

Appendix I: Population and household statistics

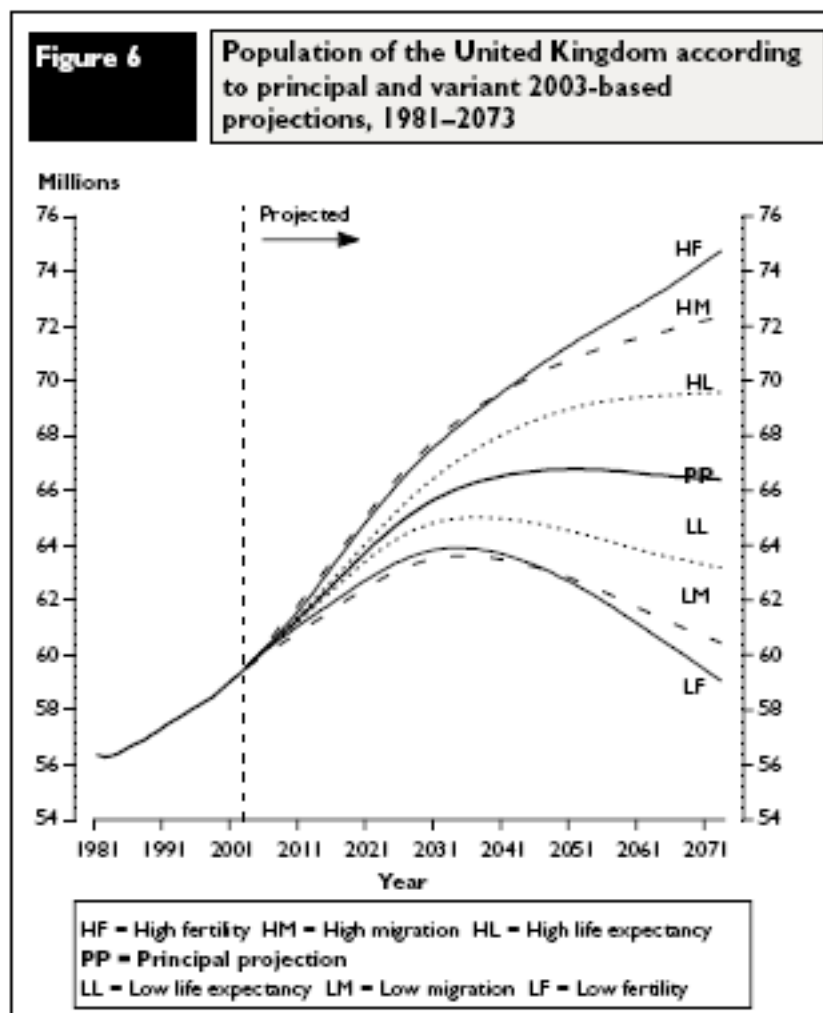
I.1. Background

This appendix provides the detail behind assumptions about changes in the housing stock to 2050, as used in the modelling work for this study.

I.2. Population

Population projections are based on census figures, extrapolated to the present and then projected into the future on the basis of three factors: fertility, life expectancy and net migration.

The population figures used in all scenarios and summarised in Table 1 are those produced by the Government Actuary's Department (GAD). The GAD only gives figures as far as 2031; beyond that, information is only available in graphical form, showing that the UK population is projected to peak at around 2050 at around 66.8m, before falling very gradually. The figure below shows a range from approx 62.5m to 71.5m by 2050, depending on whether low or high projections for fertility, net migration and life expectancy are used.



Source: Shaw 2004

http://www.statistics.gov.uk/downloads/theme_population/PT118_V1.pdf

Table 1 UK population projections used in Scenarios A, B & C, 2003-2051 (thousands),

Year end	2003	2011	2021	2031	2051
England	49,856	51,595	53,954	55,885	
Wales	2,938	3,020	3,106	3,153	
Scotland	5,057	5,034	4,963	4,825	
Northern Ireland	1,703	1,753	1,811	1,840	
United Kingdom	59,554	61,401	63,835	65,700	66,800

Source: Shaw 2004

Projections are subject to continual revision as new information arrives. For example, the population projection for 2021 and the size of the projected peak UK population have risen over the last decade (Table 2). The year of the projected peak population has also been moved back, from 2027 to 2051.

Table 2 UK population projections between 1994 and 2004

Source	Forecast for 2021	Peak population	Year of peak
<i>Social Trends</i> 1994	62.0	62.2	2027
<i>Social Trends</i> 1995	62.1	-	-
<i>Social Trends</i> 1996	62.1	62.3	2027
<i>Social Trends</i> 1997	61.1	61.2	2023
<i>Social Trends</i> 1998	62.2	-	-
<i>Social Trends</i> 2000	63.6m	64.9m	2036
<i>Social Trends</i> 2001	63.6	Nearly 65m	2036
<i>Social Trends</i> 2002	64.1	Nearly 66m	2040
<i>Social Trends</i> 2003 ^a	62.4	Nearly 64m	2040
Population Trends ^b , spring 04	63.2	65.5m	2040-50
National Statistics (NS) 2004	63.8	66.8m	2051

Sources: *Social Trends* and *Population Trends* (Office for National Statistics)

a – The figures were revised downwards in 2003 because emigration had previously been underestimated

b – The most recent projections reflect upward adjustments to the estimated *starting* population and removal of a downward adjustment for 'unattributable population change'.

1.2.1. Net migration

Of the three determining factors of fertility, net migration and life expectancy, net migration is the most difficult factor to predict but is likely to have the most impact. 84% of the projected population increase between 2003 and 2031 is attributable to migration, whether directly (59%) or indirectly, when migrants go on to have children (25%) (Shaw 2004).

A net migration gain of 130,000 each year between 2004 and 2031 has been assumed by the Office of National Statistics (NS 2004a). This is considerably lower than the estimate for 2004 of 222,600 and estimates for the previous five years of between 151,000 and 172,000 per year (NS 2006; NS 2004b).

1.2.2. Fertility

Post-war fertility peaked in 1964 with a total fertility rate of 2.95 children per woman, falling to 1.71 in 2003. While actual births each year will continue to fluctuate, the

overall trend since the baby boom has been downward (NS 2004c). The birth rate is unlikely to rise significantly in the foreseeable future and it is assumed that the number of children born to women born after 1985 will level off at 1.74, close to the current level (NS 2004d).

1.2.3. An ageing population

Life expectancy is assumed to rise from 76 (males) and 81 (females) in 2003 to 81 and 85 in 2031 and to 83 and 86 in 2053. Partly as a consequence, and partly because of changes in fertility, the age structure changes so that the median age rises from 38 in 2003 to 43 in 2031 and 44 in 2051. The latest projections for the UK show that the total population aged 65 years and over will increase from 10.9m in 2002 to 12.7m by 2021 and 15m by 2031, peaking at over 17m in the 2060s (Shaw 2004). Even more significantly, the proportion of very elderly people in the population is projected to grow as shown in Table 1.

Table 3 UK population over 65 and over 85

Age		1971	2003	2031
65+	thousands	7,408	9,510	15,270
	%	13.2	16.0	23.2
85+	thousands	485	1,104	2,479
	%	0.9	1.9	3.8

Source: Shaw 2004

http://www.statistics.gov.uk/downloads/theme_population/PT118_V1.pdf

The population of elderly people is becoming more diverse, in terms of age, health, kin availability, income and working patterns (Marmot *et al* 2004). More will have been through divorce and remarriage and will therefore tend to have more complex families. This may mean that they want more living space for visitors. It may or may not mean that their families will be willing and able to help them to remain in their homes when their health worsens. There is a need for better data on kin networks and care uptake (Tomassini 2004).

At local level, changes in population structure may be very significant in terms of housing occupation and the need for care services. Census data show that central London, Glasgow, Birmingham, Manchester and Bristol saw a marked drop in the proportion of the population over retirement age between 1991 and 2001 (10%+), while much of the rural UK experienced a rise of 10%+ (Tomassini 2004).

1.2.4. Some potential impacts of an ageing population on housing and technology development

1. We are facing an increase in the proportion of the population who are in poor health and potentially vulnerable. Homes will be needed that allow for as much self-sufficiency as possible in old age. In March 2004, the ODPM committed itself to reviewing Part M of the Building Regulations (access and facilities for disabled people) in order to incorporate Lifetime Home Standards, so that homes can easily be adapted to different stages of life and to chronic illness or disability.
2. An ageing population has implications for the distribution of wealth and housing. By 2021, the proportion of the population over 45 in age is projected to be 46%, compared with 38% in 1998. Approximately two thirds of the heads of household in England with second homes are over 45 years of age: an ageing population could mean a continuation of the growth in second home ownership, some of which will be in urban areas (Direct Line 2005).
3. There is a danger that equity release on large family homes will continue to be an attractive option to the elderly, rather than trading down to smaller properties.

This is bad news in terms of direct energy use and opportunity cost: the family homes are not available for families, increasing the pressure for new build. Patrick Collinson (Guardian, 28.1.06) warned of the danger that ‘we will build a colossal, expensive and unnecessary equity release industry to allow people to remain in their homes way past any rational reason for doing so. At the same time, we will force first-time buyers into ever tinier starter homes, and ask the same hard-pressed young families to subsidise the council tax of elderly single pensioners in big, under-used properties.

4. The need to make technology accessible and manageable becomes even more pressing as the people for whom it is designed grow older. The design of appliances and controls still needs to be improved so that they are as easily understood as possible and so that users with poor sight or mobility can operate any switches and dials.

I.3. Households

I.4. Household population

The figures for private households exclude those people living in communal establishments (with more than five guest rooms). Communal establishments house approximately 1.5% of the population, but are not considered in the modelling work undertaken for this study. The focus is on the private household figures used by the Office of the Deputy Prime Minister. [Note: where figures are only available for England or Great Britain, they have been extrapolated to give a figure for the UK. As England contains approximately 85% of the UK population, errors from this extrapolation are likely to be slight.]

The proportion of single-person households has increased steadily over the past 30 years and may now be levelling off. Table 4 shows the figures for Great Britain.

Table 4 Percentage of total households by size in Great Britain

	1971	1981	1991	2001	2003
One person	18	22	27	29	29
Two people	32	32	34	35	35
Three people	19	17	16	15	15
Four people	17	18	16	14	14
Five people*	8	7	5	5	5
Six or more people	6	4	2	2	2
Average household size (no. of people)	2.9	2.7	2.5	2.4	2.4

Source: NS 2004a, Table 2.1

*In 2000/01, Northern Ireland still had 14% of households containing 5+ people. However, trends towards smaller households are similar to those in GB. Northern Ireland had the highest household size in the UK, at 2.6 in 2001-02, with Scotland and the NW, EM, SE and SW of England lowest at 2.3 (NISRA, 2003; Scottish Executive, 2004).

However, Scenario A makes the cautious assumption that the increase in one-person households will continue for a while, with average household size falling until it levels out at 2.1 persons per household in 2020.

The figure used in all three scenarios for the number of households in the UK in 2050 is the same, at 31.8m (corresponding to a household size of 2.1). However, the trajectories between 1996 and 2050 vary slightly between the scenarios, being associated with differing rates of demolition and new build, as shown in Figure 1.

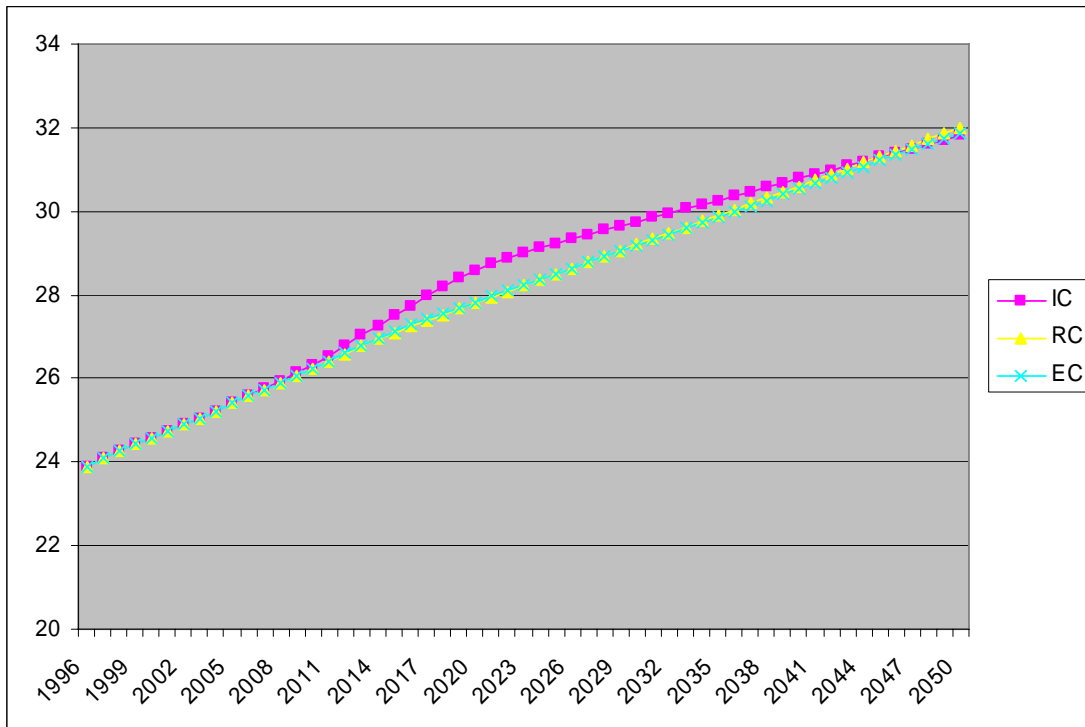


Figure 1 Number of households (million), 1996-2050, under Scenarios A, B & C

I.5. Size of dwelling compared with household size

There has been a mismatch between household sizes and the number of bedrooms in new-build homes (Tables 4 and 5). For example, 21% of households in Great Britain in 2003 had four or more regular inhabitants but 34% of new properties had four or more bedrooms; 64% of households consisted of one or two people but only 35% of new homes contained one or two bedrooms. Even allowing for guest bedrooms, this still means that there is considerable spare capacity in many homes. Only 2.5% of households are classified as overcrowded, while 36% are under-occupied (ODPM press release, 15.12.2005).

As Table 5 shows, there has been a dramatic increase over the past 30 years in the proportion of new homes with 4 or more bedrooms, in spite of the rise in one-person households. The 2001 English House Condition Survey reported that, although they still constituted only approximately 3% of the housing stock, there had been a 17% rise in the number of homes in England with five or more bedrooms since 1996 (ODPM 2003).

Table 5 Percentage of housebuilding completions by number of bedrooms, Great Britain

	1971	1981	1991/92	2002/03	2004/05
1 bedroom	15	23	19	6	10
2 bedrooms	23	25	32	29	38
3 bedrooms	54	38	29	30	29
4+ bedrooms	7	14	20	34	23

Source: ODPM 2005

However, the latest figures show that the tide may be turning, with the most likely explanation being the acute shortage of affordable housing for first-time buyers.

There is also an increase in housing density in recently-built homes. During the last two years, the proportion of newly-built one-and two-bedroom dwellings has risen from 35% to 48% (ODPM 2005). The ODPM report that the proportion of flats in newbuild properties rose from 20% in 2000/01 to 41% in 2004/05 (ODPM press release, 15.12.2005).

I.6. Regional variations

Projected rates of change of household numbers in the English regions differ by a factor of 2.4 between the SE and NE, reflecting trends in job availability in the absence of new regional policy (Table 6). Note that the projected number of single-person households rises more than twice as fast as the overall number of households.

Table 6 Regional trends in household numbers

Region	1-person households 2021	Percentage change 2001-2021	All households 2021	Percentage change 2001-2021
North East	443	33	1,167	8.8
North West	1,119	30	3,110	10.2
Yorkshire and Humber	840	35	2,372	13.8
East Midlands	672	40	2,033	17.2
West Midlands	821	33	2,398	11.1
East	914	43	2,701	19.6
London	1,429	32	3,645	15.0
South East	1,402	45	4,060	21.3
South West	869	41	2,515	19.9
Total for England	8,509	37	24,000	15.7

Source: Table 404, ODPM 2003b

I.7. Vacant dwellings

At any one time, approximately 3% of private dwellings are vacant (Table 7 gives figures for England). In 2004, approximately 300,000 homes in England had been vacant for six months or more (ODPM press release, 19.5.04) – roughly 1.5% of the housing stock. This was approximately three times as many as the (rising) number of homeless households being accommodated temporarily by local authorities (ODPM 2004a). Homelessness is more an issue of location and affordability than of the overall availability of dwellings.

Table 7 Occupied and vacant dwellings by tenure, England, 2001

	Dwellings (000)	Percent
Owner occupied	14,446	68.3
Private rented	2,002	9.5
Local Authority	2,682	12.7
Registered Social Landlord	1,327	6.3
Vacant	684*	3.2
All	21,140	100

*of which approximately half had been vacant for longer than six months

Source: ODPM (2003)

The Housing Act of 2004 allows councils to apply to make Empty Homes Management Orders on long-term empty properties. The owner retains legal ownership and will be entitled to rental income generated by letting the property, after

deduction of relevant costs such as renovation (UK Government 2004). This provides an opportunity to reduce homelessness and improve energy efficiency, in a housing stock where between a quarter and a third of homes are estimated to be 'non-decent' – that is, they are not wind and weather-tight, warm and with modern facilities (ODPM 2004b).

I.8. LATs (Living Apart Together)

The term LAT seems to have been used first in the Netherlands in 1978. It is documented in many other countries, including Sweden, Norway, Germany, Belgium, France, Canada, the USA and Australia. The phenomenon is a factor in bringing down average household size.

Up to 2m men and 2m women in Great Britain aged under 60 say that they have a regular partner living in another household (Haskey 2005). Haskey's work (with Jane Lewis at LSE) is the first piece of research in the UK on this subject. However, almost half of these 4m people are young (16-24) and nearly 30% are children of the 'Household Reference Person' (HRP). The phenomenon does not mean that all the LATs are in single-person households. Some of these grown up children-of-HRPs and students may well not have a serious choice about whether it is feasible to live together or apart – they may not have the resources to buy or rent their own place and may be in relatively casual relationships. As Haskey says, it probably needs more than a single question to sort this out. On this basis, around 2.1m people - 0.9m men and 1.2m women - between the ages of 16 and 59 are recorded as 'living apart together'.

Possible future influences on LAT could be:

1. Income per capita/state of the housing market. Higher disposable incomes and/or more available dwellings mean that smaller households become more feasible and LAT becomes an option for more people. This is by far the most likely influence.
2. The state of the labour market. The emphasis on flexibility and mobility is likely to continue and this will have a continuing impact in terms of couples living apart.
3. Gender politics and family arrangements. Age of first childbearing has been slowly increasing. At the same time, women are unwilling to interrupt their working lives for financial and career reasons. Better arrangements for parental leave and childcare and more flexible working arrangements for parents could decrease LAT for younger people who would be more likely to opt for parenthood and living together rather than apart.
4. Changes in the prevalence of homeworking and teleworking, as IT and homeworking make cohabitation more feasible when partners have work that is based in different locations. Reliable statistics on working from home are very hard to come by. We could use figures for teleworking/ homeworking of 8% of the workforce (Hotopp, 2002) or 16% (Datamonitor), with the latter including part-time workers-from-home. It looks as though homeworking is unlikely to have reached saturation in the UK, based on EU figures. If the trend is still upwards, this might decrease LAT.
5. Civil partnerships. These may lessen the number of same-sex couples who are LAT, as it becomes more accepted for them to live together.

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