About this release

This release reports the mid-2013 estimates for Bradford in the context of the sub-region and historical mid-year estimates. Age structure and its distribution is explored.

Key findings

- The rounded mid-2013 estimate for Bradford is **526,400 persons**, with a median age of 35.2 years.
- The population increased by 1,750 on the previous year’s estimate, with natural change (births – deaths) at +3,600, net internal migration -3,550 and net international migration +1,700 persons.
- Natural change is a major driver to population growth, with international net in-migration historically significant and internal net out-migration substantial.
- The dynamics of population change in Bradford appear to be operating differently compared to our sub-regional neighbours.
- Bradford has a young age profile compared to our neighbours, with 1 in 4 (23.5%) of the total under 16 years.
- The proportion aged 20 to 42 match the distribution for England, with the bulk proportionally less aged over 42 years.
1. Introduction

The mid-year estimates refer to the population on 30 June of the reference year and are published annually by the Office for National Statistics (ONS). They are the official set of population estimates for all local authorities in England and Wales. This publication reports the mid-2013 estimates for Bradford in the context of the sub-region and historical mid-year estimates.

These official 2013 mid-year estimates are based on the 2011 Census population counts, with revisions made to historic estimates to account for under-estimation. A combination of registration, survey and administrative data is used to estimate the different components of population change.

Mid-year population estimates relate to the usually resident population. They account for long-term international migrants (those people who change their country of usual residence for a period of 12 months or more) but do not account for short-term migrants (people who come to or leave the country for a period of less than 12 months).

These estimates are used directly as a base for other secondary population statistics, such as population projections; for weighting surveys to ensure they are representative of the total population and as denominators for rates or ratios, for example in health and economic indicators.
2. Mid-year estimates

The unrounded mid-2013 estimate for Bradford is 526,369 persons, with a median age of 35.2, younger than the UK at 39.9 years. This gives an increase of 1,750 residents on the previous year’s estimate with natural change (births – deaths) at +3,600, net internal migration -3,550 and net international migration +1,700 persons. The change rate is +0.33% on the previous mid-year estimate, lower than the UK at +0.63%.

Figures 1 charts revised mid-year estimates and the annual change rate for Bradford for 2002 to 2010. An ‘uplift’ had been applied by ONS following the most reliable estimate at mid-2011 based upon the 2011 Census population count.

The previous mid-2012 and current mid-year estimate has a reduced annual change rate compared to these revised mid-year estimates due to this applied uplift.

Figure 1: Revised mid-year estimates and annual change, Bradford (ONS, 2013)
3. Drivers of growth

Population growth is the change from one mid-year estimate to the next. This can be described using components of change:

\[
\text{Population growth} = \text{natural change (births – deaths)} + \text{net migration}
\]

Figures 2 show how these broad components has influenced growth over time in Bradford. Note the mid-2002 to 2010 estimates have since been revised.

Natural change is the largest driver in population growth. However due to ONS applying an uplift to historical estimates through an ‘other’ category\(^1\), the influence of net migration can become confusing.

The next section looks at these components in more detail.

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\(^1\) the residual remaining from the original 2001 Census based mid-year estimate series and the revised 2011 Census based series (ONS, 2014)
4. Components of change

Figure 3 show each component of population change for Bradford, with a separate Other Changes category where ONS applied a revised uplift to past mid-year estimates.

The net migration component of population growth is described as:

\[
\text{Net migration} = \text{internal net (in – out)} + \text{international net (in –out)}
\]

As previously found natural change (births – deaths) is a major driver to population growth, however international net migration into Bradford has historically been significant over the past decade. Internal net migration out of Bradford has been substantial, explaining why negative net migration is shown in the mid-2012 and 2013 estimates (figure 2).

Figure 4 show these components of change for other West Yorkshire authorities. The dynamics of population change in Bradford can be seen to operate differently compared to our neighbours.

Figure 3: Components of population change, Bradford (ONS, 2014)
Figure 4: Components of population change, sub-region (ONS, 2014)
5. Age distribution

Understanding the population's age structure and how it is distributed is important for the planning and provision of public services.

Table 1 gives the mid-2013 population estimates for West Yorkshire authorities by broad age groups, with larger geographies as a comparator. Bradford has a younger age profile compared with our neighbours, with approaching 1 in 4 (23.5%) of the total population aged under 16 years. As a result the population has a smaller proportion of this total in other groups. How age is distributed can be explored in more detail using single-year estimates.

Figure 5 gives the age is distribution for England and Bradford. As can be seen the distribution for Bradford is skewed toward the youngest, specifically those aged under 20 years. However this distribution matches that of England for those aged 20 to 42. The bulk of the population which is proportionally less comes from those aged over 42 years.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>0-15</th>
<th>16-64</th>
<th>65 and over</th>
<th>0-15</th>
<th>16-64</th>
<th>65 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bradford</td>
<td>526,369</td>
<td>123,811</td>
<td>328,986</td>
<td>73,572</td>
<td>23.5%</td>
<td>62.5%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Calderdale</td>
<td>206,355</td>
<td>40,376</td>
<td>130,723</td>
<td>35,256</td>
<td>19.6%</td>
<td>63.3%</td>
<td>17.1%</td>
</tr>
<tr>
<td>Kirklees</td>
<td>428,279</td>
<td>86,963</td>
<td>271,676</td>
<td>69,640</td>
<td>20.3%</td>
<td>63.4%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Leeds</td>
<td>761,481</td>
<td>141,266</td>
<td>504,734</td>
<td>115,481</td>
<td>18.6%</td>
<td>66.3%</td>
<td>15.2%</td>
</tr>
<tr>
<td>Wakefield</td>
<td>329,708</td>
<td>60,805</td>
<td>209,639</td>
<td>59,264</td>
<td>18.4%</td>
<td>63.6%</td>
<td>18.0%</td>
</tr>
<tr>
<td>West Yorkshire</td>
<td>2,252,192</td>
<td>453,221</td>
<td>1,445,758</td>
<td>353,213</td>
<td>20.1%</td>
<td>64.2%</td>
<td>15.7%</td>
</tr>
<tr>
<td>Yorkshire and the Humber</td>
<td>5,337,710</td>
<td>1,007,175</td>
<td>3,394,713</td>
<td>935,822</td>
<td>18.9%</td>
<td>63.6%</td>
<td>17.5%</td>
</tr>
<tr>
<td>ENGLAND</td>
<td>53,865,817</td>
<td>10,209,238</td>
<td>34,351,400</td>
<td>9,305,179</td>
<td>19.0%</td>
<td>63.8%</td>
<td>17.3%</td>
</tr>
</tbody>
</table>

Table 1: Mid-2013 population estimates, sub-region (ONS, 2014)
Figure 5: Mid-2013 single-year age distributions, England and Bradford (ONS, 2014)
6. Further information

Population Estimates for UK, England and Wales, Scotland and Northern Ireland, Mid-2013


Bradford Observatory hosts a wide range of socio-economic datasets including 2011 Census data with area profiles for standard geographies and our blog site with news items, articles and further resources.

http://observatory.bradford.gov.uk/