



ACTUARIAL ANALYSIS
— FOR THE PUBLIC SECTOR
— FROM THE PUBLIC SECTOR

Issue 14 December 2013



A warm welcome to the latest edition of **eNews from GAD**.

- > In this issue, Adrian Gallop talks about the latest UK population projections from the Office of National Statistics and their range of uses.
- > Aidan Smith discusses the range of activities GAD has recently undertaken for a collection of different UK economic regulatory bodies.

I hope you enjoy this issue and would like to take this opportunity to wish you a very happy Christmas and New Year holiday. Previous issues of eNews are available on our new website www.gov.uk/gad.

TREVOR LLANWARNE GOVERNMENT ACTUARY

NEWS FROM GAD

Client survey results 2013

Results of the 2013 survey of feedback from our clients is now available from our [website](#). GAD's annual client satisfaction survey is very important for us to gauge our clients' views. The results, along with many face-to-face meetings, will help to shape our client service strategy for 2014

Next Government Actuary

Trevor Llanwarne's contract ends on 31 August next year. The process to appoint the next Government Actuary has now started. As and when any new appointment is made we will advise accordingly.

DEVELOPMENTS

Defined Ambition pensions

The Department for Work and Pensions has published a [consultation](#) 'Reshaping workplace pensions for future generations' which considers the changes to the regulatory framework that might be required to enable 'defined ambition' pensions to develop, as well as outlining some possible structures. The consultation closes on 19 December and DWP intends to consult on draft legislation in the New Year. This consultation follows on from the November 2012 [publication](#) 'Reinvigorating workplace pensions'.

Fair Deal guidance

In October 2013 HM Treasury published new [guidance](#) for Fair Deal (which is a non-statutory policy which sets out how pensions' issues are to be dealt with when staff are compulsorily transferred from the public sector to independent providers delivering public services). See GAD's [Technical Bulletin](#) for further details about this policy and its implementation.

Autumn Statement

On 5 December 2013 the Chancellor of the Exchequer gave his Autumn Statement. One of the announcements gave further detail on the fundamental underlying principle for the future reviews of State Pension age. Further details of this and other announcements can be found in [GAD's Technical Bulletin](#).

Solvency II/Omnibus II

On 21 November 2013 the European Parliament gave [formal approval](#) to implementation of the new rules for insurance regulation set out in the Solvency II Directive from 1 January 2016. This followed a ["trilogue" agreement](#) between the European Commission, Council and Parliament on the Omnibus II Directive which concerns the insurance industry's ability to offer long term guaranteed products. A vote by the European Parliament on the Omnibus II Directive is due to take place on 3 February 2014.

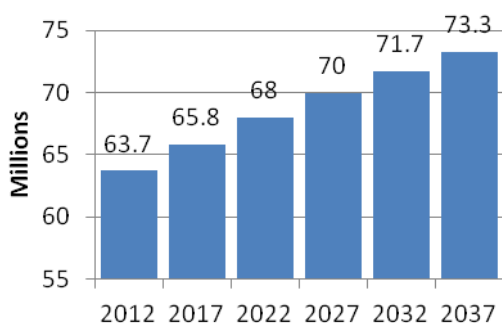
THE LATEST UK POPULATION PROJECTIONS

The latest population projections for the United Kingdom and its constituent countries were published by the Office for National Statistics (ONS) on 6 November 2013. These show not only the present and projected future level of UK population but also the balance of different age groups and how these are estimated to change over time. These projections update those issued two years ago in 2011 and will feed into sub-national population projections which will be produced at a later date. These allow a variety of users across government to use consistent assumptions for modelling and decision-making purposes.



Adrian Gallop

Figure 1 Estimated and Projected UK Population



Source: ONS National Population Projections, 2012based Statistical Bulletin

As shown in Figure 1, the UK population is projected to increase by 9.6 million over the next 25 years from 63.7 million at mid-2012 to 73.3 million at mid-2037.

Population projections are provided for 100 years into the future; however, as projections become increasingly uncertain the further they are carried forward, greater focus is placed on the 25-year projections to 2037. Variant projections are also produced to provide an indication of the uncertainty in the projections. These consider alternative assumptions for mortality, migration and fertility. The variant projections for mid-2037 range between 77.7 million and 68.9 million.

How are the population projections used?

Estimates of the future population of the UK and constituent countries are used across government for a variety of national and local planning purposes. Most users are interested in short-term projections, for example:

- > Projections of school numbers
- > Housing projections
- > Local services.

However, some users are also interested in longer-term projections, for example:

- > The Office for Budget Responsibility fiscal sustainability report
- > Projecting social security spending and the National Insurance Fund
- > Public sector occupational pension costs
- > Policy areas such as extending working lives
- > The need for Long Term Care provision.

'Estimates... are used across government for a variety of planning purposes.'

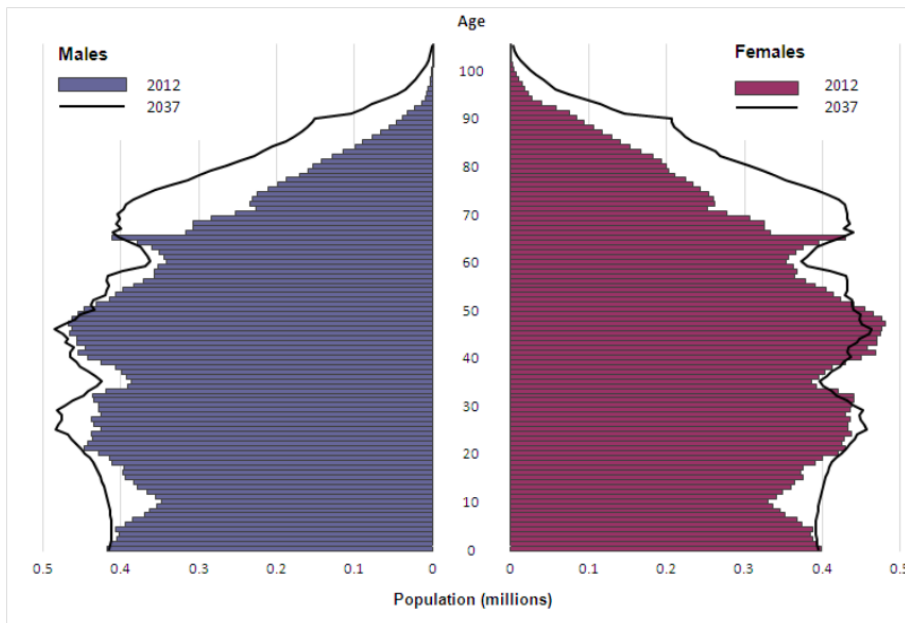
How is the population expected to change?

As in most developed nations, the population of the UK is projected to age over time, with the median age of the population (the age above and below which 50% of the population lies) projected to rise from 39.7 years in 2012 to 42.8 years by 2037.

Figure 2 below is a population pyramid which shows the estimated number of people at each age in the UK. The bars show the population in mid-2012, and the line the projected population in mid-2037.

THE LATEST UK POPULATION PROJECTIONS (continued)

Figure 2: Estimated and projected UK population mid-2012 and mid-2037



The mid-2012 pyramid clearly shows:

- > A sharp spike in the population, for those age 64 and 65 years old, which reflect the high numbers of births in the years after the Second World War,
- > The wider area of the pyramid for those aged in their late forties who were born during the baby boom of the 1960s,
- > The sharp narrowing of the pyramid for people aged around 10 years, a consequence of low numbers of births just after the turn of the century, and the increasing broadening of the base of the pyramid from the higher numbers of births in recent years, and
- > Females outnumbering males at older ages, reflecting their historically higher life expectancy.

Source: ONS National Population Projections, 2012-based Statistical Bulletin

Looking at the projected population at mid-2037, it can be seen that:

- > The projected increase in the numbers of children is at school age rather than pre-school age,
- > The working aged population will remain broadly similar, and
- > The marked increase in the population at older ages as the large number of the population who were born in the 1960s become over 70.

From 2012 to 2037, the number of children under 16 is projected to grow 8%, from 12.0 to 13.0 million. Over the same period, people of working age will increase 12%, from 39.4 to 44.2 million. But increases in the older population are much greater, as illustrated in Figure 3. The number of people aged 80 or more is projected to more than double by mid-2037. This increase means that it is projected that one in 12 of the population will be aged 80 and over by this time.

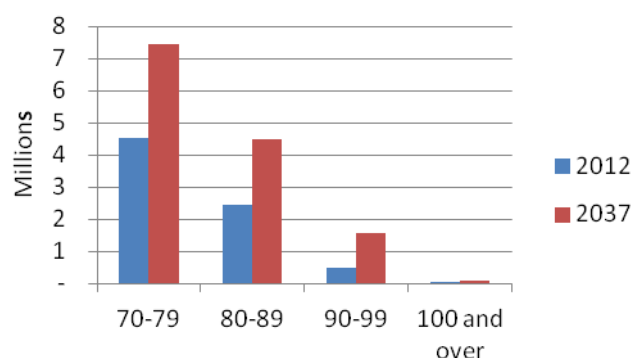
GAD's role

GAD has a key role in advising ONS on the mortality assumptions used in the projections as well as contributing to the consultation process. GAD is also a key user of the population projections in its work to advise its clients on a wide range of issues affected by population estimates including social security, long-term care and occupational pensions.

Further information on the 2012-based projections is available on the [ONS website](#).

Readers may also be interested in the [Foresight project on the future of demographic change](#), whose report is due in the New Year.

Figure 3: Estimated and Projected mid-year UK population aged 70 and over



Source: ONS National Population Projections, 2012-based Statistical Bulletin

PENSION COSTS AND ECONOMIC REGULATION

What is GAD's role in relation to the gas, electricity, aviation and water industries? The answer is GAD's advice to economic regulators.

GAD helps economic regulators and other public sector bodies to understand and assess companies' pension costs.

Economic regulation

Economic regulators have powers in law to analyse regulated companies' costs and to cap the prices consumers pay at a level that allows an efficient business to operate. Pension costs can be a material component of regulated companies' overall costs.

Examples of economic regulators are Ofgem (gas and electricity), Ofcom (communications) and Ofwat (water). Regulated industries are commonly infrastructure sectors that do not lend themselves to competition between providers, presenting the risk of inefficiencies and high costs for consumers. For example, the scope for opening a new international hub airport around London to compete with existing airports is very limited.

Where does GAD come in?

Pension costs have generally increased relative to total employment costs over the past 10-15 years in regulated industries. Economic regulators need to understand the reasons for these increases, to assess the efficiency of incurred pension costs and to analyse the scope for regulated companies to reduce costs. GAD provides objective analysis and policy advice to assist regulators and other public sector bodies.



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