## Room to Move?

# Household Formation, Tenure and Housing Consumption 

Summary Report

# Commissioned by the House Builders Federation 

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Authors: Dave King and Janet Hayden
Population and Housing Research Group
Anglia Polytechnic University

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## Introduction

This is a summary of a report ${ }^{1}$ which was commissioned by the House Builders Federation. It was written by Professor Dave King and Janet Hayden of the Population and Housing Research Group at Anglia Polytechnic University.

It examines housing requirements for England and Wales, and in particular the relationship between household composition, tenure and housing consumption in terms of dwelling size. It initially investigates past patterns and trends. It then creates future scenarios for the period up to 2021, on the basis of known patterns, processes and trends.

The report uses the 1981, 1991 and 2001 Censuses of Population as its main datasets. It therefore relies on the Census definition of dwelling size, which counts the number of rooms (including kitchens, but excluding bathrooms). A four-roomed dwelling might typically be a "two up, two down" terraced property or a two-bedroom flat for instance. A five-roomed dwelling might typically be a two or three bedroom terraced or semi-detached house and a seven roomed property is likely to have four bedrooms. The report focuses on the characteristics of households and those of the household "representative" or "head".

## The relationship between household size and dwelling size

The underlying demography of households is such that the average household size is falling and, in particular, the number of one-person households is increasing. Table 1 shows past changes between 1981 and 2001 and then projected changes to 2021, as described in the official projections of households, which were published by DETR in 1999.

Table 1 Official household projections: England (thousands)

|  | 1981 | 2001 | 2021 |
| :--- | ---: | ---: | ---: |
| Household types: |  |  |  |
| $\quad$ married couple | 11,013 | 9,829 | 9,157 |
| cohabiting couple | 500 | 1,896 | 2,761 |
| lone parent | 625 | 1,258 | 1,288 |
| other multi-person | 1,234 | 1,676 | 2,286 |
| one person | $\mathbf{3 , 9 3 4}$ | $\mathbf{6 , 3 3 4}$ | $\mathbf{8 , 5 0 9}$ |
| All households | 17,306 | 20,992 | 24,000 |
|  |  |  |  |
| Average household size | $\mathbf{2 . 6 7}$ | $\mathbf{2 . 3 4}$ | $\mathbf{2 . 1 5}$ |

Source: DETR 1996-based household projections
Inevitably these trends raise the issue of whether the current mix of dwellings has too many large houses and whether future provision of dwellings should include more smaller units, to better accommodate the reduction in average household size and, in particular, the growth of one-person households.

[^0]Figure 1 confirms a strong relationship between dwelling size and household size in terms of numbers of rooms. Smaller households tend to occupy smaller dwellings. Taken on its own, this would tend to confirm the conclusion that if there is a growth in the number of smaller households, there ought to be greater provision of smaller dwellings.

Figure 1 Number of rooms by household size in 2001; England and Wales


Source: Censuses of Population 2001
What can be learned about matching the appropriate size of dwelling to a particular size of household? It is clear that not all small households consume small dwellings, neither do all large households consume large dwellings. How do policy-related perceptions (notably in relation to under-occupancy) match up to the reality of actual consumption? Figure 1 shows that an "average" one-person household occupies at least four rooms, while all other sizes of household occupy on average at least five rooms. On this evidence, a "small dwelling" for a one-person household might be considered to be reasonably defined as being one of four rooms or less. However, in the social rented sector, the provision of a four-roomed dwelling for a one-person household would generally be regarded as over-generous, amounting to underoccupancy.

In 2001 41\% of all occupied dwellings in England and Wales were six rooms or more in size. The number of dwellings increased nationally by about four million between 1981 and 2001. About half of that increase was of seven rooms or more in size. $60 \%$ of the growth in the number of large dwellings (seven or more rooms) 1981-2001 was occupied by small households (one or two-person). This finding challenges the notion that the growth in small households will inevitably lead to a growth in the number of small dwellings.

Figure 2 shows graphically the changing pattern of housing consumption between 1981 and 2001 for one- and two-person households. It shows clearly that it is twoperson households which have seen the largest proportionate changes in the size of dwellings that they occupy ${ }^{2}$.

Figure 2 Change in dwelling sizes for 1 and 2-person households 1981-2001, England and Wales


Source: Censuses of Population 1981 and 2001

## "Demographic processes" influencing housing consumption

There are a number of demographically-related "processes" which help explain current patterns and past trends in the consumption of housing. These provide a framework for considering and quantifying possible future patterns of consumption:

1. Household life-cycle processes (including marriage, divorce, family rearing and so on) lead to different patterns of housing consumption at different ages and for different household types. These differences are very evident when examining current patterns of consumption (see later).
2. Life chances/tenure-related processes, in which access to a particular tenure in early adulthood has the effect of "determining" patterns of housing consumption in later life.
3. Cohort/generation and housing career processes suggest that as households get older, they are generally likely to want to maintain or improve upon their standing in the housing market. Those in owner-occupation are likely to want to stay in owner-occupation as they get older for instance. Similarly,

[^1]households are likely to want to maintain or increase their dwelling size. Furthermore, as a household gets older, the likelihood of moving house decreases. Households "headed" by those in their 50's tend to remain in their "family" home into their 60's and 70's.
4. Underlying trend processes, whereby irrespective of the other processes outlined above, steady improvements in the national economy and the consequent underlying ability to pay for "more" housing, combined with the generally progressive nature of housing aspirations has resulted in increasing housing consumption (in terms of numbers of rooms for most household types), especially in owner occupation.

These four "processes" provide the framework for considering current propensities, trends in those propensities and the projection of possible future propensities. This ultimately allows a number of scenarios, in terms of future patterns of housing consumption, to be presented.

## Current patterns of housing consumption

In terms of processes relating to current patterns of housing consumption, the lifecycle is a dominant theme. Figure 3 shows that on average, young adults do not remain in small households for very long. They form relationships, have children and reach a peak household size by the age of 35-39.

Figure 3 Average household size and number of rooms by age of "head" of household, England and Wales, 1991


Source: 1991 Census Sample of Anonymised Records

Peak dwelling size follows later in the family building phase at age 45-49. Thereafter, the average household size and the average number of rooms consumed reduce with age, although the latter reduces at a slower pace than the former. In older ages all
household types (apart from one-person households) converge towards a similar average household size (around 2.2 people per household at age 80-84).

The patterns shown in Figure 3 describe the 1991 situation. At the time of writing this report equivalent data were not available from the 2001 Census. A technique was developed which uses a combination of data from 1991 and 2001 to estimate what the pattern would be in 2001. This method is fully described in the main report.

Part of the reason for a reduction in average household size in older ages is the changing composition of households in terms of household type. In older ages, children are more likely to have left home and couples are more likely to have dissolved as a result of separation, divorce or widowhood. Consequently, there are likely to be more one-person households and more couples living as two-person households at older ages. The estimation of 2001 propensities, therefore, is undertaken not just by age of "head" of household, but also by household type.

Figure 4 Average number of rooms of owner-occupiers by age of "head" and type of household, England and Wales, 2001


Source: author's own estimates using 1991 SARS propensities fitted to 2001 Census tenure-specific row/column totals (using iterative proportional fitting).

An example of these estimates for 2001 is shown in Figure 4. It shows the average number of rooms consumed by owner-occupiers by age of head and type of household. This shows the strong life-cycle effects, with a substantial increase in average number of rooms from young adulthood to age 45-49, particularly among couples and lone parents, followed by something of a reduction thereafter for most household types. It also shows the differences in consumption between household types, such that married couples consume larger housing at most age groups than other household types and one-person households consume least. However in the
latter case, consumption does not decrease significantly in older ages as it does for other household types.

The method allows the estimation of room consumption propensities by age of "head" of household in 2001. These show that in young adulthood households tend to consume relatively small dwellings (in terms of number of rooms) with the consumption of the largest dwellings peaking at age $45-54$ in 2001 . $31 \%$ of all households headed by a $45-54$ year old occupy dwellings with 7 or more rooms. This proportion falls to $10 \%$ for those aged 75 and over. Figure 5 illustrates those propensity estimates for married couple owner-occupiers as an example.

Figure 5 Dwelling size (by number of rooms) of married couple owner-occupiers by age of "head" of household, England and Wales, 2001


Source: author's own estimates using 1991 SARS propensities fitted to 2001 Census tenure-specific row/column totals (using iterative proportional fitting).

Figures 4 and 5 present estimates relating to a specific tenure. This is because processes relating to "life chances" (via tenure) have a strong bearing on patterns of housing consumption. These can be best illustrated by comparing patterns of consumption between tenures.

Figure 6 shows these for one-person households. Up to age 55-59 one-person households in social renting and private renting experience a similar pattern of consumption, well below that of owner-occupiers, in terms of number of rooms consumed. An owner-occupier one person household can expect to consume at least one room more than their rental counterpart on average up to this age. Thereafter, the average number of rooms falls fairly dramatically within social renting, while that for private renting steadily increases. The average number of rooms remains steady within owner-occupation at older ages.

Figure 6 Average number of rooms of one-person households by tenure and age of "head" of household, England and Wales, 2001


Source: author's own estimates using 1991 SARS propensities fitted to 2001 Census tenure-specific row/column totals (using iterative proportional fitting).

Figure 7 Number of households moving 2001-2002, England


Source: Survey of English Housing
It follows that the mix of tenures in the future is an important feature of the overall mix of dwelling sizes which are likely to be required, and that this is particularly the
case for one-person households where differences in consumption between the tenures are at their greatest.

Another process, that of cohort effects, is particularly important in helping understand past and likely future changes in housing consumption among households headed by those aged 55 and over. This tendency for households to stay in their "own home" into old age is partly reflected in the very low residential mobility rates experienced in older ages. Figure 7 shows a recent pattern exhibited in the Survey of English Housing. Above the age of 65 , residential mobility is severely restricted.

The consequences of the cohort effect are felt firstly, in terms of tenure and secondly, in terms of dwelling size. Figure 8 shows the cohort effect operating for married couple owner-occupiers between 1991 and 2001. There is striking evidence of a cohort effect over that period as those aged 45-54 in 1991 take their owner-occupancy rates with them into the $55-64$ age group by 2001 . A similar effect is experienced as the 55-64 year olds in 1991 age on to 65-74 in 2001. The resultant projected "tenure propensities" for 2011 and 2021 are also shown, on the basis of such cohort effects continuing in the future. The cohort effect is likely to have been reinforced by the impact of "Right to Buy" purchases, which involve a direct change in tenure from social renter to owner-occupier.

Figure 8 The proportion of married couples in owner-occupation: estimated 1991 and 2001, projected 2011 and 2021; England and Wales


Source: 1991 - Census SARS; 2001 - author's own estimates using 1991 SARS propensities fitted to 2001 Census tenure-specific row/column totals (using iterative proportional fitting); 2011 and 2021 author's own projections incorporating cohort effects.

The cohort effect is also very evident for size of dwelling between 1991 and 2001. Figure 9 shows the effect for owner-occupiers in dwellings of seven or more rooms. Those owner-occupiers aged 45-54 in 1991 take their high levels of consumption of
seven or more rooms with them into the 55-64 age group in 2001. A similar effect is experienced as the 55-64 year olds in 1991 age on to $65-74$ in 2001. The resultant "room consumption propensities" for 2011 and 2021 are also shown, on the basis of such cohort effects continuing in the future.

Figure 9 The proportion of owner-occupier households in seven or more rooms: estimated 1991 and 2001, projected assuming "cohort effects" 2011 and 2021; England and Wales


Source: 1991 - Census SARS; 2001 - author's own estimates using 1991 SARS propensities fitted to 2001 Census tenure-specific row/column totals (using iterative proportional fitting); 2011 and 2021 author's own projections incorporating cohort effects.

A final process is that of a "trend" effect. At ages under 55 (i.e. before peak housing consumption is reached in the lifecycle), there is evidence that there is an increase in housing consumption occurring. Figure 10 provides an example of this for owner occupier households, whereby at all ages, the proportion consuming seven rooms or more has increased significantly between 1991 and 2001. Cohort effects largely explain the changes at ages 55 and above. "Trend" effects are the explanation at ages under 55. At age 45-54, for instance, there was an eight percentage point increase in the proportion of owner occupiers consuming seven rooms or more between 1991 and 2001. Among owner occupier married couples, it was as large as eleven percentage points. In owner occupation these "trend" effects are substantial, but they are also mirrored more weakly in private renting and more weakly still in social renting.

Figure 10 also shows the projected consumption propensities for 2011 and 2021 on the basis that these "trend" effects continue into the future. Such effects are likely to be the result of the growth of the consumer society and in particular the impact of economic growth on the ability of households to pay for more housing and the aspiration of households to consume more housing.

Figure 10 The proportion of owner-occupier households in seven or more rooms: estimated 1991 and 2001, projected assuming "trend effects" 2011 and 2021; England and Wales


Source: author's own projections of trend effect at 2011 and 2021.

## The underlying population and household projections

It follows from the previous analysis that increasing numbers and changing age structure of the population is a critical factor in not only the increase in numbers of households, but also their changing composition and ultimately the consequent housing consumption. Age structure and marital composition are particularly important underlying factors.

The population of England and Wales is projected to steadily increase (by 4.2 million 2001-2021) ${ }^{3}$. Moreover, the ageing of the population is a dominant feature (see Figure 11). For the same period, there is projected to be a net increase of 3.4 million in the number of adults aged over 65 . This can be expected to have a significant impact on household composition and the size of dwellings.

According to the 1996-based official marital status projections ${ }^{4}$, the numbers of married people (aged 20 and over) is projected to decline substantially (by 1.4 million 2001-2021), offset by the increase in cohabiting single adults ( 1.9 million). In addition, the number of single non-cohabiting adults is projected to increase by 2.3 million and the number of divorced by 1.1 million. The equivalent official household

[^2]projections ${ }^{5}$ show a reduction in the number of married couples of 0.7 million, an increase in cohabiting couples of 0.9 million, a growth in one-person households of 2.3 million and of other multi-person households of 0.6 million. These changes would inevitably have a bearing on the size of dwellings consumed in the future.

Figure 11 Official population projections 2001-2021; England and Wales


Source: Government Actuary's Department 2002-based Population Projections

Since those official projections of marital status and households were produced there have been a number of more recent official projections of population. Based on the most recent (the 2002-based GAD projections), the author's own projections show a net increase in the number of households of 3.8 million 2001-2021. These projections are summarised by age of "head" of household in Figure 12.

Projected changes in household composition for the 2001-2021 period are shown in Table 2. It shows a reduction in the number of married couples of 0.5 million, an increase in cohabiting couples of 0.9 million, a growth in one-person households of 2.6 million and in other multi-person households of 0.7 million. Of the projected 3.8 million net increase in the number of households 2001-2021, 1.9 million are projected to be headed by those aged 65 and over.

[^3]Figure 12 2002-based household projection by age of "head"; England and Wales


Source: Authors own projections based on GAD 2002-based population projections and using marital composition and household representative rates from official 1996-based projections

Table 2 Change in household composition by age of "head" of household 2001-2021, England and Wales (thousands)

|  | Married <br> couple <br> household | Cohabiting <br> couple <br> household | Lone <br> parent <br> household | One person <br> household | Other <br> multi- <br> person <br> household | Total <br> households |
| :--- | ---: | ---: | :---: | ---: | ---: | ---: |
|  | -1426 | 667 | 105 | 1202 | 204 | 752 |
| $15-54$ | 86 | 202 | 10 | 583 | 246 | 1128 |
| $55-64$ | 821 | 80 | 4 | 824 | 206 | 1935 |
| 65 and over |  |  |  |  |  |  |
|  | -519 | 949 | 118 | 2609 | 657 | 3814 |

Source: author's own estimates/projections using GAD 2002-based population projections and DETR 96 -based composite household representative rates.

## Future scenarios: tenure

Two scenarios are presented here:

1. Constant propensities: 2001 propensities are held constant into the future
2. Cohort effects: cohort effects (as described previously) are included for ages 55 and over.

Their outcomes are summarised in Table 3.

Table 3 Projected households "heads"; England and Wales (thousands)

| Year | Scenario using: | Owneroccupied | $\begin{gathered} \hline \text { Private } \\ \text { rented } \\ \hline \end{gathered}$ | Social rented | $\begin{gathered} \hline \text { All } \\ \text { tenures } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| a) household "heads" aged under 55 |  |  |  |  |  |
| 2001 |  | 8514 | 1977 | 2298 | 12788 |
| 2001-21 | 1) Const propensities | 26 | 415 | 311 | 752 |
| 2001-21 | 2) Cohort effect | 26 | 415 | 311 | 752 |
| b) household "heads" aged over 55 |  |  |  |  |  |
| 2001 |  | 6432 | 671 | 1910 | 9013 |
| 2001-21 | 1) Const propensities | 2038 | 304 | 721 | 3063 |
| 2001-21 | 2) Cohort effect | 2468 | 304 | 291 | 3063 |
| c) household "heads" all ages |  |  |  |  |  |
| 2001 |  | 14945 | 2648 | 4208 | 21801 |
| 2001-21 | 1) Const propensities | 2065 | 718 | 1031 | 3814 |
| 2001-21 | 2) Cohort effect | 2494 | 718 | 602 | 3814 |

Source: Authors own projections based on GAD 2002-based population projections and using marital composition and household representative rates from official 1996-based projections. Scenario 1 is generated by applying 2001 tenure propensities and scenario 2 is derived by applying author's own cohort effect adjusted propensities.

Scenario 1 Constant propensities: owner-occupation is the dominant tenure for most household types, and particularly couples. If tenure propensities remain constant 2001-2021, the overall net increase of 3.8 million households will be distributed as follows: 2.1 million owner-occupiers ( 2.0 million being headed by a person aged 55 and over), 1 million social renters ( 0.7 million being headed by a person aged 55 and over) and 0.7 million private renters ( 0.3 million being headed by a person aged 55 and over).

Scenario 2 Cohort effects: on the basis of a continuation of cohort effects, owneroccupation is projected to increase by 2.5 million households 2001-2021 ( 2.5 million being headed by people aged over 55), an increase of 0.4 million on the projections in Scenario 1. Such significant shifts towards owner-occupation in scenario 2 would inevitably imply a shift towards larger dwellings among those households with heads aged 55 and over (see later analysis).

## Future scenarios: dwelling size

There are three "dwelling size" propensity-based scenarios presented here:

1. Constant propensities: 2001 propensities are held constant into the future. These are applied to Scenario 1 tenure projections.
2. Cohort effects: cohort effects (as described previously) are included. These are applied to Scenario 2 tenure projections.
3. Trend effects: trend effects in room consumption (as described previously) are included. These are applied to Scenario 2 tenure projections.

Their outcomes are summarised in Tables 4 to 6 .

Table 4 Scenario 1: projected net changes in housing consumption by tenure and age of "head" of household, assuming constant tenure and room consumption propensities, 2001-21, England and Wales (thousands)

|  | $1-3$ rooms | 4 rooms | 5 rooms | 6 rooms | 7 or more | All |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Owner-occupied |  |  |  |  |  |  |
| Under 55 | 110 | 188 | 47 | -61 | -258 | 26 |
| 55 and over | 106 | 440 | 606 | 494 | 392 | 2038 |
| All ages | 216 | 628 | 654 | 433 | 134 | 2065 |
| Social rented |  |  |  |  |  |  |
| Under 55 | 135 | 108 | 48 | 13 | 7 | 311 |
| 55 and over | 278 | 217 | 144 | 64 | 17 | 721 |
| All ages | 413 | 326 | 192 | 77 | 24 | 1031 |
| Private rented |  |  |  |  |  |  |
| Under 55 | 175 | 117 | 69 | 35 | 19 | 415 |
| 55 and over | 79 | 93 | 67 | 42 | 22 | 304 |
| All ages | 254 | 210 | 136 | 78 | 40 | 718 |
| All tenures |  |  |  |  |  |  |
| Under 55 | 419 | 413 | 164 | -13 | -232 | 752 |
| 55 and over | 463 | 751 | 817 | 601 | 431 | 3063 |
| All ages | 882 | 1164 | 981 | 588 | 199 | 3814 |

Source: author's own projections applying constant tenure and dwelling size propensities to projections of household composition.

Figure 13 Scenario 1: owner-occupier households - projected dwelling size based on constant tenure and dwelling size propensities 2001 and 2021; England and Wales


Source: author's own projections applying constant tenure and dwelling size propensities to projections of household composition.

Scenario 1 Constant propensities (Table 4): if these dwelling size or room consumption propensities remain constant 2001-2021, the projected changes in population age structure and household composition would result in about half of the 3.8 million net increase in households occupying four rooms or less and only $5 \%$ occupying seven rooms or more. Of the projected 3.1 million net increase (20012021) in the number of households headed by those aged 55 and over, 1.2 million $(40 \%)$ are projected to be in four rooms or less and 0.4 million ( $14 \%$ ) in seven rooms or more.

In relation to owner-occupation, this scenario shows that only $6 \%$ of the 2.1 million net increase in owner-occupier households (of all ages) would occupy seven or more rooms. Figure 13 shows the distribution of that increase by size of dwelling.

This scenario would support the intuitive view that the large projected net growth in small households ought to trigger a net additional demand for smaller dwellings, rather than larger, across all tenures combined. Figure 13 suggests that the size mix in owner-occupation in 2021 is likely to be similar to that of 2001 if the propensities are held constant.

There is the question, however, as to whether these propensities are likely to differ in the future. It is important to consider the impact of the possible cohort effect.

Scenario 2 Cohort effects (Table 5): on the basis of cohort effects, of the 2.5 million net increase of owner-occupier households 2001-2021, $37 \%$ are projected to occupy seven rooms or more. $37 \%$ contrasts with the $6 \%$ projected in Scenario 1 (assuming constant propensities). Conversely only $18 \%$ of the net increase of owner-occupier households 2001-2021 is projected to occupy four rooms or less. This contrasts with the $41 \%$ projected in Scenario 1. In other words if middle-aged owner-occupier households retain their existing tenure and room consumption into older ages, there needs to be a substantial increase in larger owner-occupied dwellings, while the need for the provision of smaller dwellings is likely to be more modest. The cohort effect impacts directly only on those households headed by people aged 55 and over.

Scenario 3 Trend effects (Table 6): on the basis of trend effects, of the 2.5 million net increase of owner-occupier households 2001-2021, the vast majority of the net increase is projected to occupy seven rooms or more. This contrasts with the $6 \%$ projected in Scenario 1 (assuming constant propensities). Conversely the number projected to occupy four rooms or less actually reduces substantially. In other words if trends experienced among younger owner-occupier households in the 1990's continue, the impact on the size of dwellings occupied will be considerable. There will need to be a very substantial increase in larger owner-occupied dwellings, while the need for the provision of smaller dwellings is likely to contract. The trend effect impacts directly on those households headed by people aged under 55 but is transmitted into older ages by the cohort effect.

Table 5 Scenario 2: projected net changes in housing consumption by tenure and age of "head" of household, assuming "cohort effect" tenure propensities and cohort effect owner-occupier room consumption propensities, 2001-21, England and Wales (thousands)

|  | $1-3$ rooms | 4 rooms | 5 rooms | 6 rooms | 7 or more | All |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Owner-occupied |  |  |  |  |  |  |
| Under 55 | 110 | 188 | 47 | -61 | -258 | 26 |
| 55 and over | 66 | 81 | 570 | 569 | 1183 | 2468 |
| All ages | 176 | 269 | 617 | 508 | 925 | 2494 |
| Social rented |  |  |  |  |  |  |
| Under 55 | 135 | 108 | 48 | 13 | 7 | 311 |
| 55 and over | 122 | 84 | 54 | 23 | 8 | 291 |
| All ages | 257 | 193 | 102 | 36 | 15 | 602 |
| Private rented |  |  |  |  |  |  |
| Under 55 | 175 | 117 | 69 | 35 | 19 | 415 |
| 55 and over | 79 | 93 | 67 | 42 | 22 | 304 |
| All ages | 254 | 210 | 136 | 78 | 40 | 718 |
| All tenures |  |  |  |  |  |  |
| Under 55 | 419 | 413 | 164 | -13 | -232 | 752 |
| 55 and over | 267 | 259 | 690 | 635 | 1212 | 3063 |
| All ages | 686 | 672 | 855 | 622 | 980 | 3814 |

Source: author's own projections applying "cohort effect" room consumption propensities for the owner-occupier sector and constant room consumption propensities for the other tenures, to "cohort" projections of tenure.

Figure 14 Scenario 2: Owner-occupier households - projected dwelling size using cohort-based tenure and dwelling size propensities 2001 and 2021; England and Wales


Source: author's own projections applying "cohort effect" room consumption propensities for the owner-occupier sector to "cohort" projections of tenure and household composition.

Table 6 Scenario 3: projected net changes in housing consumption by tenure and age of "head" of household, assuming "cohort effect" tenure propensities and "trend effect" owner-occupier room consumption propensities, 2001-21, England and Wales (thousands)

|  | $1-3$ rooms | 4 rooms | 5 rooms | 6 rooms | 7 or more | All |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Owner-occupied |  |  |  |  |  |  |
| Under 55 | -159 | -313 | -327 | -90 | 927 | 26 |
| 55 and over | -99 | -119 | 430 | 688 | 1571 | 2468 |
| All ages | -258 | -431 | 102 | 597 | 2498 | 2494 |
| Social rented |  |  |  |  |  |  |
| Under 55 | 135 | 108 | 48 | 13 | 7 | 311 |
| 55 and over | 122 | 84 | 54 | 23 | 8 | 291 |
| All ages | 257 | 193 | 102 | 36 | 15 | 602 |
| Private rented |  |  |  |  |  |  |
| Under 55 | 175 | 117 | 69 | 35 | 19 | 415 |
| 55 and over | 79 | 93 | 67 | 42 | 22 | 304 |
| All ages | 254 | 210 | 136 | 78 | 40 | 718 |
| All tenures |  |  |  |  |  |  |
| Under 55 | 150 | -87 | -210 | -42 | 953 | 752 |
| 55 and over | 102 | 59 | 551 | 754 | 1600 | 3063 |
| All ages | 252 | -29 | 340 | 711 | 2553 | 3814 |

Source: author's own projections applying "trend" room consumption propensities for the owneroccupier sector and constant room consumption propensities for the other tenures, to "cohort" projections of tenure.

Figure 15 Scenario 3: Owner-occupier households - projected dwelling size using cohort-based tenure and trend-based dwelling size propensities 2001 and 2021; England and Wales


Source: author's own projections applying "trend" room consumption propensities for the owneroccupier sector to "cohort" projections of tenure.

## Conclusions

Four main demographically-related processes are identified as having a plausible impact on the size of dwellings consumed by households in the future. They are:

1. household life-cycle
2. life-chances and related impact on tenure
3. cohort and related housing career effects
4. trend effect related to increases in consumption at younger ages

When applied to projections of household composition for England and Wales they offer three main scenarios:

Scenario 1: applies constant tenure and dwelling size propensities
Scenario 2: applies cohort-based tenure and dwelling size propensities
Scenario 3: applies trend-based dwelling size to cohort-based tenure propensities
The application of constant tenure and dwelling size propensities in Scenario 1 accommodates the large net increase in smaller households in a mix of dwellings similar to that present in 2001, with a shift towards smaller dwellings in tenures other than owner-occupation. This conforms with the intuitive thinking that says that the growth of small households ought to lead to a need for smaller dwellings.

Once cohort effects are included in Scenario 2, the shift towards larger dwellings is relatively dramatic among owner-occupiers. The impact is concentrated among married couples. These cohort effects are merely replicating processes observed over the 1991-2001 period. It seems likely that they will continue among those aged 55 and over, given the relatively low residential mobility in those age groups.

The application of trend dwelling size propensities in Scenario 3 results in an even greater shift towards larger dwellings among owner-occupiers, such that most of the net increase is seven rooms or greater in size. These trend effects are also merely replicating processes observed over the 1991-2001 period. It seems likely that they will also continue among those aged under 55.

One consequence is the steady raising of the proportion of households in larger dwellings at the age of peak consumption, such that by 2021, about half of all owner occupier households aged 45-54 are projected to be living in dwellings of seven or more rooms. This is likely to influence the aspirations of younger households, but will also impact on the consumption of housing among older households, as those 4554 year olds take their housing with them into older ages (via cohort effects).


[^0]:    ${ }^{1}$ A copy of the full report can be found on the Population and Housing Group web site at: http://www.isc.anglia.ac.uk/planning/pg/phrg/phrg.htm

[^1]:    ${ }^{2}$ It should be noted that there was a change in definition of what could be considered to be a room between 1991 and 2001. Small kitchens (under six feet wide) were excluded in 1981 and 1991 and included in 2001. This means that some of the reduction in numbers of very small dwellings may be a consequence of that definition change, rather than a real reduction. This is the reason why dwellings of $1-3$ rooms in size are aggregated together as a single category.

[^2]:    ${ }^{3}$ Government Actuary's Department 2002-based Population Projections
    ${ }^{4}$ Government Actuary's Department 1996-based Marital Status Projections

[^3]:    ${ }^{5}$ DETR 1996-based Household Projections

