

## **A Demographic & Socio-Economic Review of Waterbeach**

This report has been produced to support the development of the Waterbeach Neighbourhood Plan. It pulls together a range of published data to paint a picture of the parish in terms of its demography, social characteristics and local labour market.

The report is broken down into the following sections:

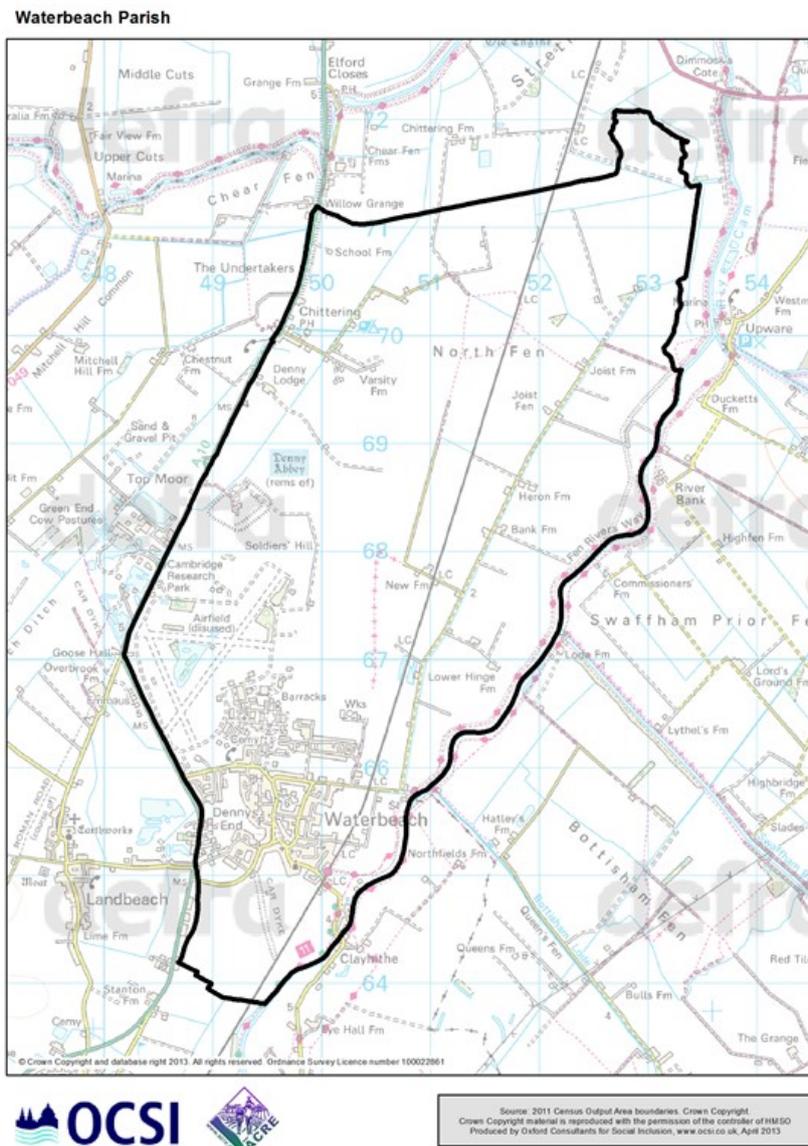
- Key points
- Geography
- Data sources
- Demography
- Housing
- Economic activity
- Deprivation

### Key points

- The population of Waterbeach in mid-2013 was about 4,000. The population fell by about 1,000 after the army barracks closed in early 2013
- The closure of the barracks will also have affected the local community in many other ways including age structure, household type and local employment
- House prices are in line with, or slightly lower than, neighbouring areas. Rental prices are lower
- However, these remain out of reach for many local people. There are over 100 households with a local connection to Waterbeach on the South Cambridgeshire District Housing Register (October 2016)
- Employment, pre 2013, was dominated by the barracks. However, civilian employment growth has been strong since it closed
- The Waterbeach economy has a strong emphasis on manufacturing and 'hi-tech' services with very little public service employment
- The net in-flow of commuters is only partly explained by the barracks. The Denny Road Industrial Estate area is a significant employment centre
- There is a north to south drift of workers with in-commuters to Waterbeach arriving from East Cambridgeshire and Huntingdonshire whilst Waterbeach residents commute to Cambridge
- Deprivation is relatively scarce in Waterbeach. The biggest single issue appears to be the educational performance of young people in the northern and western part of Waterbeach village

## Geography

The parish of Waterbeach is relatively large in land area terms covering about nine square miles. It has been described as a Fen edge landscape. The village of Waterbeach lies in the south of the parish and is about six miles north of Cambridge. The parish also includes the hamlet of Chittering to the north. Much of the land between the two settlements is the former RAF base/ army barracks.



The A10 forms a western boundary to the parish and a rail line runs north/ south through the parish linking Cambridge and Ely and beyond. Waterbeach has a railway station. On the western edge of the A10 (and hence outside of the parish) lies the Cambridge Science Park and the Donarbon Waste Management Park.

The scale of Waterbeach means it is well served in terms of local facilities for a village. There are a range of shops, leisure services and clubs & societies. There is also a primary school and doctors' surgery.

## Data sources

A range of published data sources have been used to compile this report. Where possible parish level data has been used but this is not always available. The geography and timeliness of data sets is clearly labelled throughout the report.

Waterbeach ward covers two parishes: Waterbeach and Landbeach. Some data is published at a smaller geography than parishes. The Office for National Statistics uses Output Areas as its building block for the Census of Population. Output areas have an average population of about 300 and can be aggregated upwards into Lower Super Output Areas (LSOAs) and Middle Super Output Areas (MSOAs).

MSOA E02003778 is co-terminous with Waterbeach ward (which includes Landbeach). Most of Waterbeach parish is covered by three LSOAs. LSOA E01018298 covers the largest land area taking in the former MoD barracks and Chittering to the north. LSOA W01018299 covers the northern and western parts of Waterbeach village including the High Street. LSOA E01018300 covers the more southerly and eastern parts of Waterbeach village. The remainder of the ward is covered by LSOA E01018300. This includes Landbeach parish (including the Cambridge Research Park) and a small part of Waterbeach village along Car Dyke Road.

The 2011 Census is the richest source of demographic and socio-economic data for small areas. However, it is five years old and most small areas will inevitably have undergone some change since Census day. In the case of Waterbeach there has been a major change in the form of the army barracks closing. Where this is likely to have had a significant impact on data presented in the report this is noted.

The nature of this type of data analysis is that it is largely backward looking albeit using the most up to date data available. However, the key issue affecting the future of Waterbeach is the proposed new town.

## Demography

Waterbeach's population in 2013 was 3,980.<sup>1</sup> This is a fall from over 5,000 in 2011 and reflects the closing of the army barracks (which was previously an RAF base until 1966) in early 2013. Most of the population reside within Waterbeach village with only about 100 people in Chittering and a similar number in outlying dwellings.

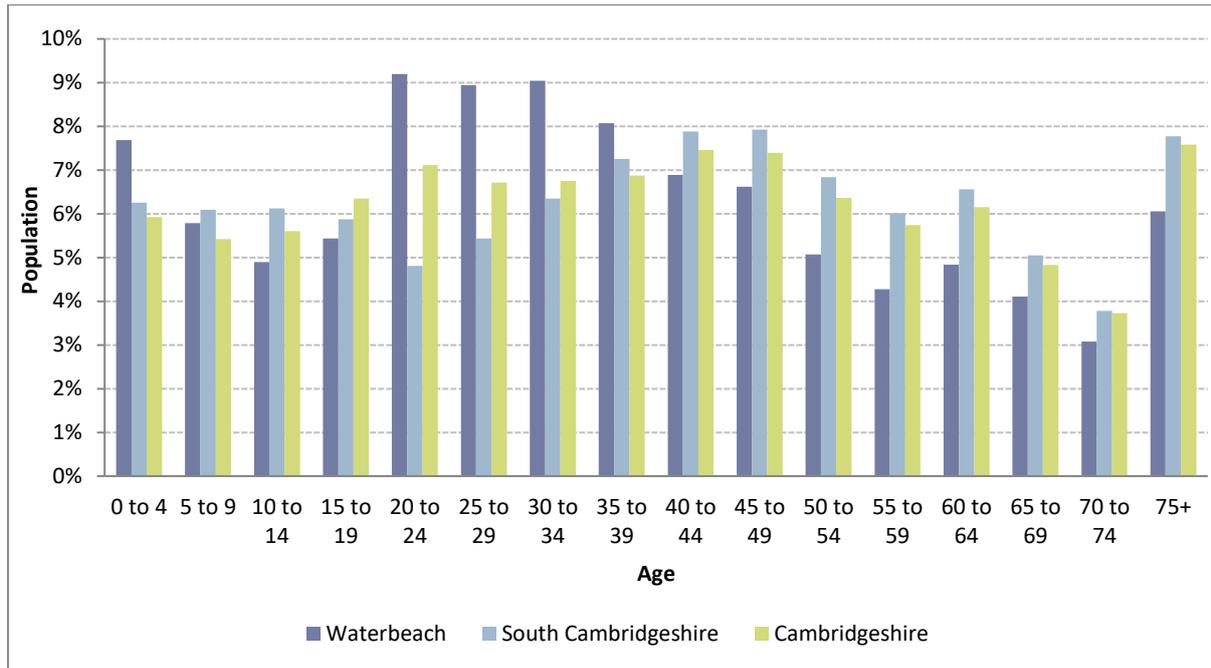
Longer term the population has been relatively stable with growth of about 400 between 2001 and 2010 (lower than the average for South Cambridgeshire) and no growth between 1991 and 2001.<sup>2</sup>

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<sup>1</sup> *Cambridgeshire Population and Dwelling Stock Estimates: mid-2013'*, Cambridgeshire County Council (December 2014)

<sup>2</sup> *Cambridgeshire Population and Dwelling Stock Estimates: 1991-2010'*, Cambridgeshire County Council (July 2011)

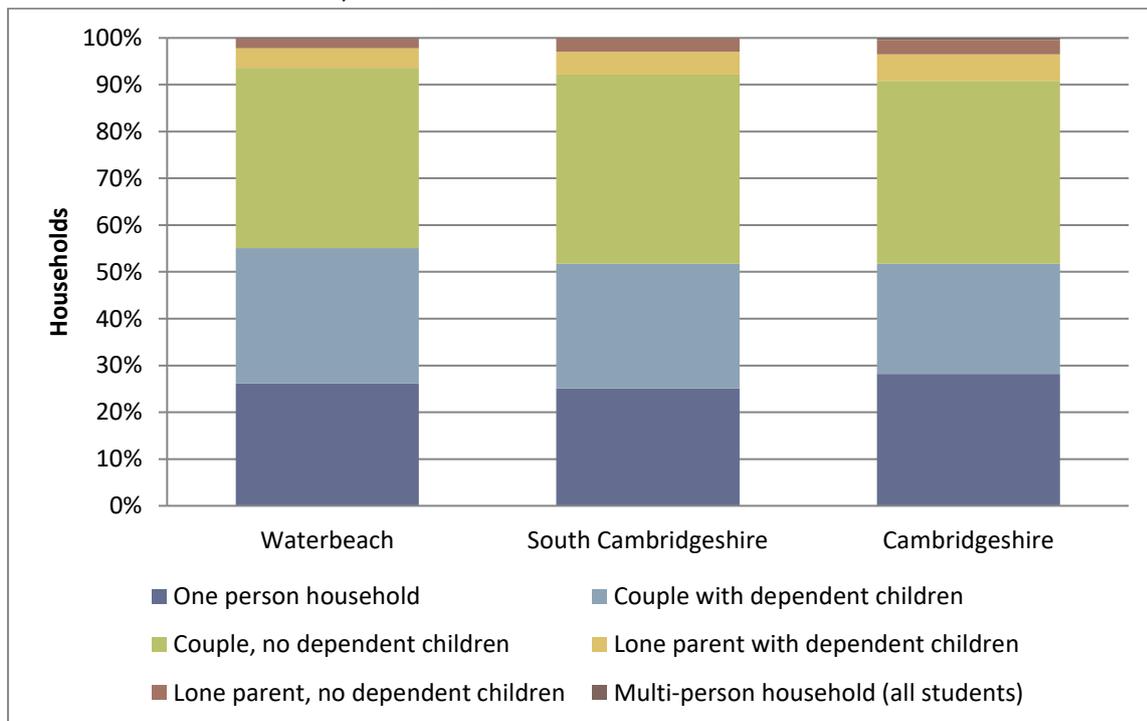
*Waterbeach population by age, 2011*



Source: 'Waterbeach Parish Profile', Cambridgeshire County Council (October 2014)

The age profile of Waterbeach's population is highly distinctive for a rural community. Typically, a rural Cambridgeshire community would have a low proportion of people aged in their twenties and thirties compensated for by a high proportion of people aged 40+. In Waterbeach the opposite occurs. However, this is presumably due to the army barracks which closed after the 2011 Census.

*Waterbeach household composition, 2011*



Source: 'Waterbeach Parish Profile', Cambridgeshire County Council (October 2014)

A similar caveat must be applied to any analysis of household composition. Household composition in Waterbeach is similar to South Cambridgeshire and Cambridgeshire as a whole. It does have a slightly higher proportion of couples with dependent children and a lower proportion of lone parents with or without children. However, the largest group (38 per cent of all households) remains couples with no dependent children.

Nine in ten (89 percent) of the resident population are 'White British' with an almost identical proportion of the population born in the UK. Over half of those born outside of the UK were born outside of the EU. These proportions are very similar to South Cambridgeshire as a whole.<sup>3</sup>

The latest forecasts produced by Cambridgeshire County Council need to be treated with caution. The forecasts do not envisage Waterbeach new town starting until after 2026.<sup>4</sup> However, it now seems likely that development will occur before this point. Clearly, the development of a new town with 8,000 or more dwellings will have a major impact on population growth. It will also impact on the age profile and household composition of the parish through the types of dwellings built.

However, in the short term there is considerably more certainty about population growth. Recent planning permissions (discussed in the next section) will result in hundreds of new dwellings being built over the next few years. Many of these will be between the village and the army barracks (the site of the proposed new town).

The other factor which will have affected Waterbeach's population both in terms of numbers and characteristics over the last few years is what has happened to the barracks accommodation as it has been vacated by armed forces personnel. There is no published data but discussions with the Parish Council suggest that dormitory type accommodation remains vacant whilst the family accommodation has either been sold or is rented through the private sector.

## Housing

It is estimated there were 2,440 dwellings in Waterbeach in 2013.<sup>5</sup> There were 115 net dwellings completed between 2002 and 2013 and a further 70 between 2013 and 2016.<sup>6</sup> However, the rate of development is likely to grow significantly in the short term even before the new town proposal commences.

The following planning permissions have been granted<sup>7</sup>:

- 30 affordable dwellings on land adjacent to 41 Denny End Road (S/0882/14/FL – won on appeal; decision 21.09.16)

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<sup>3</sup> '2011 Census Profile: Waterbeach', Cambridgeshire Council Council via [www.cambridgeshireinsight.org.uk](http://www.cambridgeshireinsight.org.uk) (undated)

<sup>4</sup> 'Population forecasts by ward and age, 2011 to 2036', Cambridgeshire County Council (06.02.15)

<sup>5</sup> 'Cambridgeshire Population and Dwelling Stock Estimates: mid-2013', Cambridgeshire County Council (December 2014)

<sup>6</sup> 'Table H1.2 Dwellings Completed (NET) by ward/parish in Cambridgeshire (2002-2016)', Cambridgeshire County Council (undated)

<sup>7</sup> <https://www.scams.gov.uk/content/search-planning-application> (searched on 12.10.16)

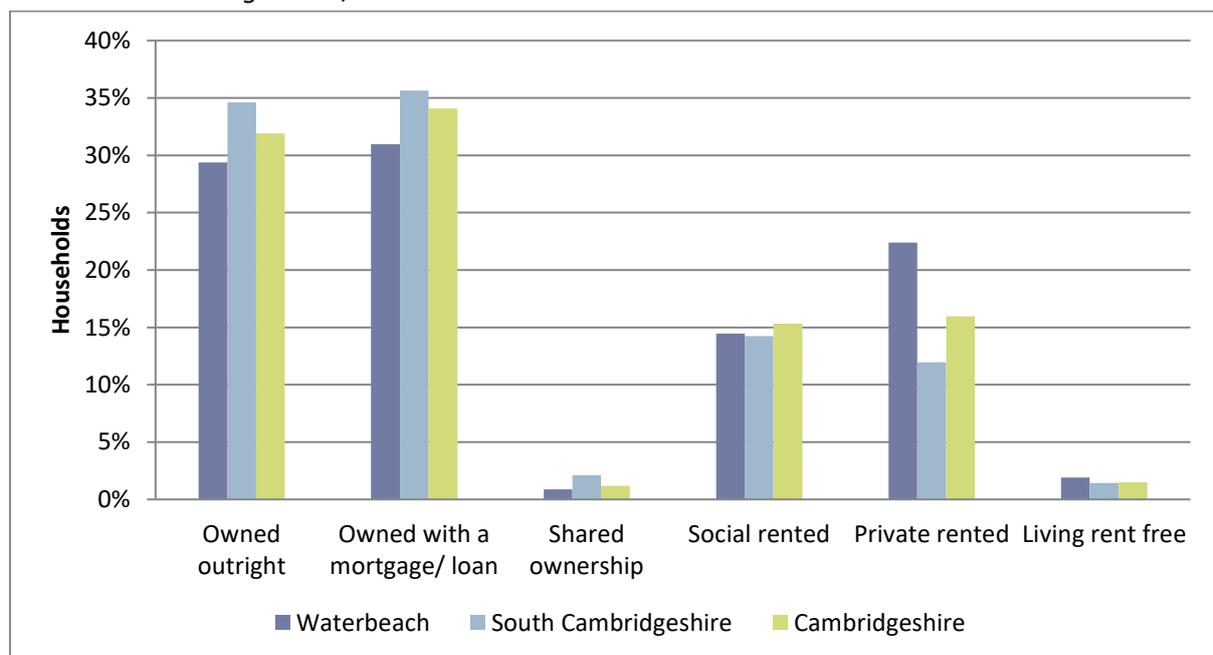
- Up to 36 dwellings on land to the east of Cody Road and north of Bannold Road (S/1907/14/OL; decision 15.04.16)
- Up to 57 dwellings on land at Bannold Road and Bannold Drive (S/0558/14/OL – won on appeal; decision 18.02.15)
- Up to 90 dwellings on land north of Bannold Road (S/1359/13/OL – won on appeal; decision 25.06.14)
- Up to 60 dwellings on land west of Cody Road (S/0645/13/FL – won on appeal; decision 25.06.14)

In total, at the end of March 2016, it was estimated that there were 238 dwelling commitments in Waterbeach. These commitments presumably include the last three permissions listed above but will exclude the proposed Waterbeach new town. Further windfall and more significant permissions can be anticipated. It should be noted that there also planning applications outstanding which seek to increase the housing density of some of the sites listed above.

The housing tenure profile in Waterbeach is clearly influenced by the army barracks. Owner occupation, whether owned outright or with a mortgage, is below the average for South Cambridgeshire and Cambridgeshire (the opposite of most rural parishes). In contrast, private rented accommodation is well above average and reflects the incidence of armed services personnel living in MOD accommodation. Although the barracks have now closed anecdotal evidence suggests that some of this accommodation remains in the private rented sector.

Affordable housing makes up a similar proportion of the housing stock as elsewhere in South Cambridgeshire and Cambridgeshire. In 2011 there were 280 social rented properties and 17 shared ownership properties. Together these accounted for 15 per cent of housing stock.

*Waterbeach housing tenure, 2011*

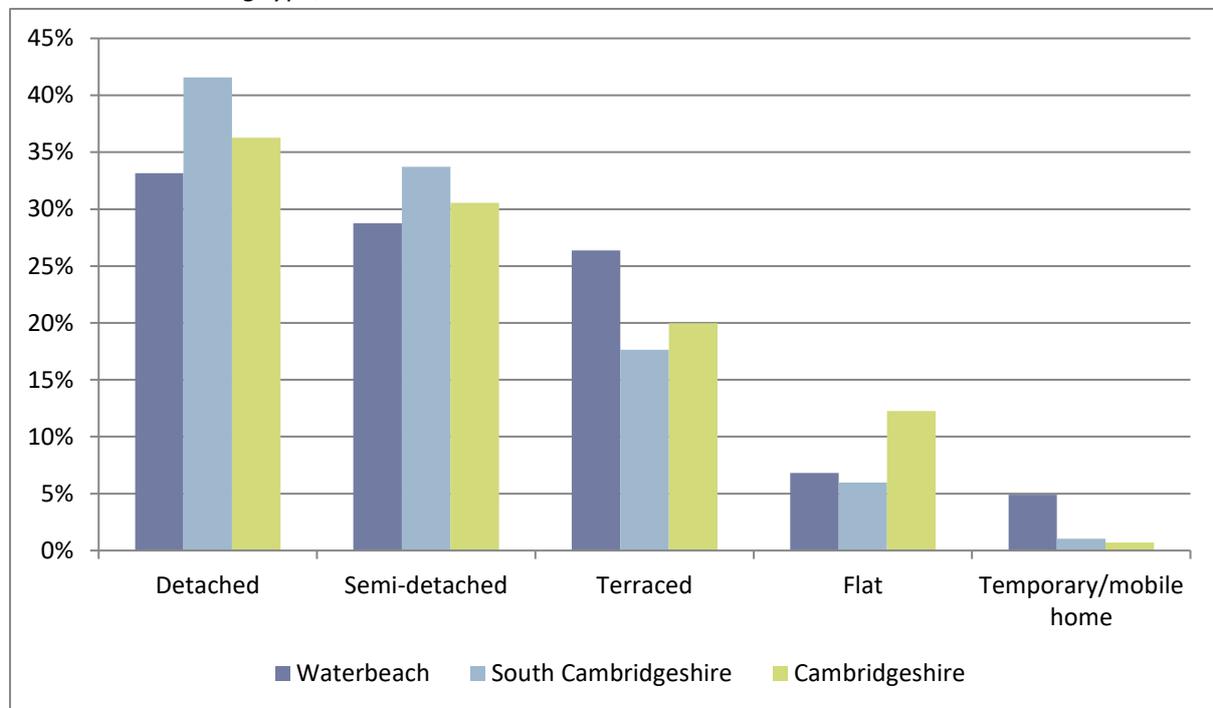


Source: 'Waterbeach Parish Profile', Cambridgeshire County Council (October 2014)

A more recent analysis shows that the majority of affordable housing remains under the control of South Cambridgeshire District Council who own 131 general needs dwellings, 48 sheltered housing dwellings and 15 shared ownership dwellings.<sup>8</sup> Housing Associations own 81 general needs dwellings and 14 shared ownership dwellings. The Housing Association stock is probably more modern. A larger proportion is flats. In contrast, South Cambridgeshire District Council has a larger proportion of both bungalows and larger (3 bed) houses. The rate of relets across general needs accommodation is similar for Local Authority and housing association stock at about 11-12 per cent over the three year period April 2012 to March 2015. Relets for sheltered housing are much higher at 27 per cent.

Across the whole housing stock, detached and semi-detached are the dominant types although less so than in many villages. Terraced houses account for a quarter of all dwellings. Flats (seven per cent) and temporary/ mobile homes (five per cent) also make up a significant minority of stock.

*Waterbeach housing type, 2011*



Source: 'Waterbeach Parish Profile', Cambridgeshire County Council (October 2014)

Eight per cent of all properties have one or fewer bedrooms and 38 per cent have two or fewer. This is significantly higher than both South Cambridgeshire and Cambridgeshire and well above the norm for a rural parish. This can be partly attributed to the high proportions of terraced housing and flats compared to many rural areas but also to the MOD accommodation stock which is probably dominated by smaller dwellings.

House prices in Waterbeach are broadly in line with the local area. The relatively low level of sales introduces some volatility and means no data is available for flats. However, a general conclusion would be that prices in Waterbeach are a little lower than in Histon & Impington but similar to

<sup>8</sup> 'Housing Statistical Information Leaflet', South Cambridgeshire DC (October 2015)

Cottenham and Milton. However, one caveat is that 3 bed houses are the most frequently sold house type (and therefore presumably the most robust price data) and Waterbeach prices for this category are lower than in all neighbouring areas.

*Average house prices (£) in Waterbeach ward and nearby wards, March to August 2016<sup>9</sup>*

	Waterbeach	Cottenham	Histon & Impington	Milton	South Cambridgeshire
1 bed flat	n/a	n/a	168,879	n/a	171,276
2 bed flat	n/a	n/a	289,321	n/a	220,877
2 bed house	282,029	242,950	289,577	269,429	266,171
3 bed house	315,800	331,857	421,593	362,458	338,156
4 bed house	466,290	476,949	515,335	461,421	487,929

*Source: Hometrack*

An analysis of rental prices suggests it is cheaper to rent in Waterbeach than in neighbouring areas or compared to South Cambridgeshire as a whole. Lower rental prices in Waterbeach could be attributed to the higher availability of private rented dwellings or the nature of supply. For example, it is likely that ex MOD accommodation may attract a lower price than more modern 'buy to let' accommodation.

*Private rental costs (£ per week) in Waterbeach ward and nearby wards, September 2015 to August 2016<sup>10</sup>*

	Waterbeach	Cottenham	Histon & Impington	Milton	South Cambridgeshire
1 bed	252	n/a	167	193	173
2 bed	196	196	229	196	205
3 bed	213	229	323	224	229
4 bed	288	n/a	383	329	311

*Source: Hometrack*

Market prices for both purchase and rent are beyond the means of many Waterbeach households. There are currently 103 households with a local connection to Waterbeach parish on the Housing Register. Households are allocated a house size (in terms of number of bedrooms) according to eligibility rather than preference. Hence, the vast majority of need is for small dwellings (2 bed or

<sup>9</sup> Data is an average of all sales and valuations over the period March 2016 to August 2016. The electoral ward of Waterbeach includes the parishes of Waterbeach and Landbeach.

<sup>10</sup> Data is the median weekly rental cost for private properties over the period September 2016 to August 2016. The electoral ward of Waterbeach includes the parishes of Waterbeach and Landbeach.

less). Such households could still include four people where, for example, a couple have two children of different sex under the age of 10 or two children of the same sex under the age of 16. Seventy of the households are headed by someone aged under 50 with 25 headed by someone aged under 30.

*Households on Housing Register with a local connection to Waterbeach parish, October 2016*

Age group	1 bed	2 bed	3 bed	4+ bed	Total
65 and over	17	0	0	0	17
Between 60 and 64	3	0	0	0	3
Between 55 and 59	3	1	0	0	4
Between 50 and 54	7	0	2	0	9
Between 40 and 49	8	10	1	1	20
Between 30 and 39	8	12	5	0	25
Between 25 and 29	5	10	1	0	16
Under 25	3	6	0	0	9
All ages	54	39	9	1	103

*Source: South Cambridgeshire Housing Register (supplied by South Cambridgeshire DC 10.10.2016)*

Economic activity

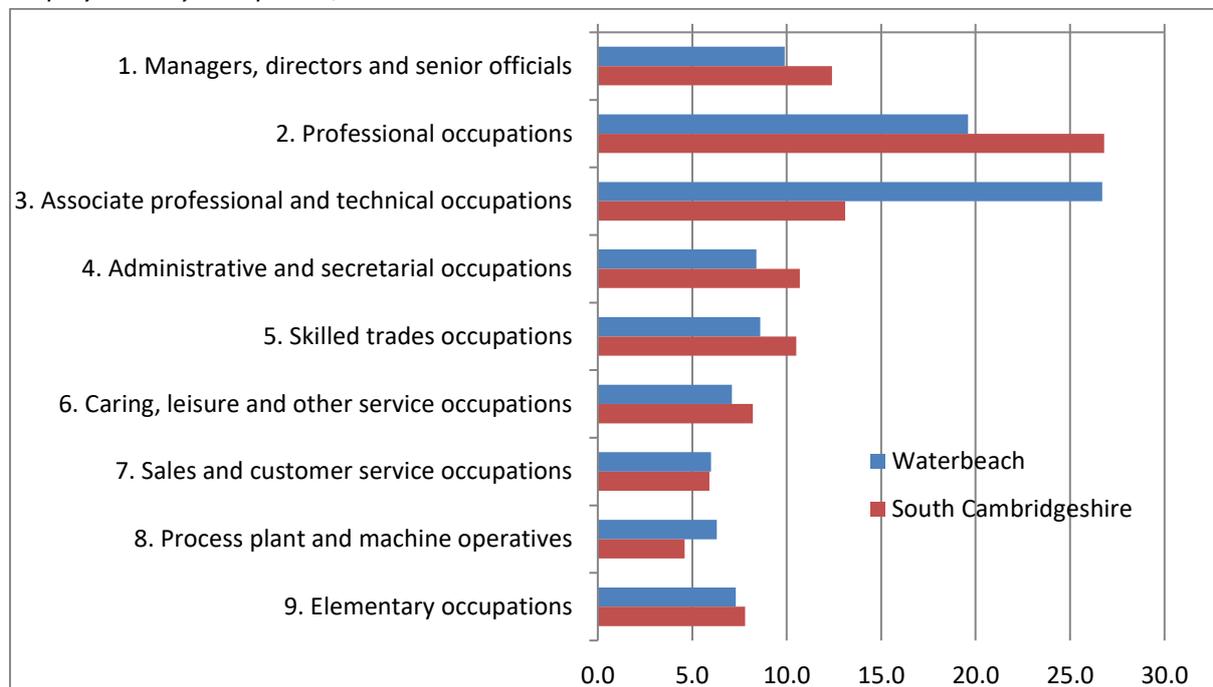
Waterbeach has a high economic activity rate. The economic activity rate for those aged 16-64 was 85.5 per cent compared with 83.5 per cent in South Cambridgeshire and 76.8 per cent in Cambridgeshire in 2011.<sup>11</sup> The high rate is due to a high proportion of full-time employees. The other components of the economically active population – part-time employees, self-employed and unemployed – were all average or below average relative to these comparators. Activity rates were high for both males and females, but particularly for males. However, it should be noted that a key influence on employment trends in Waterbeach depicted by the 2011 Census was the army barracks. The barracks closed in early 2013.

The impact of the barracks can also be seen on the occupational profile of Waterbeach. In 2011, 26.7 per cent of employed residents were working in associate professional and technical roles compared with 13.1 per cent in South Cambridgeshire (and 12.7 per cent in England & Wales). This category includes many roles in the armed services. However, even allowing for the armed services personnel

<sup>11</sup> 'Labour market profile (2011 ward E36001862:Waterbeach)', NOMIS (extracted 12.10.2016). Rates are for 16-64 year olds and taken from 2011 Census (Table DC6107EW). This data is for Waterbeach ward which also includes Landbeach parish.

the data suggests that the overall proportion of people employed in managerial, professional and associate professional roles is broadly in line with the average for South Cambridgeshire.<sup>12</sup>

*Employment by occupation, 2011*



Source: Nomis (2011 Census table KS608UK)

There are significant commuting flows into and out of Waterbeach.<sup>13</sup> Overall, Waterbeach is a net importer of workers. This is unusual for a village and reflects both the presence of the army barracks and the Denny End Road industrial estate. The net in-flow is accounted for by a net flow of workers from outside of Cambridgeshire. About half of these are from the East of England and the other half from further afield. It is likely that a significant proportion of the latter is accounted for armed services personnel not counting the barracks as their usual residence.

Within Cambridgeshire there are significant differences between the in-flows and out-flows. Almost 1,000 (600 net) Waterbeach residents commute into Cambridge with a further small net out flow to South Cambridgeshire. There is a net in-flow of commuters to Waterbeach from all other local authority districts in Cambridgeshire. For example, the net in-flow from East Cambridgeshire is over 400. These local commuting flows are less likely to be influenced by the barracks and hence will not have been significantly affected by its subsequent closure.

<sup>12</sup> This occupational data is based on a 'best fit' definition of Waterbeach parish based on LSOAs. See 'Data sources' section of report for more detail.

<sup>13</sup> Commuting data presented in this report is based on MSOA geography. This is consistent with Waterbeach ward and therefore includes the Cambridge Research Park.

*Waterbeach commuting flows, 2011*

Area	Commuting to Waterbeach	Commuting from Waterbeach	Net in-flow
Waterbeach	739	739	0
Mainly work at or from home	469	469	0
No fixed workplace	218	218	0
South Cambridgeshire (excluding Waterbeach)	540	612	-72
East Cambridgeshire	510	90	420
Huntingdonshire	220	54	166
Peterborough	43	32	11
Fenland	95	15	80
Cambridge	382	985	-603
London	19	82	-63
England & Wales	3226	2778	448
England & Wales (excluding Cambs)	697	251	446

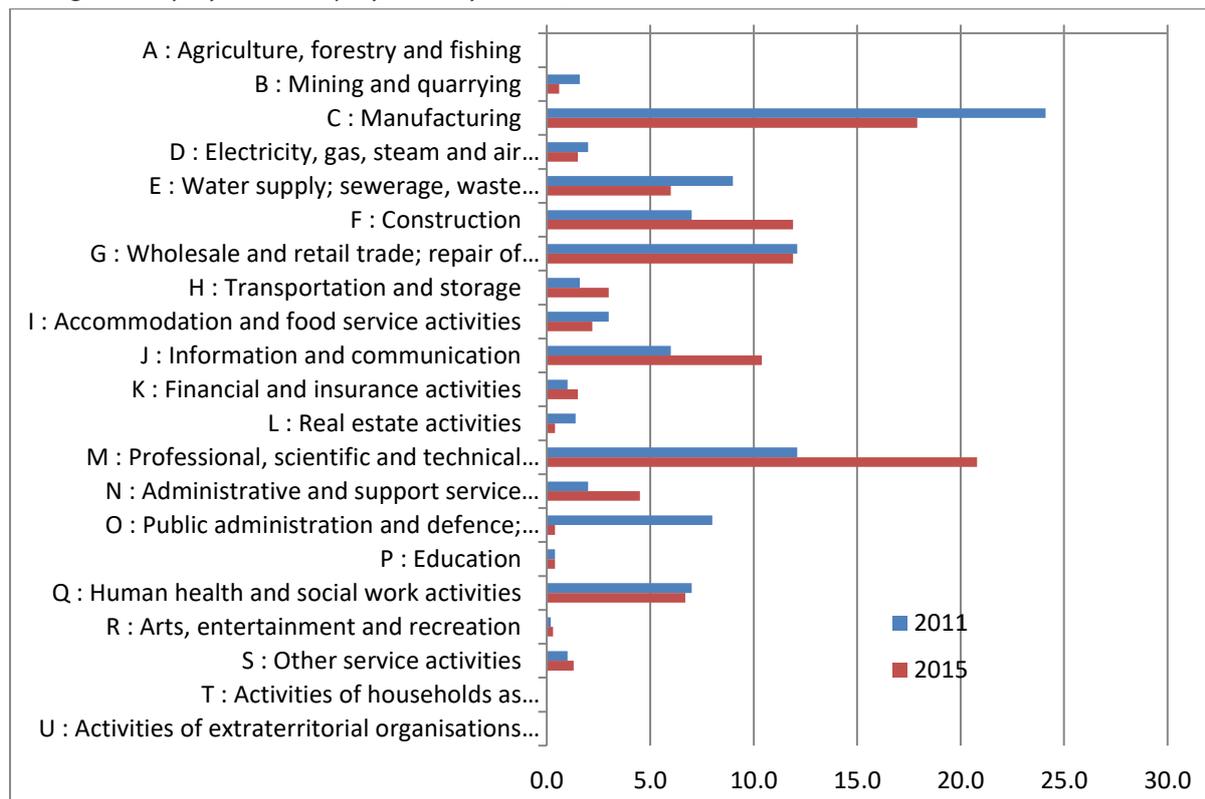
*Source: 2011 Census (taken from NOMIS, table WF01BEW)*

The industrial structure of employment in Waterbeach has changed significantly in recent years. Business Register and Employment Survey data is available up to 2015.<sup>14</sup> It excludes HM armed forces personnel (and the self-employed) thereby avoiding any data issues resulting from the barracks closure. It highlights that although manufacturing employment has declined between 2011 and 2015 it remains a significant employer in Waterbeach accounting for 18 per cent of employees in employment (12 per cent in South Cambridgeshire).

Much of the growth has been in 'hi-tech' sectors such as 'Computer programming, consultancy and related activities', 'Scientific research and development' and 'Other professional, scientific and technical activities'. There has also been growth in construction and wholesale trade.

<sup>14</sup> BRES data is presented at MSOA geography. This is consistent with Waterbeach ward and therefore includes the Cambridge Research Park.

### Change in employees in employment by sector, Waterbeach 2011-2015



Source: Nomis (BRES)<sup>15</sup>

Perhaps the most striking feature of Waterbeach’s current employment structure is the lack of public services employment. However, for a relatively small local economy there are a broad range of activities across the manufacturing and service sectors. Manufacturing activities in Waterbeach cover a wide range of activities including: ‘rubber and plastic products’, ‘computer, electronic and optical products’, and ‘electrical equipment’. In addition to manufacturing, there are relative concentrations of employees in ‘Water supply; sewerage, waste management and remediation activities’, ‘construction’, and high value added service sector activities including ‘Computer programming, consultancy and related activities’, ‘Architectural and engineering activities; technical testing and analysis’ and ‘Legal and accounting activities’.

### Deprivation

Waterbeach experiences relatively low levels of deprivation. Data is presented for the three Lower Super Output Areas (LSOA) that cover most of Waterbeach parish. All three fall into the two least deprived deciles nationally in terms of overall deprivation.<sup>16</sup> The LSOA exhibiting the greatest levels of deprivation is LSOA E01018299 which broadly covers the northern and western parts of Waterbeach village including the High Street.

<sup>15</sup> The ‘open access’ data which is rounded has been used to avoid any issues with disclosure

<sup>16</sup> ‘English indices of deprivation 2015’ (see <https://www.gov.uk/government/collections/english-indices-of-deprivation>)

Waterbeach also ranks low when measured against most of the specific domains used in the Index of Multiple Deprivation. No LSOA ranks higher than the seventh decile in terms of income, employment, health & disability, crime and living environment.

The low level of employment deprivation is consistent with the latest unemployment data. In September 2016 there were only 10 Jobseeker's Allowance claimants across the three LSOAs. This is a fall from 14 claimants in September 2014.<sup>17</sup>

The two most significant features relate to LSOA E01018298 (which covers both Chittering and the former army barracks area). The LSOA ranks in the second highest decile for 'Barriers to housing & services'. However, further analysis reveals that this is principally due to a poor score against the 'geographical barriers' sub domain which measures the distance some households are from a range of services: Post office; primary school; shop; and GP surgery. The LSOA also scores relatively poorly in terms of 'Education, skills & training' ranking in the 5<sup>th</sup> decile. Further analysis reveals that the LSOA scores particularly poorly (3<sup>rd</sup> decile) in terms of the Children & Young People sub domain. This uses a number of indicators: Key stage 2 and 4 attainment; secondary school absence; staying on in education post-16; and, Higher Education entry rates.

*Relative deprivation in Waterbeach, 2015<sup>18</sup>*

Domain	LSOA E01018298		LSOA E01018299		LSOA E01018301	
	Rank	Decile	Rank	Decile	Rank	Decile
Income	32,505	10	20,659	7	30,145	10
Employment	32,726	10	23,274	8	29,084	9
Education, Skills & Training	14,659	5	19,907	7	28,764	9
Health & Disability	31,658	10	23,131	8	26,250	8
Crime	27,208	9	22,823	7	26,226	8
Barriers to Housing & Services	4,887	2	28,707	9	30,968	10
Living Environment	23,378	8	30,946	10	27,839	9
Index of Multiple Deprivation	27,165	9	26,884	9	32,031	10

*Source: English Indices of Deprivation 2015 (Department for Communities and Local Government)*

<sup>17</sup> Jobseeker's Allowance claimants, ONS (extracted from Nomis)

<sup>18</sup> The rank is out of 32,811 Lower Super Output Areas where 1 is the most deprived. The decile is where 1 is the most deprived decile. Waterbeach parish divides into three Lower Super Output Areas. LSOA E01018298 covers Chittering and the former barracks. LSOA E01018299 covers the western part of Waterbeach village. LSOA E01018301 covers the eastern part of Waterbeach village.

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