------------|
| Dwellings completed (pa) | | | | | | | | | | | | |
| 2003/04-2012/13 | 1811 | 347 | 436 | 242 | 378 | 402 | 1860 | 705 | 665 | 1490 | 720 | 1602 |
| Employment growth (% pa) | | | | | | | | | | | | |
| Actual 1981-2000 | 1.7 | 2.6 | 0.0 | 2.7 | 2.1 | 3.5 | 2.3 | 4.0 | 3.1 | 1.4 | 0.8 | 4.0 |
| Actual 1990-2011 | 0.7 | 0.8 | 0.4 | 0.9 | 0.7 | 1.1 | 1.2 | 2.5 | 1.2 | 0.2 | -0.3 | 1.5 |
| Actual 2000-2011 | 0.4 | -0.7 | 1.4 | 0.4 | 0.5 | 0.1 | 1.2 | 2.1 | 0.2 | 0.2 | 0.6 | 1.1 |
| Forecast 2011-31 Experian High Economic Growth | 1.5 | 1.6 | 1.7 | 1.2 | 1.9 | 1.2 | | | | | | |
| Forecast 2011-31 CE Alternative Population | 0.6 | 0.6 | 0.5 | 0.7 | 0.7 | 0.6 | | | | | | |
| Forecast 2011-31 CE Planned Economic Growth | 1.0 | 1.2 | 0.9 | 0.8 | 1.5 | 0.8 | | | | | | |
| Sources: CLG - dwelling completions. ONS and Cambridge Econometrics (CE) – historical employment growth. CE – forecast employment growth. Experian – forecast employment growth. | | | | | | | | | | | | |

From Table 6.1 it is also possible to make some observations about the relationship between employment growth and dwellings completions and requirements – albeit the two sets of figures are for slightly different periods.

In Oxfordshire, over the ten years 2003/4-2012/13, annual dwelling completions averaged just over 1,800. This was during a period when employment growth rates were averaging around 0.4%. In Cambridgeshire over the same period annual housing completions were very similar, whereas employment growth averaged 1.2% per annum. In Buckinghamshire, both housing completions and employment growth were lower than in Oxfordshire.

Therefore, based on past rates of employment and housing growth there is no evidence that one constrained the other. In some places employment growth was faster despite comparable rates of housing provision, and in Oxfordshire since 1981 there have been periods of faster and slower employment growth than are forecast by the Planned Economic Growth forecasts for the period to 2031.

6.6 Capacity of allocated sites

Table 6.2 compares the Planned Economic Growth forecasts by district with the jobs capacity on sites that are allocated or proposed to be allocated for development within the period of the relevant local plans (the end points vary somewhat between plans, but all are close to 2031 and therefore the variation does not invalidate this analysis). The capacity information in Table 6.2 is based on estimates provided by the District Councils, and shown in full in the Appendices.

Table 6.2 also shows the Planned Economic Growth forecasts adjusted to include only those likely to locate on B Class land, to make the figures comparable with the capacity of allocated sites. This involves assumptions about the proportion of jobs in each main sector locating on B Class land, which are shown in Table 6.3.

Table 6.2: Jobs growth compared with capacities on allocated sites (000s)

| | Planned Economic Growth jobs growth | Jobs likely to be located on B Class land | Capacity of allocated sites |
|---------------------|--|---|--------------------------------|
| Oxfordshire | 88.2 | 47.0 | 63.1 |
| Cherwell | 21.6 | 12.7 | 17.3 |
| Oxford | 24.3 | 11.0 | 18.5 |
| South Oxfordshire | 11.5 | 5.4 | 5.0 |
| Vale of White Horse | 23.0 | 13.8 | 14.3 |
| West Oxfordshire | 7.9 | 4.0 | 6.5 |

Source(s): SQW and District Councils.

Notes: the capacity in South Oxfordshire includes 500 jobs on 6.5ha at Didcot in Vale of White Horse, which has been agreed to be part of South Oxfordshire's employment land allocations.

Table 6.3: Assumptions regarding the proportion of jobs in each sector occupying B Class land

| Sector | % of jobs on B Class land | % of total employment growth in Oxfordshire (2011-31) |
|-------------------------------|----------------------------------|--|
| Agriculture | 0 | 3.3% |
| Mining & quarrying | 0 | -0.1% |
| Manufacturing | 100 | 6.7% |
| Electricity, gas & water | 0 | -0.1% |
| Construction | 0 | 4.9% |
| Distribution | 50 | 11.0% |
| Transport & storage | 50 | 8.3% |
| Accommodation & food services | 0 | 8.9% |
| Information & comms. | 50 | 3.7% |
| Fin. & business services | 75 | 43.1% |
| Government services. | 25 | 10.0% |
| Other services | 75 | 0.2% |

Based on these assumptions, Table 6.2 shows that overall in Oxfordshire there is plenty of capacity on allocated sites to accommodate the forecast jobs growth. There is also sufficient land in all of the districts except South Oxfordshire. However, there is enough additional capacity in the immediately adjacent area of Vale of White Horse to compensate for the small shortfall in South Oxfordshire.

The Planned Economic Growth forecasts show that most employment growth in Oxfordshire over 2011-31 is likely to occur in financial and business services (43%), with another 10% in Government services and 11% in distribution. The assumptions in Table 6.3 about the proportion of jobs in these sectors that occupy B Class land are obviously crucial to the land requirement. For example, if it is assumed that only 50% of jobs in financial and business services will locate on B Class land, rather than 75%, then there is sufficient land in all districts including South Oxfordshire.

The conclusions also depend on the density of jobs on sites. District Councils are best placed to decide what the appropriate jobs densities are on their employment sites, hence we have used their own estimates contained in the appendices.

6.7 Conclusions

The purpose of this Chapter has been to identify key risks that could affect the profiling of jobs growth over time and act as a constraint on their delivery. Key findings include:

- Market conditions are improving, and there is no indication that they will constrain employment growth to 2031. In fact, it is possible that short term market conditions could lead to faster growth than forecast over the next few years.
- Labour market constraints are a problem for many firms, but the main problems are skills which are in short supply nationally, and in some cases

internationally, not competition from surrounding areas. The juxtaposition to areas with a good supply of management and marketing skills, which complement the strong technology skills in Oxfordshire's workforce, is a benefit to firms. The quality of jobs likely to be created in Oxfordshire will help ensure that firms are able to recruit by paying competitive salaries.

- Infrastructure constraints are a concern to firms, but there is no evidence that they will be a constraint to growth in the short term. Longer term, they could deter investment, and this is clearly a risk to sustaining the pace of economic and employment growth in the county to 2031
- The rates of employment growth in Oxfordshire and the five districts generated by the Planned Economic Growth forecasts are not particularly high by historical standards, or in comparison to some other areas. Based on past rates of employment and housing growth there is no evidence that one constrained the other
- Employment land requirements resulting from the forecasts are well within the total allocated across the county, and in all districts except South Oxfordshire. Here the conclusion is sensitive to the assumptions about the proportion of financial and business services that will locate on B Class land.

In order to take account of these risks, a "sensitivity adjustment" could be applied, on the assumption that all or any of them could result in employment growing more slowly than forecast. Given the improving economic conditions currently, and the absence of immediate constraints on growth, any slowdown in employment growth is more likely in the second half of the period to 2031 rather than between now and 2021.

However, firms and people will always adapt to conditions as they evolve, and it is unlikely that Oxfordshire will be particularly disadvantaged – for example, in relation to infrastructure investment or housing growth – compared with its neighbours. Market adjustments may include an increase in commuting between north and south of the county (to address housing shortages or high prices in the south), or increased working from home and more flexible working hours (to address transport congestion).

We would therefore not recommend that the Planned Economic Growth forecasts are reduced to account for the risks discussed in this Chapter, because they do not appear to us to be particularly likely to reduce employment growth below that forecast.

7 APPENDICES

Appendix A: The Local Economy Forecasting Model (LEFM)

LEFM has been developed by CE in collaboration with the Institute for Employment Research at the University of Warwick. It is, to our knowledge, the only software package in Europe tailored to model regional and local economies and designed to conventional commercial software standards. It has been commercially available since the early 1990s (since when it has been continually developed) and is designed to empower organisations to undertake detailed economic analysis in-house. It is used extensively by local agencies, including local authorities, and by CE for more specialised analysis often commissioned by development agencies.

LEFM has been designed to project economic indicators for a local area by explaining the output of local industries through an explicit representation of expenditure flows in the area and their links with the world outside the local area. In this it differs from other methods of local economy modelling which typically link local output or employment (by sector) directly to national or regional output or employment. Such methods include shift-share or econometrically estimated equations. While these methods allow a user to derive projections for local output or employment growth from national or regional projections, they offer little scope for introducing an explanation of local performance relative to these higher levels, and they are typically not suitable for analysing the indirect effects on the local economy arising from the opening of a new enterprise or the closure of an existing one.

LEFM is also distinguished from other approaches by its sectoral detail. It identifies 45 sectors (defined on SIC07), allowing (for example) electronics to be distinguished from electrical equipment, and IT services from other business support services. Detailed disaggregation by sector is usually valuable because different sectors have different prospects (eg technological change is driving much faster growth in electronics and computing than in the other sectors with which they are commonly combined), because they have different employment characteristics, and also because it allows local knowledge about specific firms to be more easily incorporated in the forecast. There is, however, a cost to working in such detail: most variables in the model have to be disaggregated by sector (or a similar classification: see below for more details).

LEFM's structure draws heavily on that of MDM, Cambridge Econometrics' multi-sectoral model of the UK economy and its regions, and it shares the same software.

LEFM's Main Inputs and Outputs

The main input assumptions used in LEFM are:

- forecasts for the UK and region in which the local economy lies for selected variables, including
 - the components of domestic final expenditure, disaggregated into spending by function as published in the UK National Accounts

- components of personal incomes
 - gross output, value-added and employment by 45 sectors
 - matrices to convert the components of domestic final expenditure into commodity demand for 45 sectors
 - input-output coefficients and projected changes
 - projected changes in occupational structure and gender forecasts for the local economy
 - population by 5-year age band and gender
 - participation rate by gender for a constant level of unemployment (these are then adjusted by the model in response to actual changes in unemployment)
- Outputs for the local economy include:
 - value-added and employment by sector (45)
 - employment by gender and status (full-time, part-time, self-employed)
 - employment by occupation (25 occupations, SOC2010)
 - disposable income and consumer spending
 - population and labour force by age (7 age bands) and gender
 - net commuting
 - implications for qualifications

LEFM's Main Relationships

Accounting structure

Figure A.1 summarises the model's accounting structure, which follows the social accounting matrix approach adopted in MDM. In most cases, the variables shown in the diagram are disaggregated (eg by sector for output and employment).

Each industry's gross output is determined as the difference between commodity demand (the sum of demand coming from the final expenditure components together with intermediate demand coming from production in the local economy) and imports to the local area. Each industry's value-added is assumed to be in the same proportion to its gross output as is the case for the region as a whole.

How the main variables are determined

Employment in the local area generates incomes. Assumptions are made for net commuting, which determines the extent to which incomes from local employment accrue to non-residents. Similarly, some incomes in the local area are derived from employment outside the area, or from non-employment sources (eg unemployment benefit). Aggregate household expenditure by residents in the local area is determined by real household disposable incomes (deflated by the national household expenditure deflator) and projections for the household saving ratio (derived from changes in the regional household saving ratio). Household expenditure is then disaggregated into spending by function according to the proportions forecast for the region.

Government final expenditure (disaggregated by type) in the local economy is projected on the basis of changes in the local area's share of the region's population.

Investment by sector is determined by a simple relationship with output. Projections for social investment (eg education, health) and investment in social services (eg roads), which are treated as assumptions at the UK level in MDM, are allocated to the local area according to population changes.

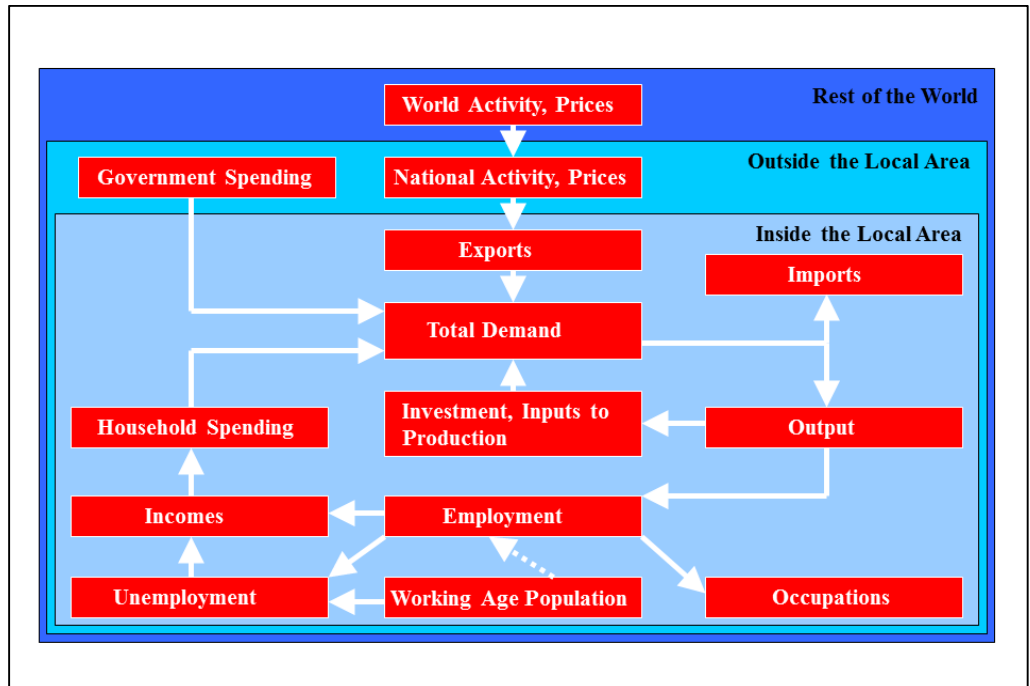
Intermediate expenditure by sector and commodity is determined by applying the national input-output coefficients to local economy gross output by sector.

Exports by sector from the local economy are linked to national gross commodity output in each sector. In effect, local firms are treated as competing in the national pool. Export projections then depend upon UK gross commodity output in each sector, and on assumptions for trends in the local economy's share of this output. In some cases, simple methods have been tried to model these export shares (eg to represent the effects of policies to promote inward investment). Imports by sector to the local economy depend on the demand for commodities in the local economy and on assumptions for import shares.

Employment by sector is determined by gross output and trends in productivity per person employed derived from regional projections (which in turn are derived from econometric estimates). Employment by gender and type is determined by the sectoral composition of employment and local information on the representation of genders and types of employment in each industry. The default projections for trends in this representation are based on historical data for the local area, with the user given the option to change these default values. A similar procedure is followed for employment by occupation.

Projections for the resident workforce are derived from assumptions for the population for working age (by gender) and projected participation rates which vary with the unemployment rate. Unemployment is the difference between the workforce, local employment and 'net commuting'.

Figure A.1: The Structure of LEFM



Appendix B: Summary Results for Cherwell

Table B.1: Total Employment in each Stage - Cherwell

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|-------------------------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 79.4 | 84.6 | 89.2 | 5.2 | 0.6 | 4.7 | 0.5 |
| Alternative Population | 79.4 | 84.7 | 90.1 | 5.3 | 0.6 | 5.5 | 0.6 |
| Planned Economic Growth | 79.4 | 91.4 | 100.9 | 12.0 | 1.4 | 9.6 | 1.0 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Figure B.1: Total Employment in each Stage - Cherwell

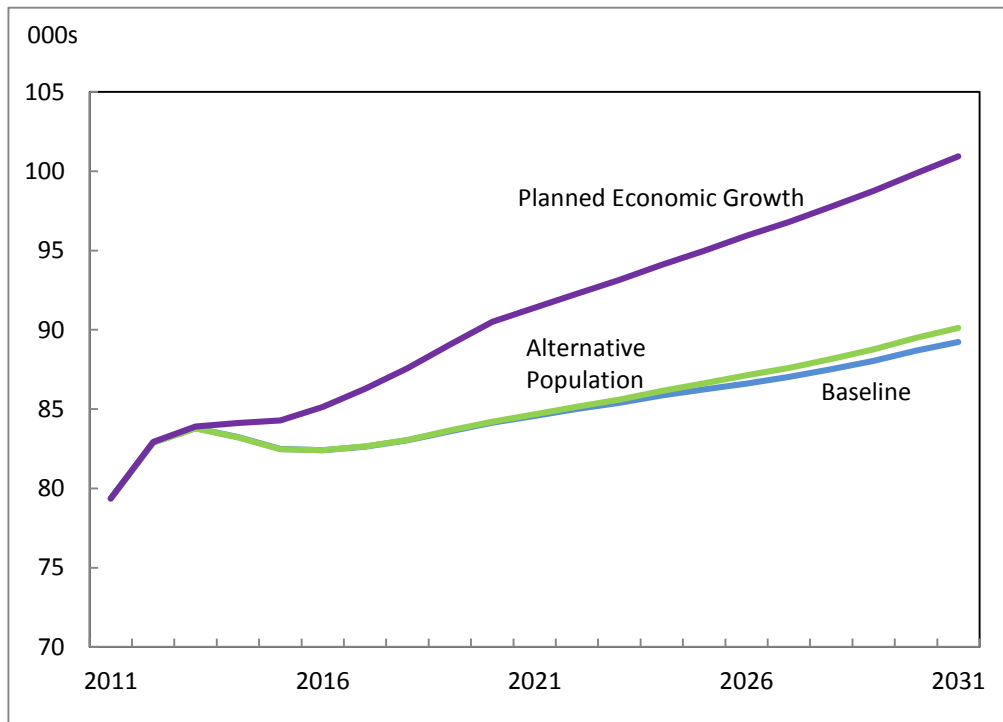


Table B.2: Total Population in the Baseline and Alternative Population-based projections - Cherwell

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|------------------------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 142.3 | 156.3 | 162.9 | 13.9 | 0.9 | 6.6 | 0.4 |
| Alternative Population | 142.3 | 152.1 | 160.6 | 9.9 | 0.7 | 8.5 | 0.5 |

Notes: Figures are rounded to the nearest 100 people.
Source: Cambridge Econometrics, January 2014.

Figure B.2: Total Population in the Baseline and Alternative Population-based projections - Cherwell

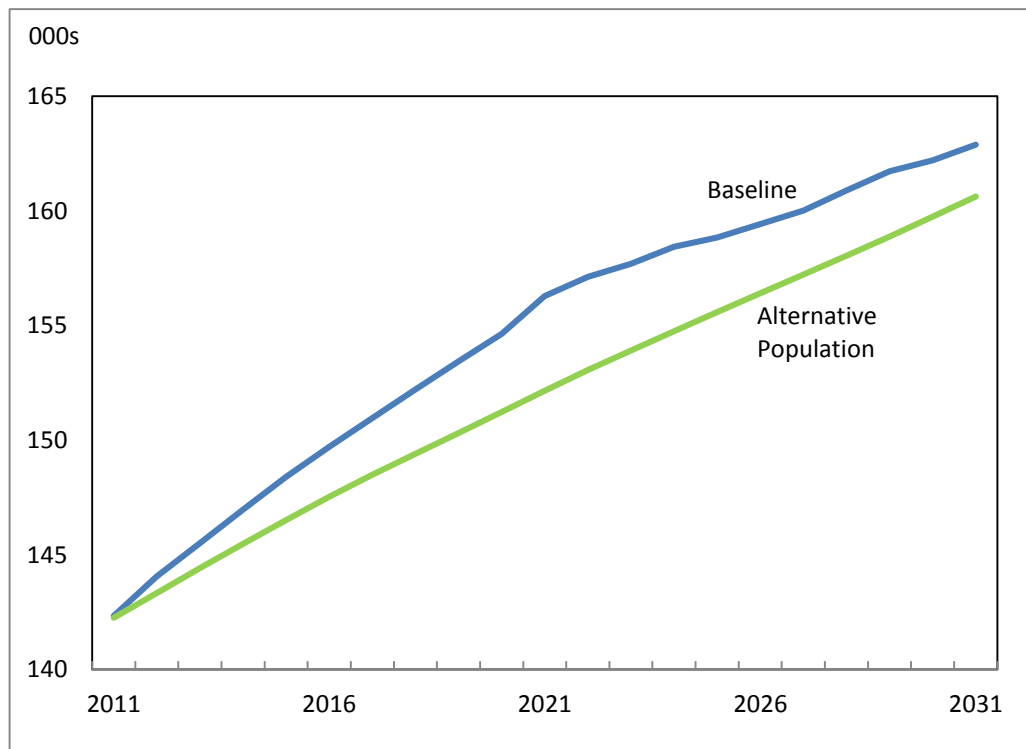


Table B.3: Employment projections by broad sector in the Baseline projections - Cherwell

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.7 | 1.9 | 2.1 | 1.2 | 10.3 | 0.2 | 1.0 |
| Mining & quarrying | 0.1 | 0.0 | 0.0 | 0.0 | -1.7 | 0.0 | -4.5 |
| Manufacturing | 8.7 | 9.2 | 8.5 | 0.5 | 0.6 | -0.8 | -0.9 |
| Electricity, gas & water | 0.8 | 0.8 | 0.8 | 0.0 | -0.2 | 0.0 | 0.0 |
| Construction | 5.2 | 5.7 | 6.0 | 0.5 | 0.9 | 0.3 | 0.5 |
| Distribution | 16.3 | 17.5 | 18.2 | 1.2 | 0.7 | 0.7 | 0.4 |
| Transport & storage | 2.6 | 3.1 | 3.3 | 0.5 | 1.7 | 0.2 | 0.6 |
| Accommodation & food services | 4.7 | 5.3 | 5.8 | 0.7 | 1.3 | 0.5 | 0.9 |
| Information & comms. | 3.3 | 3.1 | 3.3 | -0.3 | -0.8 | 0.2 | 0.6 |
| Fin. & business services | 13.8 | 16.4 | 19.9 | 2.7 | 1.8 | 3.5 | 1.9 |
| Government services. | 19.3 | 17.7 | 17.7 | -1.6 | -0.9 | 0.0 | 0.0 |
| Other services | 3.9 | 3.8 | 3.6 | -0.1 | -0.3 | -0.1 | -0.4 |
| Total | 79.4 | 84.6 | 89.2 | 5.2 | 0.6 | 4.7 | 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table B.4: Employment projections by broad sector in the Alternative Population-based projections - Cherwell

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.7 | 1.9 | 2.1 | 1.2 | 10.3 | 0.2 | 1.0 |
| Mining & quarrying | 0.1 | 0.1 | 0.0 | 0.0 | -1.1 | 0.0 | -3.3 |
| Manufacturing | 8.7 | 9.3 | 8.6 | 0.6 | 0.6 | -0.7 | -0.8 |
| Electricity, gas & water | 0.8 | 0.8 | 0.8 | 0.0 | -0.1 | 0.0 | 0.1 |
| Construction | 5.2 | 5.7 | 6.1 | 0.5 | 0.9 | 0.4 | 0.6 |
| Distribution | 16.3 | 17.5 | 18.3 | 1.2 | 0.7 | 0.8 | 0.4 |
| Transport & storage | 2.6 | 3.1 | 3.3 | 0.5 | 1.7 | 0.3 | 0.8 |
| Accommodation & food services | 4.7 | 5.4 | 6.0 | 0.7 | 1.4 | 0.6 | 1.0 |
| Information & comms. | 3.3 | 3.1 | 3.3 | -0.3 | -0.8 | 0.2 | 0.7 |
| Fin. & business services | 13.8 | 16.5 | 20.2 | 2.7 | 1.8 | 3.7 | 2.0 |
| Government services. | 19.3 | 17.5 | 17.7 | -1.7 | -0.9 | 0.2 | 0.1 |
| Other services | 3.9 | 3.8 | 3.7 | -0.1 | -0.2 | -0.1 | -0.3 |
| Total | 79.4 | 84.7 | 90.1 | 5.3 | 0.6 | 5.5 | 0.6 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table B.5: Employment projections by broad sector in the Planned Economic Growth forecast - Cherwell

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.7 | 1.9 | 2.1 | 1.2 | 10.3 | 0.2 | 1.0 |
| Mining & quarrying | 0.1 | 0.1 | 0.0 | 0.0 | -1.1 | 0.0 | -3.3 |
| Manufacturing | 8.7 | 10.5 | 10.9 | 1.8 | 1.9 | 0.4 | 0.4 |
| Electricity, gas & water | 0.8 | 0.8 | 0.8 | 0.0 | -0.1 | 0.0 | 0.1 |
| Construction | 5.2 | 6.0 | 6.4 | 0.7 | 1.3 | 0.4 | 0.7 |
| Distribution | 16.3 | 18.9 | 19.8 | 2.6 | 1.5 | 0.9 | 0.5 |
| Transport & storage | 2.6 | 4.3 | 5.4 | 1.7 | 5.2 | 1.1 | 2.4 |
| Accommodation & food services | 4.7 | 5.5 | 6.2 | 0.8 | 1.7 | 0.6 | 1.1 |
| Information & comms. | 3.3 | 3.4 | 3.9 | 0.1 | 0.2 | 0.5 | 1.4 |
| Fin. & business services | 13.8 | 18.5 | 23.8 | 4.7 | 3.0 | 5.3 | 2.6 |
| Government services. | 19.3 | 17.7 | 17.9 | -1.6 | -0.9 | 0.2 | 0.1 |
| Other services | 3.9 | 3.9 | 3.8 | 0.0 | -0.1 | -0.1 | -0.2 |
| Total | 79.4 | 91.4 | 100.9 | 12.0 | 1.4 | 9.6 | 1.0 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Appendix C: Summary Results for Oxford

Table C.1: Total Employment in each Stage - Oxford

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 123.2 | 123.2 | 127.8 | 0.0 | 0.0 | 4.6 | 0.4 |
| Alternative Population | 123.2 | 129.3 | 136.6 | 6.1 | 0.5 | 7.3 | 0.5 |
| Planned Economic Growth | 123.2 | 136.2 | 147.6 | 12.9 | 1.0 | 11.4 | 0.8 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Figure C.1: Total Employment in each Stage - Oxford

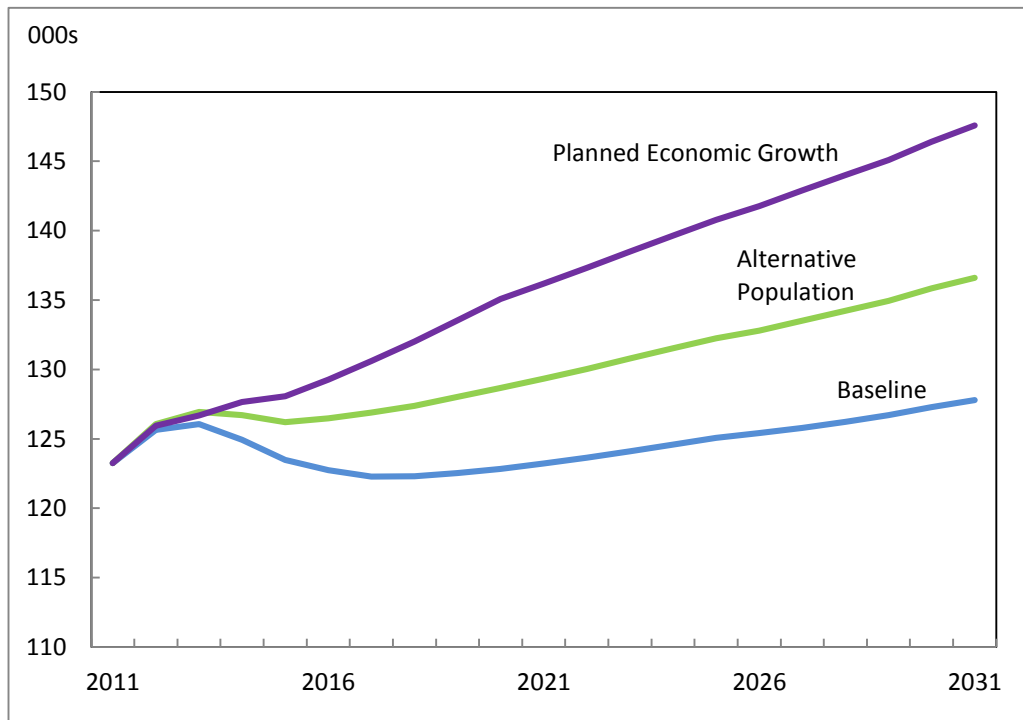


Table C.2: Total Population in the Baseline and Alternative Population-based projections - Oxford

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|------------------------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 150.2 | 149.8 | 150.6 | -0.4 | 0.0 | 0.8 | 0.1 |
| Alternative Population | 150.2 | 168.5 | 187.0 | 18.3 | 1.2 | 18.5 | 1.0 |

Notes: Figures are rounded to the nearest 100 people.
Source: Cambridge Econometrics, January 2014.

Figure C.2: Total Population in the Baseline and Alternative Population-based projections - Oxford

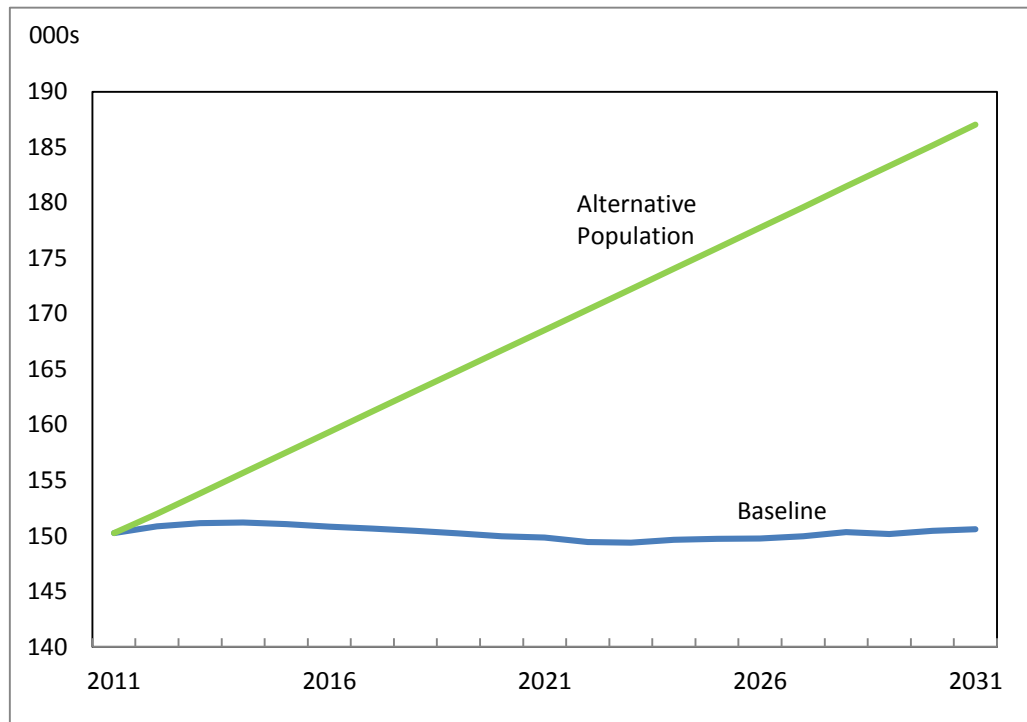


Table C.3: Employment projections by broad sector in the Baseline projections - Oxford

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------------|--------------|--------------|------------|------------|------------|------------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.1 | 0.4 | 0.5 | 0.3 | 11.1 | 0.0 | 1.1 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | -2.5 |
| Manufacturing | 4.6 | 3.6 | 2.8 | -1.0 | -2.5 | -0.8 | -2.6 |
| Electricity, gas & water | 1.0 | 0.9 | 0.9 | -0.1 | -1.0 | 0.0 | 0.3 |
| Construction | 3.9 | 4.1 | 4.3 | 0.3 | 0.7 | 0.2 | 0.4 |
| Distribution | 10.8 | 11.1 | 11.3 | 0.3 | 0.3 | 0.2 | 0.2 |
| Transport & storage | 4.2 | 5.1 | 5.3 | 0.9 | 2.0 | 0.1 | 0.3 |
| Accommodation & food services | 6.9 | 7.7 | 8.1 | 0.8 | 1.1 | 0.5 | 0.6 |
| Information & comms. | 8.7 | 8.2 | 8.3 | -0.5 | -0.6 | 0.1 | 0.1 |
| Fin. & business services | 18.0 | 20.5 | 23.4 | 2.6 | 1.3 | 2.9 | 1.3 |
| Government services. | 59.2 | 55.6 | 57.0 | -3.6 | -0.6 | 1.4 | 0.3 |
| Other services | 5.9 | 5.9 | 5.9 | 0.1 | 0.1 | 0.0 | -0.1 |
| Total | 123.2 | 123.2 | 127.8 | 0.0 | 0.0 | 4.6 | 0.4 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table C.4: Employment projections by broad sector in the Alternative Population-based projections - Oxford

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------------|--------------|--------------|------------|------------|------------|------------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.1 | 0.4 | 0.5 | 0.3 | 11.2 | 0.1 | 1.2 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | -2.5 |
| Manufacturing | 4.6 | 3.6 | 2.8 | -1.0 | -2.4 | -0.8 | -2.5 |
| Electricity, gas & water | 1.0 | 0.9 | 0.9 | -0.1 | -0.9 | 0.0 | 0.3 |
| Construction | 3.9 | 4.2 | 4.3 | 0.3 | 0.7 | 0.2 | 0.4 |
| Distribution | 10.8 | 11.4 | 11.9 | 0.6 | 0.5 | 0.6 | 0.5 |
| Transport & storage | 4.2 | 5.2 | 5.4 | 1.0 | 2.1 | 0.2 | 0.4 |
| Accommodation & food services | 6.9 | 7.7 | 8.3 | 0.8 | 1.1 | 0.6 | 0.7 |
| Information & comms. | 8.7 | 8.2 | 8.3 | -0.5 | -0.6 | 0.1 | 0.1 |
| Fin. & business services | 18.0 | 20.6 | 23.7 | 2.6 | 1.4 | 3.1 | 1.4 |
| Government services. | 59.2 | 61.2 | 64.5 | 2.0 | 0.3 | 3.3 | 0.5 |
| Other services | 5.9 | 6.0 | 5.9 | 0.1 | 0.1 | 0.0 | 0.0 |
| Total | 123.2 | 129.3 | 136.6 | 6.1 | 0.5 | 7.3 | 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table C.5: Employment projections by broad sector in the Planned Economic Growth forecast - Oxford

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 (000s) (% pa) | | 2021-31 (000s) (% pa) | |
|-------------------------------|----------------|----------------|----------------|--------------------------|------------|--------------------------|------------|
| Agriculture | 0.1 | 0.4 | 0.5 | 0.3 | 11.2 | 0.1 | 1.1 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | -1.2 |
| Manufacturing | 4.6 | 4.6 | 4.7 | 0.0 | 0.0 | 0.1 | 0.2 |
| Electricity, gas & water | 1.0 | 0.9 | 0.9 | -0.1 | -0.9 | 0.0 | 0.4 |
| Construction | 3.9 | 4.2 | 4.4 | 0.3 | 0.8 | 0.2 | 0.5 |
| Distribution | 10.8 | 12.6 | 13.2 | 1.8 | 1.5 | 0.6 | 0.5 |
| Transport & storage | 4.2 | 5.3 | 5.6 | 1.1 | 2.4 | 0.3 | 0.5 |
| Accommodation & food services | 6.9 | 7.8 | 8.4 | 0.9 | 1.3 | 0.5 | 0.7 |
| Information & comms. | 8.7 | 8.3 | 8.5 | -0.4 | -0.4 | 0.2 | 0.2 |
| Fin. & business services | 18.0 | 22.5 | 27.0 | 4.5 | 2.3 | 4.5 | 1.8 |
| Government services. | 59.2 | 63.5 | 68.4 | 4.3 | 0.7 | 4.9 | 0.8 |
| Other services | 5.9 | 6.0 | 6.0 | 0.2 | 0.3 | 0.0 | 0.0 |
| Total | 123.2 | 136.2 | 147.6 | 12.9 | 1.0 | 11.4 | 0.8 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Appendix D: Summary Results for South Oxfordshire

Table D.1: Total Employment in each Stage – South Oxfordshire

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 (000s) | 2011-21 (% pa) | 2021-31 (000s) | 2021-31 (% pa) |
|-------------------------|----------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|
| Baseline | 65.1 | 69.4 | 72.8 | 4.3 | 0.6 | 3.4 | 0.5 |
| Alternative Population | 65.1 | 69.8 | 74.2 | 4.7 | 0.7 | 4.4 | 0.6 |
| Planned Economic Growth | 65.1 | 71.4 | 76.5 | 6.4 | 0.9 | 5.1 | 0.7 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Figure D.1: Total Employment in each Stage - South Oxfordshire

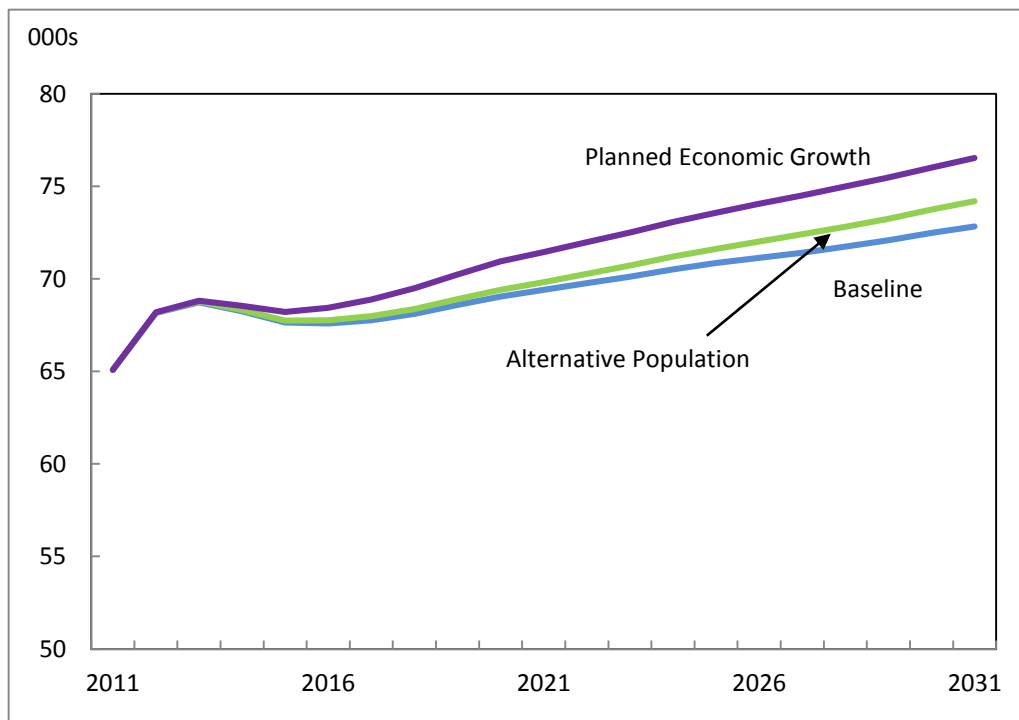


Table D.2: Total Population in the Baseline and Alternative Population-based projections - South Oxfordshire

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|------------------------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 135.0 | 142.5 | 146.1 | 7.4 | 0.5 | 3.6 | 0.3 |
| Alternative Population | 135.0 | 143.8 | 151.4 | 8.9 | 0.6 | 7.5 | 0.5 |

Notes: Figures are rounded to the nearest 100 people.
Source: Cambridge Econometrics, January 2014.

Figure D.2: Total Population in the Baseline and Alternative Population-based projections - South Oxfordshire

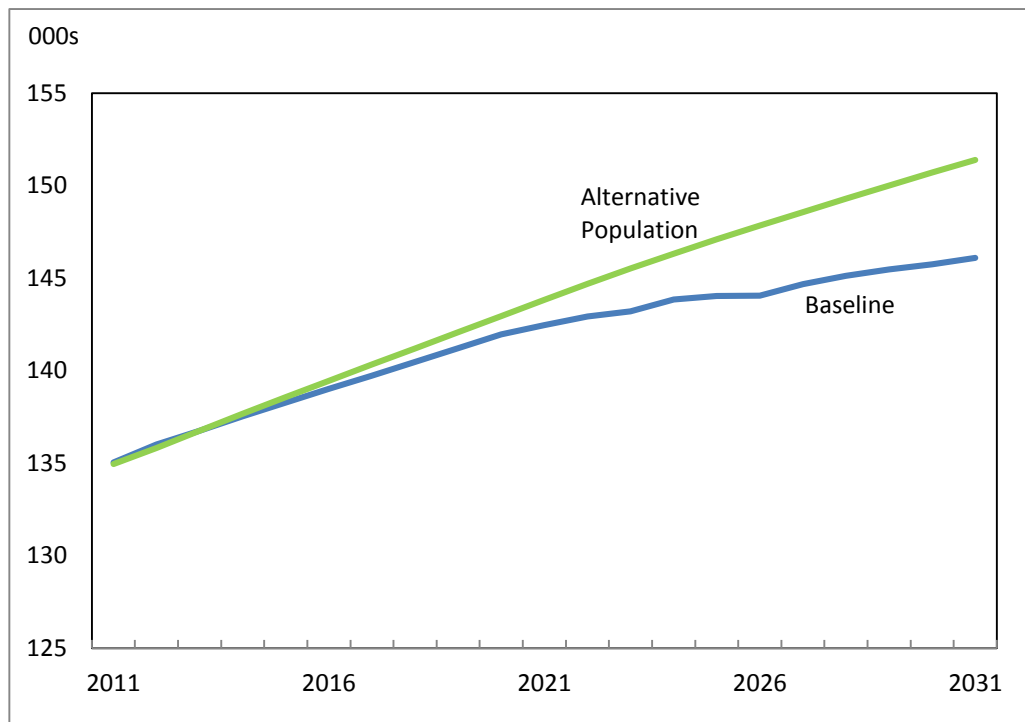


Table D.3: Employment projections by broad sector in the Baseline projections - South Oxfordshire

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.4 | 0.5 | 0.6 | 0.2 | 4.3 | 0.0 | 0.3 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -2.8 |
| Manufacturing | 4.0 | 4.1 | 3.7 | 0.1 | 0.3 | -0.4 | -1.1 |
| Electricity, gas & water | 0.7 | 0.7 | 0.7 | 0.0 | 0.0 | 0.0 | -0.1 |
| Construction | 4.3 | 4.6 | 4.9 | 0.4 | 0.9 | 0.2 | 0.5 |
| Distribution | 9.3 | 9.9 | 10.2 | 0.6 | 0.7 | 0.3 | 0.3 |
| Transport & storage | 1.7 | 1.9 | 1.9 | 0.2 | 0.9 | 0.0 | 0.2 |
| Accommodation & food services | 4.9 | 6.2 | 7.0 | 1.3 | 2.4 | 0.8 | 1.2 |
| Information & comms. | 3.0 | 2.8 | 3.3 | -0.2 | -0.5 | 0.5 | 1.6 |
| Fin. & business services | 20.1 | 22.4 | 24.4 | 2.3 | 1.1 | 2.0 | 0.9 |
| Government services. | 12.5 | 11.9 | 12.0 | -0.6 | -0.5 | 0.1 | 0.1 |
| Other services | 4.4 | 4.4 | 4.3 | 0.0 | -0.1 | -0.1 | -0.2 |
| Total | 65.1 | 69.4 | 72.8 | 4.3 | 0.6 | 3.4 | 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table D.4: Employment projections by broad sector in the Alternative Population-based projections - South Oxfordshire

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.4 | 0.5 | 0.6 | 0.2 | 4.3 | 0.0 | 0.4 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -2.8 |
| Manufacturing | 4.0 | 4.2 | 3.8 | 0.1 | 0.4 | -0.4 | -1.0 |
| Electricity, gas & water | 0.7 | 0.7 | 0.7 | 0.0 | 0.1 | 0.0 | -0.1 |
| Construction | 4.3 | 4.7 | 5.0 | 0.4 | 0.9 | 0.3 | 0.6 |
| Distribution | 9.3 | 10.0 | 10.5 | 0.7 | 0.7 | 0.5 | 0.5 |
| Transport & storage | 1.7 | 1.9 | 1.9 | 0.2 | 1.0 | 0.0 | 0.2 |
| Accommodation & food services | 4.9 | 6.3 | 7.2 | 1.4 | 2.5 | 1.0 | 1.5 |
| Information & comms. | 3.0 | 2.8 | 3.3 | -0.1 | -0.5 | 0.5 | 1.6 |
| Fin. & business services | 20.1 | 22.4 | 24.6 | 2.3 | 1.1 | 2.1 | 0.9 |
| Government services. | 12.5 | 12.0 | 12.4 | -0.4 | -0.3 | 0.4 | 0.3 |
| Other services | 4.4 | 4.4 | 4.3 | 0.0 | 0.0 | -0.1 | -0.1 |
| Total | 65.1 | 69.8 | 74.2 | 4.7 | 0.7 | 4.4 | 0.6 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table D.5: Employment projections by broad sector in the Planned Economic Growth forecast - South Oxfordshire

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.4 | 0.5 | 0.6 | 0.2 | 4.3 | 0.0 | 0.4 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -2.8 |
| Manufacturing | 4.0 | 4.3 | 4.0 | 0.3 | 0.7 | -0.3 | -0.7 |
| Electricity, gas & water | 0.7 | 0.7 | 0.7 | 0.0 | 0.1 | 0.0 | -0.1 |
| Construction | 4.3 | 4.7 | 5.0 | 0.5 | 1.0 | 0.3 | 0.7 |
| Distribution | 9.3 | 10.2 | 10.7 | 0.9 | 0.9 | 0.5 | 0.5 |
| Transport & storage | 1.7 | 2.0 | 2.0 | 0.2 | 1.3 | 0.1 | 0.3 |
| Accommodation & food services | 4.9 | 6.4 | 7.4 | 1.5 | 2.7 | 1.0 | 1.4 |
| Information & comms. | 3.0 | 2.9 | 3.5 | -0.1 | -0.2 | 0.6 | 1.8 |
| Fin. & business services | 20.1 | 23.2 | 25.8 | 3.1 | 1.5 | 2.6 | 1.1 |
| Government services. | 12.5 | 12.1 | 12.5 | -0.3 | -0.3 | 0.4 | 0.3 |
| Other services | 4.4 | 4.4 | 4.4 | 0.1 | 0.1 | 0.0 | -0.1 |
| Total | 65.1 | 71.4 | 76.5 | 6.4 | 0.9 | 5.1 | 0.7 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Appendix E: Summary Results for Vale of White Horse

Table E.1: Total Employment in each Stage - Vale of White Horse

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 (000s) (% pa) | | 2021-31 (000s) (% pa) | |
|-------------------------|----------------|----------------|----------------|--------------------------|-----|--------------------------|-----|
| Baseline | 67.2 | 71.7 | 76.4 | 4.4 | 0.6 | 4.7 | 0.6 |
| Alternative Population | 67.2 | 72.1 | 77.9 | 4.9 | 0.7 | 5.8 | 0.8 |
| Planned Economic Growth | 67.2 | 81.6 | 90.2 | 14.4 | 2.0 | 8.6 | 1.0 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Figure E.1: Total Employment in each Stage - Vale of White Horse

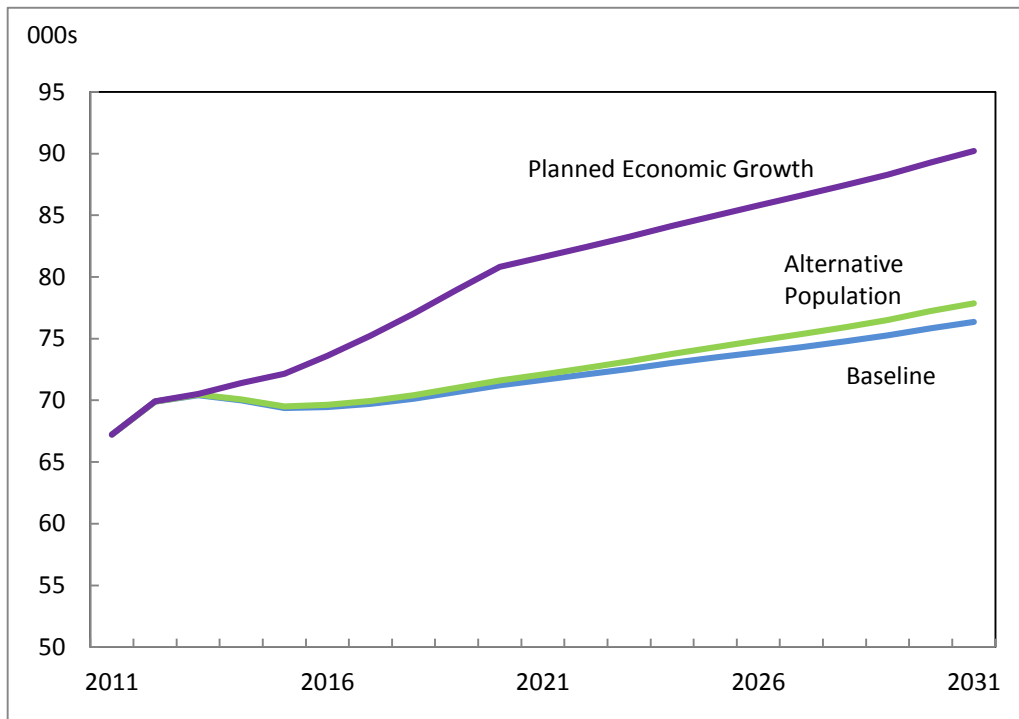


Table E.2: Total Population in the Baseline and Alternative Population-based projections - Vale of White Horse

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|------------------------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 121.9 | 131.2 | 134.5 | 9.3 | 0.7 | 3.2 | 0.2 |
| Alternative Population | 121.9 | 131.5 | 139.3 | 9.6 | 0.8 | 7.8 | 0.6 |

Notes: Figures are rounded to the nearest 100 people.
Source: Cambridge Econometrics, January 2014.

Figure E.2: Total Population in the Baseline and Alternative Population-based projections - Vale of White Horse

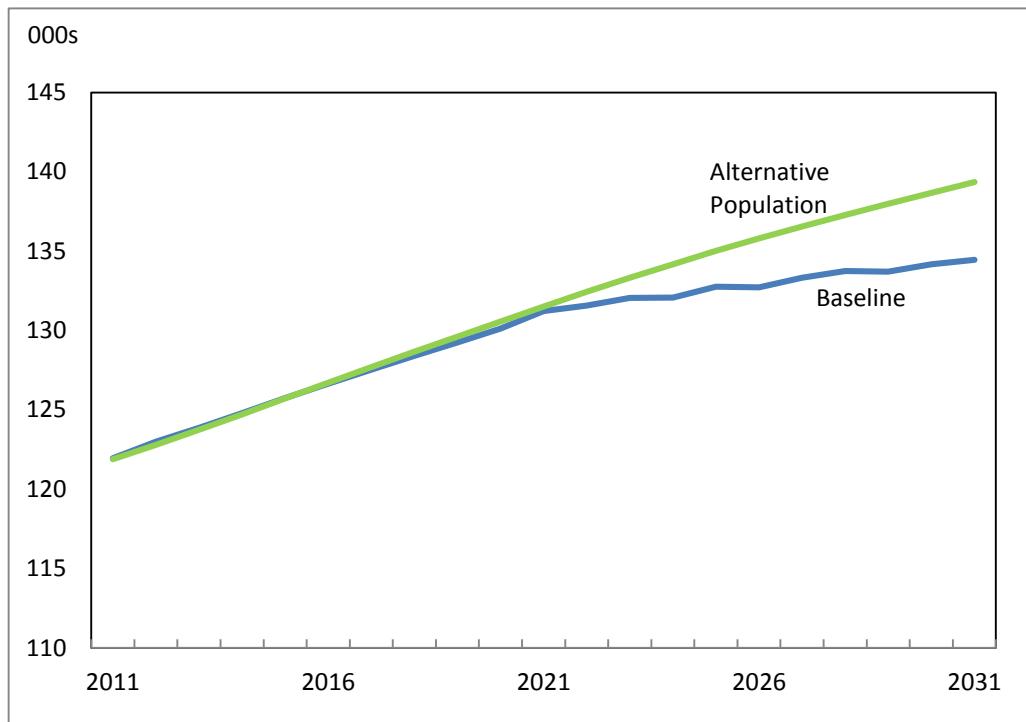


Table E.3: Employment projections by broad sector in the Baseline projections - Vale of White Horse

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.8 | 1.4 | 1.5 | 0.6 | 5.9 | 0.1 | 0.5 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | -5.9 | 0.0 | -5.2 |
| Manufacturing | 4.4 | 4.7 | 4.3 | 0.3 | 0.7 | -0.4 | -0.9 |
| Electricity, gas & water | 1.3 | 1.3 | 1.3 | 0.0 | -0.1 | 0.0 | -0.1 |
| Construction | 5.1 | 5.6 | 6.0 | 0.6 | 1.1 | 0.4 | 0.6 |
| Distribution | 8.8 | 9.4 | 9.6 | 0.6 | 0.6 | 0.2 | 0.3 |
| Transport & storage | 2.1 | 2.6 | 2.7 | 0.4 | 1.8 | 0.2 | 0.7 |
| Accommodation & food services | 3.6 | 4.2 | 4.8 | 0.6 | 1.6 | 0.6 | 1.3 |
| Information & comms. | 4.9 | 4.6 | 5.1 | -0.3 | -0.7 | 0.5 | 1.1 |
| Fin. & business services | 18.0 | 20.2 | 22.9 | 2.2 | 1.2 | 2.7 | 1.3 |
| Government services. | 14.0 | 13.4 | 13.9 | -0.5 | -0.4 | 0.5 | 0.4 |
| Other services | 4.2 | 4.3 | 4.2 | 0.1 | 0.1 | -0.1 | -0.2 |
| Total | 67.2 | 71.7 | 76.4 | 4.4 | 0.6 | 4.7 | 0.6 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table E.4: Employment projections by broad sector in the Alternative Population-based projections - Vale of White Horse

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.8 | 1.4 | 1.5 | 0.6 | 5.9 | 0.1 | 0.5 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | -4.8 | 0.0 | -4.5 |
| Manufacturing | 4.4 | 4.7 | 4.4 | 0.4 | 0.8 | -0.4 | -0.8 |
| Electricity, gas & water | 1.3 | 1.3 | 1.3 | 0.0 | -0.1 | 0.0 | 0.0 |
| Construction | 5.1 | 5.7 | 6.1 | 0.6 | 1.1 | 0.4 | 0.8 |
| Distribution | 8.8 | 9.4 | 9.8 | 0.6 | 0.7 | 0.4 | 0.4 |
| Transport & storage | 2.1 | 2.6 | 2.8 | 0.4 | 1.9 | 0.2 | 0.8 |
| Accommodation & food services | 3.6 | 4.2 | 4.9 | 0.6 | 1.7 | 0.7 | 1.5 |
| Information & comms. | 4.9 | 4.6 | 5.1 | -0.3 | -0.7 | 0.6 | 1.2 |
| Fin. & business services | 18.0 | 20.2 | 23.1 | 2.3 | 1.2 | 2.9 | 1.3 |
| Government services. | 14.0 | 13.6 | 14.6 | -0.4 | -0.3 | 0.9 | 0.7 |
| Other services | 4.2 | 4.3 | 4.2 | 0.1 | 0.2 | 0.0 | -0.1 |
| Total | 67.2 | 72.1 | 77.9 | 4.9 | 0.7 | 5.8 | 0.8 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table E.5: Employment projections by broad sector in the Planned Economic Growth forecast - Vale of White Horse

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|-------------------------------|----------------|----------------|----------------|-------------|------------|------------|------------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.8 | 1.4 | 1.5 | 0.6 | 6.0 | 0.1 | 0.5 |
| Mining & quarrying | 0.0 | 0.0 | 0.0 | 0.0 | -4.8 | 0.0 | -4.5 |
| Manufacturing | 4.4 | 7.3 | 7.6 | 2.9 | 5.2 | 0.3 | 0.4 |
| Electricity, gas & water | 1.3 | 1.3 | 1.3 | 0.0 | -0.1 | 0.0 | 0.0 |
| Construction | 5.1 | 5.7 | 6.2 | 0.7 | 1.3 | 0.5 | 0.8 |
| Distribution | 8.8 | 9.7 | 10.3 | 0.9 | 1.0 | 0.5 | 0.5 |
| Transport & storage | 2.1 | 3.7 | 4.5 | 1.5 | 5.4 | 0.9 | 2.2 |
| Accommodation & food services | 3.6 | 4.3 | 5.0 | 0.7 | 1.8 | 0.7 | 1.5 |
| Information & comms. | 4.9 | 6.0 | 7.0 | 1.1 | 2.0 | 1.0 | 1.6 |
| Fin. & business services | 18.0 | 24.1 | 27.8 | 6.1 | 3.0 | 3.7 | 1.4 |
| Government services. | 14.0 | 13.7 | 14.7 | -0.3 | -0.2 | 0.9 | 0.7 |
| Other services | 4.2 | 4.3 | 4.3 | 0.2 | 0.4 | 0.0 | -0.1 |
| Total | 67.2 | 81.6 | 90.2 | 14.4 | 2.0 | 8.6 | 1.0 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Appendix F: Summary Results for West Oxfordshire

Table F.1: Total Employment in each Stage - West Oxfordshire

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|-------------------------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 45.7 | 48.4 | 50.8 | 2.7 | 0.6 | 2.4 | 0.5 |
| Alternative Population | 45.7 | 48.6 | 51.7 | 2.9 | 0.6 | 3.1 | 0.6 |
| Planned Economic Growth | 45.7 | 49.8 | 53.5 | 4.1 | 0.9 | 3.7 | 0.7 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Figure F.1: Total Employment in each Stage - West Oxfordshire

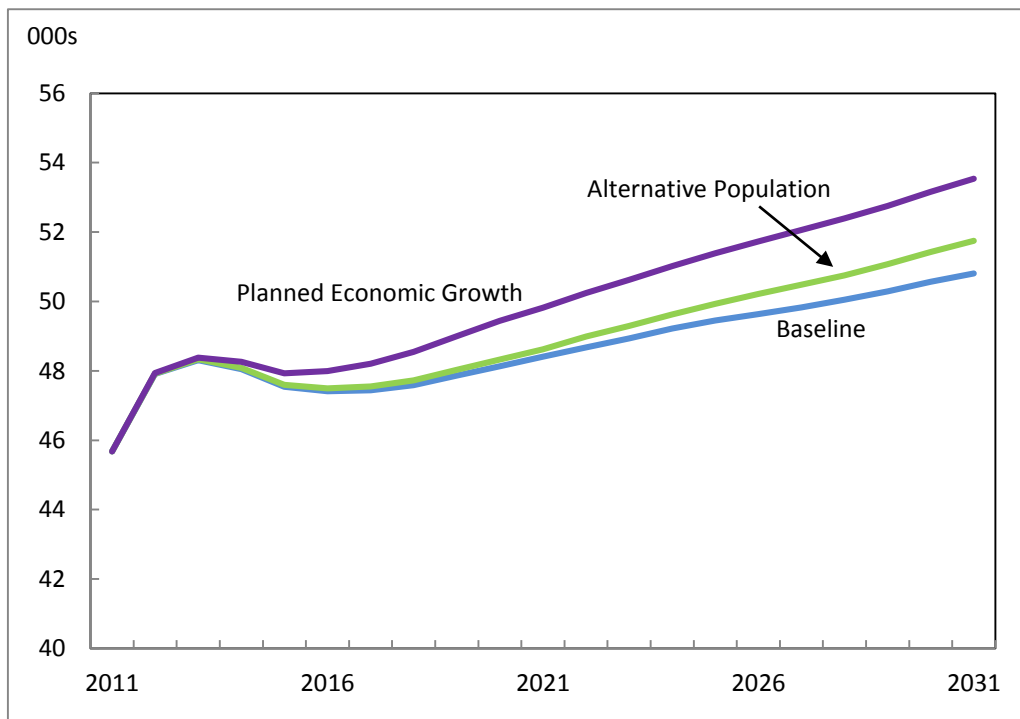


Table F.2: Total Population in the Baseline and Alternative Population-based projections - West Oxfordshire

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|------------------------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 105.4 | 116.4 | 122.7 | 11.0 | 1.0 | 6.3 | 0.5 |
| Alternative Population | 105.4 | 115.3 | 123.9 | 9.9 | 0.9 | 8.5 | 0.7 |

Notes: Figures are rounded to the nearest 100 people.
Source: Cambridge Econometrics, January 2014.

Figure F.2: Total Population in the Baseline and Alternative Population-based projections - West Oxfordshire

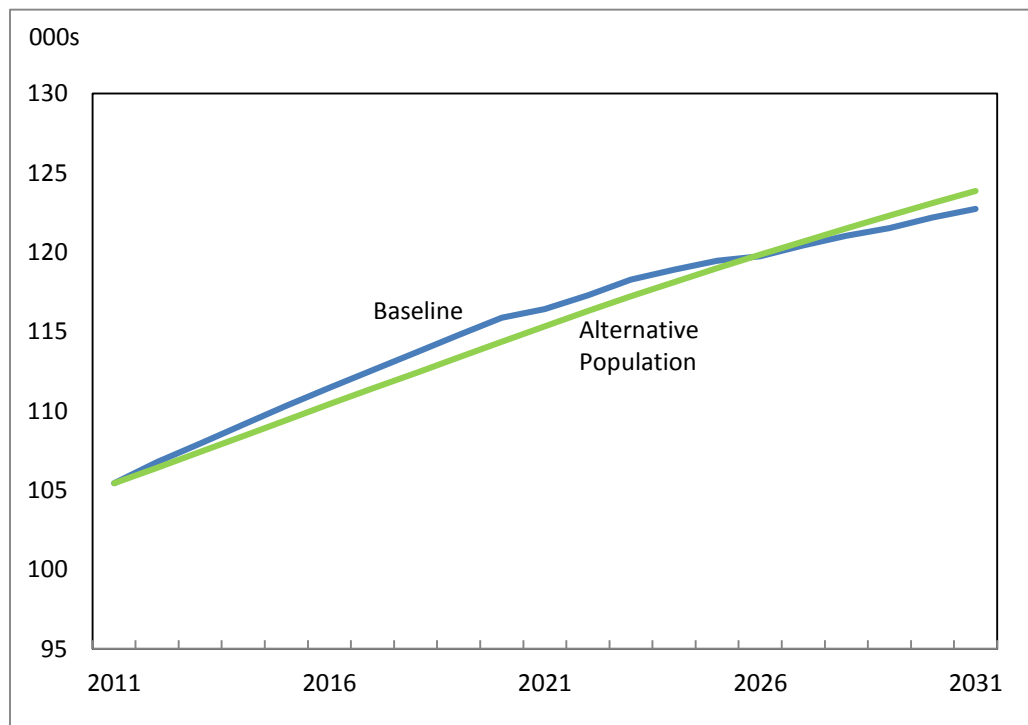


Table F.3: Employment projections by broad sector in the Baseline projections - West Oxfordshire

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.3 | 0.5 | 0.6 | 0.2 | 6.4 | 0.0 | 0.6 |
| Mining & quarrying | 0.1 | 0.1 | 0.1 | 0.0 | 0.7 | 0.0 | -2.4 |
| Manufacturing | 5.2 | 5.6 | 5.1 | 0.5 | 0.9 | -0.5 | -1.0 |
| Electricity, gas & water | 0.5 | 0.5 | 0.5 | 0.0 | 0.1 | 0.0 | -0.3 |
| Construction | 3.8 | 4.2 | 4.4 | 0.3 | 0.8 | 0.2 | 0.5 |
| Distribution | 6.8 | 7.2 | 7.5 | 0.4 | 0.6 | 0.3 | 0.4 |
| Transport & storage | 1.1 | 1.4 | 1.5 | 0.2 | 2.0 | 0.1 | 0.6 |
| Accommodation & food services | 3.3 | 3.8 | 4.1 | 0.5 | 1.4 | 0.3 | 0.9 |
| Information & comms. | 1.9 | 1.8 | 2.2 | -0.1 | -0.5 | 0.3 | 1.6 |
| Fin. & business services | 8.3 | 9.4 | 10.9 | 1.1 | 1.3 | 1.5 | 1.4 |
| Government services. | 9.8 | 9.3 | 9.6 | -0.5 | -0.5 | 0.3 | 0.4 |
| Other services | 4.6 | 4.6 | 4.5 | 0.0 | -0.1 | -0.1 | -0.2 |
| Total | 45.7 | 48.4 | 50.8 | 2.7 | 0.6 | 2.4 | 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table F.4: Employment projections by broad sector in the Alternative Population-based projections - West Oxfordshire

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 0.3 | 0.5 | 0.6 | 0.2 | 6.5 | 0.0 | 0.6 |
| Mining & quarrying | 0.1 | 0.1 | 0.1 | 0.0 | 1.1 | 0.0 | -1.9 |
| Manufacturing | 5.2 | 5.6 | 5.1 | 0.5 | 0.9 | -0.5 | -0.9 |
| Electricity, gas & water | 0.5 | 0.5 | 0.5 | 0.0 | 0.2 | 0.0 | -0.2 |
| Construction | 3.8 | 4.2 | 4.4 | 0.4 | 0.9 | 0.2 | 0.6 |
| Distribution | 6.8 | 7.2 | 7.6 | 0.4 | 0.6 | 0.4 | 0.5 |
| Transport & storage | 1.1 | 1.4 | 1.5 | 0.3 | 2.1 | 0.1 | 0.7 |
| Accommodation & food services | 3.3 | 3.8 | 4.2 | 0.5 | 1.5 | 0.4 | 1.0 |
| Information & comms. | 1.9 | 1.8 | 2.2 | -0.1 | -0.5 | 0.3 | 1.7 |
| Fin. & business services | 8.3 | 9.5 | 11.1 | 1.2 | 1.3 | 1.6 | 1.6 |
| Government services. | 9.8 | 9.3 | 9.9 | -0.5 | -0.5 | 0.6 | 0.6 |
| Other services | 4.6 | 4.6 | 4.6 | 0.0 | 0.0 | -0.1 | -0.1 |
| Total | 45.7 | 48.6 | 51.7 | 2.9 | 0.6 | 3.1 | 0.6 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table F.5: Employment projections by broad sector in the Planned Economic Growth forecast - West Oxfordshire

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 (000s) (% pa) | | 2021-31 (000s) (% pa) | |
|-------------------------------|----------------|----------------|----------------|--------------------------|------------|--------------------------|------------|
| Agriculture | 0.3 | 0.5 | 0.6 | 0.2 | 6.5 | 0.0 | 0.6 |
| Mining & quarrying | 0.1 | 0.1 | 0.1 | 0.0 | 1.2 | 0.0 | -1.8 |
| Manufacturing | 5.2 | 5.9 | 5.6 | 0.8 | 1.4 | -0.3 | -0.5 |
| Electricity, gas & water | 0.5 | 0.5 | 0.5 | 0.0 | 0.2 | 0.0 | -0.2 |
| Construction | 3.8 | 4.2 | 4.5 | 0.4 | 1.0 | 0.3 | 0.6 |
| Distribution | 6.8 | 7.4 | 7.8 | 0.6 | 0.8 | 0.4 | 0.5 |
| Transport & storage | 1.1 | 1.4 | 1.6 | 0.3 | 2.4 | 0.1 | 0.8 |
| Accommodation & food services | 3.3 | 3.9 | 4.3 | 0.6 | 1.7 | 0.4 | 1.0 |
| Information & comms. | 1.9 | 1.9 | 2.2 | -0.1 | -0.3 | 0.4 | 1.8 |
| Fin. & business services | 8.3 | 9.9 | 11.8 | 1.6 | 1.8 | 1.9 | 1.7 |
| Government services. | 9.8 | 9.4 | 10.0 | -0.4 | -0.4 | 0.6 | 0.6 |
| Other services | 4.6 | 4.7 | 4.6 | 0.1 | 0.1 | 0.0 | -0.1 |
| Total | 45.7 | 49.8 | 53.5 | 4.1 | 0.9 | 3.7 | 0.7 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Appendix G: Summary Results for Oxfordshire

Table G.1: Total Employment in each Stage - Oxfordshire

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 (000s) | (% pa) | 2021-31 (000s) | (% pa) |
|-------------------------|----------------|----------------|----------------|-------------------|--------|-------------------|--------|
| Baseline | 380.6 | 397.3 | 417.0 | 16.7 | 0.4 | 19.7 | 0.5 |
| Alternative Population | 380.6 | 404.6 | 430.5 | 24.0 | 0.6 | 26.0 | 0.6 |
| Planned Economic Growth | 380.6 | 430.5 | 468.8 | 49.9 | 1.2 | 38.3 | 0.9 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Figure G.1: Total Employment in each Stage - Oxfordshire

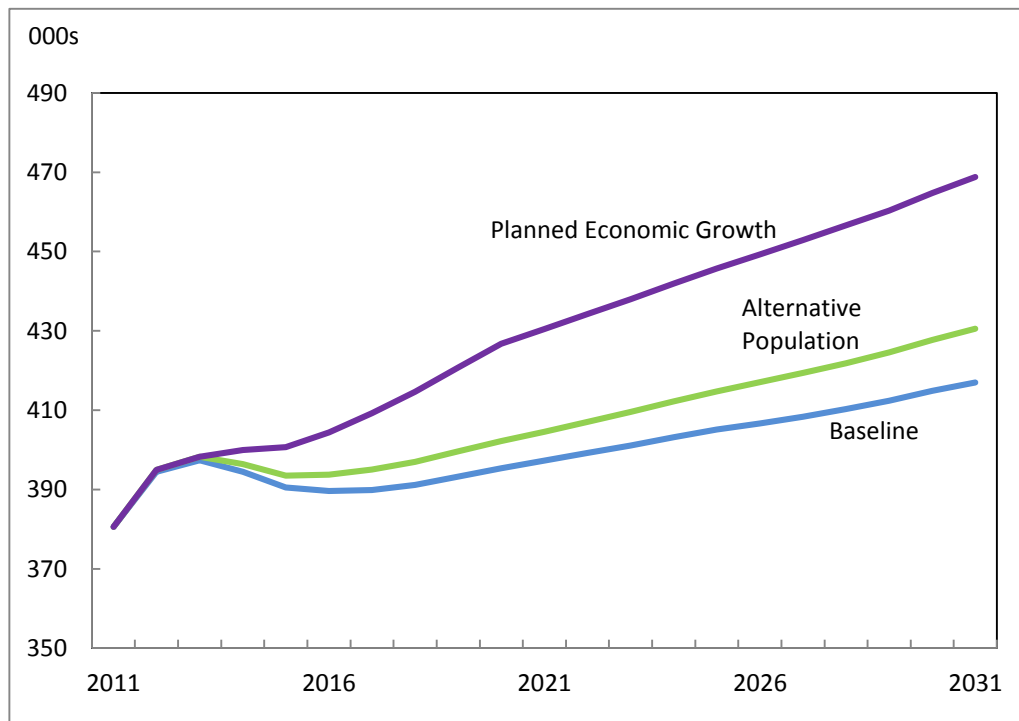


Table G.2: Total Population in the Baseline and Alternative Population-based projections - Oxfordshire

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|------------------------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 655.0 | 696.2 | 716.8 | 41.2 | 0.6 | 20.5 | 0.3 |
| Alternative Population | 654.8 | 711.4 | 762.2 | 56.6 | 0.8 | 50.9 | 0.7 |

Notes: Figures are rounded to the nearest 100 people.
Source: Cambridge Econometrics, January 2014.

Figure G.2: Total Population in the Baseline and Alternative Population-based projections - Oxfordshire

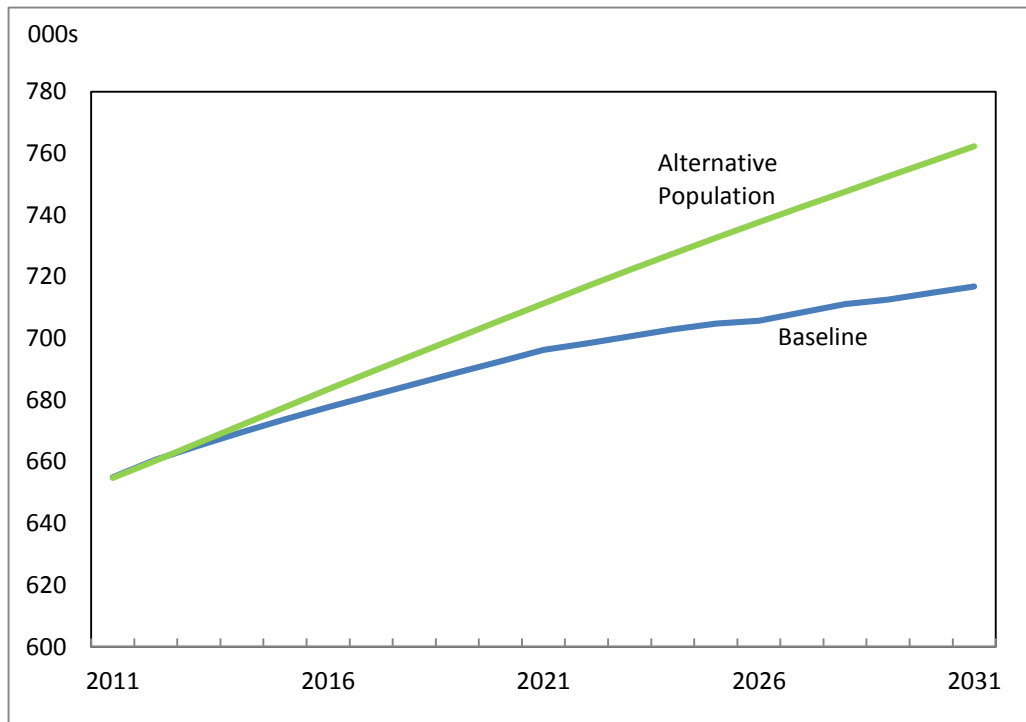


Table G.3: Employment projections by broad sector in the Baseline projections - Oxfordshire

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------------|--------------|--------------|-------------|------------|-------------|------------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 2.3 | 4.8 | 5.1 | 2.5 | 7.7 | 0.4 | 0.7 |
| Mining & quarrying | 0.2 | 0.2 | 0.1 | 0.0 | -1.3 | 0.0 | -3.3 |
| Manufacturing | 26.9 | 27.3 | 24.4 | 0.4 | 0.2 | -2.9 | -1.1 |
| Electricity, gas & water | 4.3 | 4.1 | 4.1 | -0.1 | -0.3 | 0.0 | 0.0 |
| Construction | 22.2 | 24.3 | 25.6 | 2.1 | 0.9 | 1.3 | 0.5 |
| Distribution | 52.0 | 55.2 | 56.8 | 3.2 | 0.6 | 1.7 | 0.3 |
| Transport & storage | 11.8 | 14.0 | 14.6 | 2.2 | 1.8 | 0.6 | 0.4 |
| Accommodation & food services | 23.4 | 27.2 | 29.9 | 3.9 | 1.5 | 2.7 | 0.9 |
| Information & comms. | 21.9 | 20.5 | 22.1 | -1.3 | -0.6 | 1.6 | 0.8 |
| Fin. & business services | 78.1 | 88.9 | 101.5 | 10.8 | 1.3 | 12.6 | 1.3 |
| Government services. | 114.7 | 107.8 | 110.2 | -6.8 | -0.6 | 2.3 | 0.2 |
| Other services | 23.0 | 22.9 | 22.5 | -0.1 | 0.0 | -0.5 | -0.2 |
| Total | 380.6 | 397.3 | 417.0 | 16.7 | 0.4 | 19.7 | 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table G.4: Employment projections by broad sector in the Alternative Population-based projections - Oxfordshire

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------------|--------------|--------------|-------------|------------|-------------|------------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 2.3 | 4.8 | 5.2 | 2.5 | 7.7 | 0.4 | 0.8 |
| Mining & quarrying | 0.2 | 0.2 | 0.1 | 0.0 | -0.7 | 0.0 | -2.6 |
| Manufacturing | 26.9 | 27.4 | 24.7 | 0.5 | 0.2 | -2.7 | -1.0 |
| Electricity, gas & water | 4.3 | 4.2 | 4.2 | -0.1 | -0.2 | 0.0 | 0.0 |
| Construction | 22.2 | 24.4 | 25.9 | 2.2 | 0.9 | 1.5 | 0.6 |
| Distribution | 52.0 | 55.5 | 58.1 | 3.5 | 0.7 | 2.6 | 0.5 |
| Transport & storage | 11.8 | 14.1 | 14.9 | 2.3 | 1.8 | 0.8 | 0.6 |
| Accommodation & food services | 23.4 | 27.4 | 30.6 | 4.1 | 1.6 | 3.2 | 1.1 |
| Information & comms. | 21.9 | 20.6 | 22.3 | -1.3 | -0.6 | 1.7 | 0.8 |
| Fin. & business services | 78.1 | 89.3 | 102.6 | 11.1 | 1.3 | 13.4 | 1.4 |
| Government services. | 114.7 | 113.8 | 119.1 | -0.9 | -0.1 | 5.4 | 0.5 |
| Other services | 23.0 | 23.0 | 22.8 | 0.0 | 0.0 | -0.3 | -0.1 |
| Total | 380.6 | 404.6 | 430.5 | 24.0 | 0.6 | 26.0 | 0.6 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Table G.5: Employment projections by broad sector in the Planned Economic Growth forecast - Oxfordshire

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|-------------------------------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 2.3 | 4.8 | 5.2 | 2.5 | 7.7 | 0.4 | 0.8 |
| Mining & quarrying | 0.2 | 0.2 | 0.1 | 0.0 | -0.7 | 0.0 | -2.6 |
| Manufacturing | 26.9 | 32.6 | 32.8 | 5.7 | 2.0 | 0.2 | 0.1 |
| Electricity, gas & water | 4.3 | 4.2 | 4.2 | -0.1 | -0.2 | 0.0 | 0.0 |
| Construction | 22.2 | 24.8 | 26.5 | 2.6 | 1.1 | 1.7 | 0.7 |
| Distribution | 52.0 | 58.8 | 61.7 | 6.8 | 1.2 | 2.9 | 0.5 |
| Transport & storage | 11.8 | 16.7 | 19.1 | 4.9 | 3.5 | 2.4 | 1.4 |
| Accommodation & food services | 23.4 | 27.9 | 31.2 | 4.6 | 1.8 | 3.3 | 1.1 |
| Information & comms. | 21.9 | 22.5 | 25.2 | 0.7 | 0.3 | 2.6 | 1.1 |
| Fin. & business services | 78.1 | 98.2 | 116.1 | 20.1 | 2.3 | 18.0 | 1.7 |
| Government services. | 114.7 | 116.5 | 123.5 | 1.8 | 0.2 | 7.1 | 0.6 |
| Other services | 23.0 | 23.4 | 23.2 | 0.4 | 0.2 | -0.2 | -0.1 |
| Total | 380.6 | 430.5 | 468.8 | 49.9 | 1.2 | 38.3 | 0.9 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Appendix H: Summary Results for the South East

Table H.1: Employment Forecast - South East

| | 2011 | 2021 | 2031 | 2011-21 | 2021-31 |
|----------|--------|--------|--------|---------------|---------------|
| | (000s) | (000s) | (000s) | (000s) (% pa) | (000s) (% pa) |
| Baseline | 4387.2 | 4601.0 | 4834.9 | 213.8 0.5 | 234.0 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Figure H.1: Employment Forecast - South East

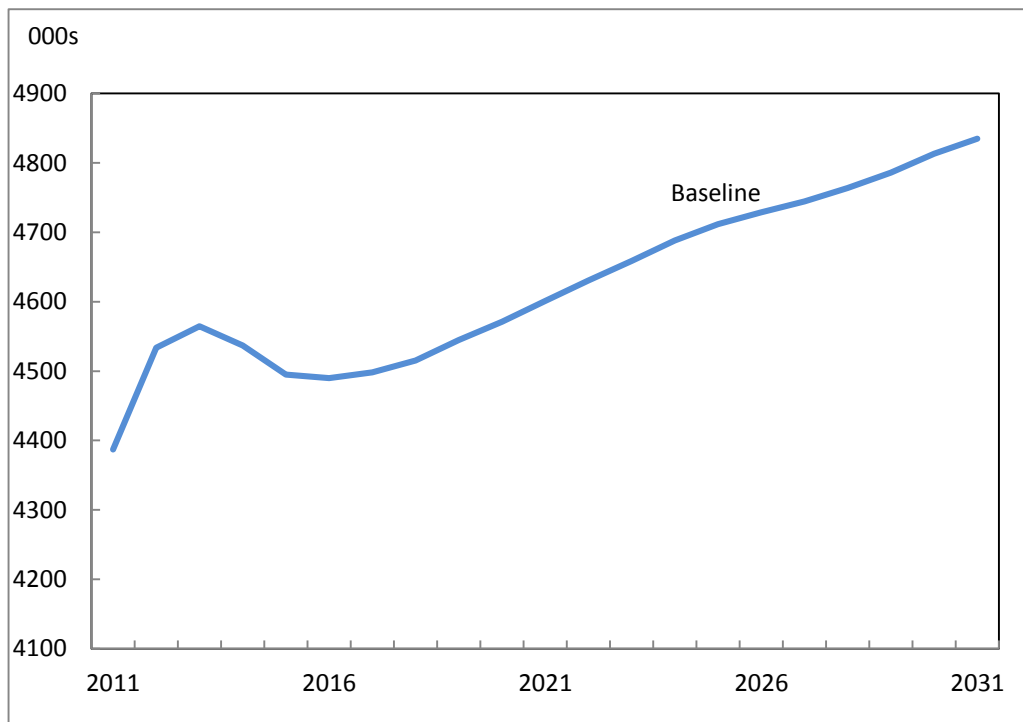


Table H.2: Population Projection - South East

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 | | 2021-31 | |
|----------|----------------|----------------|----------------|---------|--------|---------|--------|
| | | | | (000s) | (% pa) | (000s) | (% pa) |
| Baseline | 8653.0 | 9453.5 | 10007.0 | 800.5 | 0.9 | 553.5 | 0.6 |

Notes: Figures are rounded to the nearest 100 people.
Source: ONS and Cambridge Econometrics, January 2014.

Figure H.2: Population Projection - South East

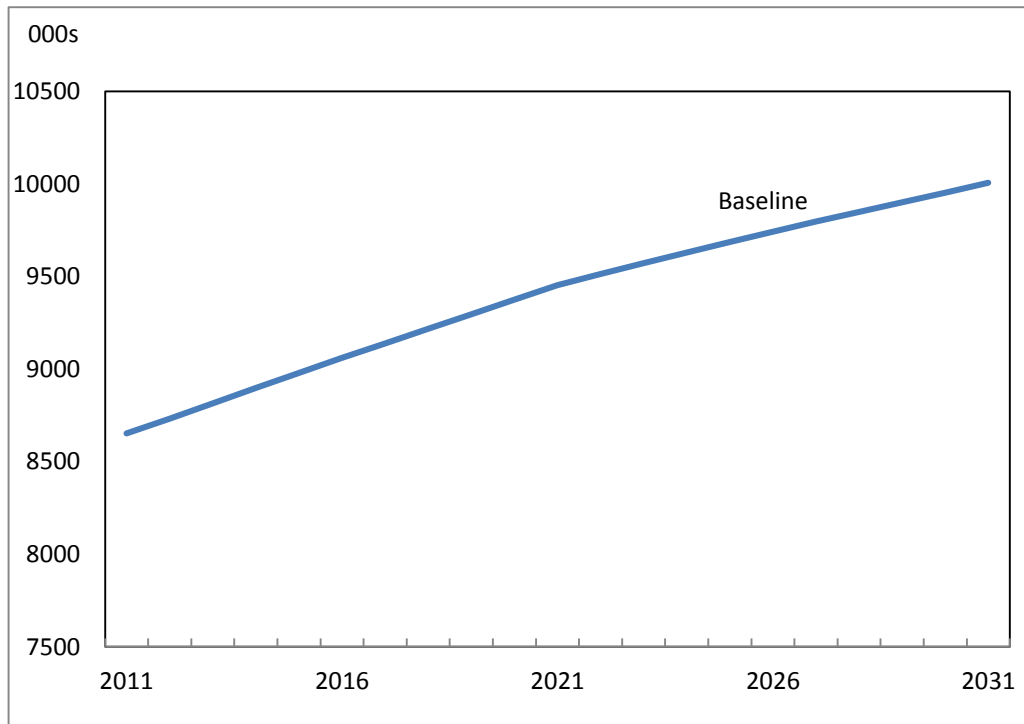


Table H.3: Employment Forecast by Broad Sector - South East

| | 2011 | 2021 | 2031 | 2011-21 | | 2021-31 | |
|-------------------------------|--------|--------|--------|---------|--------|---------|--------|
| | (000s) | (000s) | (000s) | (000s) | (% pa) | (000s) | (% pa) |
| Agriculture | 32.2 | 52.1 | 54.8 | 20.0 | 4.9 | 2.7 | 0.5 |
| Mining & quarrying | 4.2 | 3.9 | 3.3 | -0.3 | -0.7 | -0.6 | -1.7 |
| Manufacturing | 282.3 | 294.2 | 268.5 | 11.9 | 0.4 | -25.7 | -0.9 |
| Electricity, gas & water | 51.8 | 50.0 | 50.5 | -1.7 | -0.3 | 0.4 | 0.1 |
| Construction | 300.6 | 352.3 | 387.0 | 51.7 | 1.6 | 34.7 | 0.9 |
| Distribution | 665.4 | 714.8 | 736.1 | 49.4 | 0.7 | 21.3 | 0.3 |
| Transport & storage | 191.1 | 224.8 | 238.0 | 33.6 | 1.6 | 13.2 | 0.6 |
| Accommodation & food services | 266.9 | 312.2 | 339.2 | 45.4 | 1.6 | 27.0 | 0.8 |
| Information & comms. | 251.6 | 242.5 | 272.6 | -9.1 | -0.4 | 30.1 | 1.2 |
| Fin. & business services | 911.6 | 1026.2 | 1154.1 | 114.6 | 1.2 | 127.9 | 1.2 |
| Government services. | 1148.0 | 1063.4 | 1071.2 | -84.6 | -0.8 | 7.9 | 0.1 |
| Other services | 281.6 | 264.5 | 259.7 | -17.1 | -0.6 | -4.8 | -0.2 |
| Total | 4387.2 | 4601.0 | 4834.9 | 213.8 | 0.5 | 234.0 | 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Appendix I: Summary Results for UK

Table I.1: Employment Forecast - UK

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 (000s) | 2011-21 (% pa) | 2021-31 (000s) | 2021-31 (% pa) |
|----------|----------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|
| Baseline | 31175.0 | 33460.5 | 35075.7 | 2285.5 | 0.7 | 1615.2 | 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Figure I.1: Employment Forecast - UK

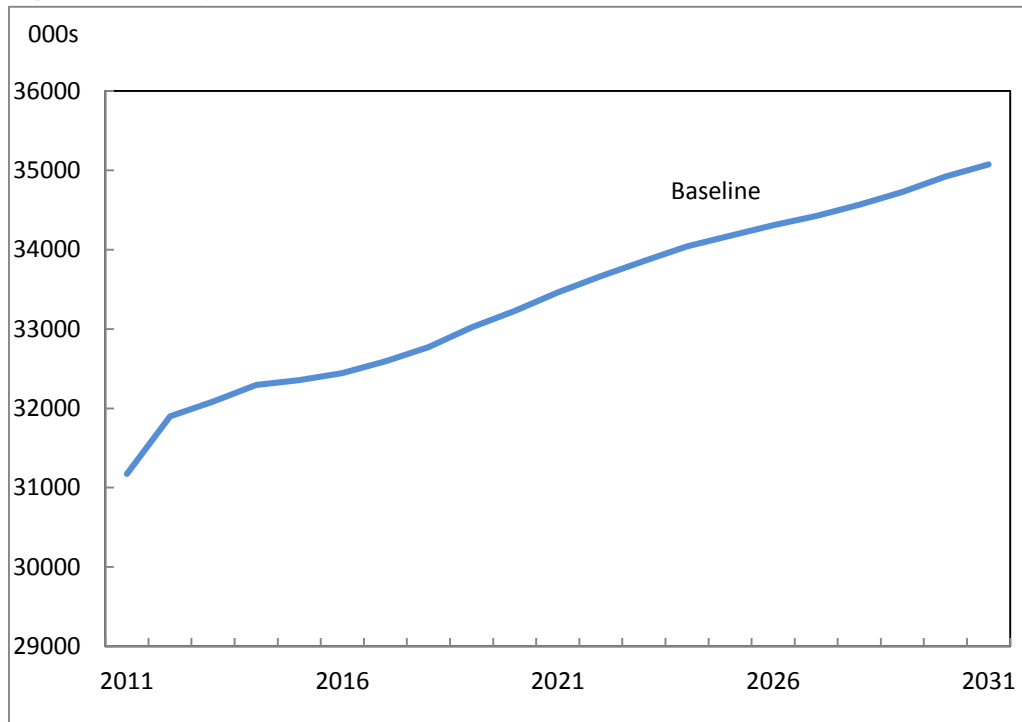


Table I.2: Population Projection - UK

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 (000s) | 2011-21 (% pa) | 2021-31 (000s) | 2021-31 (% pa) |
|----------|----------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|
| Baseline | 63233.0 | 68351.6 | 72558.2 | 5118.6 | 0.8 | 4206.6 | 0.6 |

Notes: Figures are rounded to the nearest 100 people.
Source: ONS and Cambridge Econometrics, January 2014.

Figure I.2: Population Projection - UK

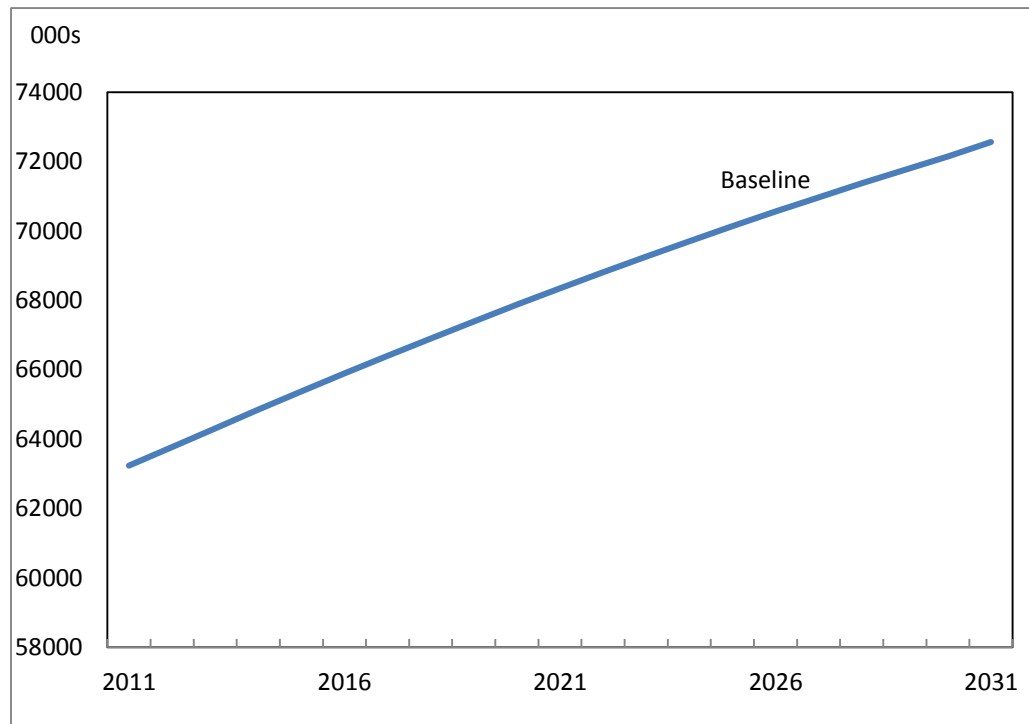


Table I.3: Employment Forecast by Broad Sector- UK

| | 2011 (000s) | 2021 (000s) | 2031 (000s) | 2011-21 (000s) | 2011-21 (% pa) | 2021-31 (000s) | 2021-31 (% pa) |
|-------------------------------|----------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|
| Agriculture | 395.9 | 375.5 | 360.1 | -20.4 | -0.5 | -15.4 | -0.4 |
| Mining & quarrying | 59.0 | 64.5 | 55.2 | 5.5 | 0.9 | -9.3 | -1.5 |
| Manufacturing | 2531.9 | 2434.9 | 2173.7 | -97.0 | -0.4 | -261.3 | -1.1 |
| Electricity, gas & water | 321.0 | 362.3 | 385.8 | 41.3 | 1.2 | 23.6 | 0.6 |
| Construction | 2019.6 | 2490.3 | 2583.1 | 470.7 | 2.1 | 92.8 | 0.4 |
| Distribution | 4713.8 | 4994.4 | 5042.9 | 280.6 | 0.6 | 48.5 | 0.1 |
| Transport & storage | 1462.9 | 1609.3 | 1655.9 | 146.4 | 1.0 | 46.6 | 0.3 |
| Accommodation & food services | 1989.9 | 2306.7 | 2592.3 | 316.8 | 1.5 | 285.6 | 1.2 |
| Information & comms. | 1213.9 | 1285.2 | 1435.1 | 71.3 | 0.6 | 149.9 | 1.1 |
| Fin. & business services | 6307.6 | 7414.3 | 8120.6 | 1106.8 | 1.6 | 706.3 | 0.9 |
| Government services. | 8404.7 | 8301.6 | 8782.8 | -103.1 | -0.1 | 481.2 | 0.6 |
| Other services | 1754.8 | 1821.3 | 1888.1 | 66.5 | 0.4 | 66.8 | 0.4 |
| Total | 31175.0 | 33460.5 | 35075.7 | 2285.5 | 0.7 | 1615.2 | 0.5 |

Notes: Figures are rounded to the nearest 100 jobs.
Source: Cambridge Econometrics, January 2014.

Appendix J: LEFM Industry Definitions

Table J.1: Cambridge Econometrics' Industries (45) Defined in Terms of SIC2007

| Industry | SIC2007 |
|--|---------|
| 1 Agriculture , forestry & fishing | 01-03 |
| 2 Mining & quarrying | 05-09 |
| 3 Food, drink & tobacco | 10-12 |
| 4 Textiles etc | 13-15 |
| 5 Wood & paper | 16-17 |
| 6 Printing & recording | 18 |
| 7 Coke & petroleum | 19 |
| 8 Chemicals | 20 |
| 9 Pharmaceuticals | 21 |
| 10 Non-metallic mineral products | 22-23 |
| 11 Metals & metal products | 24-25 |
| 12 Electronics | 26 |
| 13 Electrical equipment | 27 |
| 14 Machinery | 28 |
| 15 Motor vehicles | 29 |
| 16 Other transport equipment | 30 |
| 17 Other manufacturing & repair | 31-33 |
| 18 Electricity & gas | 35 |
| 19 Water, sewerage & waste | 36-39 |
| 20 Construction | 41-43 |
| 21 Motor vehicles trade | 45 |
| 22 Wholesale trade | 46 |
| 23 Retail trade | 47 |
| 24 Land transport | 49 |
| 25 Water transport | 50 |
| 26 Air transport | 51 |
| 27 Warehousing & postal | 52-53 |
| 28 Accomodation | 55 |
| 29 Food & beverage services | 56 |
| 30 Media | 58-60 |
| 31 IT services | 61-63 |
| 32 Financial & insurance | 64-66 |
| 33 Real estate | 68 |
| 34 Legal & accounting | 69 |
| 35 Head offices & management consultancies | 70 |
| 36 Architectural & engineering services | 71 |
| 37 Other professional services | 72-75 |
| 38 Business support services | 77-82 |
| 39 Public Administration & Defence | 84 |
| 40 Education | 85 |
| 41 Health | 86 |
| 42 Residential & social | 87-88 |
| 43 Arts | 90-91 |
| 44 Recreational services | 92-93 |
| 45 Other services | 94-96 |
| 46 Unallocated | |

Table J.2: Cambridge Econometrics' Broad Sectors (12) Defined in Terms of SIC 2007

| Sector | | SIC2007 |
|---------------|-------------------------------|----------------|
| 1 | Agriculture etc | 01-03 |
| 2 | Mining & quarrying | 05-09 |
| 3 | Manufacturing | 10-33 |
| 4 | Electricity, gas & water | 35-39 |
| 5 | Construction | 41-43 |
| 6 | Distribution | 45-47 |
| 7 | Transport & storage | 49-53 |
| 8 | Accommodation & food services | 55-56 |
| 9 | Information & communications | 58-63 |
| 10 | Financial & business services | 64-82 |
| 11 | Government services | 84-88 |
| 12 | Other services | 90-96 |

Appendix K: Employment sites and job capacities for Oxfordshire Districts

Table K.1: Employment sites and jobs in Cherwell

| Site Name | Total land for employment (ha) | Total number of jobs in Local Plan period | Jobs by Use Class (%) | | | Comments |
|---|--------------------------------|---|-----------------------|-----|-----|---|
| | | | B1 | B2 | B8 | |
| Cherwell | | | | | | |
| Bicester 1 - North West Bicester | 37 (25.5 up to 2031) | 1,800 within plan period | 60% | 20% | 20% | Based on draft NW Bicester masterplan which includes approx 35,000sqm of mixed B1/B2/B8 space, plus 20,000 sqm of B1 space. Likely build out and take up of business space more rapid than indicated in local plan - assume 2,500 jobs created on site by 2030, rather than 1,800 |
| Bicester 2 - Graven Hill | 26 | 2,070 | 10% | 20% | 70% | Mix of B uses guesstimated, based on indications that site is most favoured in Bicester for large scale B8 uses. |
| Bicester 4 - Bicester Business Park | 17.5 | 3,850 | 100% | | | B1 Offices/business uses. Some of land likely to go for retail (relocation of Tesco to site to enable Bicester Village to expand) and hotel use. |
| Bicester 5 - Strengthening Bicester Town Centre | | 1000 | | | | Retail with some ancillary offices. Sainsbury expansion - 870 jobs - plus some office jobs. |
| Bicester 8 - RAF Bicester | 17 (Bicester Masterplan) | 2,244 (Bicester Masterplan) | 50% | 50% | | Proposals for the site include a museum for RAF Bomber Command, the development of hotel and conference facilities, and a range of workshop, storage and service activities related to classic aircraft and road vehicles. Balance of different uses may in practice be more B8 and less B1. |
| Bicester 10 - Bicester Gateway | 7.5 | 990 | 100% | | | The site is closest to the M40 and the best located in Bicester to attract hightech knowledge intensive B1 uses. However, the amount of office/R&D space proposed for Bicester Gateway (990 jobs), Bicester Business Park (3,850 jobs) and NE Bicester Business Park (1,090 jobs) combined is ambitious compared with the nature of demand for high tech uses in this area, |

| Site Name | Total land for employment (ha) | Total number of jobs in Local Plan period | Jobs by Use Class (%) | | | Comments |
|---|--------------------------------|---|-----------------------|-----|-----|--|
| | | | B1 | B2 | B8 | |
| Cherwell | | | | | | |
| | | | | | | which is more oriented towards manufacturing with some office space, rather than exclusively office/R&D space. |
| Bicester 11 - North East Bicester Business Park | 2.7 | 1,092 | 100% | | | B1 Office/Business uses only - see comment above. Of the three sites, this is probably the least attractive due to its greater distance from the M40/A34 and Bicester Town rail station. |
| Bicester 12 - East Bicester | 18 | 3241 (some beyond plan period) | 20% | 30% | 50% | Mixed B Use classes. The draft Local Plan expects this site to come forward for development towards the end of the plan period, therefore only part of the site is likely to be developed by 2030. |
| Banbury 1 - Canalside | | | | | | The draft local plan indicates 15,000sqm of retail/commercial use and some live work uses but no B uses. |
| Banbury 6 - Land west of M40 | 6.3 (net remaining area) | | 15% | 35% | 50% | Mixed Use site, excellent strategic location with good access, though some remediation work will be necessary as part of the development. Includes over 500 jobs on part of the site already constructed and another 1,000 jobs on the remainder of the site |
| Banbury 7 - Strengthening Banbury town centre | | | | | | Retail |

| Site Name | Total land for employment (ha) | Total number of jobs in Local Plan period | Jobs by Use Class (%) | | | Comments |
|---------------------------------|--------------------------------|---|-----------------------|----|----|---|
| | | | B1 | B2 | B8 | |
| Cherwell | | | | | | |
| Banbury 8 - Land at Bolton Road | 2 | | | | | Identified for a mix of town centre uses in the draft Local Plan - retail, leisure, hotel. No B uses proposed |
| Banbury 9 - Spiceball | 4.5 | | | | | Identified for a mix of town centre uses in the draft Local Plan - retail, leisure, hotel. No B uses proposed |

<http://www.cherwell.gov.uk/index.cfm?articleid=3244>

Includes:

Cherwell Economic Analysis Study 2012

Employment Land Review 2006

Employment Land Review Update 2012

TableK.2: Employment sites and jobs in Oxford

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|---------------------|----------------------|--|--|--|---------------------------------|---|---|----|----|--------------|---|------------------------|---|------------------------|-------------|----------------|--------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Oxford Bioescalator | 22.73 | 0.58 | | 5575 sqm (B1) | City Deal Sites and Housing DPD | 4460 | | | | Science Park | 32 | 139 | Brownfield site: within Churchill Hospital campus. Whilst this is redevelopment floorspace figures are additional to include principally B1(b), but some B1(c) and B2 | 32 | 5575 | 174 | Science Park | 4460 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|-----------------------|----------------------|--|--|--|------------------------|---|---|----|----|----------------|---|------------------------|--|------------------------|-------------|----------------|----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Magnet Science Oxford | 0.25 | 0.25 | | 2150 sqm (B1) | City Deal West End AAP | 1720 | | | | General Office | 12 | 143 | Brownfield site: occupied by Oxford Innovation. Demolition and redevelopment floorspace additional | 12 | 2150 | 179 | General Office | 1720 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|----------------------------------|----------------------|--|--|--|-----------------------------|---|---|----|----|---------------|---|------------------------|---|------------------------|-------------|----------------|---------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Northern Gateway Innovation Area | 16 | 11.5 | | 83600 sqm (B1) | City Deal Core Strategy DPD | 66880 | | | | Business park | 10 | 6688 | Greenfield site: New employment-led development with housing and complimentary uses. No net loss of employment all new floorspace | 10 | 83600 | 8360 | Business park | 66880 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|-------------------------------|----------------------|--|--|--|----------------------------------|---|---|----|----|----------------|---|------------------------|--|------------------------|-------------|----------------|----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Gateway Station at Oxford | 5.6 | 1.2 | | 12000 sqm (B1) | City Deal West End AAP | 9600 | | | | General Office | 12 | 800 | Brownfield site: Redevelopment of existing Station area. New additional floorspace | 12 | 12000 | 1000 | General Office | 9600 |
| Oxpens / West End Renaissance | 8.34 | 0.7 | | 9550 sqm (B1) | City Deal West End AAP | 7640 | | | | General Office | 12 | 637 | Brownfield site: redevelopment but no net loss of employment uses, new floorspace | 12 | 9550 | 796 | General Office | 7640 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|-----------------------------|----------------------|--|--|--|------------------------------|---|---|----|----|-----------------|---|------------------------|---|------------------------|-------------|----------------|-----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Blackbird Leys Central Area | 5.34 | 1 | | 4000 sqm (B1) | Sites and Housing DPD (SP5) | 3200 | | | | Serviced Office | 10 | 320 | Brownfield site: Mixed-use development to include start-up units, new floorspace | 10 | 4000 | 400 | Serviced Office | 3200 |
| Cowley centre | 3.65 | 0.25 | | 1000 sqm (B1) | Sites and Housing DPD (SP10) | 800 | | | | General Office | 12 | 67 | Brownfield site: retail-led mixed-use development to include employment offices B1a, new floorspace | 12 | 1000 | 83 | General Office | 800 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|--------------------|----------------------|--|--|--|------------------------------|---|---|----|----|----------------|---|------------------------|---|------------------------|-------------|----------------|----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Diamond Place | 1.73 | 0.6 | | 2400 sqm (B1) | Sites and Housing DPD (SP14) | 1920 | | | | General Office | 12 | 160 | Brownfield site: retail-led mixed-use development to include employment offices B1a. New floorspace | 12 | 2400 | 200 | General Office | 1920 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|--------------------|----------------------|--|--|--|------------------------------|---|---|----|----|------------------|---|------------------------|--|------------------------|-------------|----------------|------------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Radcliffe Hospital | 27.03 | 2 | | 8000 sqm (B1) | Sites and Housing DPD (SP23) | 6400 | | | | Light Industrial | 47 | 136 | Brownfield site: redevelopment of existing buildings to include principally B1(b), B1(c), and B2. New floorspace | 47 | 8000 | 170 | Light Industrial | 6400 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|-----------------------------|----------------------|--|--|--|------------------------------|---|---|----|----|------------------|---|------------------------|---|------------------------|-------------|----------------|------------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Littlemore Park | 5.44 | 5.44 | | 3000 sqm (B1) | Sites and Housing DPD (SP30) | 2400 | | | | Business Park | 10 | 240 | Brownfield site: allocated for employment B1 use, no loss of employment, new floorspace created | 10 | 3000 | 300 | Business Park | 2400 |
| Nuffield Orthopaedic centre | 8.37 | 2.1 | | 8400 sqm (B1) | Sites and Housing DPD (SP38) | 6720 | | | | Light Industrial | 47 | 143 | Brownfield site: redevelopment of existing buildings to include research (B1b). New floorspace | 47 | 8400 | 179 | Light Industrial | 6720 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|--------------------|----------------------|--|--|--|------------------------------|---|---|----|----|--------------|---|------------------------|---|------------------------|-------------|----------------|--------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Old Road Campus | 4.43 | 4.43 | | 48000 sqm (B1) | Sites and Housing DPD (SP39) | 38400 | | | | Science Park | 32 | 1200 | Brownfield site: redevelopment of existing buildings to include principally B1(b); new research uses created. | 32 | 48000 | 1500 | Science Park | 38400 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|----------------------|----------------------|--|--|--|------------------------------|---|---|----|----|---------------|---|------------------------|---|------------------------|-------------|----------------|---------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Oxford Business Park | 33.5 | 7.94 | | 41650 sqm (B1) | Sites and Housing DPD (SP42) | 36920 | | | | Business Park | 10 | 3692 | Brownfield site: Comprises undeveloped plots for mainly B1a use. New floorspace created | 10 | 46150 | 4615 | Business Park | 36920 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|--------------------------------------|----------------------|--|--|--|------------------------------|---|---|----|----|--------------|---|------------------------|--|------------------------|-------------|----------------|--------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Oxford Science Park | 23 | 8.06 | | 32250 sqm (B1) | Sites and Housing DPD (SP43) | 25800 | | | | Science Park | 32 | 806 | Brownfield site: Comprises undeveloped plots for mainly B1 use, new floorspace created | 32 | 32250 | 1008 | Science Park | 25800 |
| Oxford Science Park at Minchery Farm | 2.35 | 2.35 | | 9400 sqm (B1) | Sites and Housing DPD (SP44) | 7520 | | | | Science Park | 32 | 235 | Brownfield site: No loss of employment, new floorspace use B1, | 32 | 9400 | 294 | Science Park | 7520 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|---------------------------------------|----------------------|--|--|--|------------------------------|---|---|----|----|-----------------|---|------------------------|--|------------------------|-------------|----------------|-----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Oxford University Press Sports Ground | 3.65 | 0.65 | | 2600 sqm (B1) | Sites and Housing DPD (SP45) | 2080 | | | | Serviced Office | 10 | 208 | Greenfield site: Residential-led development with some complementary B1 use. New additional floorspace | 10 | 2600 | 260 | Serviced Office | 2080 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|-------------------------------|----------------------|--|--|--|------------------------------|---|---|----|----|--------------|---|------------------------|---|------------------------|-------------|----------------|--------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Radcliffe Observatory Quarter | 4.27 | 0.5 | | 2000 sqm (B1) | Sites and Housing DPD (SP47) | 1600 | | | | Science Park | 32 | 50 | Brownfield site: Redevelopment for University use but would include some new additional B1(a) & B1(b) | 32 | 2000 | 63 | Science Park | 1600 |
| Rovers Sports Ground | 9.92 | 9.92 | | 39700 sqm (B2) | Sites and Housing DPD (SP49) | 31760 | | | | Industrial | 36 | 882 | Greenfield site: Development for extension to BMW (B2). New additional floorspace | 36 | 39700 | 1103 | Industrial | 31760 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|-----------------------|----------------------|--|--|--|------------------------------|---|---|----|----|-----------------|---|------------------------|--|------------------------|-------------|----------------|-----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Travis Perkins | 0.72 | 0.14 | | 2100 sqm (B1) | Sites and Housing DPD (SP56) | 1680 | | | | General Office | 12 | 140 | Brownfield site: Development for new floorspace B1 use. App. 09/02518/OUT | 12 | 2100 | 175 | General Office | 1680 |
| Wolvercote Paper Mill | 4.95 | 1.16 | | 4640 sqm (B1) | Sites and Housing DPD (SP62) | 3712 | | | | Serviced Office | 10 | 371 | Brownfield site: Residential-led development with new floorspace employment use B1 | 10 | 4640 | 464 | Serviced Office | 3712 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|--------------------|----------------------|--|--|--|----------------------|---|---|----|----|----------------|---|------------------------|---|------------------------|-------------|----------------|----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Island site | 0.77 | 0.19 | | 750 sqm (B1) | West End AAP | 600 | | | | General office | 12 | 50 | Brownfield site: Redevelopment of existing buildings to include some offices (B1a). New additional floorspace | 12 | 750 | 63 | General office | 600 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|-----------------------------|----------------------|--|--|--|----------------------|---|---|----|----|----------------|---|------------------------|---|------------------------|-------------|----------------|----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Worcester St. Car Park | 0.54 | 0.2 | | 800 sqm (B1) | West End AAP | 640 | | | | General office | 12 | 53 | Brownfield site: New development to include some offices (B1a). New additional floorspace | 12 | 800 | 67 | General office | 640 |
| St. Aldate's / Queen Street | 1 | 1 | | 4000 sqm (B1) | West End AAP | 3200 | | | | General office | 12 | 267 | Brownfield site: New re-development to include some offices (B1a) | 12 | 4000 | 333 | General office | 3200 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|-----------------------------|----------------------|--|--|--|----------------------|---|---|----|----|----------------|---|------------------------|---|------------------------|-------------|----------------|----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Telephone Exchange | 0.4 | 0.4 | | 1600 sqm (B1) | West End AAP | 1280 | | | | General office | 12 | 107 | Brownfield site: New development to include some offices (B1a). New additional floorspace | 12 | 1600 | 133 | General office | 1280 |
| Police Station, St. Aldates | 0.41 | 0.41 | | 1640 sqm (B1) | West End AAP | 1312 | | | | | 0 | 0 | Brownfield site: New development to include some offices (B1a) | 0 | 1640 | | | 1312 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|-------------------------|----------------------|--|--|--|----------------------|---|---|----|----|----------------|---|------------------------|--|------------------------|-------------|----------------|----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Fire Station, Rewley Rd | 0.47 | 0.15 | | 600 sqm (B1) | West End AAP | 480 | | | | General office | 12 | 40 | Brownfield site: new development to include minor element of offices, new additional employment floorspace | 12 | 600 | 50 | General office | 480 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|------------------------------------|----------------------|--|--|--|------------------------------|---|---|----|----|----------------|---|------------------------|--|------------------------|-------------|----------------|----------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Oxford and Cherwell Valley College | 3.14 | 0.6 | | 2400 sqm (B1) | West End AAP | 1920 | | | | General office | 12 | 160 | Brownfield site: Residential-led development with new employment office use B1; new floorspace | 12 | 2400 | 200 | General office | 1920 |
| Warneford Hospital | 8.67 | 3 | | 12000 sqm (B1) | Sites and Housing DPD (SP59) | 9600 | | | | Science Park | 32 | 300 | Brownfield site: redevelopment of existing buildings to include research (B1b) | 32 | 12000 | 375 | Science Park | 9600 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|---------------------------|----------------------|--|--|--|---------------------------------|---|---|----|----|--------------|---|------------------------|--|------------------------|-------------|----------------|--------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Land Clarendon Laboratory | 0.29 | 0.29 | | 5665 sqm (B1) | Outstanding planning permission | 4532 | | | | Science Park | 32 | 142 | Brownfield site: Redevelopment of existing buildings, additional floorspace refers to net amount. 10/03207/FUL | 32 | 5665 | 177 | Science Park | 4532 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | HCA employment density | Floor-space | Potential Jobs | Type | Floor-space NIA (assume a 20% reduction) |
|---|----------------------|--|--|--|---------------------------------|---|---|----|----|--------------|---|------------------------|--|------------------------|---------------|----------------|--------------|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Land adjacent to Dyson Perrins laboratory | 1.03 | 1.03 | | 12450 sqm (B1) | Outstanding planning permission | 9960 | | | | Science Park | 32 | 311 | Brownfield site: Redevelopment of existing buildings, additional floorspace refers to net amount. 10/03254/FUL | 32 | 12450 | 389 | Science Park | 9960 |
| TOTAL | 207.99 | 68.04 | | 363920 | | 294,736 | | | | | | 18,487 | | | 368420 | 23,109 | | 294736 |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | | | | | | | |
|---|----------------------|--|--|--|------------------------------|---|---|----|----|-------|---|--|----------|--|--|--|--|--|--|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | | | |
| The additional sites below do not include a 'net growth' in floorspace | | | | | | | | | | | | | | | | | | | | |
| Elsfield Hall, Elsfield Way | 0.76 | 0.38 | | 1040 sqm (B1) | Sites and Housing DPD (SP16) | | | | | | | Brownfield site: redevelopment of existing site but level of employment to be retained | | | | | | | | |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | | | | | |
|-------------|----------------------|--|--|--|----------------------|---|---|----|----|-------|---|------------------------|----------|--|--|--|--|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | | | | | |
|-------------|----------------------|--|--|--|----------------------|---|---|----|----|-------|---|------------------------|----------|--|--|--|--|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|------|---|----------------|----|-----|---|--|--|--|--|--|--|
| Osney Mead | | | | | The estate comprises some 18.3 hectares, and in 2006 when the Employment Land Study for Oxford was undertaken it was estimated that there was in the region of 51,600 sqm of principally Class B floorspace on the estate. This includes a mix of general industrial, warehousing and some office units. There is a very real prospect that during the forecasting period the site would be more actively used by the University and will create new jobs, which could include a mix of research and development, office | 7740 | Assume some redevelopment and a net increase of 15% | General office | 12 | 645 | Osney Mead is an older industrial estate that over recent years has been under-utilised. The only significant new development has been for Newsquest who have redeveloped their site for a larger printing / publishing building to produce and prepare their newspapers (Oxford Times and Oxford Mail). The rest of the estate whilst experiencing some new development has in the main been rather run-down and in need of revitalisation and presents a real opportunity for modernisation and an intensification of uses and development on the site. The University have been purchasing individual sites on the estate as they have come on the market and are now a key landowner. | | | | | | |
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| | | | | | and educational activities. | | | | | | | | | | | | | | |
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| Westgate | | | | | | 54500 | | | A1 High Street Retail | 19 | 2,868 | The outline planning application for the redevelopment of the Westgate Shopping Centre has just been submitted. The attachment sets out the expected 'net' increase in new additional floorspace which has increased from the previous permission but as you will see has figures for the minimum and maximum amount of new retail accommodation, ranging from 54,500 sqm to 81,900 sqm. It also sets out figures for associated services which include Class A2-A5 uses, which again ranges from 6,200 sqm to 27,000 sqm new additional floorspace. The cinema will have a new additional floorspace of some 5,990 sqm. | | | | | |
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| Science Area | | | | | The Master-plan for the Science Area doesn't appear to include any detailed figures as such however it does suggest that the mix of accommodation / floorspace on site will comprise 40% laboratory floorspace, 40% offices and 20% ancillary / other floorspace. The site area is approximately 30 acres. | 96000 | | | | Science Park | 32 | 3,000 | In discussions with the Development Management Case Officer for the site his view is that the University does not know entirely what the future floorspace will be other than it would <u>increase considerably</u> over the years ahead as older buildings are replaced with new ones on 4 or 5 levels plus basements, eg recent permissions for Biochemistry, Earth Sciences, New Chemistry, Physics etc. This is evident by the work that has already taken place which has comprised the demolition of existing older buildings usually about 3 floors and their replacement with these new buildings of 4 to 5 levels plus basements. | | | | | |
|--------------|--|--|--|--|---|-------|--|--|--|--------------|----|-------|--|--|--|--|--|--|

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | | | | | |
|---------------------------------|----------------------|--|--|--|--|---|---|----|--------------|-------|---|------------------------|----------|--|--|--|--|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| Former Radcliffe Infirmary site | | | | | The Masterplan for the infirmary site in 2008 it says that it could accommodate up to 122,500 sq m of gross external floorspace. As part of the development it does include a small proportion of the site for the Jericho Health | 98000 | | | Science park | 32 | 3,063 | | | | | | | |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Status of Allocation | Net Floor space (total floorspace less 20%) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Job conversion rates (employment Densities) based on HCA guidance paper | Potential Jobs on site | Comments | | | | | |
|-------------|----------------------|--|--|--|---|---|---|----|----|-------|---|------------------------|----------|--|--|--|--|--|
| | | | | | | | B1 | B2 | B8 | Other | | | | | | | | |
| Oxford City | | | | | | | | | | | | | | | | | | |
| | | | | | Centre and for student accommodation for Somerville - both constructed. The majority however is clearly intended for educational use. | | | | | | | | | | | | | |

Table K.3: Employment sites and jobs in South Oxfordshire

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Comments |
|---|----------------------|--|--|---|-----|----|-------|---|
| | | | | B1 | B2 | B8 | Other | |
| South Oxfordshire (2006-2026/27) | | | | | | | | |
| Culham Science Centre | 5.3 | | 1,000 | | | | | Culham Science Centre has 2,000 jobs currently and could accommodate another 1,000. Beyond that there is access constraints which are extremely difficult to overcome (new Thames crossing required). As JET is moving to France, could free up space and allow for jobs growth to replace existing. The adopted plan identifies 6.5 ha of the employment land (and 500 jobs) to be accommodated in the EZ in VoWH District which is regarded as part of S Oxon's allocation. Employment land at Thame could amount to 11ha as two existing firms may move locally but from outside Sth Oxon district in to Thame. Part of the employment land at Wallingford is under pressure for alternative use as a supermarket. The remaining sites relate to completion or redevelopment of existing sites. Howbery Park is Environment Agency, part of the Wallingford research |
| Employment land at Thame (TBC) | 2 | | 3,500 | | | | | |
| Employment land at Wallingford (TBC) | 2 | | | | | | | |
| Employment land at larger villages (TBC) | 4.2 | | | | | | | |
| Southmead Industrial Estate, Didcot (existing site) | 2.9 | | | | | | | |
| Hithercroft Industrial Estate (existing site) | 3.12 | | | | | | | |
| Howbery Park (existing site) | 2.4 | | | | 100 | | | |
| Siarey's Timber Yard, Chinnor (existing site) | 1.05 | | | | | | | |
| Chinnor Cement Works (existing site) | 1 | | | | | | | |
| Watlington Industrial Estate (existing site) | 3 | | | | | | | |
| <i>Employment land at Didcot / VoWH</i> | 6.5 | | 500 | | | | | |
| | 33.47 | | 5,000 | | | | | |

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|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | <p>facility, which is expected to be developed for related commercial research</p> <p>Pages 17-21 of the ELR update¹ provide employment densities and plot ratios used in the evidence base.</p> <p>The ELR estimates includes an additional 50% of floorspace to allow for market churn and choice (p.23).</p> <p>In addition to employment on B use land, the adopted plan has identified a need for 32,800 sqm (gross) (of which 26,600sqm will be at Didcot) of retail and leisure floorspace (A1 - A5) between 2007 and 2016. The retail and leisure needs forecast figures beyond 2016 were acknowledged to be less reliable and need to be reviewed. No breakdown is given by B use type as the employment allocations have been increased beyond those recommended in the ELR breakdown. A breakdown is available for the 18.1 ha recommended in the ELR on page 23 of the ELR 2008 update.</p> |
|--|--|--|--|--|--|--|--|--|--|

¹ Revisiting South Oxfordshire's Employment Land Projections 2008

<http://www.southoxon.gov.uk/sites/default/files/Employment%20Land%20Review%20Update%202008.pdf>

South Oxfordshire Employment Land Review 2007

<http://www.southoxon.gov.uk/services-and-advice/planning-and-building/planning-policy/evidence-studies/employment-land-review>

Table K.4: Employment sites and jobs in Vale of White Horse

| Site Name | Total employment site size (ha), net of any existing on site | Net additional jobs in Local Plan/Core Strategy | Jobs/floorspace density | Total employment floorspace (sqm) attributed in Local Plan/Core Strategy (if applicable) | Percentage of land in each Use Class | | | | | |
|--|--|---|-------------------------|--|--------------------------------------|-----|----|-------|--|--|
| | | | | | B1 | B2 | B8 | Other | | |
| Vale of White Horse (2012-2029) | | | | | | | | | | |
| C16 Harwell Campus | 85 | 5400 (8400 gross) | 24 | 200,000 | | 100 | | | EZ will not be completed by 2016 as originally proposed but is very likely to be completed by 2031 - there are no infrastructure constraints to development, the owner developers are committed and have the capacity to complete, and both schemes are likely to be attractive to end users. | |
| C14 Milton Park | 28 | | 24 | | | 100 | | | | |
| <i>EZ total</i> | 113 | | | | | | | | | |
| | | | | | | | | | | |
| C1 Abingdon Business Park at Wyndyke Furlong | 0.67 | 5,940 | 70 | 416,000 | 100 | | | | Current supply comprises completions of existing schemes - no reason to suppose these will not be completed within the plan period. | |
| C2 Abingdon Science Park at Barton Lane | 0.74 | | | | 100 | | | | | |
| C9f Faringdon – land adj to A420 – “4&20” site | 4.2 | | | | | 33 | 33 | 34 | | Future supply comprises three sites: Didcot A is surplus to requirements and is subject to remediation which will take three years, following which it should be available for development. Total site likely to be a mix of housing and employment, with current estimate of 29ha for employment, although conceivably a higher proportion could go for housing. N Power want the site used for B8, VoWH want a mixed use |
| C8 Cumnor Hill | 0.3 | | | | 100 | | | | | |
| C20 Wootton Business Park | 1.48 | | | | 100 | | | | | |

| Site Name | Total employment site size (ha), net of any existing on site | Net additional jobs in Local Plan/Core Strategy | Jobs/floorspace density | Total employment floorspace (sqm) attributed in Local Plan/Core Strategy (if applicable) | Percentage of land in each Use Class | | | | |
|--|--|---|-------------------------|--|--------------------------------------|----|----|-------|---|
| | | | | | B1 | B2 | B8 | Other | |
| Vale of White Horse (2012-2029) | | | | | | | | | |
| C10 Grove Technology Park | 5.4 | | | | | 50 | 50 | | employment scheme. Has existing access and owner which wants reuse to go ahead. Railhead on site could support B8/B2 use. North Grove Monks Farm adjoins Williams and would accommodate an extension. This seems likely as Williams is diversifying into related product areas. Retail - new retail development at Abingdon, Botley, Faringdon, etc, all likely to come forward. Net additional floorspace of 22,940 sqm: 1,500 jobs is a bit high by standard floorspace assumptions but not excessive. Potential uplift - based on assumed uplift from City Deal, etc. Pipeline schemes seem likely to exceed uplift job estimate of 1,500: planning application at former Esso Research Centre at Milton Hill for 11,070sqm of B8 and 1,250 jobs; pre application discussion on land west of Didcot Power station, 104,000sqm of B8 and 2,100 jobs; pre-app discussion at Hill Farm Appleford |
| C9b Faringdon – HCA business centre | 0.18 | | | | 100 | | | | |
| | | | | | | | | | |
| <i>Total current supply</i> | 12.97 | | | | | | | | |
| C29 Didcot A | 29 | | | | 59 | 7 | 34 | | |
| C32 North Grove Monks Farm | 6 | | | | 67 | 17 | 16 | | |
| C33 Faringdon South Park Road | 3 | | | | | 33 | 67 | | |
| <i>Total future supply</i> | 38 | | | | | | | | |
| | | | | | | | | | |
| Total supply | 163.97 | | | | 38 | 35 | 14 | | |

| Site Name | Total employment site size (ha), net of any existing on site | Net additional jobs in Local Plan/Core Strategy | Jobs/floorspace density | Total employment floorspace (sqm) attributed in Local Plan/Core Strategy (if applicable) | Percentage of land in each Use Class | | | | |
|--|--|---|-------------------------|--|--------------------------------------|----|----|-------|---|
| | | | | | B1 | B2 | B8 | Other | |
| Vale of White Horse (2012-2029) | | | | | | | | | |
| Other - potential uplift | n/a | 1,500 | | n/a | | | | | for 59,000sqm of B8. There is evidence of demand from the likes of Amazon and Tesco for large scale B8 at Didcot. Total jobs from these schemes in pipeline could be 4,500. There is also scope for substantial additional development at Harwell - at least 20ha should be available for development in the short term over and above the EZ area, and more long term. |
| Other - retail schemes | n/a | 1,500 | | n/a | | | | | |

Table K.5: Employment sites and jobs in West Oxfordshire

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Comments |
|--|----------------------|--|--|--|---|----|---------------------|-------|---|
| | | | | | B1 | B2 | B8 | Other | |
| West Oxfordshire 2011-2029 | | | | | | | | | |
| West Witney Strategic Development Area (SDA) | 10 | | 1,500 | | | | No more than 25% B8 | | West Witney SDA is part of urban extension. Site is well located and has planning permission S106. |
| West Witney Existing Commitments | 10 | | 3,500 | | | | | | West Witney existing commitments are largely undeveloped land within the existing business area. They are in multiple ownerships and depend on willingness of existing owners to sell or develop. |
| Carterton (West Oxfordshire Business Park and Land at Ventura Park) | 5 | | | | | | | | Carterton - strong interest from potential major end user is likely to lead to development in near future. If housing goes ahead at East Carterton there may be an additional 2ha of employment land made available. The lack of high speed broadband needs to be addressed to make the site more attractive. |
| Chipping Norton (former Highways Depot, former Parker Knoll Factory site, land north of London Road) | 5 | | | | | | | | Chipping Norton - former industrial sites, owners want to sell for higher value uses. Part likely to go for supermarket, then |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Comments |
|---|----------------------|--|--|--|---|----|----|-------|--|
| | | | | | B1 | B2 | B8 | Other | |
| West Oxfordshire 2011-2029 | | | | | | | | | |
| | | | | | | | | | remainder more likely to be developed for B uses. |
| Other Towns, Villages and Rural Areas (including Lakeside, Standlake) | 5 | | | | | | | | Other towns and villages - there are some strong firms in West Oxon rural areas looking to expand, therefore available sites in villages are likely to be taken up over time. |
| Other small scale schemes and business extensions (not allocated) | 25 | | 1,500 | | | | | | Past monitoring data indicates that about 25% of employment floorspace has come forward on unallocated sites. Assuming this is to continue, this has the potential to generate around 1,500 additional jobs over the Local Plan period. |
| Total | 60 | | 6,500 | | | | | | Assumptions - 1 job per 20sqm of office floorspace (B1a and B1b use classes), 1 job per 30sqm of industrial floorspace (B1c and B2 use classes, also applied where use class not specified) and 1 job per of 40sqm (B8 use class). Average plot density of 0.41 assumed such that 1ha yields 4,100sqm of floorspace. |

| Site Name | Total site size (ha) | Total land for employment (if a mixed use site) (ha) | Total number of jobs in Local Plan/Core Strategy | Total employment floorspace attributed in Local Plan/Core Strategy (if applicable) | Jobs by Use Class (%) if given in ELR or Local Plan | | | | Comments |
|--|----------------------|--|--|--|---|----|----|-------|---|
| | | | | | B1 | B2 | B8 | Other | |
| West Oxfordshire 2011-2029 | | | | | | | | | |
| Note: the total number of jobs excludes retail, tourism, education and health and RAF Brize Norton which could generate an additional 3,500 jobs i.e. 10,000 in total. | | | | | | | | | Assumptions are: 500 additional jobs in tourism, which looks reasonable given attractions of cotswolds; retail/town centre growth possible though may be questionable. RAF Brize Norton - privatisation of support services means that RAF jobs are likely to be replaced by private sector jobs over time - little net employment increase in total. |

