

Planning on the Doorstep: The Big Issues – Population

The population continues to be a huge issue for councils and communities across the country; an issue that councillors face regularly on the doorsteps of their electorate. This advice note looks at how population projections are formulated and used, exploring how they are a vital evidence base for the formulation of planning and other work that the council does across a wide range of services.



Introduction

Understanding your population is important. It assists in planning for the future provision of services, allows consideration of the implications of past trends and relationships with policies, explores what is possible in the future, and assists in making more informed decisions.

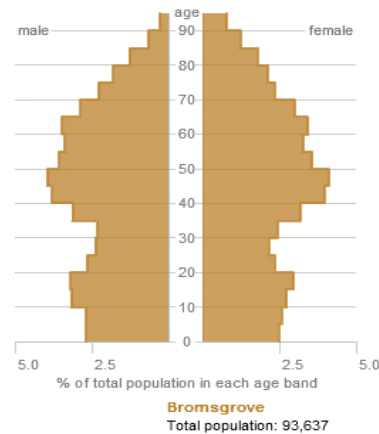
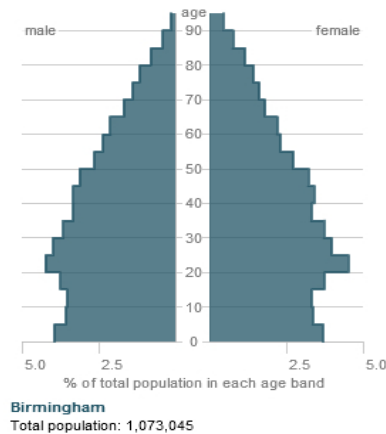
Population projections are:

- an essential source of information for identifying change that has occurred and is likely to occur in your population
- a key input into household projections which are the starting point for the identification of objectively assessed need
- a valuable source of evidence for the formulation of planning, housing, employment and neighbourhood planning strategies
- an opportunity for maximising resources by sharing information with other service and infrastructure providers to inform their delivery plans.

Population

Population is the total number of people living in a defined location at a particular point in time. It can be measured at a range of geographies: at national, regional, local authority and ward level. Population can be displayed using a population pyramid which is a graphic representation of the age and sex distribution of the population in an area.

2011 Census: population estimates for England and Wales



Source: 2011 Census, 2011 Mid-Year Population Estimates
Graphic by ONS Data Visualisation Centre

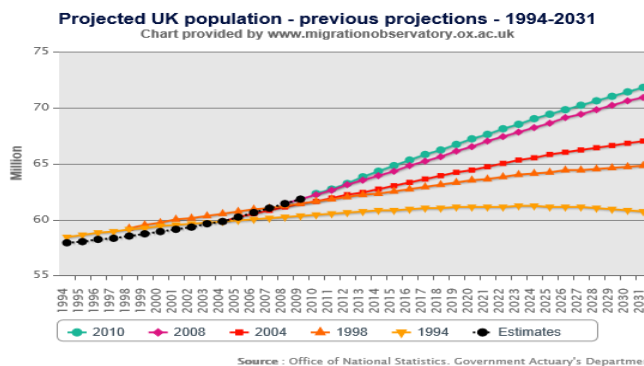
Population growth

Growth of the population is made up of the difference between births and deaths - known as natural change - together with the difference between in and out flows of people: net migration. People are living longer, resulting in an increasingly aging population structure.

Population projections

Population projections are produced by the Office of National Statistics (ONS) for the UK and sub nationally for local authority areas. They are produced every two years and the latest set was published in September 2012 and are the 2011 based interim projections which go to 2021. They do not factor all the implications of the census into their calculations. The next set of full projections will cover 25 years and is due out in the summer of 2014. Projections are used by the Department for Communities and Local Government (DCLG) to input into official household projections and also to assist with the formulation of grants to local authorities. In addition they are used by the Department of Health for resource planning and health care provision and by local authorities as a starting point for local level planning for services and monitoring.

Population projections are an essential starting point for the consideration of objectively assessed need for housing, as confirmed by the National Planning Practice Guidance (NPPG). However, they have some limitations and it is important to understand that they are not forecasts and merely provide population levels and age structure that would result if underlying assumptions were realised, i.e. if past trends continue. Consequently, they do not reflect future policy changes or growth ambitions. While projections are robust for the population as a whole and over short time periods their reliability reduces with time and for sub groups because small changes in assumptions are compounded over time and can result in substantial differences at the end of the projection period. This is demonstrated below by the population projections from 1994 that have been lower than subsequent years and also below the estimates for 2009.



Methodology

The ONS use the internationally accepted 'cohort component methodology' to estimate future population, as below:

$$\boxed{\text{Existing population (baseline)}} + \boxed{\text{Births}} - \boxed{\text{Deaths}} + \boxed{\text{Net migration}} = \boxed{\text{Population at Year 1}}$$

The principle or central projection is based on assumptions about future fertility, mortality and migration; which is considered to best reflect the current demographic patterns. Variant projections are also prepared based on alternative assumptions. Assumptions include:

- Baseline population uses usual resident population; students counted at their term time address, armed forces personnel are included if stationed in England and the United Nations definition of migrant is used, i.e. those changing country for a period of at least 12 months.
- Age Specific Fertility Rates are calculated for females aged 15-44 by single year of age for each authority, by using the number of births to women divided by the total number of women. A sex ratio of 105 boys to 100 girls is used.
- Age Specific Mortality Rates are calculated using a similar approach.
- Trends for inflows and outflows including using six years' of international Passenger survey data to assess international migration trends; five years data from NHS central register giving origin and destination for cross border migration trends and five years of data from Patient Register Data System for internal migration.

Migration

Migration is the most important component of population growth. It is the movement of people across local authority, and national boundaries. It is made up of international migration across countries; cross border migration from Scotland, Wales and Ireland; and internal migration with England. Migration is sensitive, volatile and difficult to predict because it is affected by sudden economic, political, social and policy changes which are hard to quantify. This means it is a major source of uncertainty for long-term projections.

Understanding the components of change and particularly the migration data going back as far as possible is very helpful and allows you to compare longer term rates with the more recent five or six-year trend. This can be compared with local knowledge about what happened in your area such as the movement of a large employer into or out of your authority, which may explain the high or low levels experienced. Understanding longer term trends over a full economic cycle can assist in the varying and testing of different migration assumptions. Tables are available providing mid-year estimates component of change information from 1991 - 2010 and can be found at: <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-162632>.

Sources of data include:

- **Official ONS statistics** (<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/Interim-2011-based/stb-2011-based-snpp.html>)
- **Census information** (<http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-interactive-content/index.html>)

- Age, sex and household information; key and quick statistics; detailed themed and local characteristics
- Specialist data (flows such as Travel to Work Area information due Spring 2014 and the alternative population base data)
- **Neighbourhood Statistics**
(<http://www.neighbourhood.statistics.gov.uk/dissemination/>)
- **What homes Where Toolkit** (<http://www.howmanyhomes.org/5.html>)
- **The Migration Observatory**
(<http://www.migrationobservatory.ox.ac.uk/node/634>)

It is important to understand that migration cannot be stopped, and if you do not accommodate it, it will go elsewhere with ripples and consequences for your area and others. Understanding and monitoring population data allows you to consider whether what is projected is what is wanted and whether the figures are accurate compared to census and longer term trend based information. For example:

- it allows you to explore whether you have enough economically active people needed to support and deliver the economic growth strategy that your authority are pursuing
- whether there is going to be increased pressure on services or places available in schools,
- to ensure necessary facilities are being planned to cater for the increasing number of elderly people and the single person households that are projected to grow.

Relating changes in the population structure directly to changes in demand and capacity is difficult. However, it is useful to consider whether policies can and should be developed to influence the future population structure and the types and size of homes.

It might be legitimate to vary the migration assumptions within the official projections if there is evidence to do so. However, any change in assumptions must be justified and set out as part of a transparent methodology. These are best used as sensitivity tests to demonstrate alternative population scenarios. The use of different assumptions to modify information is a key area which is being rigorously scrutinised by communities, developers and Inspectors and may result in challenges to the local plan. Be wary of closed box models and ensure you are able to explain the information inputs, assumptions and evidence for making any projections.

Using population scenarios for service planning

Setting up and agreeing a range of realistic population scenarios based on the latest projections and legitimate variations - perhaps based on long term migration trends as well as tested against employment led scenarios - provides an essential evidence base to assist with a range of plan making functions including:

- The SHMA and objective assessment of housing need
- Developing your Spatial Strategy – and setting housing and economic growth targets
- Housing and Employment Strategies
- Neighbourhood Plans
- Infrastructure Delivery Plans
- Joint Strategic Needs Assessment (JSNA).

In addition to these it also provides essential input into the strategic planning for future service delivery across a whole range of areas including:

- Health care
- Social services
- Employment strategy and economic growth
- Number, size and type of homes
- Specialist housing for older people
- Highways and infrastructure
- Care homes
- Infrastructure requirements
- Schools and nurseries.

It is possible to explore the resource implications for key age groups such as children, working age and elderly in relation to demand for facilities accommodation services and staffing requirements for each service area. Developing schedules for discussion with service providers and key stakeholders can allow you to programme in changes to services and costs and ultimately for better informed budgeting and decision making. As well as a useful evidence base to consider implications across a wider range of services, it also provides an opportunity to share intelligence across departments and with the county. As well as other service providers such as Clinical Commissioning groups, Hospital Trusts, Registered providers, infrastructure suppliers and other stakeholders. Using the same baseline and projections figures can provide savings and ensure the same predications are being used consistently to inform future plans across the area.

Interesting challenges

Rolling forward projections

Using the latest set of projections is particularly important in relation to rolling forward the household projections for your plan period. While no accepted methodology is available there is some useful emerging thinking and translation into practice. Alan Holman's paper in the *Journal of the Town and Country Planning Association* (TCPA) September 2013 Vol 82 No 9 offers an excellent and detailed account of the key issues in relation to housing demand and need and the use of projections. It explores the extent to which projections have been suppressed due to the effects of the recession, and how this might be addressed. The Joint Core Strategy for Gloucester, Cheltenham and Tewkesbury is responding to this by using work from the Cambridge Centre for Housing and Planning Research which sets out a hybrid approach using a partial return to 2008 based trends in household representative rates. The Royal Town Planning Institute (RTPI) have also just

produced a research report *Planning for Housing in England: Understanding recent changes in household formation rates and their implications for planning for housing in England* (January 2014). This considers the extent to which the pattern of household formation has been affected by an increase in international migrants, the extent to which household formation patterns have departed from previous trends and whether there have been significant changes in projected net flow to or from other local authorities and whether this is justification to adjust the projected flows.

Relationship between demographic and employment projections

It is important to ensure joined up thinking between the population needed to provide for the existing and future population and the employment strategy and objectives being pursued. Comparing official population projections with economic projections which identify the population required to support different jobs led scenarios is useful and ensures that the economic objectives of your authority are consistent with the population projections or at least compared on a consistent basis. There are clear links with the duty to cooperate and particularly how growth strategies fit with the LEP objectives which are currently being developed. Specifically there needs to be joint working to understand whether these LEP objectives are realistic and fit with the reality of the population structure and local economy of your authority. The LEP and County Councils are a statutory body for the duty to cooperate and local authorities are obliged to work with them to develop consistent and coherent strategies and growth targets which are deliverable.

Testing assumptions

Population projections are the starting point for planning for a whole range of strategies including setting your employment and housing provision. Providing housing is one of the most important aspects of the local plan and is certainly the most contentious. You are now responsible for identifying your objectively assessed need for housing and setting your housing provision using evidence. This process is being rigorously scrutinised by communities, developers and Inspectors at examination. The population and household figures, and the assumptions sitting behind them are a key area of challenge which must be rigorously justified. An example of how assumptions are being tested is demonstrated in South Worcestershire, where the Core Strategy Inspector has provided very detailed comments on the methodology, challenging the robustness of some assumptions. These include the economic growth assumptions and assumptions on the economically active older population participation rates. The Council are now undertaking further work to address his comments.

Summary

Population is a key issue which needs to be understood for your area and settlements. Projections are a valuable starting point and can to some extent be adjusted according to local circumstances and evidence. They can also play an important role throughout the local authority and with wider organisations and service providers to inform decision making and ensure this is done on a consistent basis, using the same evidence base.

This PAS publication was researched and written by Peter Brett.



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