Ageing populations and hidden unemployment
By Rosamund McDougall

This paper was written to challenge the widespread perception that perpetual population growth is the solution to the 'problem' of ageing populations and to suggest alternative policies for fuller employment with stable or gradually decreasing population size.

Key points
*The employment challenge of ageing populations cannot be solved by perpetual population growth, because perpetual population growth is not possible in a finite world.
*Today's young people grow into the elderly of the future, and therefore today's workforce into the dependants of the future.
*Definitions of economic dependency focus too narrowly on the proportion of older and elderly people in a population, while the contribution of dependent children and other economically inactive groups has been ignored.
*Impossibly large numbers of extra births or settling migrants would be needed to maintain the dependency ratios enjoyed by growing populations.
*Increasing life expectancy is to be welcomed, but absorbing a higher proportion of over-80s in a stabilising or decreasing population will be a problem for national economies.
*The support ratio of a workforce to its economic dependants can be vastly improved by encouraging more young and older unemployed back into the workforce, and by raising pension age in line with life expectancy rises. This would also alleviate pension deficits.

AN AGEING POPULATION: ON EARTH

The need to accept ageing populations

In most parts of the world people live longer and healthier lives than they did a century ago. Longer lifespans, along with declining birth rates, mean that there are growing numbers of 'old' people in many developed countries in relation to the younger working population expected to support them in their old age. But much analysis of this issue has overlooked two inconvenient truths. The first is that young people also grow old and will in turn need to be supported, and the second is that raising average world fertility would lead to even faster and more unsustainable population growth. So the world has no choice but to welcome ageing populations.

These principles were borne out by the United Nations in its World Population in 2300 report of December 2003. The report's Medium Scenario projection showed world population rising to a peak of 9.2 billion in 2075, then declining to 8.3 billion in 2175 before reaching 9 billion in 2300: with fertility falling to replacement level, the world's population would age from a median age of 26 years in 2000 to 48 years in 2300. Even in its High Scenario, with fertility slightly above replacement level and a population of 36.4 billion by 2300, the world's population ages.

But the UN's Constant-Fertility Scenario, in which fertility was kept constant at the level of 1995-2000, led to an 'unimaginable' 134 trillion in 2300. Clearly, constant population growth is no solution to problems arising from ageing populations.

AN AGEING POPULATION: IN EUROPE

Different rates of ageing in different EU countries

The ageing of Europe's population is nothing new. The proportion of Europeans of 65 or over trebled to 15 per cent of the population during the twentieth century, with life expectancy more than doubling to 75 years - without causing panic or any apparent ill effects. As longevity (length of life) has increased, so has the length of healthy life, enabling people to work to a later age. All populations have to stabilise sometime, and as they stabilise, they will usually age.

Links: World Population in 2300:
Population ageing usually refers to the rising average age of a population, or the process by which older people make up a proportionally larger share of a population, which can be caused by a variety of factors: for example, due to people living longer lives, or to decreasing numbers of people in younger age groups. Postponing population stabilisation by encouraging higher birth rates or increased inward migration and settlement, however, defers an ageing population ‘problem’ and is likely to make it worse - because the additional cohorts of younger people will increase the numbers of older dependants when they too grow old.

Ageing populations can be an economic problem if the speed of ageing (rising average age of population) is too fast. This is sometimes called ‘hyperageing’, and results in a significantly rising ratio of older dependants to the younger working population. Italy, with its low fertility rate (see Population Pyramids below) has been cited as one EU country with a potential hyperageing problem. As far as Europe as a whole is concerned, neither raising the birth rate nor encouraging surplus immigration solves this ‘problem’ of ageing populations in the long term. The European Commission calculated that to preserve the age structure in the EU 15 would require net immigration of 4.5 million people a year by 2007 and 7 million a year by 2024 [The Demographic Situation in the European Union 1995 (1996); Demographic Report 1997 (1998), European Commission.]

**Population Pyramids**

Population ‘pyramids’ are charts which show the age structure of a population. Population pyramids for developing countries with high birth rates and rapidly growing populations show a steep curve inwards and upwards from a wide base of young people to a much narrower band of old people - the shape of a pyramid. Pyramids for developed countries are shaped more like a column, as population begins to stabilise, and for those countries where population is decreasing the pyramid shape will invert as the numbers in younger age groups become smaller than those in age groups above them. Population pyramids for a wide variety of countries, with underlying data, can be seen at the US Census Bureau database Population pyramids.

Dynamic population pyramids show how a population’s potential support ratio (the number of old and young dependants in relation to those of working age) can change over time, and also how total population size will change. In the absence of migration, those in the lowest age bands of the chart (young dependants) will move up the chart over time, into older age bands, causing the bands of older dependants to shrink or expand in future years. Young and old dependent age groups can be added together, using different retirement thresholds, workforce participation rates and education periods, to work out how many dependants there might be in relation to those of working age in future.

The US Census Bureau population pyramids above show the population age structures in 2050 which would result from rapid growth (Ethiopia), decrease (Japan), and further growth before stabilization (UK). The latest population pyramid for the UK can be seen on the Office for National Statistics website at Population: by gender and age, mid-2008, and dynamic UK population pyramid software can be downloaded from the ONS website - see Interactive UK population pyramid.

**Links:**
Europe: [http://www.optimumpopulation.org/opt.europe.pdf](http://www.optimumpopulation.org/opt.europe.pdf)
The environmental and economic costs of further population growth would be severe. These include rising costs of food and water as a consequence of continuing soil erosion in Europe, exacerbated by impacts of climate change such as droughts and floods. Energy and food substitution from countries outside Europe will become more difficult as their own burgeoning populations create ever greater demand for both renewable and non-renewable resources. The speed of environmental degradation and the need for drastic cuts in greenhouse gas emissions make it clear that environmental policies without population policies will not succeed unless politically unacceptable reductions in living standards are imposed.

A projected rise in the proportion of people of 80 or over in the EU25 from 4 per cent to 14.1 per cent by 2050 will pose an economic challenge: the EU25 population was expected to peak at 470.1 million in 2025, then decline to 449.8 million by mid-century. But the solution is not to postpone population decrease by encouraging higher birth rates or mass immigration.

These broad policy measures, along with balanced or small-surplus net inward migration, would enable EU population to stabilise and then decrease to an environmentally sustainable level. Many private sector pensions have already been changed from final-salary to defined contribution schemes, and several EU countries have acted to raise the pension age for public sector workers. Spurred on by recession and rising public sector deficits, the UK is also raising its state pension age for all born after 1950.

**A STABLE POPULATION: EMPLOYMENT POLICY FOR EUROPE**

- Welcome the projected stabilisation of EU population by 2025 and gradual decrease over the period 2025-2050.
- Improve the health, education and training of the working-age population.
- Improve the education and training of young people - the future workforce.
- Create more flexible jobs to enable groups such as working mothers, the disabled and older people to join the workforce.
- Raise state and corporate pension ages in line with life expectancy.
- Encourage and enable people to save more for retirement.

AN AGEING POPULATION: IN THE UK

More workers and more older people in the UK

Rapid population growth over the last 10 years has added unusually large numbers of young people to the UK, and the consequence of this will become apparent at mid-century as today's younger generation grows older and lives longer, moving nearer to the top of the 'population pyramid'. The number of people of pensionable age was projected in the ONS 2006-based Principal Population Projection to rise from 11.3 million (18.7 per cent) in 2006 to 16.2 million (20.9 per cent) in 2050. By 2032, according to Benefits and challenges of an ageing population (2008), which took into account changes in state pension age (SPA), there will be 2.32 people of working age to each person above SPA, compared with 3.3 then.

People start their lives as dependants - babies - and usually end their lives as dependants. But some analysts forget that dependants can be young as well as old, and that they also are supported by the working-age population. In the same projection, the proportion of young dependants (aged under 16) was projected to fall from 19 per cent (11.5m) in 2006 to 17.4 per cent (13.4m) in 2050, while the working age population was expected to fall slightly from 62.2 per cent (37.7m) to 61.7 per cent (47.6m) in 2050.

**Links:**
Increasing the number of young people to support older people is unsustainable: it is only a short-term solution, and if it causes population growth, will lead to yet more older people in 2050. Overall UK population growth of more than 16 million by 2050, from 2006, would bring only a marginal improvement in the proportion of dependants (young plus old) in the total population - up by just 0.6 per cent. As also already stated, the costs to the economy and the environment of continued population growth are likely to outweigh the costs of supporting an ageing population. Measures to curb material consumption, energy use and greenhouse gas emissions would be constantly undermined by growth in the number of consumers, energy users and climate changers.

Dependency and support ratios in the UK

In demographic terms, the total *dependency ratio* of a population is the size of the non-working age population (both young and old dependants) divided by the working age population that theoretically supports it. The *old age support ratio* is the working age population divided by the population of pensionable age. Dependants fall into several categories, including the sick, disabled and unemployed, but two simple categories are used by demographers. Young dependants are usually those aged 0-15, and old dependants are those of state pension age or over. Those in between are the potential workforce.

In 1976 (see Table 1) there were 421 children (under 16) and 295 older people (men of 65 and over and women of 60 and over) - a total of 716 dependants - per 1,000 people of working age. In 2008 there were 1.6 people of working age (38.1m) for each dependant (11.5m under 16 and 11.8m of pensionable age), with an old age support ratio of 3.23. Paradoxically there has recently been a high level of concern about dependency ratios, while there was little concern about those of 1976 - when many millions of women of working age were not in the workforce. What matters is the cost of supporting all categories of dependants, not just the old. So what are the costs of supporting the younger generation?


### YOUNG DEPENDANTS: THE COST OF RAISING A FAMILY

Two sets of people pay the costs of raising children: their parents and taxpayers. The costs of raising a family are high for parents, even those who send their children to state schools. According to a December 2007 survey by the Liverpool Victoria Friendly Society, parents can expect to spend about £186,000 (up from £180,000 from a year before) on bringing up a child from birth to the age of 21. A typical family spends £50,538 on childcare and £47,310 on education, even assuming a state education through primary and secondary school.

The costs for taxpayers are high too. With state education paid for by the taxpayer, those under 18 incur costs to the public sector as well as the older people who receive state pensions and people of all ages who receive other state benefits. Young dependants funded by the taxpayer receive state-supported childcare or nursery education from ages 0-5; primary school education from 5-11; and secondary education from schools from 11-16. Many go on to receive further education from 16-18; with some 43% of those aged 18-21 continuing in full-time higher education at universities and colleges and the government aiming to raise participation to 50%. In 2004-05 state education cost taxpayers £63.7 billion, of which £4.2 bn was spent on under-fives, £36.5 bn on schools, £7.4 bn on further education and £7.8 bn on higher education. With 9.3 million pupils in 34,600 schools, the average school place cost the taxpayer taxpayer £3,924 a year.

Definitions of young dependant age groups are also controversial. A study by Professor Gill Jones of Keele University, *The parenting of youth: social protection and economic dependence* [11 August 2004], found that the age of independence is now “effectively 24”. The trend is attributed to more young people continuing in education, particularly those from middle-class families. The survey concluded that “government policies affecting young people tend to assume that basic maintenance will be subsidised by parents into the mid-twenties”. Another survey, by the online bank Egg, revealed that more than 500,000 parents were still giving money to children over the age of 30, with financial support for nearly 150,000 children extending beyond the age of 44. [Egg, 11 November 2004] Given the introduction of university tuition fees in 2006, many children may become a greater “economic burden” to couples of working age than their ageing parents will.
<table>
<thead>
<tr>
<th>Mid-year Actual/Projected*</th>
<th>Total population millions</th>
<th>Dependants Age 0-15 (% of WAP)</th>
<th>Age 16-64/59** (WAP)</th>
<th>Dependants Age 65/60** and over (% of WAP)</th>
<th>Dependants*** per 100 of working age (WAP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected 2051</td>
<td>69.252</td>
<td>11.270</td>
<td>40.377</td>
<td>17.605</td>
<td>71.5</td>
</tr>
<tr>
<td>Projected 2011 (2004-based)</td>
<td>61.892</td>
<td>11.231</td>
<td>38.479</td>
<td>12.182</td>
<td>60.8</td>
</tr>
<tr>
<td>2006</td>
<td>60.587</td>
<td>11.537</td>
<td>37.707</td>
<td>11.344</td>
<td>60.7</td>
</tr>
<tr>
<td>2005</td>
<td>60.218</td>
<td>11.596</td>
<td>37.373</td>
<td>11.250</td>
<td>61.1</td>
</tr>
<tr>
<td>2004</td>
<td>59.835</td>
<td>11.646</td>
<td>37.064</td>
<td>11.125</td>
<td>61.4</td>
</tr>
<tr>
<td>2003</td>
<td>59.554</td>
<td>11.712 (31.8%)</td>
<td>36.828</td>
<td>11.014 (29.9%)</td>
<td>61.7</td>
</tr>
<tr>
<td>2001</td>
<td>59.113</td>
<td>11.863 (32.6%)</td>
<td>36.406</td>
<td>10.845 (29.8%)</td>
<td>62.4</td>
</tr>
<tr>
<td>1996</td>
<td>58.164</td>
<td>12.018 (33.9%)</td>
<td>35.498</td>
<td>10.649 (30.0%)</td>
<td>63.9</td>
</tr>
<tr>
<td>1991</td>
<td>57.439</td>
<td>11.685 (33.2%)</td>
<td>35.197</td>
<td>10.557 (30.0%)</td>
<td>63.2</td>
</tr>
<tr>
<td>1986</td>
<td>56.684</td>
<td>11.645 (33.5%)</td>
<td>34.725</td>
<td>10.313 (29.7%)</td>
<td>63.2</td>
</tr>
<tr>
<td>1981</td>
<td>56.357</td>
<td>12.543 (37.1%)</td>
<td>33.780</td>
<td>10.035 (29.7%)</td>
<td>66.8</td>
</tr>
<tr>
<td>1976</td>
<td>56.216</td>
<td>13.797 (42.1%)</td>
<td>32.757</td>
<td>9.663 (29.5%)</td>
<td>71.6</td>
</tr>
</tbody>
</table>

From an economist's point of view, the support ratio (ratio of those of working age to dependants) should also take account of all those of working age who are economically inactive but fit and willing to work - if not already studying, training or undertaking voluntary work. All people aged 16 or over but not working for money are defined as 'economically inactive' by the ONS, and in the three months to the end of 2009 one in five were economically inactive (8.16 million, or 21.4 per cent) with the number of unemployed rising to 2.45 million.

OLDER AGE GROUPS

It depends what you mean by old. As longevity increased over the 20th century, demographers redefined old age. A century ago, people aged 50-65 might have been described as 'old'. Now, as healthy lives last longer (but can end in long periods of frailty and dependence), the definition of the UK's 'old' people as those of 65 and over is often subdivided into an young old age group (65-84) and oldest old age group (85 and over). According to ONS Population Trends, "In 1981, just 1 per cent of the population were aged 85 and over. Over the last 25 years [1981-2006] the number in this age group has more than doubled ... and over the next 25 years it is projected that this number will increase six-fold to 59,000." These oldest old are likely to be highly dependent, but the young old less so.

IMPROVING DEPENDENCY RATIOS

Changes in recent dependency ratios (old + young dependants/working age) and support ratios (working age/old + young dependants) are in part due to deferral of deaths - increasing life expectancy results in death at a later age - and in part due to deferral of births. Fifty years ago, women had their first babies in their early 20s, but by 2007, with more women entering the workforce, the mean age of mothers when they had their first baby had risen to 27.6 years. Births arising from migration occur on average to younger mothers and have also pushed up the total number of births: in 2006 babies born to mothers born outside the UK accounted for 21.2 per cent of all births in England and Wales.

Promoting continuous excess immigration or a higher birth rate to maintain a stable dependency ratio is counterproductive if these factors cause overall population growth. Both excess natural increase and excess inward (settling) migration will increase the size of dependent older generations in the future, while a decline in the numbers of children will reduce the numbers of young dependants now and the number of older people in future. With estimated world population growth of 2.4 billion by 2050, there would be no shortage of young people to join the population of the UK should population decrease too fast to maintain viable dependency ratios.

NO SHRINKING WORKFORCE - JUST AN INACTIVE, OVERWEIGHT, SPACED OUT, STRESSED OUT WORKFORCE?

Contrary to popular belief, the UK workforce has not been shrinking, but growing. In 2006 there were 37.7 million people of working age in the UK, compared with 32.7 million in 1976. What matters is the proportion of the potential workforce who are employed. Although the government target was for 80 per cent of people of working age to be in employment, only 74.5 per cent were employed in 2007, with 680,700 job vacancies and 813,000 claiming Jobseeker's Allowance in November 2007. Jobseeker's Allowance figures have also masked the true level of unemployment, because many unemployed were switched from unemployment benefits on to sickness and disability benefits in the two decades to 2007.

Most of the 2.7 million increase in employment between 1997 and 2007, however, according to a December 2007 report from the Statistics Commission, was accounted for by non UK-born workers. Using Labour Force Survey figures, and excluding people over state pension age, the Commission confirmed that only 20 per cent of the new jobs had gone to British-born workers. (These figures have been superseded by data that show a much higher proportion of new jobs being taken up by migrants.) This uncontrolled transport of economic activity and population growth into the UK has arguably neither raised job prospects for its population nor improved their environmental quality of life.

There is therefore ample scope for a population policy (as first proposed by OPT in 2003) which would allow workers to retire later, remove the perceived 'need' to raise birth rates, and introduce numerically balanced migration. This would help to bring fit but economically inactive people from all sectors of the UK community back into the workforce. This policy could begin immediately, with reviews in 2010, 2015 and 2020 and at five-year intervals thereafter.

"The number in this age group has more than doubled": http://www.statistics.gov.uk/downloads/theme_population/Population_Trends_130_web.pdf
TABLE 2: ECONOMIC ACTIVITY (INACTIVITY) BY AGE GROUP IN THE UK

<table>
<thead>
<tr>
<th>Period</th>
<th>Age 16 &amp; over millions</th>
<th>Age 16-59/64 (m)</th>
<th>Age 16-17 (w)</th>
<th>Age 18-24&lt; (m)</th>
<th>Age 25-34 (w)</th>
<th>Age 35-49 (m)</th>
<th>Age 50-64 (w)</th>
<th>Age 50-59 (w)</th>
<th>Age 60+ (w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-Aug 2005</td>
<td>30.176 (7.912)</td>
<td>29.093 (0.788)</td>
<td>3.940 (1.413)</td>
<td>6.545 (1.254)</td>
<td>11.243 (1.975)</td>
<td>6.578 (2.482)</td>
<td>1.083 (9.726)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun-Aug 2003</td>
<td>29.684 (7.790)</td>
<td>28.711 (0.705)</td>
<td>3.806 (1.326)</td>
<td>6.682 (1.310)</td>
<td>10.939 (1.968)</td>
<td>6.461 (2.482)</td>
<td>0.973 (9.596)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Tables 12(1) and 12(2), First release, Labour market statistics 12 October 2005, ONS

Economic inactivity data for 2007 showed that of the 7.96 million people economically inactive but of working age, 2.3 million gave the reason that they were looking after family/home; 2 million were long-term sick; 206,000 were short-term sick; a record 1.9 million were studying; 624,000 had retired early; 40,000 were ‘discouraged workers’; and 823,000 gave other reasons. In October 2005 nearly 2.8 million people had been claiming incapacity benefit (since reformed to provide incentives for claimants to return to work), of whom some 38 per cent were claiming on mental health grounds, and expenditure on incapacity benefit was estimated to cost £7 billion a year, rising to £13 billion when other disability benefits were included.

Population growth in the UK exacerbates resource demands and environmental impacts - which may also severely damage the UK economy in future. Improving the quality and productivity of the UK workforce and extending healthy working lives is an essential alternative to continuous and unsustainable population growth.

The perceived problems of an ageing population and the real problem of a pensions timebomb appear to have underpinned pro-population growth policies. Demographic misunderstandings need to be corrected if the UK is not to suffer the consequences of continued population growth.

What ageing problem?

Demographically, the term ‘ageing population’ usually refers to the rising average age of a population, due to increasing numbers of older people (65 and over), increasing longevity and life expectancy and/or lower fertility (a decreasing birth rate). But populations have been ageing for centuries without apparent ill effects: life expectancy has risen from 32 years in 17th century England to more than 80 years for those born in 2006. During the 20th century, while populations in the developed world aged more rapidly than ever before, prosperity also rose faster than ever before. What's the problem? It is not one of supporting growing numbers of older people, but only of supporting those who become very old and infirm: people in the UK aged 65 in 2005 could expect to live on average another 18 years. Solutions can be found, but population growth is not one of them. A variant 2006-based ONS population projection which assumed stable life expectancy, a long-term total fertility rate of 1.84 children per woman, and zero (or zero net effect balanced migration) shows the number of young and old dependants improving from 612 per 1,000 people of working age in 2007 to 608 in 2050.

With higher life expectancy the proportion of dependants would increase. But living a longer, healthier life is a bonus, not a problem. The ‘problem’ is whether these extra years of healthy life should be financially supported by the person growing older (by working longer or saving more), by the taxpayer (via the state pension) or by business (private sector pension). Both state and private sector pension liabilities have risen sharply in the UK as pensioners live longer.

Life expectancy for people born in 2005, was assumed in the 2006 based Principal population projection to be 88 years for baby boys and 91.3 years for new-born girls. But while the number of older people increases, the number of younger people has been decreasing. From mid-1971 to mid-2006, those aged over 65 grew from 13 to 16 per cent of the population, while those aged under 16 fell from 26 to 19 per cent. During the last three decades, however, a higher proportion of people of working age have joined the labour force - mainly women, and there is no reason why this process should not continue, together with a lengthening of working life, to solve the ‘problem’ of increasing longevity.

The environmental costs of an ageing population are often attributed to the need for more housing as more older people live longer and live alone. Elderly people, however, may have a lower impact on the environment as their mobility declines. It is also necessary to balance the economic costs of supporting an ageing population, against the costs of overall population growth. These include the billions of pounds in higher taxes needed to build extra schools, hospitals, prisons, power stations, roads, reservoirs, sewerage facilities and other infrastructure, with rising transport and traffic congestion costs and rising greenhouse gas emissions. The deferred costs of consequent ecological damage such as rising greenhouse gas emissions have not yet been properly accounted for.

Much of the recent fear of ageing populations has focused only on small parts of the picture, such as pension costs. The best way to tackle a shrinking support ratio would be to extend working lives at both ends of the age scale, to offer other economically inactive groups more opportunity to work, to improve health, productivity and skills, and encourage consistent saving for old age, with a safer occupational pension framework as well as proper funding of the state pension. This was broadly the conclusion of the Pensions Commission which reported in 2005.

For most of those who will enjoy the extra decade or more years of longevity gained in their own lifetimes, the prospect of contributing an extra two or three years of work to help finance a pension for their remaining years should be an acceptable answer. For some workers, however, particularly the low-paid and those worn out by years of hard physical labour, later pensions will seem a betrayal of promises. Solutions to the ageing population ‘problem’ need to be flexible and humane.

Policies are taking shape, though not fast enough. The state pension age is being raised gradually for those born after 1950, and incapacity benefit has been reformed to encourage those receiving it, if fit enough, to return to suitable work. But with high levels of illiteracy and innumeracy among the economically inactive, education and training also require reform.

LENGTHENING LIFE EXPECTANCY

Life expectancy (expected length of life from birth) and longevity (actual length of life) have increased over several centuries and continue to increase. These are the factors behind a pro-population growth policy based on exaggerated fears about the economic consequences of an ageing population. Life expectancy in the UK increased rapidly throughout the 20th century without apparent ill effects - by 30 years for men (45 in 1901) and 31 years (from 49 in 1901) for women. Assumptions of continuing improvement are controversial. While some believe that scientific and medical breakthroughs will continue to extend healthy lifespan during the 21st century, others point to factors that will reduce longevity. Worldwide, deaths from cardiovascular disease are expected to increase as the number of overweight people grows from 1 billion to 1.5 billion by 2015. In Britain deaths from diabetes could rise by a quarter in the next 10 years, leading to an additional 8,000 deaths a year by 2015. [Preventing Chronic Disease, World Health Organisation, September 2005]. Deliberately lowering life expectancy - by allowing disease to take hold (HIV AIDs, for example) - is unthinkable.

HEALTH COSTS FOR OLDER PEOPLE

Figures published by the Department of Health [Hospital and community health service expenditure, England: by age of recipient 2001/2] gave the following per capita costs: Age 0-4 £1,172; Age 5-15 £259; Age 16-44 £412; Age 45-64 £517; Age 65-84 £1,348; Age 85 and over £3,315; All £646. While the costs of nursing and residential care for older citizens can be high, NHS hospital costs are not significantly higher for older people in our population before the age of 75-80: “In the second half of the 20th century… life expectancy at birth increased by nearly a decade… [but] we may all of us look forward to a better and better old age in which we do not place ever-increasing, unsustainable burdens on the NHS, our supporters and the Treasury.” “In a carefully designed study [which examined] the number of days spent in hospital in the last 15 years of their life by people who died at different ages… the total days of in-patient care for people who died at 90 was only about double that of people who died at 45; and there was hardly any difference at all when people who died in their 70s were compared with those who died in their 90s: the extra 20 years of life was not bought at the cost of an extra 20 years in hospital.” [Is the ageing population a threat to health care: The good news: we are living longer, Professor Raymond Tallis, Manchester University, at the British Association for the Advancement of Science, September 2003]
This optimistic view is challenged by statistics that show a lengthening of life spent in poor health. Although total life expectancy and healthy life expectancy both increased between 1981 and 2001, life expectancy grew faster than healthy life expectancy. On average, men could expect to remain healthy until the age of 67 (and live to 75.7 years), and women to stay healthy until 68.8 years (and live to 80.4 years). [Health Expectancy: Living longer, more years in poor health, ONS 23 July 2004.]

MAKING THE BEST OF AN AGING POPULATION

Ageing is inevitable and healthy old age is to be welcomed. Most ‘older’ people want to contribute to society and many would like to work. Many are successful innovators and entrepreneurs. Healthy grandparents can also help to look after grandchildren, relieving stress on working parents. A sub-replacement birth rate and a gradually declining population would also be good green news for the UK. Critics of population decrease need to be asked what level of population they think the UK's stressed environment can sustain: 100 million? 200 million? And how it can be done, and whether that is what people want. They consistently do not: three out of four people say Britain is [already] overcrowded.

The conventional economic view has been that countries with ageing populations should attempt to maintain a high support ratio by ‘breeding for Europe’, for example, or importing large numbers of migrants of working age. Trying to counter population ageing in this way simply defers necessary population stabilisation or reduction, and, in environmental terms, a perpetually growing population poses much higher risks than an ageing population.

At the global level, the risks posed by further consumption growth, multiplied by current population numbers and by further population growth, include irreversible climate change. At the UK level, the difference in 2050 between a population of 52 million (decrease of about 0.3 per cent a year) and 71 million (continued growth at the current rate of 0.4 per cent a year) is the difference between having to build an extra 6.5 million homes, causing wholesale destruction of the countryside, or being able to contain housebuilding development within a decade and concentrate on improving the UK's existing housing stock. If substitutes for fossil fuels are found, a difference of 20 million in population would, at current rates of ownership, bring 10 million more vehicles on the roads - and total transport gridlock - making transport-related economic activity almost impossible. The mass development plans needed to accommodate the last decade of population growth are already apparent and deeply unpopular.

There are clear fallacies in the pro-population growth theory: that such an attempt would be unsuccessful has been shown, for example, in a demographic analysis Replacement Migration (Summary) by Professor David Coleman, Professor of Demography at Oxford University, and by United Nations and EU demographic studies. Even if immigrants (the main cause of population growth in the UK) do not consume more resources than they produce by their work, they too eventually grow older, cease work and, if they settle in the UK, require pensions and care. Perpetual net (excess) immigration, alongside natural population increase, leads to perpetual population growth without providing a long-term solution to the perceived support ratio problem. The effect is exacerbated by the rate at which that excess immigration leads to settlement and a consequent increase in the birth rate.

The UK could adapt to a potential support ratio of 2.5 people of working age to 1 person of pension age after 2040 by making better use of its employed workforce, its many unemployed and vulnerable workers - such as ex-offenders - and its many fit older citizens. The present support ratio could effectively be maintained if older people were allowed to continue working, with more frequent career breaks, or if more full-time jobs were converted into part-time jobs which older people were willing to do, or if more of those on incapacity benefit could work part-time. This is made difficult, however, by the ease with which employers can import full-time labour from overseas, relieving them of the need to recruit from the UK's existing hidden unemployed, and by the speed at which this imported labour fills up the supply of affordable housing in high-employment regions to which existing jobseekers might be expected to move. The support ratio could also be improved if more young people entered work earlier instead of studying for low-quality university degrees. Some 40 per cent of 20-year-olds are now in higher education.

A PENSIONS TIME BOMB IN THE UK?

On 12 October 2004 the independent Pensions Commission, chaired by former head of the Confederation of British Industry Adair Turner, issued its first report, identifying a £57 billion gap between the amount people in the UK were saving and the amount they need to save to secure a comfortable retirement. It confirmed clearly the choices here stated: for people to save more and/or to work longer. It also cited the a third possible ingredient for pensions policy - additional taxes on the workforce - and called for thorough reform and simplification of state, corporate and private pension systems.

Replacement migration: http://www.galtoninstitute.org.uk/Newletters/GINL0103/replacement_migration.htm
Solutions might include a raising of the state pension age and the payment of a higher amount at the revised qualifying age. The *Pensions Commission*, reporting in November 2005, confirmed the demographic fact that neither raising the birth rate nor continuous excess immigration and settlement is a solution to the problems posed by an ageing population. Babies and settling immigrants also grow old, and increasing the size of younger generations now, unless they are to be forced to leave the country before retirement age, would increase the size of older generations in the future. Population growth would make the long-term problem even worse.

This simple truth, suppressed partly by political correctness, is now widely recognized. Consensus opinion is that pension age should rise in line with life expectancy, with a more generous state pension available at a later age (the *Institute for Public Policy Research* has suggested raising the state pension age to 67), and that official retirement ages in both the public and private sector will need to be deferred. In 2009, however, employers were still allowed to force employees to retire at 65. Employees are granted a right to request (not a right to) a later retirement, which can be turned down if there are sound business reasons for doing so. This decision was due to be reviewed in 2009/2010.

The increase in longevity and life expectancy (expected longevity) over the last few decades should not have been difficult to predict – but many actuarial and pensions experts consistently failed to take account of it in determining pension contribution needs for state or corporate pension funds. The problem has been exacerbated by a prolonged fall (reversed in 2003) in the value of equity investments and declining interest rates. Pension values have also been reduced by the £5 billion a year removal of pension tax credits and incentives to save reduced by several aspects of pension taxation.

There is a growing gap between those with private pension provision and those who have to rely mainly on the basic state pension, which (at about £89 a week for a single person, compared with about £135 for a person on means-tested credit) has fallen in real terms and often has to be boosted by income support. The UK state old age pension is one of the lowest in Europe, and the UK government spends less than half the proportion (5 per cent) of its GDP on pensions than other EU governments. Those who will be hardest hit in the future by poverty in old age include divorced mothers who have not been able to accumulate private pension rights, today’s over-50s who are not able to work because of age discrimination, those with chronic ill health who are unable to work and/or need a high level of practical support, and those in failing occupational pension schemes: at mid-2004 the pension schemes of FTSE-100 companies were estimated to be running a collective deficit of nearly £60 billion.

What would the effects of a decline in population be?

A stabilising then gradually reducing population would increase the average age of the population and the ratio of ‘older dependants’ to the working population. Is this a problem?

Yes, to some extent. Fears of increased costs associated with higher numbers of people in the 75+ age group appear justified, given this group’s likely health and welfare needs. This could be be mitigated by improving health from ages 65-75, though there are wide differences in health across both age groups.

No, if people stay healthier for longer and are able to extend their working lives. No, if skill shortages are filled from older and other sectors of the existing population, such as ethnic minorities (whose unemployment rate is above average) and women. No, if the costs of supporting a larger older generation are offset by the reducing costs of supporting a smaller younger generation. No, if transfers of capital (financial support) from older to younger generations are improved by distribution to a smaller number of young descendants. Inter-generational financial, moral and practical support is natural within families, and is likely to continue. Young people care about the future, and so do their parents and grandparents, because they care about their children’s and grandchildren’s future. There should be no reason for inter-generational conflicts during such a demographic transition to a smaller, more sustainable population size. If each generation understands the problem, it can be solved by all.

Possible higher costs to the taxpayer associated with an increasing number of people over 65 need to be balanced against the possible savings from having fewer people up to the age of 18 to support, most of whom are in full-time education (see Table 3, England only, which does not allow for recent increases in the birth rate). Add these public and private costs together, and the cost of raising a child rises substantially. The savings generated as population decreases to a more sustainable level can clearly be seen.
### TABLE 3: NUMBERS IN STATE EDUCATION IN ENGLAND, FULL-TIME EQUIVALENT, MILLIONS
Secondary schools include academies and CTCs

<table>
<thead>
<tr>
<th>January of academic year</th>
<th>Maintained nursery &amp; primary schools</th>
<th>Maintained secondary schools (excluding sixth form colleges)</th>
<th>Total school places funded by taxpayer</th>
<th>Change over year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected 2007/8</td>
<td>3.98</td>
<td>3.19</td>
<td>7.17</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Projected 2006/7</td>
<td>4.00</td>
<td>3.25</td>
<td>7.24</td>
<td>-1.2%</td>
</tr>
<tr>
<td>Projected 2005/6</td>
<td>4.04</td>
<td>3.30</td>
<td>7.33</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Projected 2004/5</td>
<td>4.09</td>
<td>3.32</td>
<td>7.41</td>
<td>-0.8%</td>
</tr>
<tr>
<td>Actual 2003/4</td>
<td>4.14</td>
<td>3.34</td>
<td>7.48</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Actual 2002/3</td>
<td>4.19</td>
<td>3.32</td>
<td>7.51</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Actual 2001/2</td>
<td>4.24</td>
<td>3.28</td>
<td>7.52</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Actual 2000/1</td>
<td>4.28</td>
<td>3.25</td>
<td>7.52</td>
<td>+0.3%</td>
</tr>
<tr>
<td>Actual 1999/0</td>
<td>4.31</td>
<td>3.20</td>
<td>7.50</td>
<td>+0.5%</td>
</tr>
<tr>
<td>Actual 1995</td>
<td>4.19</td>
<td>2.99</td>
<td>7.18</td>
<td>+1.8%</td>
</tr>
<tr>
<td>Actual 1990</td>
<td>3.89</td>
<td>2.86</td>
<td>6.75</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Actual 1985</td>
<td>3.68</td>
<td>3.53</td>
<td>7.20</td>
<td>-2.0%</td>
</tr>
<tr>
<td>Actual 1980</td>
<td>4.32</td>
<td>3.87</td>
<td>8.18</td>
<td>-2.0%</td>
</tr>
<tr>
<td>Actual 1975</td>
<td>4.86</td>
<td>3.60</td>
<td>8.46</td>
<td>+0.7%</td>
</tr>
<tr>
<td>Actual 1970</td>
<td>4.65</td>
<td>2.86</td>
<td>7.51</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Maintained NPS schools by type, 1992/3 to 2003/4 (actual) and 2004/5 to 2007/8 (projected), DfES, October 2005. Figures based on School Census figures and birth rates and cohort ageing.*
Factors inhibiting labour flexibility and mobility could be tackled to avoid labour shortages as population gradually decreases to a more sustainable size. A report published by the Equal Opportunities Commission on 5 May 2004 suggested that skills shortages in traditionally male job sectors could be met by encouraging more women to join them permanently or switch from other jobs as demand changes. For example, International Labour Force surveys showed that there were only 16,000 women working in the UK construction industry, compared with 1,591,000, and less than 10,000 women plumbers in an occupation with 191,000 men. Childcare, on the other hand, attracted 297,000 women but fewer than 10,000 men.

As already stated, there is hidden unemployment among those on disability benefits who are actually able to work but do not - possibly through no fault of their own. As also already stated, there is a strong body of evidence that in the age band 50-69 there is unnecessarily widespread unemployment due to age discrimination. While all age groups are diverse in their willingness and fitness to work, both older and younger unemployed workers can be brought back into the workforce as population gradually decreases.

There is statistical evidence (ONS & IPPR figures) that the unemployment rate is higher among ethnic minority Britons than among the wider population. Better integration and job opportunities for existing ethnic minorities in the UK workforce would also alleviate labour shortages in the event of population decrease. There has also been a rapid increase in jobs in the public sector which are not useful productive jobs and place extra strain on the private sector, which has to subsidise them by bearing additional tax burdens. These unproductive jobs could be removed from the labour market.

**Unemployment and age discrimination law**

Anti-age discrimination laws in employment came into force in the UK on 1 October 2006, following new EU laws to prevent discrimination on grounds of age, whether against young or old people. The new amalgamated Commission for Equality and Human rights oversees all forms of discrimination, including ageism. Employers are no longer able to dismiss employees on grounds of age, and Recruiters are barred from specifying age, except in special circumstances, as qualification for a job. The government has estimated that age discrimination costs the country about £16 billion a year, and given that life expectancy for both men and women continues to increase, allowing older people more opportunities to work would both ease the pensions crisis and reduce UK population growth due to curbing both calls for parents to have more children and demands for surplus net immigration. The employment of older people, if carried out sensibly, need neither offend the dignity of the older worker, nor block the energetic career potential of younger workers.

**Links:** More information – including lists of surveys on the commercial benefits of employing older people – is available from organizations such as Age UK (http://www.ageconcern.org.uk) and the Third Age Employment Network (http://www.taen.org.uk).

**OPT POPULATION POLICY**

OPT campaigns for policies to achieve environmentally sustainable population levels both globally and in the UK. The ecological issue is one of population numbers, resource demands and the environmental impacts created by different sizes of population at given levels of affluence and technology. For more details see the Fertility, Population policy projections, Briefings and submissions and other sections of this website. OPT recommends the following population policies:

- Globally, that full access to family planning should be provided to all those who do not have it, that couples should be encouraged voluntarily to "Stop at Two" children to lessen the impact of family size on the environment, and that this should be part of a holistic approach involving better education and equal rights for women.

- In the UK, that population should be allowed to stabilise and decrease gradually to an environmentally sustainable level, by bringing immigration into numerical balance with emigration, by making greater efforts to reduce teenage pregnancies, and by encouraging couples voluntarily to "Stop at Two" children.

The original version of this paper was published in 2003. Various items were updated by the author until 2010. Copyright Rosamund McDougall, 2010