

THE DURHAM PLAN

Notes on the Population Predictions for the County of Durham

In the County Plan housing needs are determined using predicted population levels by 2030. There are several estimates of this population 17 years from now and the National Statistics Office suggested very little change over that period, figures that were used in the Regional Spatial Strategy. Until 2012 the County Council officers agreed with those estimates.

During the construction of the County Plan, however, these estimates changed dramatically as the County Council sought to justify the proposal to construct 22,500 new houses without regard to the number of empty properties available in the County and without regard for the brown field sites which offer some capacity for development.

To achieve an estimated increase of 47,700 residents the County Council used a formula and associated computer programme provided by Manchester University (POPGROUP). The formula is:

$$P_{t+1} = P_t + (B - D) + (I_{UK} - O_{UK}) + (I_{OV} - O_{OV}) \quad \dots\dots(1)$$

births deaths immigration exodus immigration exodus
 County Durham from United Kingdom from Overseas

This simple linear equation contains 3 non-linear components:

(B - D) can find some expression from the National Statistics Office data and is generally agreed to be a diminishing number when plotted against time. It is predicted to be zero by 2030. Therefore this is a non-linear function made up from two independent variables, $\delta B/\delta t$ and $\delta D/\delta t$ where t = time.

($I_{UK} - O_{UK}$) is unpredictable and depends on variables that lie outside the county and outside its control, for example the economic success or otherwise of neighbouring counties or more rapid improvements in the economies of the south east of England or elsewhere attracting outward migration. In this estimate Durham County cannot be treated as an island behaving independently of all other regions of the UK. Again we have two independent variables $\delta I_{UK}/\delta t$ and $\delta O_{UK}/\delta t$ over which there is no control because both variables depend on many external influences as yet undefined.

($I_{OV} - O_{OV}$) is equally unpredictable and depends mainly on the future development of economies overseas, particularly in Europe and especially in Eastern Europe. A rapid improvement in the economies of Eastern Europe could reduce this parameter to a negative value. UK withdrawal from the EEC (which is in the political frame) would certainly demolish this parameter. Again Durham

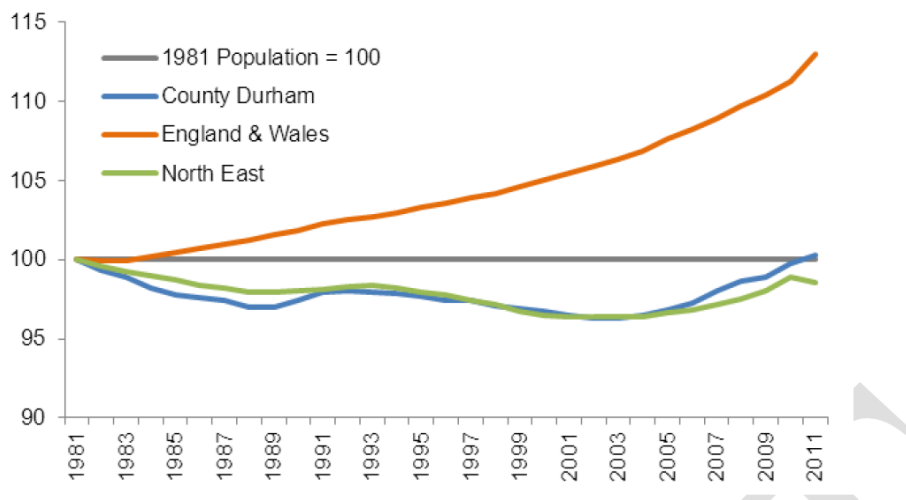
County is not an island. Once more there are two independent variables $\delta I_{ov}/\delta t$ and $\delta O_{ov}/\delta t$ essentially outside the range of prediction.

In making its population estimates the County Council depends entirely on all 3 parameters staying positive and maybe increasing in order to create the population of the County needed for the extra housing already being planned. At no time is a routine standard error given in their estimate to define the confidence level in their data. This is basic to all decision making, especially when radical decisions are being made, because no numbers are absolute and a statement of confidence levels is essential.

Furthermore, unless there is a robust source of data for the accompanying time-series of input data used in the resolution of equation (1) then it is essential that the null hypothesis be adopted and conclusions based upon this equation be treated as invalid.

Indeed it looks very much as if the population prediction relies on the desired housing market rather than the other way round. The population figures cannot, and must not, be manipulated in order to pander to the powerful building lobby. It is of interest that in 2008, as mentioned above, the 'Regional Spatial Strategy' (the RSS) used by the previous Labour government made very modest predictions for the population growth and housing needs of County Durham. Perhaps in the face of pressure from the building lobby this evaluation has recently been scrapped by the present government even though the numbers used by the NSO have not changed.

Figure 1: Population change 1981 to 2011 (change from 1981 base)



Population of County Durham, 2011 census = 513,000. Predicted population 2030 = 560,700, an increase of 47,700, needing 22,500 extra houses estimated at 2.2 bodies per house. However, the workforce (18-65 population) in 2011 = 301,900 predicted in 2030 in the same analysis to be 296,800, essentially zero growth. In 2011 the retired population = 110,950 predicted to rise to 157,200 by 2030, an increase of 46,250. Does the retired population need an extra 22,500 houses?

Houses do not provide long term employment; rather, houses traditionally follow centres of employment and housing needs should match the development of

those centres wherever they are in the county, eg Nissan, Hitachi. That is, to drive up housing needs it is necessary to confirm future patterns of economic growth and the associated employment levels.

Durham City, by its history, construction and geographical constraints, is not a natural source of industry. It is an administrative, academic and ecclesiastical centre whose level of employment relies on the stability of its funding. Because of constraints in public spending this source should not be expected to increase very much in the next decade and there is little room for significant industrial expansion. The proposed commercial developments at Aykley Heads, by their constrained geographical setting, are modest in size and, because of their anticipated high-tech nature will not employ large numbers of people, all of whom could easily be accommodated on the adjacent housing estate that is being planned and at the already approved Mount Oswald development.

Unfortunately, Durham City is victim to the following statement made by the county council in its draft proposals:

*“In addition to the trend projections described below, the County Council has commissioned policy-led projections. **These are where aspirations for the population of the county are built into the projections** by adopting a target population by 2030 for one of its key age cohorts, the working age population aged 16 to 64. The output from such models is the size of net migration and natural change required to achieve the adopted target.”*

In summary, the county council has simply created its own answers to justify consuming Green Belt land with unnecessary additional housing. The model used may be built on an aspiration; but it has no basis in fact.