Population & Household Projections for Northumberland

Comparing projections by ONS and

Northumberland County Council (using Popgroup model)

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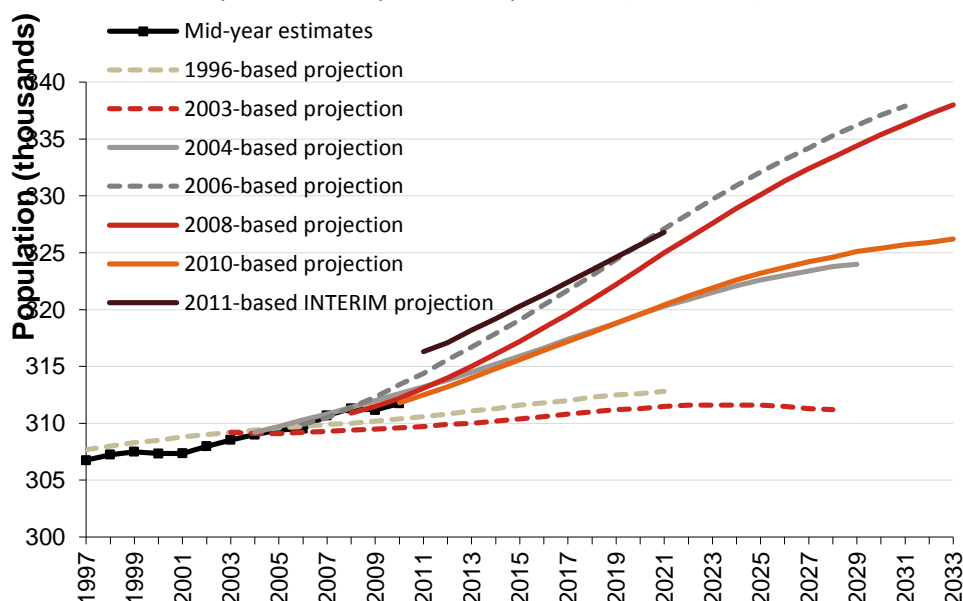Telephone: (01670) 624742

The changing population of Northumberland

Population change affects all of us. In order to plan effectively for the future, whether it is for housing, care services, transportation, or schools, it is vital to understand how the population is likely to change over the coming years.

ONS projections

ONS provides national and sub-national population projections every 2 years. However, these are based on short-term trends and vary considerably with every release (see below).

Latest ONS figures show that:

- There will be a rise in population of 3% from 316,300 to 325700 from 2011 to 2031[1][2]
- 20% of the population of Northumberland were over 65 in 2011 and this is expected to reach 31% by 2031
- Over the same period the working age population (based on 16-65 years) is expected to fall from 198,700 to 173,500 (a fall of 12.7%)
- The number of 'Under 16s' will fall by 4.7% from 53,700 to 51,200 over this period.

Northumberland County Council Projections

Why produce our own Projections?

These have been created as an alternative to the ONS projections because:

- ONS projections for Northumberland are constrained by the national projections.
- There is considerable variation in ONS projections due to the use of short-term trends
- ONS do not take account of local policy, and are not available at geographies smaller than county level.
- Producing population projections within the local authority allows the impact of different scenarios to be investigated.

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[1] *Source: Mid-year population estimates based on 2011 Census; ONS 2010 sub-national population projections*
[2] *2011 based INTERIM projections only provide data to 2021*

A set of population and household projections for Northumberland and 34 small areas within the county have now been produced. These consist of a combination of trend-based and dwelling-led projections. Data has also been produced to show the impact on jobs at a county level.

How does our population model work?

The projections have been produced using POPGROUP – a demographic software which is used by a large number of local and regional organisations in the UK. This software estimates future population change based on assumptions about fertility, mortality and migration.

The population model projects population by using estimated births, deaths and migration flows over future years, based on single-year cohorts. By using the characteristics of population change specifically for Northumberland, including local data such as birth rates or internal migration rates, more locally focussed projections can be produced.

Using this software, there is also the capability to look at the impact of additional scenarios – for example the impact on the population of an extra 10% of 20-29 year olds leaving the county or a decrease of migrants entering Northumberland due to lack of work opportunities.

Case Study

Northumberland Local Plan - Core Strategy[3]

The projections, together with the facility to investigate in-house the impact of dwelling-led policies on future population and households, have been vital in developing the Northumberland Core Strategy.

The model has allowed us to understand the impact of policy-led decisions, such as changing the number of proposed dwellings in a particular area, and the effect that these will have on future population, households and labour force, both at the Northumberland and smaller area level.

At the Northumberland level, a set of projections was produced which consisted of 13 different scenarios. These included:

- trend-based scenarios (small area)
  - natural change,
  - migration-led based on the ONS SNPP
- dwelling-led projections constrained by varying levels of dwellings (small area)
  - no housing growth
  - continuation of past housing delivery
  - scenarios based around the RSS (Regional Spatial Strategy)
- jobs-led projections (county level)
  - jobs fixed at 2011 levels
  - scenarios based on economic forecasts produced by Durham University).

The table shows both ONS projections and **provisional** POPGROUP figures which are included in the Local Plan (currently out for consultation).

	Population		Pop change 2011-2031	
	2011	2031	Change	Change %
Popgroup	316,277	348,998	32,720	10.3%
ONS (2010)	316,300	325,700	9,400	3.0%

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[3] *The Core Strategy is the principal document in the Northumberland Local Plan. Stage two of the Preferred Options Consultation sets out the Council's preferred policy approach to housing, employment and Green Belt*
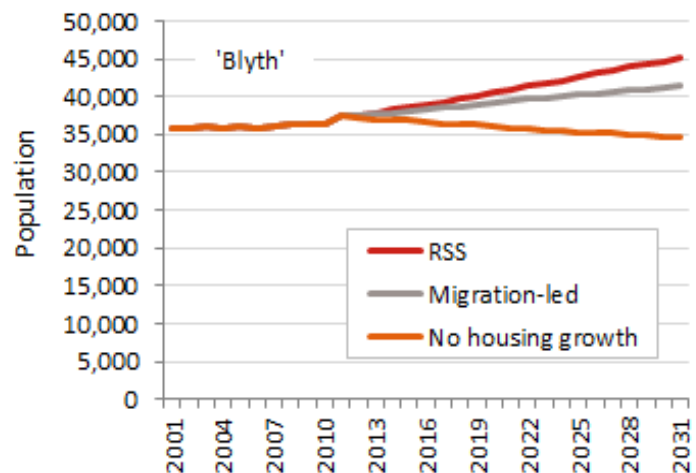
	Households		HH change (2011-2031)	
	2011	2031	Change	Change %
Popgroup	137,827	160,935	23,108	16.8%
CLG 2008 HH projections	138,993	159,300	20,307	14.6%

Household projections are produced by CLG

Small Area data

The chart and table given here is an example of the impact that different strategies can have on the population projections.

It shows 3 scenarios for the small area 'Blyth': the migration-led scenario (based on the SNPP[4]), a dwelling-led scenario derived from the RSS, and a scenario that assumes no housing growth. They show that a policy based on the latter scenario is expected to lead to a 7.5% decline in population between 2011 and 2031, whereas the 'RSS' and 'migration-led scenarios' are expected to lead to a substantial increase.

Blyth	Change 2011-2031				Average per year	
Scenario	Population change	Population change %	Households change	Households change %	Net migration	Dwellings
RSS	7,656	20.5%	4,211	25.6%	274	219
Migration-led	4,028	10.8%	2,829	17.2%	127	147
No housing growth	-2,785	-7.5%	0	0.0%	-176	0

For more information…

The Policy & Research team can provide detailed information and data associated with the projections used within the Core Strategy, including: population and household change over time, age/sex profiles, household type profiles, net migration, etc. We can also provide further explanation around the methodology and assumptions used, and the scenarios run.

The models behind the projections currently reside with the Policy and Research team within NCC, together with the understanding and expertise for extracting projection data, interpreting output, and for running alternative scenarios.

To discuss this further, please contact us at *knowledge@northumberland.gov.uk*.

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[4] ONS Sub National Population Projections