

The transformation of England's population projections in the 2000s

In 2014 the author produced a briefing on global population primarily to assist environmentalists to overcome a reluctance to incorporate population into their thinking.¹ A counterpart briefing on UK Population will be published in Spring 2016. This article sets out the questions, but not conclusions, at the beginning of the UK research project. A longer version can be found at www.anthonyrae.com

In 1954 when the Government Actuary published the first official population projection for the United Kingdom, with the population then standing at 51m, he reported that the country's population growth appeared to be almost at an end. By 1979 it would peak at 53.75m. So the UK, probably the first country in the world to begin a demographic transition would now also be amongst the first to complete it, maybe even see its population decline.

50 years later not much had changed from the essential structure of that first projection. True the 2003-based projection (2003B) now recorded the current population at 60m but the future level at which it peaked, at a date almost 50 years hence - 66.8m in 2051 - did not threaten to disrupt that fundamental process of transition. The position at the end date of that projection (2073 - population 66.4m) confirmed the previously established understanding of a long future, after peaking, of stagnation. This had been the pattern in the projections since the mid 1980s.

And then something transformatory occurred, marking a sudden and major dislocation not just to the previous data trajectory but also across a much wider range of social and environmental factors that is likely to have a profound impact on sustainability throughout the 21st century. Just one year later, the 2004-based projection increased its estimate of a future maximum UK population by nearly 4m - from 66.8m to 70.7m; shifted the date of future maximum from 2051 to 2074; and for the first time did not record a situation of 'peak followed by decline'.

Two years on 2006B recorded an astonishing further change. Maximum future population increased from 70.7m to 85.3m - an increase of 14.8m between consecutive projections - the date of future maximum moved to 2083, again with no peaking. Then in 2010B there was a second 'great leap upwards', with maximum future population rising to 97.0m - a further increase of 11.3m over the previous exercise - with the date of future maximum now pushed 100 years into the future (2110), and - ominously - still no peaking. Finally 2012B pulled back that maximum to 93.3m, but still with no peaking.

Thus in a space of just seven years and four biennial projections the estimates of the UK's future population had increased by 30.2m or 45%. By contrast the 11 projections between 1981-2003 displayed a growth of just 6.3m or 11%. Moreover the long run demographic trajectory had also abruptly and radically altered, from 'shallow increase, then peaking, then marginal decline' to 'dramatic increase with no peaking'.²

One might have thought that a transformation in the data underpinning, indeed driving so many components of national activity, would have sent shockwaves through analysts, policymakers, ministers, then to thinktanks and NGOs, before rippling out into the media and general public. But instead - almost nothing.³ So this silence, this failure within government to react and respond itself becomes part of the research story. The questions prompted by the reversal of the UK's established demographic trajectory are many, each of which will require careful exploration in the research.

¹ *Global population to 2050 and beyond: Sources, Analysis, Discussion* July 2013 at www.anthonyrae.com

² From 2003-based to 2010-based the projection increased from 66.79m to 96.98m or 30.2m. See the appended table for all projections 1954-2012.

³ An exception would be Alistair Murray's briefing *Does Britain need a population policy?* Centre:Forum January 2008 in response to the 2006-based projections.

1 To which demographic components can this change be attributed?

The ONS 2012-based report quantifies their analysis of the increase in its principal projection by 9.6m between 2012-2037: "Some 43% of population growth in the principal projection is ... directly attributable to the assumed number of net migrants. The remaining 57% is attributable to projected natural change (of which 39% would occur with zero net migration and 17% arises from the effect of net migration on natural change ... because migration is concentrated at young adult ages). In total, therefore, some 60% of population growth ... is attributable, directly or indirectly, to future net migration." The Oxford Migration Observatory (OMO) in January 2012 presented a similar set of figures ⁴

A decade before, 2002B had set the principal net migration assumption at 130,000 p.a with a High variant of 190,000. In fact the actual numbers for the next 10 years turned out to be 268-267-265-273-229-229-256-205-177-209 (thousands) respectively – all but one substantially exceeding the High variant. By 2010B the net migration assumption was being raised to +200,000, although this was then reduced to +165,000 in 2012B.

On the other hand the long-term TFR fertility assumption in 2002B of 1.74 – following the 'the lowest figure ever recorded, 1.63, in 2001' ⁵ – had by 2012B only been raised to 1.89 - thus significantly below replacement rate throughout the projection period. This therefore provides an additional and striking dimension to the UK's demographic transformation: substantial population increase in tandem with below-replacement fertility.

2 What is the role of international immigration and nett migration in the increased projections?

Of course changes to the projections from 2004B onwards would have to be preceded by a parallel changes somewhere within the demographic components some years beforehand. Looking backwards in the record for a discontinuity, the prime candidate has to be nett migration.

Over the longer run the particular contribution that net migration, and international immigration, has played in this transformation is clearly visible in just a few graphics and graphs: in the decadal totals for net migration between 1901-2010, where the increase in the very last decade is an abrupt change from what preceded ⁶; in the ONS annual timeline for gross and nett migration between 1964-2013 ⁷; and finally, on that same timeline, in the surge in international immigration from the late 1990s which saw numbers increase from the low 300,000s to in excess of 500,000 by 2002, below which level it has not dropped since.

Looking at the balance between immigration and emigration, there were stable levels of nett migration in the ONS Timeline all the way from 1982 (because the period beforehand was characterised by *negative* net migration) to 1997. But in 1998 the level of nett migration increased from 48,000 to 140,000, at the start of a dramatic upward movement.

3 How does the changed UK trajectory fit into the european context?

The latest EU28 projections record an on-aggregate stagnant population through to 2080 (2013: 507m; 2080:520m; with a peaking at 525m in 2050). ⁸ Within this there are substantial national reductions: e.g Germany from 82m to 65m (21% decline); stagnation: e.g Spain at 47-48m; and moderate increases: e.g Italy from 60m to 65m. Balancing this out are two major locations of growth: France which increases by 20% from 65.6m to 78.8m; and largest of all the United Kingdom, an increase of 21.2m and 33%, from 63.9m to 85.1m. ⁹ The

4 OMO *The Impact of Migration on UK Population Growth* January 2012

5 National Statistics/GAD *National Population Projections 2002-based* p.19

6 House of Commons library migration statistics SN/SG/6077 26 February 2015 chart 5

7 www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc123/index.html

8 <http://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data>

9 Comparing three sets of UK projections for an 2080-81 end date: ONS is 84.8m, Eurostat is 85.1m, and UN 2012 revision is 76.7m

UK is therefore at greatest variance from the predominant demographic pathway across Europe and - simplifying the analysis so that it focuses just on population growth rather than, say, future support ratios for an ageing population ¹⁰ - has now started to challenge the predominant European trajectory still characterised by peaking and then decline.

4 What has been the response from policy and decision makers? How were the ONS Projections publicised?

To answer these questions we need to work our way along the information chain that connects the ONS data gathering to governmental policymakers and politicians. At the start of the chain what we consistently observe is a failure in the various ONS projection publications variously to include, draw attention to, or discuss the major growth in the second part of the projection period being reported. The 'Key Findings' of 2006B projections merely stated that 'The UK population is projected to increase gradually from an estimated 60.6 million in 2006 ... to reach 71.1 million by 2031', but neglected to add that the projections continued forward to a population maximum of 85.3m in 2081.

The Statistical Bulletin for the 2010B Projections - where the underlying data recorded the second 'great leap upwards' to 97m by 2110 - made no mention of population growth beyond 2035. The more detailed Results document did include reference to the 2085 and, in just one table, 2110 end dates: the latter contained spreads between Low and High combination variants of 63.4m to 136.8m. ¹¹

How can this almost silence be explained? Of course ONS routinely caveat their projections with the statement that these 'become increasingly uncertain the further they are carried forward'. But they have not gone beyond this to prescribe more fundamental qualifications about the validity of the longer term projections. By this taciturn approach to the presentation of their projections ONS appear to have sidestepped an obligation to highlight and explain a sudden and unanticipated transformation in UK demographics, which had they done so should have prompted a necessary public debate.

The other hypothesis instead would be that, further down the chain, there was a breakdown in the link between ONS analysis and wider governmental policy processes. Reviewing both the ONS and BPS activity over this decade one might conclude that, for all their rigour in analysing in considerable detail both historical and current demographic components, somehow the bigger picture was missed or ignored. ¹² So either ONS were not producing policy discussion points or recommendations - and maybe they were not asked for them; or no one had that responsibility? - or if recommendations were produced, at some location within the government process, they were ignored or resisted. Whilst we know that immigration policy was contested within government, was there ever a debate about future population size? ¹³

A few organizations such as OPT (latterly Population Matters) and Migration Watch did draw attention to the dramatically changed numbers. ¹⁴ Media articles were also rare. ¹⁵ So whilst

10 This article does not include a discussion on the issues of ageing and support ratios (although the 2016 briefing will). But see Pensions Commission *Pensions: Challenges and Choices* 2004 p.36pdf "Only high immigration can produce more than a trivial reduction in the projected dependency ratio over the next 50 years. Net inward migration at +300,000 per year could bring the 2040 old-age dependency ratio down from 47.3% to 42.1%. But ... this would only be a temporary effect unless still higher levels of immigration continued in later years, or unless immigrants maintained a higher birth rate than the existing population, since immigrants themselves grow old and become pensioners who need workers to support them."

11 ONS *Results 2010-Based National Population Projections* page 6

12 See e.g British Society for Population Studies day meeting on Population Projections February 2008 at www.lse.ac.uk/socialPolicy/BSPS/dayMeetings/Population-Projections.aspx

13 IPPR Matt Cavanagh *Numbers Matter* 2010 'There was indeed strong political support for the expansion of immigration for work and study but there was also strong official support, as well as support from economists outside government. Later, when ministers started to question this consensus, there was strong official resistance to any major shift' p.32

14 Optimum Population Trust spoke about a 'population nightmare' in 2007 on the occasion of the 2006B first 'great leap upwards' to 85+m, and that the 'UK population increase [is] 'out of control' when that

over the period of the changed projections there have been vigorous debates about issues consequential to actual and projected population growth, such as immigration, housing, and Green Belt, the primary driver has been almost completely overlooked.

5 Was this demographic transformation anticipated, even planned, or alternatively was it unforeseen? Is there a framework of a UK population policy?

This part of the research will need to investigate the recent history of government policy, necessarily distinguishing between population and immigration. What happened to the policy framework about the population driver is still almost entirely unknown.

On immigration the balance of accounts recently emerging has so far tended to present a more persuasive picture of incoherent policy direction to counter the conspiracy theory interpretation sparked by Andrew Neather's 2009 article.¹⁵ David Goodhart has written about Labour's 'accidental mass immigration'.¹⁷ The various authors brought together in IPPR 2010 write about 'far from having a grand plan to transform Britain, New Labour didn't have a plan at all' and 'a fairly broad and deep official orthodoxy that immigration was a good thing' led by 'increasingly liberal Treasury officials ... supremely confident in their view that all immigration was economically beneficial'.¹⁸

What remains to be uncovered is whether there was any government analysis whatsoever around the consequences of immigration in terms of its effects on long-term population size and sustainability impacts. If this did take place it would have been within a long established policy position. In 2001 ONS restated the UK policy on population presented previously to UN conferences in 1984 and 1994: 'The UK government does not pursue a population policy in the sense of actively trying to influence the overall size of the population, its age-structure, or the components of change except in the field of immigration. Nor has it expressed a view about the size of population ... that would be desirable for the UK.'¹⁹

Asked in 2006 - 'Does the Government have a population policy?' PM Tony Blair replied, with unconscious irony, "A population policy? No, but we do have a migration policy obviously." The PM also exposed the extent of his understanding about what might be generating population growth: "I am not sure that the driver is simply migration or even mainly."²⁰ However the next year, future PM David Cameron was better informed, and reached this conclusion: "Our current level of population growth and atomisation is unsustainable. Immigration is too high"; and then continued "So the question is: what can we do about it? The first and most basic requirement is for the government of this country to actually have a population strategy." He proposed 'a series of steps to ensure that our population grows at a more sustainable rate.'²¹

Some of the think tanks have debated the need for or viability of a population policy. In July 2011 OMO issued a short 'think piece' on the subject *Population - how Big is Too Big?*, but ultimately concluded that "there is no easy answer to the question of how large the UK population should be, or why".²² Murray for CentreForum in 2008 reached a similar passive view.²³ IPPR on the other hand in 2006 identified nine advantages for government having a more explicit population policy under government direction.²⁴

was confirmed in 2008B. Its comments on 2010B and 2012B did not however draw attention to the second 'great leap'. Migration Watch in Briefing Paper 9.21 2009 spoke about a 'population out of control'.

15 <http://www.independent.co.uk/news/uk/home-news/the-big-question-why-is-the-uks-population-growing-so-fast-and-is-this-a-good-thing-910679.html>

16 www.standard.co.uk/news/dont-listen-to-the-whingers--london-needs-immigrants-6786170.html

17 Migration Watch *Immigration under Labour* Briefing Paper 11.36 March 2015

18 IPPR *Numbers Matter* 2010

19 ONS Population Trends vol.72 1993 pp 1-2, quoted in Population Trends 103, 2001 p.52pdf

20 www.publications.parliament.uk/pa/cm200506/cmselect/cmliaisn/uc709-iii/uc70902.htm And see http://news.bbc.co.uk/1/hi/uk_politics/5144708.stm

21 David Cameron *The Challenges of a Growing Population* speech 29th October 2007

<http://conservativehome.blogs.com/torydiary/files/population.pdf>

22 www.migrationobservatory.ox.ac.uk/sites/files/migobs/Commentary-population_0.pdf

23 Alistair Murray *Does Britain need a population policy?* Centre:Forum January 2008 "The case that population growth is now occurring at an unsustainable pace is far from proven. ... Even if we accept that

6 *What are the policy levers available to reduce the population projections should there be a wish to do so?*

This is the key issue because, unless something changes in relation to the actual performance of its underlying modelling assumptions, the ONS Principal Projection will continue towards its forecast maximum - allowing, of course, for an inherent variability in successive projections. But the prerequisites for an active policy would be that there do exist 'levers' capable of influencing fertility, net migration and its components, etc; sufficient social and political consensus in favour of pulling them; and some certainty also that doing so will have the desired outcome.

The predominant position is that such levers do not exist, and that they shouldn't be pulled in any case. This has inhibited useful debate. The outlook of RCEP 2011 towards a population policy intervention was essentially passive and pessimistic: 'There are in practice no policy options open to Government in a democracy which would have a significant impact on the size of the population of the UK on a relevant timescale. ...²⁵ OMO in 2011 reviewed a whole series of 'problematic aspects of building long-term demographic objectives into migration policy-making'²⁶

Then there is an entire other level of policy-making - across the spatial planning process - where the absence of policy levers explicitly linked to future population size is preventing the articulation of arguments and feedback loops seeking to protect core sustainability factors related to spatial distribution, land use, and landscape/biodiversity. In Local Plan processes up and down the country huge pressure is now being applied to Green Belt designations and boundaries on the grounds of increased housing requirements²⁷.

7 *Where will increased population growth be distributed across the UK?*

Most of the data cited in this article is for the United Kingdom and yet its subject is the transformation of *England's* population projections. That is because the sustainability impacts of projected population growth will not be evenly distributed across the UK's land area. 21 million, or 92.5% of the projected growth between 2012-87 (2012B) will be located within England's 53.5 % of the UK area. By contrast just 1.7m would be in the 110,000+ square kilometres of Scotland, Wales and N Ireland. Then within England itself there is a second marked concentration: over the shorter period 2012-22, whilst the population as a whole increases by 7.2%, in London it's 13% - with the East of England (8.6%) and the SE (7.8%) above the national average as well - but just 2.9% in the NE.²⁸ In consequence the sustainability impacts of UK growth will be concentrated and magnified in just a few English regions, although spreading beyond them as well.

8 *How will environmental sustainability be affected by this level of population increase?*

There is a wide spectrum of different factors - general and national, sectoral, and spatial - where sustainability will be impacted by very large scale population growth projected to continue without cessation for another century. A limited number of studies have been undertaken but the issue has not been integrated into central and regional/local government processes including the planning framework.

The principal national study is RCEP's *Demographic Change and the Environment* but, on the 'population versus consumption' cliché, it chose to come down on the side of consumption

the population is growing too fast, there are a number of difficulties in trying to turn this into coherent policy."

24 IPPR Mike Dixon, Julia Margo *Population Politics* 2006 p.65 and 149 "The crucial first step is to make certain that an explicit and enabling approach to demography has clear lines of ministerial responsibility: without structural reform, a coherent and holistic strategy may fall by the wayside."

25 Royal Commission on Environmental Pollution *Demographic Change and the Environment* para.6.9

26 OMO *Demographic Objectives in Migration Policy-Making* March 2011 p.5 et seq

27 CPRE *Green Belt under siege: the NPPF three years on* March 2015

28 ONS *2012-based Subnational Population Projections for England* table 1

rather than following the Royal Society position that both require attention.²⁹ By contrast Forum for the Future's *Growing Pains* of June 2010 supported an active public policy stance: "It must therefore make good sense to see how best to constrain overall numbers where possible. The two main areas where such interventions could happen on the UK scale are reproduction and migration".³⁰

Then there have been sectoral studies - for example, looking at population & housing (by Population Matters 2011³¹) and population & water (Royal Geographical Society 2012³²) - and spatial studies that in particular examine the stresses created by the growth 'hotspot' of London. However only the London region still possesses the policy mechanisms and resources capable of evaluating the challenges of population growth, as seen in the London Infrastructure Plan.³³

Conclusions

As the research project gets under way, the initial sift of the evidence seems to point towards a 'longrun and pervasive failure in the government policy framework, with potential serious negative impacts for sustainability' as the most likely explanation of how the consequences of a major dislocation in the UK's future demographic trajectory came to be overlooked, and how it was caused in the first place.

This very recent inversion of the UK's previously established demographic transition is taking place within a global context where population peaking at sustainable levels is becoming less assured³⁴. The conclusion to the UN 2011 Demographic Trends report stated then: "... The reduction of fertility may be inevitable, but considerable effort is still required to make it a reality over the next few decades." But how can the UK contribute to meeting *its* obligation within this global effort if a policy vacuum remains, where population growth is denied existence as an issue, without levers or people to pull them?

The author may be contacted at ar@anthonyrae.com

29 RCEP *op cit* "In summary, it is not the total size of the UK population which is the problem: it is how and where people choose to live which presents the main environmental challenge from demographic change". RCEP concluded therefore that: "Any attempt to implement a 'population policy' would ... have little impact on the total population, and the objections on social and ethical grounds would outweigh the environmental gains." Royal Society: "Consumption and demography are closely inter-twined ... [and] ... policies should not treat [them] as separate issues." *People and the Planet* 2012 p.62

30 Forum for the Future *Growing Pains* June 2010 para.3.3

31 Population Matters *Population Growth and Housing Expansion in the UK* January 2013

32 RGS *Water policy in the UK: The challenges* 2012

33 RGS notes that 'On a world ranking of water availability - from most to least - SE England would be 161st out of 180 world regions' *op cit* p.6pdf And see *Population And Employment Projections to Support the London Infrastructure Plan 2050* November 2013 www.london.gov.uk/priorities/business-economy/vision-and-strategy/infrastructure-plan-2050 These project the Greater London population to increase from 8.2m in 2011 to 11.3m in 2050.

34 Gerland *et al* *World population stabilization unlikely this century* September 2014 at www.sciencemag.org/content/346/6206/234

Appendix UK population projections 1954-2012

Base year	Population in base year <i>millions</i>	Projected peak population <i>millions</i>	Peak year	Projection end year
1954	51.066	53.747	1979	1979
1961	52.925	67.904	2001	2001
1971	55.668	66.336	2011	2011
1979	55.946	55.995	2019	2019
1981	56.252	60.342	2051	2051
1985*	56.618	60.040	2026	2055
1991	57.649	62.197	2027	2061
1992	57.998	62.344	2027	2062
1994	58.395	61.156	2023	2034
1996	58.801	62.822	2031	2066
1998	59.237	64.888	2036	2068
2000	59.756	65.837	2040	2070
2001	58.837	63.922	2041	2071
2002	59.229	65.471	2046	2072
2003*	59.994	66.787	2051	2073
2004	59.835	70.691	2074	2074
2006	60.587	85.252	2081	2081
2008	61.393	85.684	2083	2083
2010	62.262	96.979	2110	2110
2012	63.705	93.332	2112	2112

* From 1985-2003 the projected population is approximately stable between Peak Year (column 4) and Projection End Year (column 5)

Source: Government Actuary Department 1954-2004, ONS 2006-12