

HEREFORDSHIRE POPULATION ESTIMATES

INTRODUCTION

The Office for National Statistics (ONS) publishes official estimates of population for local authority districts in England and Wales annually. These estimates are used widely: as the basis for local population forecasts; the base population for calculating performance indicators, and not least in the derivation of the amount of central government money each district is allocated by the Department for Communities and Local Government (DCLG).

Estimates of population change are based on four main components: births, deaths, internal (within UK) migration and international migration.¹ Births and deaths in the UK are registered by law, so can be counted reasonably accurately, but migration – particularly international – is more difficult to measure. Over the last few years, ONS has been undertaking a review of its methodologies, with particular focus on the international migration component of local population change.²

A detailed description of the changes to the methodology can be found on the ONS website³, but the main changes involve the way that international migrants are distributed between government office regions and then to local authorities. Until now, international migrants have been apportioned to local authorities based on where they state they *intend* to live if sampled in the International Passenger Survey (IPS). Analysis of the Labour Force Survey⁴ (LFS) and the 2001 Census showed that the actual distribution of international migrants is different to that suggested by intention in the IPS.⁵ This has been explained by people moving on quickly from London to other parts of the country, and also by 'central tendency', i.e. interviewees only knowing the name of the biggest city in the region they are planning to move to, even though they may not technically ever live in within the administrative boundary of that city.

Improvements to this methodology involve changing the way that international in-migrants are distributed to regions and then local authorities by using household surveys such as the LFS in combination with the IPS to reflect 'real' moves as opposed to intentions. Also, new factors that reflect age-sex specific likelihoods of migrating have improved the way international out-migrants are apportioned to local authorities within regions. Improvements have also been made to the assumptions made about the proportion of people captured in the IPS who change their intentions in terms of how long they are going to move for⁶, and to the method of estimating the age distribution of migrants to and from local authorities.⁷

The new methodology has been used for the first time in the production of the 2006 mid-year estimates, which were published on the 22nd August 2007. At the same time, ONS published revised population estimates for the years mid-2002 to mid-2005.

¹ For further information see the ONS website: www.statistics.gov.uk/popest.

² *Improving Migration and Population Statistics (IMPS)* Project: www.statistics.gov.uk/imps.

³ At: <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=14834>.

⁴ A quarterly household survey for which consistent outputs are available across the UK.

⁵ *The Use of the Labour Force Survey to Improve Estimates of International In-migration – Coverage and Quality*: http://www.statistics.gov.uk/downloads/theme_population/LFS.pdf.

⁶ People who expect to change country of residence for at least a year and then change their minds are known as migrant switchers; those who intend to move for a short time but stay for longer are visitor switchers.

⁷ These improvements are summarised in the ONS document *Improved Methods for Estimating International Migration; Frequently Asked Questions: Key Questions*: http://www.statistics.gov.uk/downloads/theme_population/FAQs.pdf.

The most important point to note is that **the changes to the methodology render all previous mid-year estimates obsolete**. The consequence of this is that **a consistent time series of Herefordshire's population now only exists from 2001 onwards**.

EFFECTS OF THE REVISIONS ON HEREFORDSHIRE'S POPULATION

The population estimates are still based on the concept of 'usual residence', i.e. people are counted where they usually live. As the estimates are based on the national Census this is self-defined to a certain extent, but rules are applied to particular groups of the population.

Key to understanding Herefordshire's population estimates are that:

- Students are counted at their term-time address rather than their family home, which means that around 2,600 students living away from home are not counted in the county's population;
- An international migrant is defined as someone who changes their country of residence for at least a year, therefore seasonal or migrant workers who do not stay in the UK for any longer than a few months are not counted in the population estimates.

The 2006 mid-year estimate of Herefordshire's resident population is 177,800.

The revised Herefordshire estimate for mid-2005 is 177,300, suggesting a growth of 0.3% over the year. This revised estimate is 1,500 people (0.8%) lower than the original estimate of 178,800.

Table 1 shows the total county population as at the 2001 Census and the revised estimates for 2002 onwards, alongside the original estimates for comparison. The revisions suggest that the rate of growth in the county has been lower than previous estimates indicated: an average annual growth of 0.3% since 2001 rather than 0.6%. This rate of annual growth is now only very slightly below that for England and Wales as a whole (0.5%), and the same as that for the West Midlands region overall.

Table 1: Total population of Herefordshire, ONS mid-year estimates

			Change to estimate as a result of revisions
2001 (census)	174,900		-
2002	175,900	175,300	-600
2003	176,900	176,100	-800
2004	177,800	176,800	-1,000
2005	178,800	177,300	-1,500
2006	-	177,800	-

Source: Population Estimates Unit, ONS © Crown copyright

Considering in more detail the revisions to the 2005 mid-year estimate, the biggest changes – both in absolute and percentage terms – were to the 20-24 and 25-29 year-old age groups. These were revised down by 200 and 300 people, respectively, which equate to reductions of 3.8% and 2.7% from the original estimates. All other age groups between 10-14 and 40-44 (inclusive) were reduced by 100 people, as was the 75-79 year-old age group. This latter group saw the next largest percentage reduction of 1.4%.

CURRENT PROFILE OF HEREFORDSHIRE'S POPULATION

The mid-2006 estimate for Herefordshire, broken down by five-year age groups and gender, is shown in Table 2 below. As is the case in England and Wales overall⁸, there are more females than males – 51.1% to 48.9% in Herefordshire. Females outnumber males in every age group from 30-34 upwards, which is also the case nationally. However, the differences aren't really evident until the older age groups of 75-79 and above.

Table 2: Mid-year estimate of Herefordshire's population, mid-2006

			Females
Under 1	1,700	900	800
1-4	6,900	3,600	3,300
5-9	10,000	5,100	4,900
10-14	11,100	5,800	5,300
15-19	11,000	5,600	5,400
20-24	8,000	4,200	3,800
25-29	7,300	3,700	3,600
30-34	9,200	4,500	4,700
35-39	12,100	5,900	6,200
40-44	13,600	6,800	6,800
45-49	12,600	6,400	6,300
50-54	12,300	6,000	6,300
55-59	13,600	6,800	6,800
60-64	12,200	6,000	6,100
65-69	10,000	4,900	5,100
70-74	8,800	4,200	4,600
75-79	7,200	3,200	4,000
80-84	5,600	2,200	3,400
85-89	3,200	1,100	2,100
90+	1,500	400	1,100
			90,800

Source: Population Estimates Unit, ONS © Crown copyright.

Table 3 shows a comparison of Herefordshire's age structure with that of England and Wales as a whole. The county clearly has an older age profile, with higher proportions of the population in all age groups from 45 upwards, and lower proportions in the younger age groups – particularly young adults (13.5% of Herefordshire's population is aged 16 to 29, compared to 18.3% nationally). This latter observation can partly be explained by the point made above with regard to students being counted at their term-time address. It is also worth noting that the proportion aged under 16 in the county is only very slightly lower than nationally (18.0% to 19.0%).

⁸ 50.9% female; 49.1% male in England & Wales as a whole.

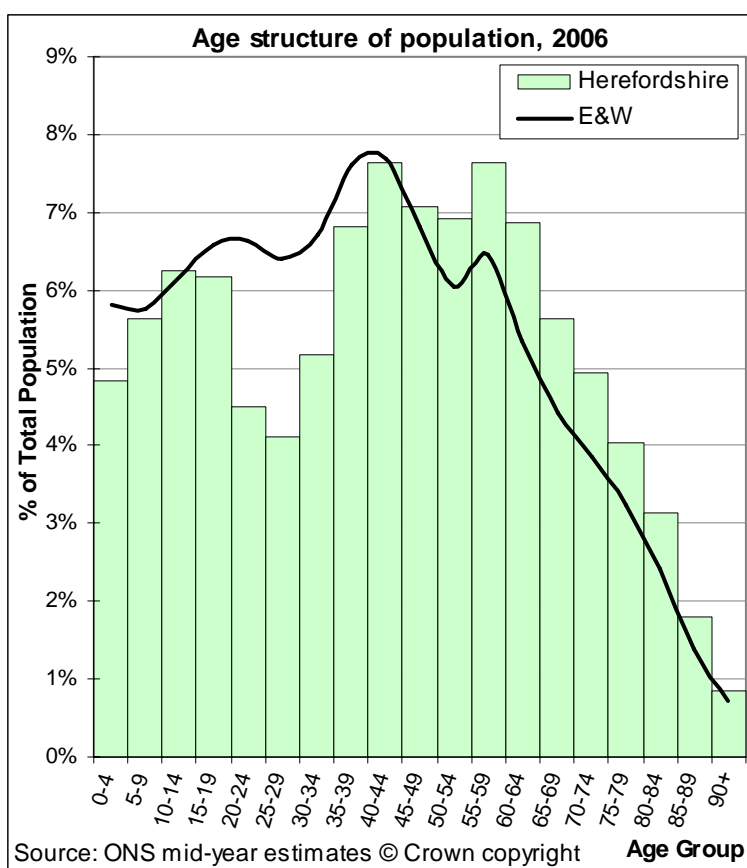
Table 3: Age structure of Herefordshire and England & Wales, mid-2006

	Proportion of total population in age-group	
	Herefordshire	England & Wales
Under 16	18.0%	19.0%
16 to 29	13.4%	18.3%
30 to 44	19.6%	22.0%
45 to 64/59*	25.1%	21.9%
65/60** to 74	14.0%	11.0%
75 to 84	7.2%	5.7%
85 and over	2.7%	2.1%

Source: Population Estimates Unit, ONS © Crown copyright.

These broad age groups comparisons are useful when considering particular sectors of the population, but to understand the differences better the detail within them should be considered. It is a common perception that Herefordshire simply has a higher percentage of people over retirement age than nationally, but Chart 1 illustrates that the county's age profile has actually 'caught up with' the national structure by the 40-44 year-old age group and has a higher proportion of residents in each of the age groups older than this than England and Wales as a whole.

Chart 1: Age structure of Herefordshire population compared to England & Wales, mid-2006



POPULATION GROWTH IN HEREFORDSHIRE

The population of Herefordshire grew by 1.7% between 2001 and 2006: an increase of 2,900 people from 174,900. As the average annual rate of change (p.2) suggests, this growth is just slightly below that of the population of England and Wales as a whole (2.6%).

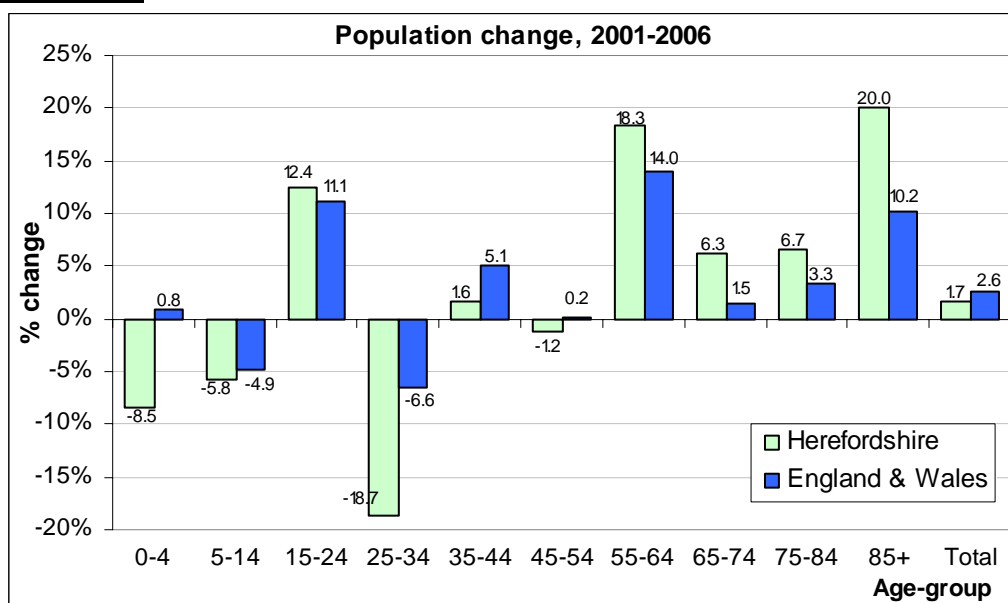
However, as Chart 2 illustrates, there have been more dramatic changes within age groups. Changes have generally been in the same direction as nationally, except for the decreases in the number of under 5s and 45-54 year-olds in Herefordshire.

However, the increases in the numbers of people in the over-65 age groups in Herefordshire have been more than double the equivalent national increases. Most dramatically, the number of people aged 85 and over in Herefordshire has increased by 20.0%, which represents an increase of 800 people.

The number of 25-34 year-olds in Herefordshire fell by 18.7% (3,800 people) over the period – almost three times the national decrease. However, the largest absolute change in the county was an increase of 4,000 people in the 55-64 year-old age group.

The net effect of the changes within the working age population⁹ was an overall increase of 1,200 people of working age in Herefordshire between 2001 and 2006. This translates to a growth of 1.2%, although this is lower than the equivalent national increase (3.7%).

Chart 2: Population change (%) by age group in Herefordshire and England & Wales, mid-2001 to mid-2006



Source: Population Estimates Unit, ONS © Crown Copyright.

⁹ 16 to 59 for females; 64 for males.

IMPLICATIONS FOR OTHER POPULATION DATA

Small Area Population Estimates

The current sub-county estimates are those produced by the Research Team for wards and parishes in Herefordshire, based on ONS' original 2004 mid-year estimate. This total population has been revised down by 1,000, which will have some impact on the ward and parish estimates, although not to any great extent.

These would have been updated to mid-2006 regardless of the changes, but ONS plan to publish experimental estimates for the mid-2006 population of Lower Super Output Areas (LSOAs)¹⁰ at the beginning of October 2007. At the same time, LSOA estimates for 2001 to 2005 will be published, constrained to the revised local authority level estimates.

For consistency with the revisions and national data sources, the Research Team will be adopting these LSOA estimates as the only sub-county level estimates for Herefordshire. Due to the nature of their design¹⁰, they provide more geographical detail than wards, particularly in the city and market towns - although they tend to be bigger than parishes in the rural areas. LSOAs nest within current ward boundaries, so the estimates can be aggregated to provide ward level estimates. Until these are published, **the mid-2004 estimates for wards and parishes can continue to be used.**

Population Forecasts

The Research Team produces population forecasts for Herefordshire which are based on recent and nationally projected trends in births, deaths and migration, but also take into account anticipated housing provision under the Unitary Development Plan – which has a constraining effect on in-migration.

The original mid-year estimates of population showed a higher than average net international in-migration between 2004 and 2005; interim 2005-based forecasts to reflect this were published in July 2007. The downwards revision of the 2005 mid-year estimate will impact on these forecasts, but it has not been possible to quantify the effects as yet. As the reduction was not evenly distributed across all age groups (see p.2), the forecasts for different age groups will be affected in different ways. Also, the constraining effect of anticipated housing provision may lessen the impact of the reduction in the mid-year estimate.

Updated (2006-based) national population projections, from which the age-specific birth and death rates used in the local forecasts are derived, will be published in the autumn of 2007. It would not be appropriate to carry out any further work on forecasting the population of Herefordshire until these become available. **In the meantime, the 2005-based forecasts can still be utilised** for service planning, etc.

In addition to the locally produced *forecasts*, sub-national (i.e. local authority level) population *projections* are produced by ONS. Less use is made of the projections locally, as they simply project what would happen if recent trends were to continue, without taking into account any local knowledge. However, they can be useful in providing one possible scenario of what might happen to the population of Herefordshire in the longer term.

The most recent sub-national projections were based on the original 2004 mid-year estimates. These will be updated to be consistent with the revised 2004 mid-year estimates, and published in late September 2007.

¹⁰ LSOAs are statistical, rather than administrative, boundaries which were designed (by ONS) to have an average population of 1,500 people, according to the 2001 Census. Official statistics are increasingly being produced for these geographies rather than wards or parishes.

WHERE TO FIND MORE DETAILED INFORMATION

All current data can be found on the 'Population' page of the Herefordshire Council website, at www.herefordshire.gov.uk/research, and updates will also be published here as they become available.

Detailed information about the methodology behind the population estimates can be found on the ONS website at www.statistics.gov.uk (or follow the links to specific documents in the footnotes on p.1).

If you are unable to find what you are looking for, please contact the Research Team on 01432 260498, or e-mail researchteam@herefordshire.gov.uk.