## 4. WIDER SOCIAL DETERMINANTS OF HEALTH

# 4.2 Local economy and thriving communities

This section considers a range of factors relating to the local economy, employment, workforce health and local developments.

## 4.2.1 Employment

## 4.2.1.1 The impact of employment and unemployment

Employment has long been recognised as a major contributor to improved life chances. As the Cabinet Office<sup>1</sup> noted in 2010 'employment offers the best and most sustainable route out of poverty' and in addition employed people are healthier compared to the unemployed; unemployed people have increased health risks and worse health outcomes both in the short and the longer term<sup>2</sup>.

# <u>4.2.1.2 Information on employment and unemployment in Buckinghamshire</u> and comparison with other areas

The UK's employment rate rose to an all-time high of 74.0% in the final quarter of 2015. In Buckinghamshire, the employment rate for the year ending September 2015 was 79.3%, well above the England (73.6%) and regional (76.8%) rates to rank 3<sup>rd</sup> among England's 27 County Council areas and 2<sup>nd</sup> among the 39 Local Enterprise Partnerships (LEPs) (table 1). Although Buckinghamshire's unemployment rate of 4.0% is below the national and regional levels, it is only the 17<sup>th</sup> lowest among County Council areas and is above the rate recorded among all its neighbouring LEPs with the exception of the South East Midlands, ranking only 14<sup>th</sup> among the 39 LEPs. Buckinghamshire has the highest level of economically active residents and the lowest level economically inactive<sup>i</sup> residents of any LEP, with studying being the most common reason for inactivity. Of Buckinghamshire's 54,900 economically inactive working age residents, only 9.1% (5,000 people) give the reason as long-term sickness, the lowest share recorded in any LEP.

All Buckinghamshire's districts have rates of economic activity ranking in the top quartile in Great Britain. However, while Aylesbury Vale, Chiltern and South Bucks have unemployment rates among the lowest in the country, Wycombe's rate of 5.6% is above the South East region's rate and only slightly below the national rate.

Residents not in work and either not looking or not available to work, for example through long-term sickness, retirement or looking after family.

Table 1: Rates of working age (16-64) economic activity, employment, unemployment and economic inactivity, Buckinghamshire, Buckinghamshire Districts and neighbouring Local Enterprise Partnerships, year ending September 2015

	Econo	mic Ac	tivity	Emp	oloymei	nt	Unen	nployn	nent	Econo	mic ina	ctivity
	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank
Aylesbury Vale	93,700	82.5	74 of 380	90,900	80.0	65 of 380	3,500	3.6	101 of 380	19,800	17.5	304 of 380
Chiltern	43,400	80.7	126 of 380	43,000	79.8	69 of 380	1,400	3.0	47 of 380	10,400	19.3	251 of 380
South Bucks	32,700	81.1	118 of 380	32,000	79.3	79 of 380	1,200	3.4	81 of 380	7,600	18.9	262 of 380
Wycombe	92,300	84.4	31 of 380	85,400	78.1	104 of 380	4,800	5.1	209 of 380	17,100	15.6	348 of 380
Buckinghamshire	262,200	82.7	3 of 27	251,300	79.3	3 of 27	10,900	4.0	17 of 27	54,900	17.3	25 of 27
Buckinghamshire Thames Valley	262,200	82.7	1 of 39	251,300	79.3	2 of 39	10,900	4.0	14 of 39	54,900	17.3	39 of 39
Enterprise M3	843,900	82.5	2 of 39	816,200	79.8	1 of 39	28,400	3.2	1 of 39	179,400	17.5	38 of 39
Hertfordshire	591,900	82.1	6 of 39	571,400	79.2	3 of 39	20,600	3.3	3 of 39	129,400	17.9	34 of 39
London	4,470,900	77.3	26 of 39	4,179,200	72.3	28 of 39	295,800	6.4	32 of 39	1,309,400	22.7	14 of 39
Northamptonshire	363,800	82.2	4 of 39	350,300	79.1	4 of 39	13,500	3.6	6 of 39	79,100	17.8	35 of 39
Oxfordshire Lep	344,100	81.1	9 of 39	331,100	78.0	9 of 39	13,000	3.6	6 of 39	80,400	18.9	30 of 39
South East Midlands	899,700	80.6	15 of 39	860,200	77.1	15 of 39	39,700	4.3	17 of 39	216,500	19.4	25 of 39
Thames Valley Berkshire	459,700	81.3	8 of 39	442,400	78.2	8 of 39	17,800	3.7	9 of 39	105,800	18.7	32 of 39
South East	4,399,100	80.3	2 of 11	4,204,900	76.8	2 of 11	196,500	4.3	3 of 11	1,078,300	19.7	10 of 11
England	26,618,900	77.8	-	25,164,000	73.6	-	1,472,400	5.3	-	7,587,000	22.2	-
Great Britain	30,713,000	77.7	-	29.002.700	73.4	-	1.730.900	5.4	-	8.818.900	22.3	-

Source: APS, ONS, modelled estimates of unemployment, ONS, 2016

In the year ending September 2015, 55.4% of Buckinghamshire's employed residents worked in managerial, professional or technical occupations, compared to only 44.1% across the country as a whole. In contrast, only 6.9% of Buckinghamshire's employed residents worked in elementary occupations compared to the national rate of 10.8%.

In the 2011 Census, while 50.3% of Buckinghamshire's employed residents aged 16-74 were employed in managerial, professional and technical occupations, the proportion of people working within Buckinghamshire employed in those roles was 45.8%. There were 128,000 working in these roles but only 103,000 such jobs in the county. Buckinghamshire is therefore a net exporter of highly skilled talent.

## 4.2.1.3 Employment trends

Although Buckinghamshire's employment rate has returned to pre-recession levels with 263,100 residents in employment in the year ending September 2015, including a record 251,300 of working age (16-64), the labour market has undergone marked changes, for example:

- While more residents are now in employment all the growth can be accounted for by the 10,300 rise in part-time employment. The proportion of employed residents in full-time work has fallen with part-time workers now accounting for more than a quarter of all employed residents (26.2%), up from 22.8% for the year ending December 2008. However, the most recent data for Buckinghamshire reflects the recent national trend for full time employee jobs to be the main driver of employment growth
- The share of job seekers' allowance claimants looking for work as sales and retail assistants rose to 45.9% in December 2015, up from only 12.2% in 2007

- The number of women in Buckinghamshire in work has risen by 4,900 over the recession, while the number of men in employment has fallen by 1,700. The number of men in full-time work has fallen 6,800 (5.4%), with 5,100 more men working part-time (up 64.6%)
- By occupation, the proportion of Buckinghamshire's employed residents (16-64) working in managerial, professional and technical occupations reached 54.7% in the year ending September 2015, up from 51.0% in 2008, an absolute increase of 13,100 or 10.2%

From 2013 to 2018 the number of jobs in Buckinghamshire is forecast to rise by 1.5% per annum, before slowing to annual growth of 0.8% from 2018 to 2026<sup>3</sup>, ranking 17th and 11th respectively among the 39 LEPs. This is equivalent to a forecast increase of 37,630 in the number of people employed within the county over the period 2013-2026.

From 2012 to 2022, there are projected to be 19,000 additional jobs in managerial, professional and technical occupations in Buckinghamshire, with a fall among all other occupational classifications except for caring and personal service occupations (UKCES, 2014). The total number of jobs is projected to rise by 12,000. By 2022 more than half (51.2%) of jobs in Buckinghamshire are projected to be in managerial, professional and technical occupations, up from 46.4% in 2012 and 41.8% in 2002. Across England, the proportion of jobs in managerial, professional and technical occupations is projected to increase from 45.9% in 2012 to 47.7% by 2022.

#### 4.2.1.4 Employment in different population groups

In the 2011 Census, the 16+ employment rate was 66.7% for Black residents, 64.0% among residents of Mixed or Multiple ethnic groups, 63.9% among White residents and those from Other ethnic groups, and 60.7% among Asian residents. Within the White ethnic group employment rates ranged from 71.0% for 'Other White' to 63.5% for White British and 58.6% for White Irish. For each group the employment rate was higher in Buckinghamshire than in the country as a whole.

The employment rate for men is higher than for women overall and for each age bracket, with the exception of those aged 16-24 where 58.0% of women are employed compared to 55.3% of men. The gap between male and female employment gets progressively wider until the 50-64 age group where it reaches 14.7 percentage points, before closing to 9.6 percentage points for those aged 65 and over as economic inactivity becomes more common than work.

Employment deprivation<sup>ii</sup> in Buckinghamshire is very low, ranking as third least deprived among both the 27 County Council areas and the 39 LEPs as measured in the 2015 Indices of Deprivation, with almost 40% of lower level super output areas (LL-SOAs) in the county among the least deprived decile in the country (figure 1). However, there are a number of areas with greater employment deprivation particularly in Aylesbury and High Wycombe.

The review "Is work good for your health and wellbeing" (2006) concluded that work was generally good for both physical and mental health and wellbeing. Long-term illness impacts on employment. There is a 6.7% gap in the employment rate between those with a long-term health condition and the overall employment rate in Buckinghamshire in 2015/16. There is a 72.8% gap in the employment rate between those with a learning disability and the overall employment rate and a 68.7% gap in the employment rate between those in contact with secondary mental health services and the overall employment rate in Buckinghamshire in 2015/16.

#### 4.2.1.5 Conclusions

Buckinghamshire's employment rates are among the highest in the country, reaching 79.3% in the year ending September 2015, well above the England and regional rates and 3<sup>rd</sup> among England's 27 County Council areas. Unemployment in Buckinghamshire was 4%, only the 17<sup>th</sup> lowest among County Council areas. This difference is largely accounted for by lower rates of economic inactivity (eg. studying) in Buckinghamshire. While unemployment rates in Aylesbury Vale, Chiltern and South Bucks were among the lowest in the country, Wycombe's rate of 5.6% was above the South East average and only slightly below the national rate.

Buckinghamshire has a high proportion of residents employed in managerial, professional and technical occupations, but a significant number of them work outside the county. Buckinghamshire's employment rate has returned to pre-recession levels but there have been marked changes in work patterns with many more people in part-time employment and a fall in the proportion of employed residents in full-time work. Employment rates are higher among men than women in all age groups except young adults. There are also geographical inequalities within the county with a number of areas particularly in Wycombe and Aylesbury affected by employment deprivation.

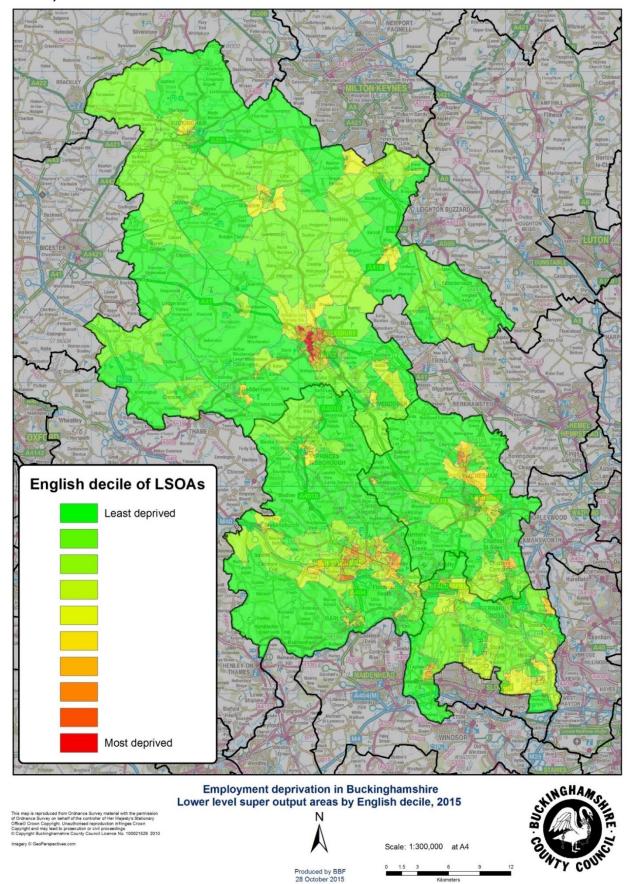
The number of jobs in Buckinghamshire is forecast to continue rising, particularly in managerial, professional and technical occupations, with a fall in demand for labour in routine and elementary occupations. Buckinghamshire's growth is increasingly

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ii The Employment deprivation domain of the IMD measures the proportion of the working age population in an area involuntarily excluded from the labour market. This includes people who would like to work but are unable to do so due to unemployment, sickness or disability, or caring responsibilities.

demanding higher skills from its workers and residents will need to be equipped to fully participate in such a labour market.

Figure 1: Employment deprivation in Buckinghamshire, Lower Super Output Areas, 2015



#### 4.2.2 Income

# 4.2.2.1 The impact of income

There is a well-established relationship between low income and poor health which works in both directions: low income can lead to poor health and ill health can result in a lower earning capacity<sup>2</sup>. Income is related to health through the overall income of the country, the income of individuals, and the impact of inequalities in income.

## 4.2.2.2 Income in Buckinghamshire and comparisons

Income in a geographical area can be expressed either as workplace-based (the income of people working there) or residence-based (the income of people living there). In 2015, the workplace-based gross median full-time earnings in Buckinghamshire were £28,991, the 5<sup>th</sup> highest out of the 27 County Council areas in Great Britain. The gross median full-time earnings for Buckinghamshire's residents were £3,469 (12.0%) higher, at £32,460 (table 2).

Table 2: Gross median full-time residence-based, workplace-based pay and annual change, Buckinghamshire and Districts, 2015

		Resi	idence		Workplace					
	£	Rank	% change	Rank	£	Rank	% change	Rank		
Aylesbury Vale	29,742	96	-1.4	311	25,097	223	-0.9	285		
Chiltern	38,766	7	6.8	38	-	-	-	-		
South Bucks	34,305	28	-1.4	311	28,925	78	0.2	222		
Wycombe	32,396	41	5.8	45	30,695	48	3.4	107		
Buckinghamshire	32,460	3	2.4	8	28,991	5	0.6	17		
South East	30,074	2	0.7	9	29,036	2	0.7	9		
England	27,869	-	1.3	-	27,872	-	1.3	-		
Great Britain	27,732	-	1.5	-	27,715	-	1.5	-		

Source: ASHE, ONS, 2015

The range of earnings can be compared by looking at the middle 50% (between the  $25^{th}$  and  $75^{th}$  centiles). In Buckinghamshire this is a difference of 102% for workplace-based earnings. For residence-based earnings the gap is wider, 123%, from £20,251 at the  $25^{th}$  percentile to £41,996 at the  $75^{th}$ .

Within Buckinghamshire, median residence-based earnings are lowest in Aylesbury Vale (£29,742) and Wycombe (£32,396) and highest in South Bucks (£34,305) and Chiltern (£38,766). The median for Buckinghamshire is around 8% higher than the South East median. Aylesbury Vale also has the lowest workplace-based earnings, South Bucks is around the county median and Wycombe is higher, but the Buckinghamshire median is lower than the South East. These differences are likely to reflect differences in commuter behaviour in the different parts of

Buckinghamshire, with more Chiltern and South Bucks residents earning higher incomes outside the county.

At £23,342, Buckinghamshire's per capita gross disposable household income<sup>4</sup> is the seventh highest of the 173 NUTS 3 regions in the UK. However, growth over the last year and over the course of the recession has been among the weakest in the country, so that the gap between Buckinghamshire and the UK has narrowed from 37.8% in 2007 to 32.9% in 2013.

# 4.2.2.3 Income in different population groups

The gap between median hourly pay for residents and workers in Buckinghamshire was 15.5% in 2015, having been only 11.9% in 2008. However the gap at the 25<sup>th</sup> percentile closed from 7.2% to 4.9%, and at the 75<sup>th</sup> percentile from 16.7% to 12.1%, over the same period. Therefore while there is still an overall gap in pay between people working in Buckinghamshire, and all residents of Buckinghamshire, the differences for the highest and lowest paid have reduced. For residents, there was a 137% difference between gross hourly pay for those at the 25<sup>th</sup> and 75<sup>th</sup> percentiles of the pay range, which was the same in 2015 as it was in 2008. For those working in Buckinghamshire the difference between the 25<sup>th</sup> and 75<sup>th</sup> percentiles increased from 118% to 122% over the same period.

Having narrowed in the last two years, the pay gap between men and women widened in 2015. For women living in Buckinghamshire, gross median full-time earnings fell by 0.7% in 2015 compared to a 3.5% increase for men. For women working in Buckinghamshire, median pay rose 0.2%, while for men median pay rose 1.2%. Buckinghamshire's gender pay gaps are among the biggest in the country, with men's median gross full-time annual pay standing £10,019 (36.8%) above women's for residents and £7,318 (29.3%) above women's for those working in the county (table 3).

Table 3: Full-time annual gross median residence and workplace based earnings and annual change by gender, Buckinghamshire and Districts, 2015

			N	/len			Women							
	F	Residen	ice	Workplace				Resider	nce	Workplace				
	£	Rank	% change	£	Rank	% change	£	Rank	% change	£	Rank	% change		
Aylesbury Vale	36,288	30	11.1	32,496	55	1.4	23,401	143	-4.1	-	-	-		
Chiltern	46,310	2	5.4	-	-	-	-	-	-	-	-	-		
South Bucks	36,626	27	-1.1	33,572	43	1.2	30,067	24	1.7	23,204	122	8.6		
Wycombe	33,567	76	5.0	-	-	-	30,000	26	7.4	28,111	28	1.7		
Buckinghamshire	37,226	2	3.5	32,330	3	1.8	27,207	4	-0.7	25,012	5	0.2		
South East	33,382	2	0.7	30,074	2	1.3	25,930	2	1.8	25,057	2	1.9		
England	30,165	-	1.0	27,869	-	1.1	24,292	-	1.2	24,298	-	1.2		
Great Britain	30,000	-	1.3	27,732	-	1.4	24,207	-	1.2	24,207	-	1.3		

Source: ASHE, ONS, 2015

For part-time workers this imbalance is reversed, with a gross median hourly pay of £9.25 and £8.15 respectively for men living and working in Buckinghamshire, compared with £10.33 and £9.45 for women. However, in 2015 hourly pay was below £7.20, the level at which the new National Living Wage<sup>5</sup> will be set from April 2016, for more than 10% of people working in Buckinghamshire - fewer than 10% of those working full-time, but more than a quarter of part-time workers and almost 40% of men working part-time.

Income deprivation<sup>iii</sup> is comparatively low in Buckinghamshire, with 48.6% of the county's LSOAs ranking among the two least deprived deciles in England (Figure 2). However there are areas with much greater income deprivation, particularly in Aylesbury and also some areas of Wycombe and Chesham, with 1.3% of the county's LSOAs in the two most deprived deciles nationally.

## 4.2.2.4 Trends

In 2015, workplace-based gross median full-time earnings in Buckinghamshire rose by 0.6%, with the biggest rise being the 3.4% increase in Wycombe, although Aylesbury Vale saw a fall of 0.9%. Median earnings for Buckinghamshire's residents rose 2.4%, with large increases in Chiltern (6.8%) and Wycombe (5.8%) offsetting falls of 1.4% in Aylesbury and South Bucks.

Over the recession, Buckinghamshire has seen a widening of the gap between the highest and lowest paid. From 2008 to 2015 gross median full-time pay for residents has increased by 6.5%. However, at the 25<sup>th</sup> percentile, earnings have risen only 1.7% for, while at the 75<sup>th</sup> percentile the increase has been 8.9%. For those working in the county, the widening has been more marked with the rise being 4.0% at the median and 11.7% at the 75<sup>th</sup> percentile but only 0.1% at the 25<sup>th</sup> percentile. Pay at the 75<sup>th</sup> percentile is now 210% above the 25<sup>th</sup> percentile for workers and 223% for residents compared to 188% and 209% in 2008.

While per capita gross disposable household income<sup>4</sup> in Buckinghamshire is among the highest in the country at £23,342, growth over the last year and over the course of the recession has been among the weakest in the country, so that the gap between Buckinghamshire and the UK average has narrowed from 37.8% in 2007 to 32.9% in 2013. The trend of comparatively slow household income growth in Buckinghamshire is forecast to continue, with annual rises a little over half the national level to 2026<sup>3</sup>.

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The Income Deprivation Domain measures the proportion of the population experiencing deprivation relating to low income. The definition of low income used includes both those people that are out-of-work, and those that are in work but who have low earnings (and who satisfy the respective means tests).

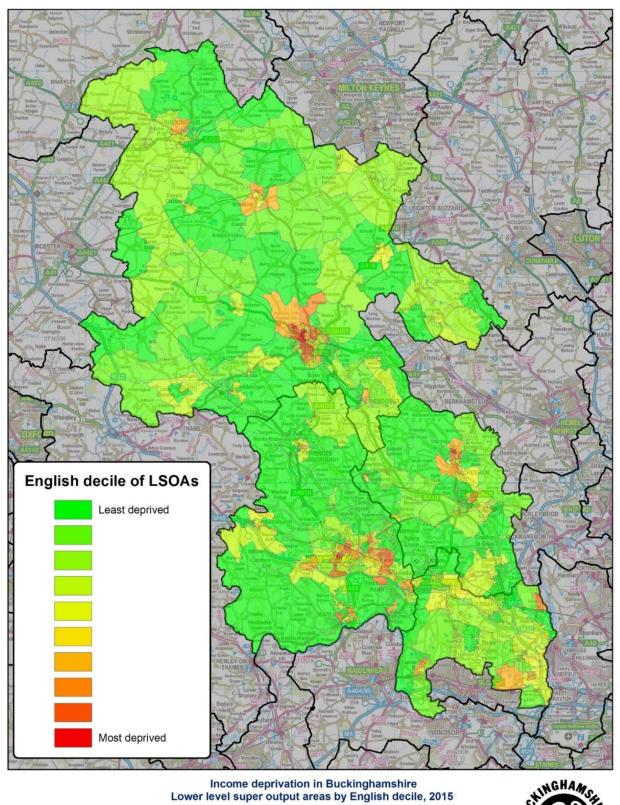
### 4.2.2.5 Conclusions

Overall pay is high in Buckinghamshire, but the median earnings of all Buckinghamshire's residents are 12% higher than those of people who work within Buckinghamshire, reflecting the large numbers of people particularly from the south of the county who commute to higher paid jobs outside Buckinghamshire.

There are also differences in earnings between different groups of the population. The gender pay gaps in Buckinghamshire are among the biggest in the country; men's median full-time pay is 29% higher than that for women working in the county, and 37% higher for all residents. For part-time workers, women earn more than men but the disparity is much smaller. More than 10% of people working in Buckinghamshire (including more than a quarter of part-time workers) earn less than the new National Living Wage. Income deprivation is relatively low overall, but some areas in Wycombe, Aylesbury and Chesham rank among the most deprived fifth of areas in the country.

There have also been disparities in changes in income, with increases in most areas of the county in 2015, while both workplace-based and residence-based incomes fell in Aylesbury Vale. Earnings have risen less for women than for men, and there has also been a widening of the gap between the highest and lowest paid over the recession. Therefore while overall Buckinghamshire's residents are relatively highearning, the inequalities between different areas and different population groups in the county will contribute to other inequalities in life opportunities and experience.

Figure 2: Income deprivation in Buckinghamshire, Lower Super Output Areas, 2015



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### 4.2.3 Commuting

Commuting can have significant environmental, economic and health effects. Commuter behaviour is driven by the proximity of the workplace to home, and the availability, affordability and ease of use of different forms of public and private transport.

## 4.2.3.1 Information on commuting in Buckinghamshire

Data on the proportion of employed residents who work within Buckinghamshire are derived from the 2011 Census, so do not take into account the most recent changes in employment. In 2011, 58.0% of employed Buckinghamshire residents worked within the county (a fall from 65.9% in 2001), making Buckinghamshire the least self-contained labour market of all 39 Local Enterprise Partnerships (LEPs) (table 4). With only 0.79 jobs in the county for every working age resident, Buckinghamshire's jobs density is the lowest of any LEP in the Greater South East and lower than that of the country overall<sup>6</sup>.

Table 4: Living and working in Buckinghamshire by District, employed residents aged 16-74, 2011

	Live and work	Employed residents	%	Rank	Work in area	%	Rank
Aylesbury Vale	48,276	90.724	53.2	194 of 378	68.148	70.8	101 of 378
Chiltern	18.361	44.785	41.0	303 of 378	31.755		236 of 378
	- /	,	_		- ,		
South Bucks	10,173	33,117	30.7	354 of 378	30,792		369 of 378
Wycombe	46,528	86,350	53.9	189 of 378	73,822	63.0	182 of 378
Bucks TV LEP	147,772	254,976	58.0	39 of 39	204,517	72.3	36 of 39
South East	3,383,500	3,906,068	84.9	11 of 11	3,722,701	90.9	10 of 11

Source: Origin-Destination, Census 2011, ONS, 2014

Among the Buckinghamshire Districts, Wycombe and Aylesbury Vale are the most self-contained, providing work for more than half of their employed residents, but ranking only 189<sup>th</sup> and 194<sup>th</sup> of the 378 Local Authorities in Great Britain. South Bucks is the 23<sup>rd</sup> least self-contained local authority in the country, with fewer than a third of employed residents working in the district. Chiltern also ranks in the bottom quartile with 41.0% of employed residents working there. Buckinghamshire as a whole is more self-contained than the average of the individual Districts because a number of people live in one District of Buckinghamshire and work in another.

Westminster and the City of London is the most common workplace outside the county, providing work for 9,458 Buckinghamshire residents, ahead of Hillingdon (8,541), Slough (6,752), Windsor and Maidenhead (5,571) and Milton Keynes (5,403).

Regarding commuting into Buckinghamshire, in 2011 204,517 people were employed in Buckinghamshire of whom 147,772 (72.3%) lived in the county. Of this

total 73,822 worked in Wycombe, 68,148 in Aylesbury Vale, 51,705 in Chiltern and 31,755 in South Bucks. The most common place of residence outside the county for Buckinghamshire's workers is Slough, with 5,222 commuters, ahead of Windsor and Maidenhead (4,794), South Oxfordshire (4,265), Dacorum (3,646), Hillingdon (3,507) and Milton Keynes (3,070).

Overall, 70.8% of Buckinghamshire's employed residents travel to work by car. However, this varies markedly by destination, so that while only 12.3% of the Buckinghamshire commuters heading to the Westminster and the City of London travel by car, this rises to 95.7% of the 138 that travel to Stevenage and 95.0% of the 538 working in Welwyn Hatfield. Data from the 2011 Census show that only 1% of Buckinghamshire residents commuted by bicycle, and 6.1% on foot (see JSNA section 5.3). Levels of active commuting were higher in Aylesbury Vale and Wycombe than in Chiltern and South Bucks.

# 4.2.3.2 Commuting in different population groups

The place of work of Buckinghamshire's residents varies by age (table 5). While all age groups are more likely to be employed within than outside Buckinghamshire, this is most common among young adults and those aged over 65. Those who commute into City of London and Westminster are most likely to be aged 35-49, and 33,958 Buckinghamshire residents (around 13% of the employed population) worked in London altogether, almost half of whom were aged 35-49.

Table 5: Top 10 places of work by age group, number (% of age group), Buckinghamshire residents, 2011

16-2	4	25-34		35-49	
Bucks	18671	Bucks	26881	Bucks	62218
	(86%)		(64.2%)		(63.8%)
Wycombe	7622	Wycombe	10737	Wycombe	19215
	(26.7%)		(22.4%)		(19.7%)
Aylesbury Vale	6179	Aylesbury Vale	8968	Aylesbury Vale	19011
	(21.6%)		(18.7%)		(19.5%)
Chiltern	2764	Chiltern	3714	Chiltern	8686
	(9.7%)		(7.7%)		(8.9%)
S Bucks	2006	S Bucks	2572	S Bucks	5306
	(7.0%)		(5.4%)		(5.5%)
Windsor &	694	Westminster,	1898	Westminster,	4668
M'head	(2.4%)	City of London	(4.0%)	City of London	(4.8%)
Slough	651	Hillingdon	1582	Hillingdon	3695
J	(2.3%)		(3.3%)		(3.8%)
Milton Keynes	625	Slough	1344	Slough	2729
•	(2.2%)		(2.8%)		(2.8%)
S Oxfordshire	615	Windsor &	1244	Windsor &	2114
	(2.2%)	M'head	(2.6%)	M'head	(2.2%)
Hillingon	603	Milton Keynes	1048	Milton Keynes	2073
•	(2.1%)		(2.2%)		(2.1%)

50-6	64	65-74						
Bucks	42896	Bucks	8788					
	(59.9%)		(70.8%)					
Wycombe	14976	Wycombe	2247					
	(20.9%)		(23.4%)					
Aylesbury Vale	14882	Aylesbury Vale	2172					
	(20.8%)		(22.7%)					
Chiltern	8143	Chiltern	1402					
	(11.4%)		(14.6%)					
S Bucks	4895	S Bucks	917					
	(6.8%)		(9.6%)					
Hillingdon	2408	Hillingdon	224					
	(3.4%)		(2.3%)					
Westminster,	2162	Slough	186					
City of London	(3.0%)		(1.9%)					
Slough	1798	Windsor &	154					
	(2.5%)	M'head	(1.6%)					
Milton Keynes	1500	Westminster,	146					
	(2.1%)	City of London	(1.5%)					
Windsor &	1345	S Oxfordshire	139					
M'head	(1.9%)		(1.5%)					

Source: Origin-Destination, Census 2011, ONS, 2014

#### 4.2.3.3 Conclusions

Buckinghamshire is the least self-contained labour market of all 39 Local Enterprise Partnerships, with 42% of employed Buckinghamshire residents working outside the county in 2011, an increase from 34% in 2001. Within Buckinghamshire, South Bucks is the least self-contained District, with 69% of employed residents working outside the District compared with 59% in Chiltern, 47% in Aylesbury Vale and 46% in Wycombe.

While much of Buckinghamshire's out-commuting consists of relatively short journeys into neighbouring areas such as Hillingdon, Milton Keynes and Slough, the most common workplace outside the county is the City of London and Westminster. In addition, 28% of people who work in Buckinghamshire (around 57,000 people) commute in from a place of residence outside the county, most of them from neighbouring areas.

Overall around 71% of Buckinghamshire's employed residents commute by car, but this varies widely by destination and is lowest among those travelling in to London. Greater promotion of other forms of commuting, the use of public transport and active travel would help reduce the burden of these high levels of car use on the environment, infrastructure and on commuters themselves.

### 4.2.4 Workplace health and wellbeing

This section outlines the associations between employment and health, and presents information on workplace health and sickness in Buckinghamshire.

#### 4.2.4.1 The impact of employment and workplace on health and wellbeing

There is strong evidence to show that work is generally good for people's wellbeing. It meets important psychosocial needs and is central to an individual's identity, social role and status<sup>7</sup>. There is a positive association between job satisfaction, performance, wellbeing and sickness absence in the workplace but the benefits depend on the type of work involved. Workplaces encouraging and facilitating healthy lifestyle choices, along with good quality leadership, have been found to lead to healthy choices amongst employees as well as reduced stress, depression and sick leave. Employees in good health can be up to three times more productive than those in poor health, experience fewer motivational problems, are more resilient to change and more likely to be engaged with the business's priorities<sup>8</sup>.

The Marmot review<sup>2</sup> highlighted the increased risks of ill-health associated with poor quality jobs and working environments. It defined *good work* as having the following components:

- Having control over your work tasks
- In-work development
- Flexibility
- Receiving a living wage
- Protection from adverse working conditions
- Ill-health prevention and stress management strategies
- Support for people going through periods of ill-health that facilitates a return to work
- Robust, appropriate human resources and occupational health policies and procedures
- Good management practices

Since Marmot's review, NICE has published extensive guidance on workplace health, demonstrating the health and economic benefits of implementing programmes to tackle different areas of workplace health<sup>9</sup>.

# 4.2.4.2 Information about workplace and health in Buckinghamshire and the UK

In 2014, 134 million working days were lost due to sickness absence for people aged 16+ in the UK<sup>10</sup>, equivalent to an average of 4.4 days sickness absence per person at an average cost of £975 per worker per year<sup>11</sup>. In Buckinghamshire in 2014, there were 228,500 people employed in more than 30,000 workplaces, an increase of 7,800 on the previous year, and 68.5% of jobs were full time<sup>12</sup>. Based on these

figures, the annual cost impact of sickness absence in Buckinghamshire could be more than £200 million.

The Public Health Outcomes Framework includes data from the Labour Force Survey showing the percentage of working days lost due to sickness absence<sup>13</sup>. In Buckinghamshire in 2010-12, 1.5% of all working days were lost due to sickness absence, similar to the England (1.5%) and South East Regional (1.6%) averages. The rates vary by District across Buckinghamshire but none are statistically significantly different from the Buckinghamshire wide, South Eastern or Regional averages.

Figure 3 shows that the number of working days lost to sickness absence in the UK remained about the same level between 1993 and 2003, fell between 2003 and 2011, but appears to have plateaued since 2011<sup>14</sup>.

Number of Working Days Lost Millions 1993: 200 178 million days 175 2013: 131 million 2013: Days by Reason 150 days **Musculoskeletal Conditions** 31 million (Back and Neck Problems) Minor Illnesses 27 million (Coughs and Colds) 125 Stress/Anxiety/Depression 15 million Other 52 million 6 million Prefer not to state a reason 100 1993 1995 1997 1999 2001 2003 2005 2007 2009 2013

Figure 3: Number of working days lost due to sickness absence, UK, 1993-2013

Source: ONS. 2014.

Table 6 shows the most common reasons for sickness absence and the number of days lost in the UK in 2013<sup>14</sup>. The commonest reasons recorded (30% of the total) were minor illnesses such as coughs and colds, which accounted for 27.4 million days lost. Musculoskeletal problems accounted for 20% of the absences, but the greatest number of days lost (30.6 million). Mental health problems such as stress, depression and anxiety accounted for 8% of the absences, a total of 15.2 million days lost.

Table 6: Reasons for sickness absence, and number of days lost through sickness absence, 2013, UK

	% of sickness absences	No. days lost (millions)
Minor illnesses	30%	27.4
Musculoskeletal problems	20%	30.6
Other	14%	21.7
Stress, depression, anxiety	8%	15.2
Gastrointestinal problems	7%	8.7
Eye/ear/nose/mouth/dental problems	4%	5.2
Respiratory conditions	4%	5.3
Heart, blood pressure, circulation problems	3%	5.0
Genito-urinary problems	3%	3.2
Headaches and migraines	2%	1.7
Serious mental health problems	1%	1.0
Prefers not to give details	4%	5.9
TOTAL		131

Source: ONS, 2014

# 4.2.4.3 Workplace health and sickness absence in different groups

## i) Gender

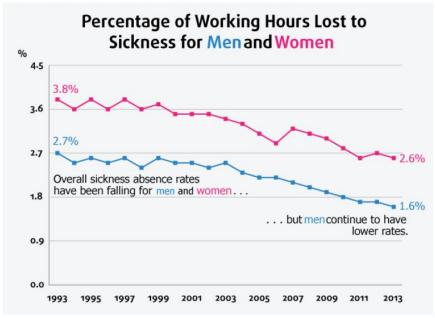
Nationally sickness rates are higher for women (2.6% working hours lost annually) than for men (1.6% working hours lost annually) but rates for both men and women have fallen by about the same amount (figure 4)<sup>14</sup>.

## ii) Vulnerable groups

The Marmot Review<sup>2</sup> highlighted that certain groups are more likely to experience poor-quality jobs (disabled people, lone parents, those with caring responsibilities and those who are from some ethnic groups), and that jobs that are insecure, low-paid and which fail to protect employees from stress and danger are more likely to make people ill.

Figure 4: Percentage of working hours lost to sickness by gender, UK, 1993-2013

Sickness absence rates for men and women, 1993 to 2013, UK.



Source: ONS. 2014.

## iii) Occupation type

Sickness absence is lowest for managers, directors and senior officials and highest in caring, leisure and other services (figure 5)<sup>14</sup>. People working in the private sector and self-employed individuals also have a lower rate of sickness absence than people working in the public sector<sup>9</sup>. There are links between some of the factors associated with higher sickness absence rates; for example, caring and leisure services are dominated by women and this type of work is also less likely to provide autonomy and flexibility and to require higher educational attainment, all factors which would protect against sickness absence. Conversely, these factors are more prevalent in the work types with lower sickness absence rates (Managers and Senior Officials). However, these statistics may mask the reality of productivity in groups with lower sickness absence, as Managers and Senior Officials are more likely to continue working when unwell, and presentism (working while unwell) is an increasing problem negatively affecting productivity and significantly impacting on individual wellbeing in the long term.



Figure 5: Percentage of hours lost through sickness by occupation, UK, 2013

Source: ONS. 2014.

# 4.2.4.4 Geographical variations in workplace health and sickness absence

Figure 6 shows sickness absence rates by Region across Great Britain. Overall, workers in the South East have the second lowest percentage after London of hours lost due to sickness absence. This difference is likely to be linked with the higher than average percentage of self-employed workers and more private sector workers in these areas<sup>14</sup>.

The PHOF data referred to above shows that the proportion of working days lost due to sickness absence in Buckinghamshire as whole, and within the Districts in Buckinghamshire, are not significantly different from each other or from the South East and national rates<sup>13</sup>.

Highest East Midlands Wales North East Above UK 2.4% Yorkshire and the Humber average North West West Midlands Scotland South West East of England 1.5% South East Below UK average London Lowest

Figure 6: Sickness absence rates across Great Britain, October 2012 to September 2013

Source: Annual Population Survey (APS) - Office for National Statistics

Source: ONS, 2014

## 4.2.4.5 Demand

In Buckinghamshire there are more than 30,310 VAT/PAYE registered businesses, between them employing 228,500 people. Although some individual organisations may have initiatives in place specifically designed to reduce staff sickness absence and improve workplace health, there is no co-ordinated approach to this work across the county.

In 2013, NGAGE undertook a survey of Buckinghamshire businesses aiming to provide local information on views and demands for workplace wellbeing support<sup>15</sup>. Of the 60 employers who responded, 83% agreed there is a link between work and employee's health and wellbeing and 44% of employees wanted their employer to intervene in terms of their physical and mental health.

## 4.2.4.6 Horizon scanning

There is strong evidence that work-based health promotion programmes have a positive impact on employee health, reducing risk factors for disease, absenteeism and generally improving staff health. A spend of £1 is estimated to achieve between £2.50 $^{16}$  and £34 $^{17}$  in cost/benefit savings for an employer. Reviews of workplaces in the UK which have implemented a variety of health and wellbeing interventions have found between 45% $^{18}$  and 82% $^{17}$  experienced a reduction in days lost through

sickness absence alongside improvement in staff turnover, employee satisfaction and a decrease in accidents and injuries<sup>18</sup>.

There is a plethora of evidence based best practice information available to employers to enable them to estimate the cost benefit of establishing employee wellbeing programs and to guide them towards implementation. In 2014, the National Workplace Wellbeing Charter Accreditation Scheme was introduced 19, providing benchmarking and audit tools for businesses which lead to nationally recognised accreditation. Businesses will need to take a strategic approach with senior manager buy-in and a plan of action. In an area such as Buckinghamshire where more businesses are small to medium enterprises, employers would benefit from some additional co-ordinated support to develop and implement their plans.

#### 4.2.4.7 Conclusions

There are clear links between work and better health, and evidence on what comprises good work and a healthier workplace. In 2014, an average of 4.4 days were lost in sickness absence per person nationally, which would be equivalent to a cost impact of over £200 million in Buckinghamshire. The proportion of working days lost due to sickness is similar in Buckinghamshire to the England and South East averages. Rates of sickness absence fell nationally between 2003 and 2011 but have plateaued since then.

The commonest reasons for sickness absence nationally are minor illnesses such as coughs and colds, musculoskeletal problems and mental health problems. Sickness rates are higher for women than for men, lowest for managers, directors and senior officials and highest in caring, leisure and other services. People in vulnerable and disadvantaged groups are more likely to have poor quality jobs which will negatively affect their health.

There is strong evidence that work-based approaches to improving health have benefits for employees, employers and the wider economy, in terms of improved health, staff retention and job satisfaction and cost savings. A strategic approach is needed by businesses to ensure they can do this effectively. However, there is currently no co-ordinated approach to improving workplace health in Buckinghamshire.

#### *4.2.5* Skills and qualifications

## 4.2.5.1 The importance of skills and qualifications

There is a clear relationship between lower qualifications, unemployment or lower-paid work and greater socioeconomic disadvantage. There is also a link between educational qualifications and health; rates of limiting illness have been found to be over twice as high among those with no qualifications as among those educated to degree level, and rates of premature mortality are also lower among those with degree-level qualifications<sup>2</sup>. Lower skills and qualifications also tend to recur through generations, leading to repeating cycles of disadvantage.

4.2.5.2 Skills and qualifications in the working population in Buckinghamshire Buckinghamshire's educational attainment is among the highest in the country, with only 16,000 working age residents (5.1%) holding no qualifications (table 7). In Buckinghamshire 46.6% of working age residents hold at least degree level qualifications, and 81.3% of residents are educated to at least NVQ level 2.

Table 7: Highest qualifications held (residents aged 16-64), 2014

	NVC	NVQ4+			NVQ3			Q2		N	VQ1		No Quals		
	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank
Aylesbury Vale	46,900	41.8	81	20,940	18.7	306	22,290	19.9	161	16,070	14.3	227	5,900	5.3	75
Chiltern	31,100	58.4	14	7,100	13.3	362	9,850	18.5	216	4,050	7.6	368	1,200	2.3	7
South Bucks	19,100	48.0	42	7,400	18.6	310	7,100	17.8	240	3,400	8.5	354	-	-	-
Wycombe	49,400	45.2	59	22,160	20.3	253	18,210	16.7	276	10,830	9.9	341	8,500	7.8	188
Buckinghamshire	146,400	46.6	2	57,840	18.4	27	58,390	18.6	17	35,770	11.4	27	16,000	5.1	5
BTVLEP	146,400	46.6	3	57,840	18.4	38	58,390	18.6	27	35,770	11.4	39	16,000	5.1	4
Enterprise M3	432,100	42.6	6	207,040	20.4	34	181,390	17.9	33	144,970	14.3	31	50,000	4.9	3
Hertfordshire	312,500	43.5	5	147,120	20.5	33	123,520	17.2	35	94,160	13.1	34	41,000	5.7	10
Oxfordshire	205,100	48.6	2	88,750	21.0	29	59,925	14.2	39	48,425	11.5	38	20,100	4.8	1
London	2,829,400	49.1	1	942,720	16.4	39	833,120	14.5	38	704,160	12.2	36	449,400	7.8	16
Northamptonshire	137,800	31.0	25	97,740	22.0	23	97,140	21.9	6	69,120	15.6	21	42,300	9.5	25
SEMLEP	381,600	34.1	18	230,550	20.6	32	226,925	20.3	16	182,425	16.3	14	96,100	8.6	21
TV Berkshire	253,100	45.0	4	114,390	20.4	35	99,565	17.7	34	65,645	11.7	37	29,100	5.2	5
South East	2,132,300	39.1	3	1,192,540	21.9	7	1,004,040	18.4	10	812,220	14.9	8	306,300	5.6	1
Great Britain	14,173,600	36.0		8,387,520	21.3		7,373,270	18.7		5,963,510	15.2		3,443,900	8.8	

Source: Annual Population Survey, ONS, 2015

The educational attainment of Buckinghamshire's residents has been rising in recent years, more steeply and to a higher level than seen nationally (figure 7). The proportion of working age residents in Buckinghamshire holding degree level qualifications rose from 34.3% in 2004 to 46.6% in 2014. Over the same period the proportion in Buckinghamshire with no qualifications fell from 9.1% to 5.1%.

45.0
40.0
35.0

2008

-Buckinghamshire -

Figure 7: Proportion of working age residents holding degree level qualifications, Buckinghamshire and England, 2004-2014

Source: Annual Population Survey, ONS, 2014

2006

25.0

2004

2005

## 4.2.5.3 Skills and qualifications in different population groups

2010

2011

2012

In the 2011 Census, 34.8% of Buckinghamshire residents aged 16+ held degree level qualifications. When split by ethnic group, the proportion was highest among people in 'Other' ethnic groups (44.2%) and lowest (30.2%) for people from Mixed/Multiple ethnic groups. For all other groups the range was narrow, from 36.0% for Asian/Asian British residents to 33.5% for Black/Black British residents.

2014

2013

#### 4.2.5.4 Geographical variations in skills and qualifications

As shown in table 4.7, Buckinghamshire ranks second among the 27 County Council areas in Britain for the proportion of residents with degree level qualifications, and third among Local Enterprise Partnerships (LEPs). Buckinghamshire also ranks second among both County Councils areas and LEPs in the proportion of residents educated to at least NVQ level 2.

However, there are variations within Buckinghamshire, with the proportion with degree level qualifications ranging from 58.4% in Chiltern and 48.0% in South Bucks, to 45.2% in Wycombe and 41.8% in Aylesbury Vale (table 4.2.7). Conversely the proportion with no qualifications ranges from 7.8% in Wycombe to 5.3% in Aylesbury and 2.3% in Chiltern (South Bucks data not shown).

Seven LL-SOAs in Buckinghamshire, most of which are in Aylesbury, rank in the most deprived decile nationally on the education, skills and training domain of the

Indices of Multiple Deprivation<sup>iv</sup> (figure 8). While more than a quarter of Buckinghamshire LL-SOAs rank in the least deprived decile nationally, Buckinghamshire compares less well overall on this domain than it does on most other domains of the IMD.

#### 4.2.5.5 Horizon scanning

As shown in section 4.2.1, there are expected to be increases in the proportion of people in Buckinghamshire in managerial, professional and technical occupations, and a decline in the proportion in most other occupational groups. There will therefore be increasing demands on the local population for a higher level of skills and qualifications.

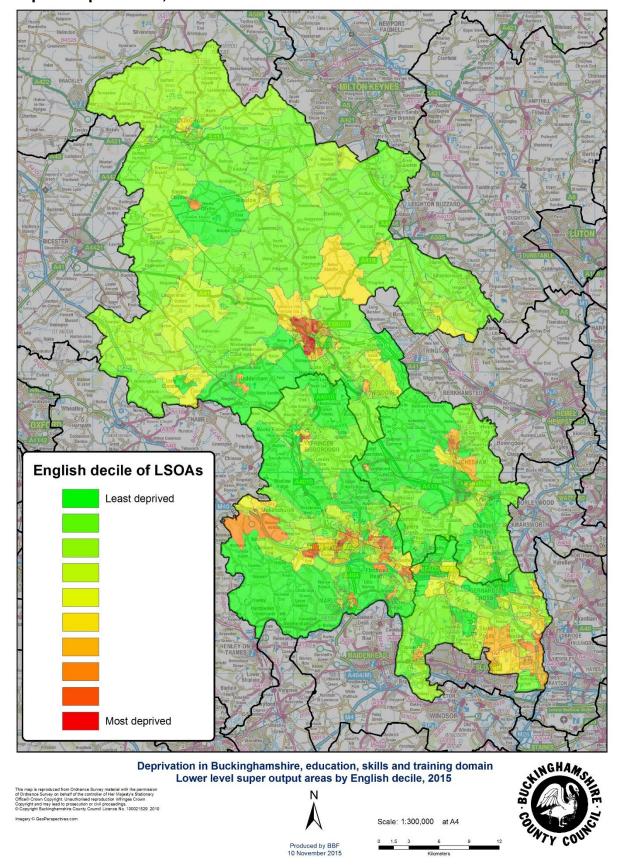
### 4.2.5.6. Conclusions

There are clear links between higher qualifications and better health, life opportunities and socioeconomic circumstances. Buckinghamshire has high levels of educational attainment overall compared with the rest of the country, and the proportion of highly qualified people in the Buckinghamshire population has increased more rapidly than it has nationally. However, there are variations within the county with lower levels of qualifications particularly in some areas of Aylesbury and Wycombe. The population will need to keep pace with the continuing increase in demand for people to carry out work requiring a high level of skills and qualifications.

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The Education, Skills and Training Deprivation Domain of the IMD measures the lack of attainment and skills in the local population. The indicators fall into two sub-domains: one relating to children and young people and one relating to adults.

Figure 8: Education, skills and training deprivation in Buckinghamshire, Lower Super Output Areas, 2015



#### 4.2.6. Benefits and welfare reform

## 4.2.6.1 Information on benefits uptake in Buckinghamshire

There were 15,430 Buckinghamshire residents in receipt of out-of-work benefits in May 2015, a fall of 23.6% from August 2009's post-recession peak of 20,790<sup>20</sup>. However the balance of benefits has changed markedly over that time. While the number of Buckinghamshire residents in receipt of Job Seekers' Allowance has more than halved, the number of claimants of all other out-of-work benefits has fallen by only 6.2%, suggesting *hidden unemployment* in Buckinghamshire is very low.

In 2014/15 benefit expenditure in Buckinghamshire totalled £1.09bn, with the state pension accounting for £0.73bn or 66.3%.

Table 8: Out of work benefits by DWP statistical group, May 2015

	Out-of-wor	k bene	efits	Job seeker				ESA and incapacity benefits			paren	t	Others on income related benefit			
	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	
Aylesbury Vale	5,750	4.9	335	850	0.7	302	4,000	3.4	337	760	0.7	252	150	0.1	323	
Chiltern	2,300	4.2	358	370	0.7	302	1,590	2.9	367	270	0.5	336	60	0.1	323	
South Bucks	1,680	4.1	366	250	0.6	327	1,130	2.7	374	240	0.6	304	50	0.1	323	
Wycombe	5,700	5.2	318	1,200	1.1	220	3,560	3.3	345	750	0.7	252	190	0.2	181	
Buckinghamshire	15,430	4.8	25	2,670	0.8	19	10,280	3.2	26	2,030	0.6	25	460	0.1	25	
BTVLEP	15,430	4.8	37	2,670	0.8	36	10,280	3.2	39	2,030	0.6	37	460	0.1	37	
Enterprise M3	48,870	4.8	37	6,110	0.6	38	34,830	3.4	38	6,490	0.6	37	1,450	0.1	37	
Hertfordshire	43,690	6.0	35	8,080	1.1	23	28,210	3.9	35	6,230	0.9	20	1,170	0.2	21	
London	508,880	8.7	15	110,140	1.9	10	316,920	5.4	22	66,440	1.1	12	15,380	0.3	6	
Northamptonshire	35,030	7.8	23	6,910	1.5	13	22,340	5.0	27	4,760	1.1	12	1,020	0.2	21	
Oxfordshire	20,760	4.8	37	2,380	0.6	38	14,970	3.5	37	2,830	0.7	36	570	0.1	37	
SEMLEP	81,880	7.2	27	15,720	1.4	14	52,520	4.6	31	11,360	1.0	17	2,280	0.2	21	
TV Berkshire	31,200	5.5	36	5,030	0.9	33	20,560	3.6	36	4,680	0.8	29	930	0.2	21	
South East	364,690	6.6	11	56,670	1.0	10	249,140	4.5	11	48,370	0.9	10	10,520	0.2	9	
Great Britain	3,749,490	9.4	-	683,100	1.7	-	2,514,490	6.3	-	441,610	1.1	-	110,300	0.3	-	

Source: DWP, 2016

### 4.2.7 New developments and infrastructure

#### 4.2.7.1 The importance of new developments and infrastructure

Exponential housing growth is expected across Buckinghamshire over the next few decades. Over the next 15-20 years 51,500 new homes are projected, the largest number of which will be in the Aylesbury Vale district. The additional population growth associated with this housing development means increased need across transport, digital, energy and waste services provision.

Buckinghamshire is well-placed to help drive economic recovery. The County Council, alongside Buckinghamshire Thames Valley Local Enterprise Partnership (BTVLEP), is currently compiling an ambitious infrastructure plan which will help to identify the county's future infrastructure need in light of the level of development anticipated in the county.

However the Buckinghamshire economy also faces threats, both from the uncertain nature of the global economic recovery and from the impact of government spending cuts and under-investment.

# 4.2.7.2 Information on new developments and infrastructure in Buckinghamshire

i) Housing

The scale and pace of housing growth is already placing significant strain on investment and delivery of physical, social and green infrastructure. According to the Central Buckinghamshire Housing and Economic Development Needs Assessment (HEDNA) completed in October 2015, the full objectively assessed housing need over the period 2013-33 across Central Buckinghamshire (an area excluding South Bucks) is 42,903 dwellings<sup>21</sup>. Around half of these are in Aylesbury Vale, just over a third in Wycombe and the remainder in Chiltern (table 2.\*). These projections are based on local demography and long-term migration trends.

Table 2.\*: Predicted housing need, Central Buckinghamshire, 2013-2033

District	Predicted housing need 2013-2033
Aylesbury Vale	21,289 dwellings
Wycombe	15,011 dwellings
Chiltern	6,602 dwellings

Source: Central Buckinghamshire HEDNA, 2015

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Such substantial growth could have a negative impact across the various categories of infrastructure. Funding of infrastructure to support these developments remains a challenge, partly because of uncertainty over government match-funding to deliver infrastructure schemes. In addition the large-scale housing development is often siteled by developers rather than plan-led, and high land values often make it difficult to secure developer contributions without compromising viability.

ii) Employment, economic growth and demographic changes
Job growth in Buckinghamshire is high (see JSNA section 4.2). Furthermore, the
2015 Autumn Statement announced that Aylesbury Vale District has received
Enterprise Zone status. Enterprise Zones are designed to help invest in skills in
order to support local jobs and economic growth and can support the drive for inward
investment projects from abroad.

However, the demography of the county is also changing, with significant increases in numbers of people over 65, and much smaller increases in the number of working age adults living in the county (see JSNA section 3). A decreasing population of

economically active residents will increasingly be required to support the provision of infrastructure and services needed by an aging population.

#### iii) Infrastructure

There are a number of ongoing or planned major national infrastructure projects affecting Buckinghamshire, including East West Rail, HS2, Heathrow Expansion, Heathrow Express, Cross Rail, M4 Smart Motorway and the A421 expressway.

The priorities for the County Council are to improve north-south transport connectivity, east to west connectivity (particularly in north/mid Buckinghamshire) and to reduce congestion in urban centres. As far as business critical infrastructure is concerned, a number of transport, commercial property, utilities and broadband priorities have been identified, for example:

- Transport infrastructure which reduces congestion, improves journey times and journey time reliability and regenerates town centre transport infrastructure;
- Improving connectivity between new and existing rail stations and major settlements in the BTVLEP region (and beyond);
- Encouraging modal shift, integrated transport systems and low carbon vehicles.
- Exploring the potential for delivering an innovative 5G mobile broadband pilot

#### iv) Telecommunications

Broadband infrastructure is viewed by both national and local government as a key driver of economic growth, helping to secure competitive advantage for Buckinghamshire and for the UK internationally. It also helps enable environmental change and social equity, and will ensure that local residents and businesses have access to ubiquitous next generation connectivity.

There has been a package of direct national investment in superfast broadband in rural areas, core cities and in mobile services, totalling over £1 billion (likely to be augmented by further national, local and private sector funding). Currently, Buckinghamshire is on track to achieve 90% (of premises) superfast broadband connectivity by March 2016<sup>22</sup>.

The economic impact and transformative value of broadband networks is articulated in a wealth of research and evidence, including the UK Broadband Impact Study<sup>23</sup> which suggests that superfast broadband will make a contribution of £17 billion to UK GVA by 2024, and return £20 in net economic impact for every £1 of public contribution. The Digital Business First report<sup>24</sup> identifies current deficits and highlights the importance of the UK accelerating its investment in world leading communications infrastructure.

Telecommunications also have potential benefits in healthcare, providing remote access to advice and diagnostics, as well as improved communication and social interaction. In addition, the greater flexibility provided by internet access can also have indirect environmental and health benefits for the county's population.

Digital infrastructure is not only about connectivity, but also about skills. The national digital skills charity Go On UK has developed a national digital exclusion heat map which uses both digital indicators (infrastructure, access, Basic Digital Skills and Basic Digital Skills used) and social indicators (age, education, income and health) to indicate which areas of the UK are at risk of being digitally excluded<sup>25</sup>.

According to these indicators, all four Buckinghamshire Districts have a low likelihood of overall digital exclusion. The level of individuals in Buckinghamshire possessing all five basic digital skills (managing information, communicating, transacting, problem-solving and creating) is reasonably high; this is estimated at 79% of adults in Aylesbury Vale, 79% in Wycombe, 78% in Chiltern and 77% in South Bucks.

4.2.7.3 Impact of new developments and infrastructure on different groups
Affordable housing need is expected to exceed supply by 45% by 2033<sup>21</sup>. This will particularly affect more deprived households in Buckinghamshire, particularly as house prices in the county are at a premium.

Older and vulnerable people are more likely to be reliant on public and community transport. It is important that existing routes are adapted and extended to serve new housing developments, especially larger out-of-town sites. However, this may mean that existing public transport services will be spread more thinly.

Coupled with funding cuts, the lack of developer funding means the provision of infrastructure required to create an accessible public environment is increasingly difficult. Left unresolved, this could lead to increased isolation amongst more vulnerable groups.

#### 4.2.7.4 Horizon scanning

The expected growth will demand further investment in transport, broadband and utility infrastructures and also in schools, health facilities and GP surgeries. It will also require financial flexibilities within two-tier systems of government to pump prime regeneration and infrastructure schemes.

The ability to get around the county by personal or public transport is likely to be affected by increased congestion on the road network and higher demand for public transport services.

#### 4.2.7.5 Conclusions

High levels of development expected in Buckinghamshire are linked with projected significant increases in the population, which will lead to increased needs across transport, digital, energy and waste services provision. This will also place a higher demand on all public services.

Careful planning, development management and mitigation measures will have to be considered to avoid disruption and to minimise impact on service and infrastructure provision.

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