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**EXPERT GROUP MEETING ON POLICY RESPONSES TO  
POPULATION AGEING AND POPULATION DECLINE**

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**POLICY RESPONSES TO POPULATION AGEING AND  
POPULATION DECLINE – UNITED KINGDOM \***

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\*\* Office for National Statistics, London, United Kingdom. The views expressed in the paper are those of the author and do not imply the expression of any opinion on the part of the United Nations Secretariat.

## A. INTRODUCTION

This paper sets out the demographic prospects for the UK during the next half-century and the possible consequences of the resulting ageing of the population and reduction in the working population. It then aims to summarise the impact that these projections have had on Government policy in the UK.

The paper has been prepared within the Office for National Statistics in the UK. It therefore draws only on official statistics and reports when describing the demographic situation. In the sections on policy only those policy statements in the public domain have been accessed.

## B. POPULATION PROJECTIONS

### *1. Base population*

The most recent population projections for the UK were published in March 2000 (Shaw, 2000). They are based on the mid-1998 population estimates produced by the Office for National Statistics (ONS, 1999a), the General Register Office for Scotland (GRO for Scotland, 1999) and the Northern Ireland Statistics and Research Agency (RG for Northern Ireland, 1999). The projections are produced by the Government Actuary's Department in consultation with the Registrars General of the constituent countries of the UK. The estimated population in mid-1998 was 59.2 million.

### *2. Underlying assumptions for projections*

#### *a. Fertility*

The fertility assumption used is a cohort measure giving the average number of children that women born in particular years will have. This average completed family size has been falling from a peak of 2.5 children for women born in the mid-1930s. It fell to replacement level for women born around 1950 and is assumed to continue to decline until the 1975 birth cohort and eventually level off at 1.80 children per woman. This level is similar to the total (period) fertility rate observed in the UK since the mid-1970s.

#### *b. Mortality*

Mortality rates are based on trends in rates in recent years. These rates have been reducing year on year for every age group except young adults. It has been assumed that the annual reduction in mortality rates will tend towards a reduction of about 0.5 per cent a year at all ages by 2032-33.

Life expectancy at birth is assumed to rise from 74.9 years in 1998-99 to 78.5 years in 2020-21 for males, and from 79.7 years to 82.7 years for females. Life expectancy is assumed to continue to increase in the longer term, although the rate of improvement is assumed to diminish. On this basis life expectancy at birth for males and females in 2051 will be around 80 and 84 years, respectively.

#### *c. Migration*

Net international migration fluctuates considerably from year to year in the UK. However, the underlying trend has been upward, with annual net migration in the four years leading to mid-1998 averaging over 100,000 persons per year. The estimate for 1998 as a whole is 178,000 (ONS, 1999b) the highest figure on record. These figures have been used for the short-term projections but for 2001-02 onwards an assumption of 95,000 has been used. Analysis of surveys and other sources suggests a levelling off of the

recent increase in inward migration. Nevertheless, this value is considerably higher than the previous assumption of 65,000 incorporated in the mid-1996 projections, and more than double the latest UN medium variant assumption.

The trends informing these assumptions and the assumed levels themselves are shown in Figure 1.

### *3. Total population projections*

The population of the United Kingdom is projected to increase gradually from 59.2 million in 1998 to reach 63.6 million by 2021. This is equivalent to an average annual rate of growth of 0.3 per cent. Just over half the projected 4.4 million increase between 1998 and 2021 is attributable to net inward migration. The remainder is due to projected natural increase (more births than deaths). Longer-term projections suggest the population will peak at nearly 65 million in the year 2036. The population would then gradually start to fall, declining to around 64 million by the middle of the next century.

## C. DEMOGRAPHIC CONSEQUENCES OF UK POPULATION PROJECTIONS

### *1. Age distribution*

Table 1 summarises the projected structure of the population. It will become gradually older with the median age of the population rising from 38 years in 2001 to 44 in 2041 when it is expected to stabilise.

The number of children aged under 16 is projected to fall by 6.5 per cent by 2011 and remain around 11.3 million for a further 20 years. They will represent just 17 per cent of the total population.

The effect of the ageing of the population can also be seen by the increasing proportion of people aged 60 or more. In 2001 this group represents 20% of the total. By 2031 it will be 30 per cent of the total, levelling at 31 per cent by 2051. The proportion in the oldest, 75+ age group is projected to double from 7 per cent to 14 per cent over the 50 year period.

The working age population will also become much older on average. Little change is projected in the number of adults aged below 30. However, as the baby boom generations of the mid 1960s age, the size of older age groups will change markedly. The 30 to 44 age group is projected to fall from 13.3 million in 1998 to 12.1 million in 2021, but the 45 to 59 age group is projected to increase by nearly one quarter over the same period, from 10.8 million in 1998 to 13.3 million in 2021.

### *2. Dependency ratios*

Currently in Great Britain only around 55 per cent of men and 30 per cent of women in the 60-64 year old age group are economically active (Armitage and Scott, 1998). Current eligibility for state pensions is at age 60 for women and 65 for men. Between 2010 and 2020, state retirement age will gradually be equalised at age 65 for both men and women. This makes calculation and interpretation of dependency rates based on state pension ages more complex than usual.

Table 2 shows that the overall dependency ratio will continue its current downward trend to 586 dependants per 1,000 persons of working age in 2021 when the increase in women's retirement age is complete. It will then rise rapidly, with the longer-term projections suggesting a levelling off around 700 per 1,000 from the mid-2030s. This is a similar level to that in the UK in the 1970s when children, rather than the elderly, comprised the majority of dependants.

### *3. Labour force projections*

Because not all those persons of working age are economically active, short-term projections of the size and composition of the labour force are an important addition to our information about future populations. The latest published projections for Great Britain are for the years 1998-2011 (Armitage and Scott, 1998).

As can be seen from Table 3 the labour force is expected to increase slowly during the first decade of the century. Fifty-five per cent of the increase is attributable to demographic projections. Activity rates for men in all age groups except the youngest have been decreasing over the last 20 years. This trend is projected to continue. In contrast the rates for women are increasing and projected to continue. The result, as can be seen in the table, is very little change in economic activity rates overall.

### *4. Trends in health*

A recent analysis of trends in health indicators for people aged 55-64 (Dunnell and Dix, 2000) raised many questions about whether health in this age group was improving in the way that mortality rate reduction suggests. There were signs of increasing or unchanging health problems in relation to some cancers, obesity, common chronic illnesses, self reported health and blood pressure levels. Improvements were found in smoking levels, lung cancer and dental health. Healthy life expectancy may be increasing, but not by as much as life expectancy. This conclusion was confirmed by a cohort analysis of some of the same health survey data (Evandrou and Falkingham, 2000) "In short, the evidence on the health of future elders is somewhat mixed. Thus, it is premature to assume that tomorrow's elderly will be healthier than today's."

### *5. Household projections*

There are several significant trends in family formation and dissolution patterns in the UK which affect projections of households. Projections for England are prepared by the government department responsible for housing (King et al, 2000). In the UK people are marrying later and divorcing more. These patterns are also reflected in the increasing common informal unions - co-habitation. Thus, significant increases in single person households are expected among both younger and older groups in the population. Whereas the total population of England is expected to increase by 7 per cent the number of households is expected to rise by 14 per cent, from 21 million to 24 million by 2021.

## **D. GOVERNMENT RESPONSES TO THE AGEING OF THE POPULATION**

The UK government has been aware of the ageing of the population for many years. The increasing importance of older people for the economy and government services has led to several initiatives designed to improve awareness and thus services for older people. For example, the UK government has a ministerial group on ageing, has published the findings of a Royal Commission on Long Term Care and has a central group working on "Active Ageing" which has produced several reports. But foremost in the look into the future, the identification of policy options for the public, private, voluntary sector and individuals is the Government's Foresight Programme.

### *1. Foresight Programme*

The Foresight Programme was launched in 1993. It is driven by the goals of increasing wealth creation and improving quality of life. The programme brings together business, government, the science-base and others to identify the threats and opportunities that we are likely to face over the next ten or twenty years.

It has a panel based structure and operates on a five-year cycle. The new round began in 1999. Each panel is carrying out a wide consultation looking at the future for a particular area. One of the three high level thematic panels is the Ageing Population Panel. Its consultation document (Department of Trade and Industry, 2000) was launched in May 2000. A report on the results is planned for November 2000.

The consultation document sets out the demographic situation and then explores issues, opportunities and challenges in five priority areas: labour, leisure and learning; finance; healthcare, design for living; Information and Communications Technology (ICT).

This paper now draws together the kinds of policy options that the Foresight panel has identified for consultation.

*a. Labour, leisure and learning*

- age should become irrelevant in the Labour market, value should be based on skills and competencies
- removal of set retirement ages
- reducing numbers of older employees will cease to be an option
- employers will need to develop schemes to retain older workers and maintain their skills
- respond to increased demand for learning and new methods e.g. IT-based
- learning will be required for labour and leisure purposes.

*b. Finance*

- government to have a key role in highlighting need for higher savings to pay for extended retirement with less state provision
- public/private partnership to ensure support for all
- greater use of capital tied up in housing would require a regulatory framework
- government to introduce “staged pensions” whereby the state pension would rise at higher ages to compensate for the lengthening of retirement.

*c. Healthcare*

- need to cope with growing demand for healthcare and new treatments
- need to cope with increasing social polarisation and diversity among future cohorts of older people.
- increased demand for public carers and social changes are likely to limit informal caring
- implications for training of health professionals
- increased expectation that older people will take charge of their health.

*d. Design for living*

- impact on regulations etc for local planning, housing and transport.

*e. ICT*

- need to avoid emergence of electronic disenfranchisement. This is important for government as it seeks to use electronic means to deliver services and information to citizens.

This Foresight Programme consultation document identifies the wide variety of directions that policy could take in future years. Much but not all of UK government policy works within a 3-year planning and finance cycle which tends to constrain longer-term policy making. There is also a strong and increasing

devolution of policy making and service provision away from central government. The paper now goes on to look at some of the policy responses to the ageing population so far.

## 2. *Employment and training*

Key aspects of the Government's Labour Market policies include promoting job creation and helping people to overcome the barriers preventing them moving from welfare into work. The policy emphasis is partly driven by the high levels of unemployment experienced in the 1980s and early 1990s and heavy dependency of young families on state benefits. However, the rapidly changing world economy has made education and training among the Government's top priorities to ensure that the UK workforce has the necessary skills to meet the challenges. There are now many national and local organisations supported by government which aim to increase skills and competencies at all levels.

The UK is also an important supporter of the European Union "Employability Initiative". This stresses skills and adaptability as essential in the developing economy. Equal opportunity is also a strong element of this initiative. Moves towards more flexible working arrangements not only improve equality but attract more and more women, and possibly in future – older workers, into the labour force.

The equality imperative was the driver behind the UK's recent planned increase in state retirement age for women. The current ages of 65 for men and 60 for women were unacceptable. It was the foreseen demographic trends that led to the common age of retirement at 65 rather than 60. This transition will take place between 2010 and 2020. There are no current moves to increase this age, indeed the current trend in the UK is towards earlier retirement.

The Government is aware of the potential problems of this trend continuing. It has commissioned a report and accepted the recommendations made (Cabinet Office, 2000) These fall under the four headings:

- changing the culture to raise expectations of older people and stop making judgements based on their age range than their true value and potential
- enabling and encouraging over-50s to stay in work.
- helping and encouraging displaced workers to re-enter work.
- helping older people to make use of their skills and experience for the benefit of the wider community.

These initiatives build on the ideas set out in the Foresight programme and will be driven forward by the central Active Ageing team.

Some public bodies are already responding to current and predicted future shortages of skilled staff. For example in 1999 the Department of Health issued a consultation booklet (Department of Health, 1999a) on "Improving working lives in the National Health Service (NHS). It noted that "women make up the majority of the NHS workforce. More flexible and part-time training and working patterns are essential if we want to maximise their contribution throughout their careers." One aspect of flexibility is retirement and a circular on flexible retirement was issued to the NHS in July 2000 (Department of Health, 2000). It announced the availability of guidance booklets and summarised its proposals –

- An increasing number of NHS staff are over 50. Extending the contribution of staff pre- and post-retirement is an essential part of a Trust strategy to expand the workforce and tackle vacancies. The guidance booklets enclosed with this circular give information to employers and staff on the benefits of offering flexible working patterns to those nearing retirement, or who have recently retired. It also includes information about the pension implications.

- Additional funding is available to Trusts encouraging staff who are planning to retire shortly, to defer their retirement until Spring 2001.
- A letter will shortly be sent to recently retired nurses under the age of 65 drawing their attention to this initiative and ways they can come back to work in the NHS, especially over the winter months.

This policy initiative on the part of the NHS is very important in the UK. The NHS is one of the largest employers in the world, the largest in the UK, with a workforce of nearly 1 million people

### 3. *Health and care*

Older people are the heaviest users of health and care services, with utilisation increasing with age. The ageing of the population has always therefore to be taken into account in government resource allocation, because most health services in the UK are publicly funded. Real increases of 6.3 per cent annually have recently been announced with an acknowledgement that older people will be among the principle beneficiaries. The large number of health and care initiatives relevant to the older population focus on improving the quality and coherence of services in the next few years.

However, there has been a major policy development on the public health front. This strategy was set out for England in 1999 (Department of Health, 1999b) with similar strategies for the other UK countries. The two main aims are:

- to improve the health of the population by increasing the length of people's lives and the numbers of years people spend free from illness.
- to improve the health of the least well-off people in society.

The strategy recommends actions to combat the four major causes of premature death and avoidable ill-health: cancer, coronary heart disease and stroke, accidental injury and mental illness. Whilst many of the policy recommendations address the underlying causes of ill-health and inequality, most of the targets for 2010 are expressed in terms of reducing mortality.

### 4. *Pensions*

Over the next fifty years the number of people over state pension age in the UK is forecast to increase by 44 per cent. The new UK framework for pensions (Department of Social Security, 1998) has been developed within a long-term view and also reflecting the growing role of private pension provision. However, the government does recognise the significant problems of pensioners who are entirely dependent on state pensions and benefits. Since 1981 the gap between the richest and poorest pensioners has grown. Women tend to fare worse than men. This is because of their different working patterns resulting in a lower likelihood of an occupational pension and greater life expectancy. It is estimated that if current policies are not changed, by 2025 one in three of the retired could have to rely on income related state benefits in their retirement. Strategies to improve this situation which are being embodied in new legislation include:

- the basic state pension remaining the key building block of the system and continuing to be increased at least in line with price indexes.
- a new second-tier state pension for employees which is more generous for low earners.

- a new framework for flexible, secure, value-for-money pension schemes
- improved pensions education and the provision of an annual pension statement to every adult.
- a means tested guaranteed minimum income

These improvements are expected to lead to changes which will allow the government to meet the demographic challenge whilst delivering a decent income in retirement for everyone and maintaining public expenditure at prudent levels. State spending is expected to increase but income from private pensions will increase even more. Currently about 60 per cent of pension income is accounted for by the state and 40 per cent by the private sector. With the reforms the state's share is expected to fall to around 40 per cent by 2050. On current projections state spending on pensions is not expected to increase as a proportion of GDP.

### 5. *Immigration*

As can be seen from the section on population projections, net migration is the most difficult area on which to make assumptions. In the UK immigration is greater than emigration, with the projected net migration at 95 thousand per year. There is a large body of legislation determining the right to reside in the UK and controls have generally tightened over the last 30 years, easing somewhat since 1997. At the same time there has been increased freedom to live and work in the UK for members of the European Economic Area. The UK also has a tradition of receiving asylum seekers; these have increased in number in the last few years, although less than one in five are granted asylum.

One of the suggestions in the UN work is that immigration could partly help the problem of a declining workforce and increasing dependency ratio. The UK government is currently re-thinking its policy in this area, the demographic situation being one of the drivers. There is recognition that some of the country's skill gaps could, to some extent, be filled with workers from abroad. This was the case after the second World War when large numbers of people moved to Britain from Commonwealth countries to fill gaps in particular industries. This was mainly in response to recruitment campaigns by various large employers rather than a central government initiative.

The National Health Service is a major public sector employer. It has always depended to a significant extent on workers from abroad. Again, it is recognising the value of recruiting from abroad and has issued guidance to NHS organisations (Department of Health, 1999c). This focuses on nurses and midwives where needs are most acute but is also applicable across the range of non-medical professions.

### 6. *Population Policy*

The UK policy on population was presented to the UN Conference on Population in Mexico in 1984 and Population and Development in Cairo in 1994. The following statement was presented and remains the official UK policy (Office for National Statistics, 1993).

“The United Kingdom 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, or the age-structure, that would be desirable for the United Kingdom. Its primary concern is for the well-being of the population, although it continually monitors demographic trends and developments. The current level of births has not been the cause of general anxiety. The prevailing view is that decisions about fertility and childbearing are for people themselves to make, but that it is proper for government to provide individuals with the information and the means necessary to make their



decisions effective. To this end, the government provides assistance with family planning as part of the National Health Service. The 'ageing' of the population does raise social and economic issues. However, it is believed that these will prove manageable; and also, to a degree, that society will adapt.

The Government takes population matters into account in formulating economic and social policy. Many aspects of economic and social policy will, of course, influence population change."

As we have seen from this brief summary of UK policy responses to long-term demographic change, few policy areas are significantly driven by the long-term prospects. This reflects the policy of the changes being manageable and society adaptable. The central Active Ageing initiative and the Foresight Programme aim to encourage a longer perspective, particularly in the areas of science, technology and employment.

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TABLE 1: PROJECTED POPULATION, AGE DISTRIBUTION, UNITED KINGDOM, 2001-2051

	2001	2011	2021	2031	2041	2051
0-15	20	18	18	17	17	17
16-29	18	18	17	16	16	16
30-44	23	20	19	19	18	18
45-59	19	21	21	18	19	18
60-74	13	15	17	19	17	17
75+	7	8	9	11	13	14
Median age	38	41	42	43	44	44
Number in 000s	59,954	61,773	63,642	64,768	64,781	64,089

*Source: (Shaw, 2000)*

TABLE 2: DEPENDENCY RATES, UNITED KINGDOM, 2001-2051

	2001	2011	2021	2031	2041	2051
Dependents per 1,000 persons of working age under 16	325	294	282	291	288	287
pensioners*	291	309	304	381	417	412
Total*	616	603	586	672	705	700

\*Working age and pensionable age populations based on state retirement age for given year. Between 2010 and 2020, state retirement age will change from 65 years for men and 60 years for women, to 65 years for both sexes

*\*Source: (Shaw, 2000)*

TABLE 3: SIZE OF THE LABOUR FORCE, GREAT BRITAIN, 2001 AND 2011 (thousands)

	2001	2011
16-24 men	15,686	15,752
16-59 women	12,346	12,852
all	28,031	28,604
all including those over retirement age	28,963	29,768
Activity rates*		
men	84.4	81.7
women	73.1	75.4
all	79.0	78.8

\* as a percentage of men aged 16-64 and women aged 16-59

*\*Source: (Armitage and Scott, 1998)*

# Box one

## SUB-NATIONAL PROJECTIONS

1998-based sub-national population projections for Scotland, consistent with the new national projections described in this article, were recently published by the General Register Office for Scotland.<sup>6</sup> The most recent sub-national projections for England are 1996-based.<sup>7</sup> Information on sub-national projections for Wales and Northern Ireland is available from the National Assembly for Wales Statistical Directorate (contact: Brett Davis tel. 02920 825058; e-mail: brett.davis@wales.gsi.gov.uk) and the Northern Ireland Statistics and Research Agency (McAuley House, 2-14 Castle Street, Belfast BT1 1SA).

**Table 1** Population change 1996-98: actual change compared with 1996-based projected change, United Kingdom *thousands*

	Mid-year estimates	1996-based projections	Difference	
			000s	%
Population at mid-1996*	58,807	58,801	6	0.0%
Components of change (1996-98)				
Births	1,458	1,464	-7	-0.4%
Deaths	1,256	1,270	-14	-1.1%
Natural change	202	194	8	-
Migration and other changes	228	175	53	-
Total change	429	369	60	-
Population at mid-1998	59,237	59,171	66	0.1%
England	49,495	49,440	54	0.1%
Wales	2,933	2,934	-1	-0.0%
Scotland	5,120	5,118	2	0.0%
Northern Ireland	1,689	1,678	10	0.6%

\*The estimated population of Northern Ireland, and hence the United Kingdom, at mid-1996 has been revised upwards by 6 thousand since the 1996-based projections were produced (see text).

## UNDERLYING ASSUMPTIONS

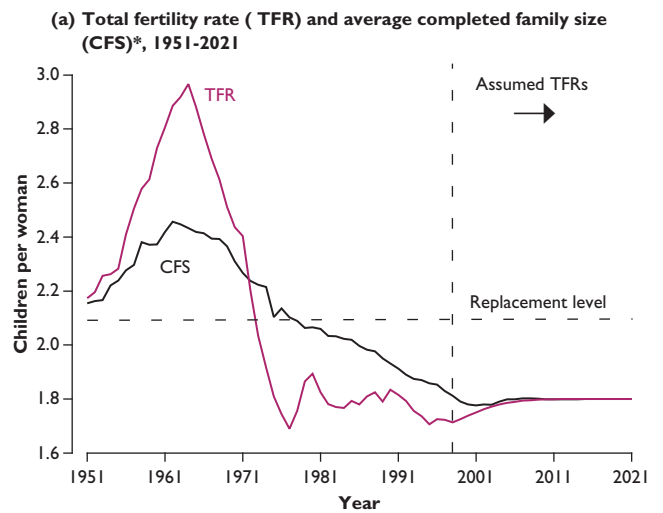
The assumptions used in the 1998-based national population projections are shown, for the United Kingdom as a whole, in Figure 1, while those for individual countries are summarised in Table 2.

### Fertility

Fertility assumptions are formulated in terms of the average number of children that women born in particular years will have. This *cohort* measure of fertility is more stable than the analogous calendar year or *period* measure (the total fertility rate), as it is affected only by changes in the total number of children women have and not by the timing of births within their lives. Period rates, in contrast, may rise or fall if births are brought forward or delayed for any reason. The assumed average completed family sizes and resultant total fertility rates (TFRs) are both shown in Figure 1, while the TFRs for individual countries are summarised in Table 2.

The assumptions about completed family size are based on family building patterns to date, information from the General Household Survey about the number of children women expect to have and other

**Figure 1** Assumptions for 1998-based national population projections, United Kingdom



\* CFS relates to cohort born 28 years earlier - 28 years being roughly the mean age at childbearing. Assumed CFS is given for cohorts who have not yet completed childbearing.

