

Methodology Note for Users: Cambridgeshire County Council's 2020-based Population and Dwelling Stock Forecasts

1) Population Forecasts

CCC's forecasts are 'policy-led', so that they are consistent with planned levels of house-building. They are therefore different from projections produced by ONS, which are trend-based, meaning they assume that recent trends continue in the future. The ONS projections make no specific assumption about levels of house-building, however in general terms they implicitly assume that building continues on a similar level to recent years. They therefore do not take account of new housing developments in areas with low growth previously; similarly, they may over-estimate future growth in areas that had high levels of house-building in the past.

CCC uses POPGROUP to produce its population forecasts. POPGROUP is a suite of demographic software developed to generate population estimates and forecasts, now managed and developed by Edge Analytics under licence from the Local Government Association (LGA) / Improvement and Development Agency (IDeA), the owners of the software.

The population forecasts are produced by ageing forward the population by sex and single year of age from a base date, year by year. Population change is forecast by allowing for the main components of population change: births and deaths (the balance of which gives natural change), and migration.

Base Population:

The base year for the population used in the latest forecasts is 2020, and this is derived from CCC's mid-2020 population estimates.

Fertility Assumptions:

Births are forecast by applying age-specific fertility rates to the numbers of women of child-bearing age in the local population. The age-specific fertility rates used in the forecast model are calculated from ONS data on live births by age of mother and from CCC's population estimates between 2015 and 2020.

Mortality Assumptions:

The process by which deaths are calculated in the model is very similar to that used to calculate births. Deaths are forecast by applying age-specific mortality rates to the number of men and women in the local population. The forecast sex- and age-specific mortality rates used in the model are taken from the 2018-based ONS population projections, and applied to the forecast model from 2022-23 onwards. For 2020-21 and 2021-22, reported ONS deaths data and modelling based on reported

ONS deaths data has been used, in consideration of the impact of Covid-19 on mortality.

Migration Assumptions:

Net migration is the balance between migration into an area and migration from it. The age and sex structure of migrants gives the probability of migrants being of a particular age and sex. This structure is determined for the base year of the model and then fitted to forecast totals of net migration to produce numbers of migrants into or out of an area by sex and age. In this model run, in-migration is adjusted such that the number of households generated by the model is consistent with the number of dwellings that are expected to be built between 2020 and 2041.

Reliability:

Forecasts are only as accurate as the assumptions on which they are based. Assumptions used here about fertility, mortality and migration are based on the best available information, but they are complex factors with countless influences. It is impossible to predict the future; we can only make reasoned guesses based on what we know about the past and the present. The forecasts are continually revised as new assumptions become available. This means that current figures will differ from those published (for the same time frame) in previous years. In some cases differences may be quite considerable due to revised assumptions about the phasing of planned development.

Local authority level forecasts rely on dwelling targets being achieved and are therefore subject to the same reliability issues that affect the dwelling stock forecasts. In general, the forecasts become less reliable the further they project into the future. The total population forecasts will be more reliable than for individual ages and sexes.

2) Dwelling Stock Forecasts

Dwelling stock forecasts form the basis of the population forecasts. The latest published housing trajectories at the time the forecasts were produced have been used as the basis for the 2020-based dwelling stock forecasts. The trajectories are published by each district / city council and detail the number and phasing of dwellings expected to come forward on individual sites. This has been used to guide the distribution of house-building between wards for the period 2020 to 2041.

The trajectory follows financial years, while the CCC forecasts reflect the mid-year point. For simplicity, the financial years are assumed to correspond to the nearest mid-year point. In other words, where a trajectory details developments expected between April 2020 and March 2021, these are assumed to occur between mid-2020 and mid-2021 in our forecasts.

Reliability & Local Factors:

The authority and ward-level dwelling stock forecasts present an optimistic view of dwelling stock growth as they assume that all planned dwellings are built according to policy. In terms of planning for the future it is necessary to consider the full implications of policy, even if there are questions as to whether policy can be achieved. The extent to which policy targets are achieved depends on many factors, including market forces and the economy. All development is subject to the development control system; development on designated sites depends on suitable planning applications being received from developers. In addition, “windfall” sites, which have not been allocated for housing growth, can become available.