



CHESTERFIELD BOROUGH POPULATION AND HOUSEHOLD PROJECTIONS

Explanatory Note

Scenarios Used in the Forecasts of Population and Households for Chesterfield Borough

August 2011



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Background

- 1 The authorities of Derbyshire County Council, Derby City Council, Nottinghamshire County Council and Nottingham City Council (DDNN) have recently been working collaboratively to produce up-to-date population and household projections for all local authorities in Derbyshire and Nottinghamshire. The projections have been produced to respond to the Government's intention in the Localism Bill to revoke regional spatial strategies, including the East Midlands Regional Plan, and give local authorities responsibility for setting their own house building targets.
- 2 The projections have been produced, in particular, to support the evidence base for the Local Development Framework Core Strategies being prepared in each of the local authorities in the two counties, including Chesterfield Borough. The Local Government Association's (LGA) POPGROUP Population and Household Projections Model has been used to produce the projections because it is the most widely used and nationally recognised model which is currently available. The projections have been commissioned from a company called Edge Analytics, which is the custodian of POPGROUP on behalf of the LGA and is the national supplier of population and household forecasting data to public and private sector organisations.
- 3 The commissioning authorities (DDNN) requested the consultants to provide a range of projections based on six key growth scenarios, details of which are provided in paragraphs 10 to 24 below. Chesterfield Borough Council is currently considering the projections to inform decisions on what its future housing provision figure might be in the preparation of its Core Strategy.

The Need for Up-to-Date Population and Household Projections

- 4 Current national planning policy on the preparation of development plans is contained in Planning Policy Statement 12: Local Spatial Planning (PPS12). PPS12 states that Core Strategies must be founded on a robust and credible evidence base and that the evidence should be as up-to-date as practical.
- 5 National planning policy on housing is contained in Planning Policy Statement 3: Housing (PPS3). PPS3 requires that the determination of

an appropriate level of housing in an area should be based on sound evidence, which includes up-to-date population and household projections.

- 6 PPS3 also makes it clear that local housing targets should be based on other evidence including Strategic Housing Market Assessments (SHMAs) and Strategic Housing Land Availability Assessments (SHLAAs). Population and household projections are therefore only part of the picture in determining local housing targets.

Projections Data Sources / Methodology

- 7 The projections which have been commissioned by DDNN have been based on the latest Office for National Statistics (ONS) 2008-based Sub-National Population Projections; ONS Revised mid-year Population Estimates 2002-2009; and Communities and Local Government's (CLG) 2008-based Sub-National Household Projections.
- 8 The basic principle of the projections process is that the model forecasts what the population is likely to be at each year up to 2031; what the number of households is likely to be; what the likely dwelling requirement would be to meet the growth in households; and what the size of the labour force would be based on the projected growth in the population.
- 9 The key components and data sources used in the projections modelling process are set out in detail in the district level population and household projections report for Chesterfield Borough, which can be viewed on the Borough Council's website via the following link:

<http://www.chesterfield.gov.uk/default.aspx?CATID=557&CID=6042>

A summary of the key components and data sources used in the projections modelling is as follows:

Population

- Mid 2001 to mid 2009 population estimates by single year of age and sex. Data for the scenarios included the revised 2002-2008 mid-year estimates released by ONS in 2010, and the 2009 mid-year estimates released a little later.

Births and Fertility

- Mid-year counts of births by sex (2001 – 2009);
- Standard age-specific Fertility Rates from the national projections are used to set the age pattern of rates for each district.

Deaths and Mortality

- Mid-year counts of deaths 2001 – 2009;
- Deaths by age and sex 2001 – 2009;
- Standard Mortality Rates from the national projections are used to set the age pattern for rates for each district.

Migration

- Internal migration data by age and sex is drawn from patient registration statistics.
- Mid year population estimates provide assumptions for international migration on immigration and emigration flows by district;
- Overseas migrant counts in the forecasts are the average of previous years derived from the residual migration after deducting counts of births, deaths and UK migrants from population change for years in which they are recorded.

Households

Household forecasts have been made using the latest CLG 2008-based projections which provide information on:

- Households by household type;
- Population not in households;
- Headship rates by household type, age and sex.
- Household projections are made by applying headship rates by household type to the population by age and sex.

Dwellings

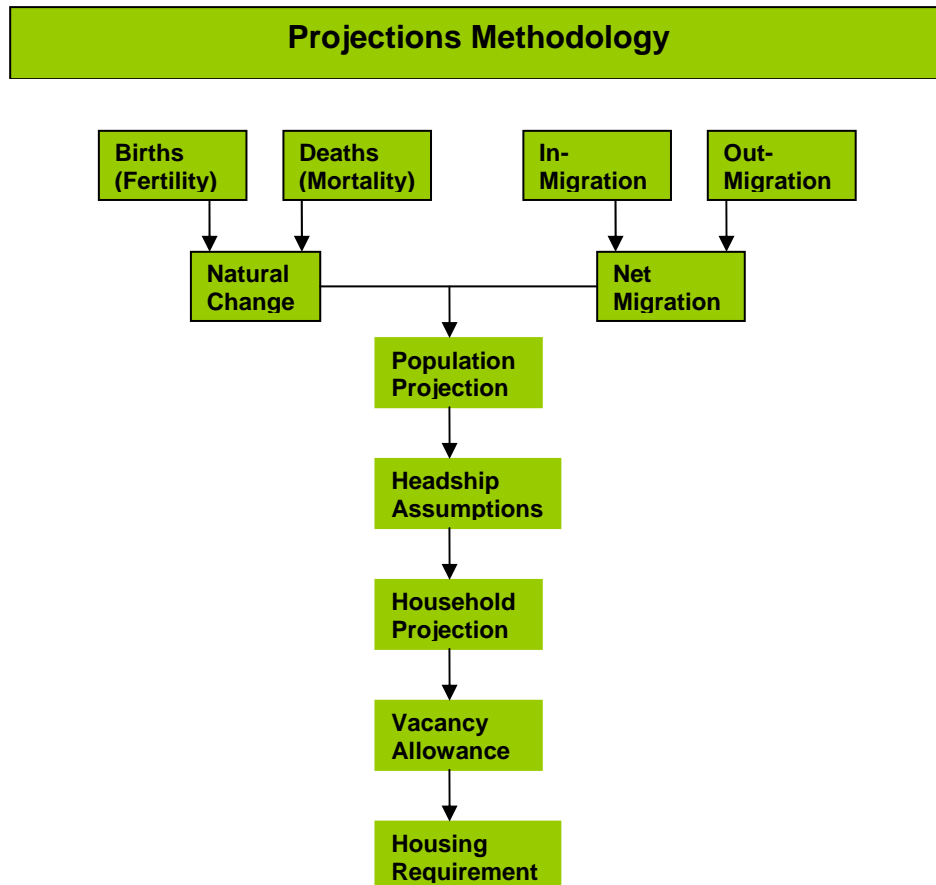
- The modelling process uses a vacancy rate to convert households into dwellings. These vacancy rates for each district have been derived from the 2001 Census and are maintained at a constant level in the scenario forecasts.

Labour Force

The labour force scenario shows the size of the labour force that would result from the alternative population forecasts, keeping economic activity rates constant throughout the forecast period. The scenario uses three key components:

- Economic activity rates for Derbyshire and Derby City from 2004-2009;
- Average unemployment rates for 2004-2009 for each district are applied and maintained at a constant level over the forecast period;

- Commuting ratios are applied for each district derived from the 2001 Census as the ratio between the total number of workers and the total number of jobs in an area.



The Growth Scenarios used in the Projections

- 10 The commissioning authorities (DDNN) requested the consultants to provide a range of projections based on six key growth scenarios which included:
- Long-Term Migration Scenario based on historical evidence from an eight year period (2001/2 to 2008/9);
 - Natural Change Scenario constrained by zero net international and internal migration;
 - Net Nil-Migration Scenario which balances in-migration and out-migration;
 - Dwelling-led Scenario based on past housing completions 2000-2010;
 - Employment-led Scenario using a policy forecast which retains the number of jobs at its 2008/09 level;
 - SNPP Scenario which replicates the 2008-based Sub-National Population Projections.

- 11 Of particular importance to Chesterfield Borough Council are the projected dwelling requirements for the Authority, which are implied by the six growth scenarios. It is important to note that the key purpose of the projections is not to determine what the future housing provision figure for the Borough should be. This will be determined through the Authority's Core Strategy process, in consultation with communities in the Borough and based on a wide range of other supporting evidence. The main purpose of the projections is to provide the Borough Council with evidence about what the future housing requirement is likely to be if the population and households in the area were to grow in a certain way. Rather than giving one answer, the projections give a selection of possibilities which can be compared to each other and used to inform the plan making process.
- 12 The range of possible dwelling requirements based on the six growth scenarios are set out below. A brief explanation of the scenarios and what they are showing in terms of housing requirements is also provided.

Continuing Past House Building Rates (Scenario 1 – 'Dwelling-led')

- 13 This scenario takes the average number of new homes built each year over a 10-year period from April 2000 to March 2010 and assumes that the rate continues into the future. The figures used are net, meaning that any demolitions have been taken off the totals. The scenario is useful as it shows what level of housing has actually been delivered by the housing market in the past and uses this to project into the future. By taking an average over the ten year period, this is likely to iron out any peaks and troughs in the market. By comparing it with other scenarios, particularly the migration-led and SNPP scenario, this will show whether carrying on building homes at the same rate that has occurred in the past will lead to out-migration or allow for in-migration, and will also allow for some analysis of the consequences for the economy.

Dwelling requirement: 330 dwellings per annum 2008 - 2031

No Increase in Jobs (Scenario 2 – 'Employment-led')

- 14 This scenario assumes the total number of jobs in each of the local authority areas remains constant from 2008/09 over the projection period. It shows the number of new homes required just to maintain the same labour force in the area as at 2008/09 levels. In effect, this provides a baseline figure against which future housing requirements of either a growing or declining labour force might be compared.

- 15 An important factor in this scenario is that it is assumed that the proportion of workers commuting into and out of the area will remain the same as in the past; i.e. those who would need to commute into or out of that local authority to work will continue to do so. This is based on information from the 2001 Census. The Census information indicates that in Chesterfield Borough, there was a net inflow of the population for employment. These flows have been assumed to continue into the future.
- 16 There are several implications to draw from this 'no job growth' scenario. For example, an increase in population and housing would be lessened in this scenario if commuting into the local authority area increased over the period. However, this would be dependent on more house-building taking place in those areas that provide workers to that local authority area. Another implication is that a decline in the economies of adjoining areas might also lead to more workers commuting into the local authority, leading to a reduced need for population growth and consequently housing. If the economies of outside areas were to do better then more people could commute out to them. Another more long-term outcome might also be out-migration and a consequent lower population.

Dwelling requirement: 388 dwellings pa 2008-2031

Long-term (8 year) migration trend (Scenario 3 – 'Migration-led')

- 17 The Government's new household projections are based on looking back at migration trends over 5 years, and then using this to project forward into the future. This scenario looks back over a longer period (2001 to 2009), to help iron out peaks and troughs, and therefore give a more stable basis for the projection.
- 18 These peaks and troughs may be, amongst other reasons, because of economic fortunes (including major industrial closure) and international migration. Because of a break in migration data at the 2001 Census, it is not advisable to look back further than 2001.

Dwelling requirement: 316 dwellings pa 2008-2031

Natural change in the existing population (Scenario 4 – 'Natural change')

- 19 This scenario examines the housing requirements of the existing population only, assuming no one moves in to, or out of, the area. Although this assumption is not realistic, this scenario shows the outcome of ageing in the existing population. For example, it shows the additional housing required due to more births, people living longer,

and the decline in average household size, due to divorce and more people living alone.

- 20 One reason that this scenario is not realistic, for instance, is because a small part of the population (most significantly students) is transient, in other words they move in and out of an area for a short while in life, to a set pattern. Consequently allowing such a group to remain and age in the population will affect outcomes such as generating households and creating an ageing 'bulge' in the age profile.

Dwelling requirement: 135 dwellings pa 2008-2031

In and out migration in balance (Scenario 5 – 'Net nil migration')

- 21 This scenario shows the housing levels required if in-migration to and out-migration from an area were in balance and cancelled each other out. This varies from the 'natural change' scenario, because the ages of those migrating out from the area are different from those migrating in and therefore the resulting housing needs can be quite different.
- 22 Typically a city or conurbation experiences more in-migration from younger (18-25 year old) people for work and study, most of whom will leave within a short time (these tend not to have families and to live in larger households). However, such areas also experience more out-migration of older people who are more likely to have families. It also has implications for the economy, as younger people tend to be more economically active and an increase in the proportion of younger people would increase the potential labour force.
- 23 Rural areas experience the opposite, however, where young people are more likely to move away, with fewer returning, and some areas have significant retirement or pre-retirement in-migration.

Dwelling requirement: 158 dwellings pa 2008-2031

ONS Population Projections (Scenario 6 – 'SNPP')

- 24 This scenario has been produced for completeness and to check the workings of the model. It replicates the population in the Office for National Statistics (ONS) 2008-based population projections for each year of the projection period. These projections are based on migration trends over the previous 5 year period (2003-2008). The results closely but not precisely match the CLG household projections also. This scenario is important for comparison purposes with the other scenarios as it shows what the housing requirement would be based on nationally published official data.

Dwelling requirement: 383 dwellings pa 2008-2031

Next Steps

- 25 Chesterfield Borough Council is currently considering the projections to inform decisions on what its future housing provision figure might be in the preparation of its Core Strategy.