

# Housing crisis: efficiency opportunity

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## Abstract

This paper explores the housing crisis currently faced by the UK; housing space has become increasingly unaffordable for many households, with the shortage of supply being exacerbated by a recent decline in the number of new properties being built. The paper looks in detail at the potential to increase housing space in the market by encouraging downsizing amongst retired households. Firstly the current housing situation in the UK is considered and the trends in demographics and the housing choices of older people are considered to determine the influence this has had on the current situation. The paper looks at current trends in downsizing and assesses the potential for older people to move to a smaller property dependent on age and economic grouping.

By moving different occupants from one property to another, overall energy consumption across the housing stock may be influenced as well as the rate of energy efficiency retrofit. Downsizing will also release housing space into the market, reducing the amount of new housing space that needs to be built. A broad analysis of these effects is conducted to assess the energy efficiency implication downsizing may have.

Finally the paper reviews the policies that currently exist in the UK to improve housing conditions for our ageing population and encourage more households to downsize. Additional policy options are considered and opportunities for energy efficiency policy to work alongside social and housing policy are identified.

## Introduction

The UK is in the midst of a housing crisis. Government figures show that just 106,000 new properties were built in 2010/11 despite a growing population and a shortage of affordable family homes (Department for Communities and Local Government 2012a). However, housing energy efficiency policy is often considered in isolation from the wider context. This paper explores the economic and demographic changes that have led to such a serious shortage of housing and the implications the potential solutions to the crisis will have for the energy efficiency of the housing stock.

Since the start of the financial crisis the housing crisis has been a major focus of UK economic debate. The Government's deregulatory policy has targeted planning regulations and energy efficiency requirements have also come under fire. Most commentators focus on the problem of insufficient new homes being built. An alternative view of the crisis considers the growing number of people living in family sized homes into old age. This shift combined with a longer lived population has restricted the number of homes available to young families and can burden the elderly with a property they cannot manage later in life. Helping older households to downsize could reduce running costs and free up equity to improve the quality of life and maintain the independence of our ageing population. This move could also encourage the energy efficiency retrofit of homes that previous owners were unable to manage.

## Comparing the UK with other Member States

The United Kingdom is undoubtedly very different to most EU member states in terms of its housing stock and property ownership. The saying goes that "an Englishman's home is his

castle” and this is certainly borne out by the statistics. Just 14 % of UK households live in flats compared with 42 % of EU27 households overall, only Ireland has a higher proportion of households living in houses (Eurostat 2011). The rarity of living in communal blocks in the UK may attach stigma to the idea of moving into higher density retirement accommodation in a way that those in the rest of Europe do not feel. Another telling phrase popular in the UK is “getting on the housing ladder” implying that buying a property is the first step in a series of properties always getting larger. A great deal of status is tied to property which is seen as an investment ultimately to be passed on to the next generation.

Despite the many differences between all member states, there are lessons to be learnt from the extreme example of the UK. The reasons that older people move out of their family homes are predominantly death, ill-health and financial hardship. These things are all delayed by increasing longevity and improved financial situations of older people. These are common features in the economies and demographics of EU states and the effects are likely to be a similar increase in older households retaining their family homes for longer.

## The housing crisis

### WHAT IS THE HOUSING CRISIS?

The ‘housing crisis’ is a phrase that has been used frequently by the UK press since the 2008 crash and refers primarily to the unavailability or unaffordability of housing in the UK. The result of this crisis has been a rise in the number of households living in overcrowded conditions in England from 621,000 in 2001 to 744,000 in 2009 (Department for Communities and Local Government 2003) (Department for Communities and Local Government 2011a). Research by housing charity Shelter has shown that restricted housing supply not only leads to cramped conditions or poor quality housing but may also be retarding the development of younger generations, who are leaving home and starting families later in life than previous generations. 21 % of 18- to 44-year-olds without children (2.8 million) admit they are delaying starting a family because of a lack of affordable housing (Turffrey 2010).

### WHY IS THERE A HOUSING CRISIS IN THE UK?

In 2011 in the UK 390,000 new households were formed through a combination a growing population and an increase in the number of one and two person households. However, only 111,250 new homes were built in the same period (National Housing Federation 2012). This basic imbalance of supply and demand is the cause of the crisis we face today. The lack of supply of new build properties is often the focus of debate, this paper however will approach the problem from the other direction and look at factors that might be restrict-

ing the supply of existing dwellings coming on to the housing market.

Three main factors in the existing housing stock may be contributing to a restriction in supply of existing housing, these are; homes left vacant by owners, households with second homes and under-occupancy of homes. The EHS 2009 records the number of households that are over-crowded according to the bedroom standard (explained below) to be 681,000 representing a shortage of 744,000 beds. By comparison the UK Government’s Council Tax base statistics estimate there to be 259,000 long term (more than 6 months) empty properties in England (Department for Communities and Local Government 2012b). Assuming the national average 2.8 bedrooms per property applies to these homes they represent around 725,000 empty bedrooms. The 2011 Census recorded that there were 79,000 adult residents with second homes in England for holiday purposes (Office for National Statistics 2012c). Assuming conservatively that none of the second homes are shared and that the national average bedrooms per property applies, this represents a further 223,000 bedrooms not used as a primary residence. Dwarfing these figures however is the estimated number of under-occupied homes. The EHS records 6.4 million households under-occupying their homes representing 13.6 million bedrooms.

Second homes can cause major problems in desirable rural areas, restricting the supply of housing for those wishing to live there all year around, however on a national scale the 200,000 properties identified above are unlikely to represent a major restriction on housing supply. Long-term vacant properties can make a valuable addition to the available stock if brought into use, however there is likely to be a reason for the vacancy such as a lack of jobs in the area which could mean that properties brought back into use may still be undesirable. The sheer number of under-occupied homes in the UK makes it an enticing prospect for those looking to free up housing and as such the paper will focus on this potential source of relief for the housing crisis.

### THE BEDROOM STANDARD

The bedroom standard is used to assess the number of households under and over occupying their homes by allowing a number of ‘required bedrooms’ based on the make-up of a household in terms of age and sex. It is primarily used to assess serious overcrowding and as such does not allow a generous number of bedrooms for a household. Children are expected to share bedrooms and only one spare bedroom is allowed before a home is considered under occupied. As such, many households, young and old, are considered to have surplus spare rooms in their homes. On the other hand, the standard also underestimates the number of families that could benefit from a larger property but meet the strict standard. In order to isolate those who could realistically be encouraged to move

Table 1. Summary of factors potentially restricting the supply of housing in England.

Over crowded homes – additional bedrooms required	744,000
Empty homes – bedrooms empty	725,000
Second homes – bedrooms not used as primary residence	223,000
Under-occupied homes – bedrooms not fully utilised	13,600,000

to a smaller property this paper concentrates on households with the main earner<sup>1</sup> over 60 with no dependents. This group is most likely to benefit from releasing some spare rooms and are unlikely to expect a growing family. Using this restricted definition of under occupying households we find that there are still 6.4 million bedrooms under occupied.

#### A NOTE ON USE OF THE ENGLISH HOUSING SURVEY

This paper relies on the English Housing Survey (EHS) for the majority of its data analysis as the survey provides a single consistent data set covering both physical aspects of the housing stock and social aspects of those who live in it. Whilst this choice sacrifices the greater coverage and larger sample size of other data sources such as the Census, it benefits from simplicity. The English Housing Survey is an ongoing survey which samples in the region of 16,000 households, the interviews and physical survey provide data on income and household composition as well as information to produce a detailed energy model of the home, the 2009 edition also collected information to value each of the properties. The report also makes use of data from previous editions and predecessors to the English Housing Survey. These are the English Housing Survey 2009 (Department for Communities and Local Government 2011a), English Housing Survey 2008 (Department for Communities and Local Government 2010), the English House Condition Survey 2005 (Department for Communities and Local Government 2007), the English House Condition Survey 2001 (Department for Communities and Local Government 2003) and the English House Condition Survey 1996 (Department for Communities and Local Government 1998). All of these surveys have followed a similar methodology and so are comparable over time.

#### TRENDS IN OCCUPANCY

Analysis of the EHS 2009 and its predecessors from 2008, 2005, 2001 and 1996 shows a trend of a greater number of older people living in family sized homes. Between 1996 and 2009 the number of older families living in larger properties increased by 886,000 a rise of 68,000 each year.

This rise is a product of a growing number of older households, driven by greater longevity and the post-war 'baby boom' but also an increasing proportion of older households living in larger properties. The two growth factors are shown in Figure 2.

The growing proportion of older households living in homes with three or more bedrooms indicates a trend for retired households staying in their family homes for longer. Two factors likely to have a strong influence on this trend are improving health and finances in those past retirement age, allowing the family home to be maintained for longer. Improvements in health and longevity in the UK are well known, life expectancy for men has increased from 74 years in 1996 up to 78 in 2010 whilst life expectancy for women has increased from 80 to 82 in the same period (Office for National Statistics 2012b).

The improvement in the financial situation of pensioners has also been recognized. The last 15 years have seen those over state pension age significantly strengthen their position in the

income distribution relative to those of working age. In the 1960s and 1970s, only a quarter of the population was poorer than the median (middle) pensioner; by 2009, more than 40 % were (Stuart Adam, James Browne, and Paul Johnson 2012). The growth in pensioner incomes over this period has come about both as a result of increased private pension coverage and because of tax and benefit changes which have particularly benefited pensioners.

The trends of the past 15 years are useful in explaining the emergence of the current situation. The next step is to use this information to project future trends in the housing of our retired generation. The office of national statistics predicts that by 2035 those aged 65 and over will account for 23 per cent of the total population, up from 17 per cent in 2010 (Office for National Statistics 2012a). Financial trends are harder to predict than trends in health and longevity as the 2008 financial crisis has proven. The rising cost of living and poor returns on savings may mean that current trends in improving pensioner income may not continue. To provide a robust prediction of housing trends in the retired population over the coming decades would require substantial demographic and financial projections which are beyond the scope of this paper. However, as a result of our ageing population and without a significant change in the financial situation or older households we can expect to see these trends continuing and placing greater pressure on housing availability.

#### Downsizing

Most older people living in a larger home will stay there for the remainder of their lives. A report by the Joseph Rowntree foundation found that "85 per cent of homes with three or more bedrooms are 'released' by older people due to death rather than a move to a smaller home" (Pannell, Aldridge, and Kenway 2012a). Despite being far from the norm in the UK, downsizing (moving to a smaller home) can provide many benefits to older households. Aside from reduced living costs and released capital, downsizers interviewed by the Intergenerational Foundation reported that they "felt rejuvenated by their move" and glad to leave the responsibility of maintaining a large property "It was time to go and I feel better for it... a weight off my shoulders" (Leach 2012).

Downsizing typically takes place at one of two life stages. Either at or around retirement age a decision is made to move out of the family home and into a more manageable sized property or in old age a stress decision is made due to financial problems or deteriorating health. The EHS gives an indication of trends in downsizing by considering the length or residence of households later in life. Table 2 looks at older households moving home in the last 10 years and shows that downsizing decreases in both absolute and relative terms later in life.

Historically the downsize property of choice in the UK is the bungalow, a single storey detached or semi-detached dwelling. However, due to the land intensity of building these properties and perhaps their failure to live up to the expectations of a more active cohort of retirees other options will need to be considered. There is not a shortage of opinion or literature on the topic of meeting the future housing needs of our ageing population. The report produced by Homes and Communities Agency's 'Housing our Ageing Population Panel for Innova-

1. In the context English Housing Survey the person with the greatest income in the household, whether a salary or pension and investment income is considered the 'main earner'.

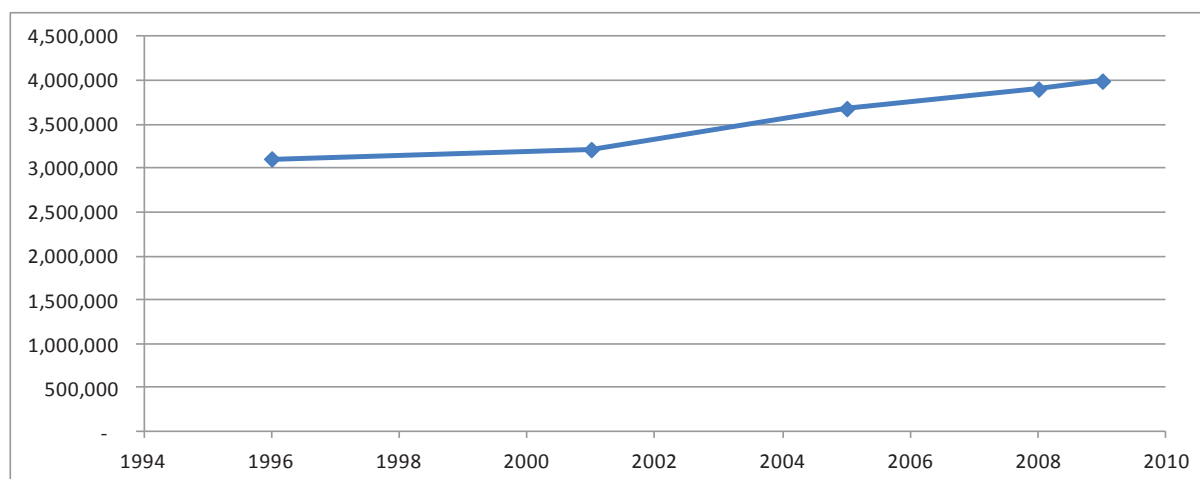


Figure 1. Number of households with main earner over the age of 60, living in homes with three or more bedrooms.

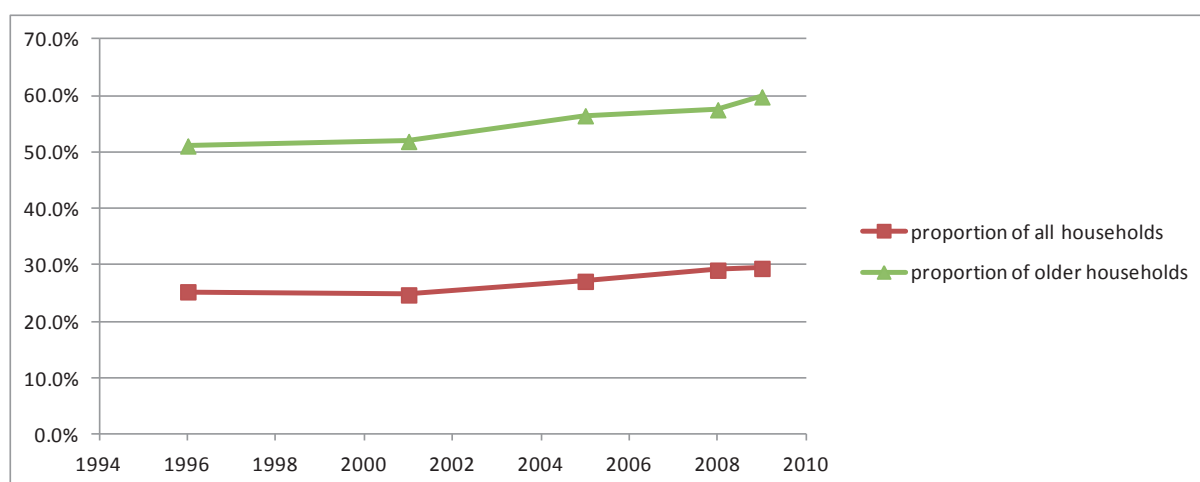


Figure 2. Proportion of households with main earner over the age of 60, living in homes with three or more bedrooms.

tion' provides a good overview of the current state of retirement housing in the UK and possibilities for improvement (Barac and Park 2009). This paper does not attempt to suggest a new ideal retirement property but given the relative wealth of this cohort and excess capacity in the construction industry it is an ideal time to reinvent the housing stock.

### What is the scope for increased rates of downsizing?

In order to make an assessment of the potential for downsizing we first need an idea of the type of homes older people currently live in and a sense of the homes they might move in to and whether these moves are feasible. The state of the current stock is provided by the EHS 2009, the nature of likely downsize properties is of course hard to know, some broad assumptions can be made based on the methodology outlined below.

#### HOW FAR TO DOWNSIZE

The maximum potential for downsizing is huge but realistically few households will be keen to downsize to a one bedroom property. Despite the exact shape of the retirement property of

the future being unknown, consultation with older people provides some clues as to the features that might be appropriate. The Intergenerational Foundation's interviews with downsizers (Leach 2012) and the Housing our Ageing Population Panel for Innovation report (Barac and Park 2009) provide insight into the aspirations of the 'younger old' in terms of their future housing need. Retirement means more time spent at home, as such, additional space is required particularly for couples. The size often suggested in the literature is that of a three bedroom home. Most respondents also said that they would like to (or had already) downsize to a property in the same area. In addition to these aspirational moves, low income households might be keen to downsize further if it allowed more capital to be unlocked and a further reduction in living expenses. In this paper we use less than 60 % of median income as the low income definition. By using an income based definition of overall financial health we can include those households with wealth locked up in their property in the category who may benefit financially from downsizing.

For potential downsizers to be considered in this analysis the household must have no dependent children and the main

Table 2. Number of older households moving home in the last 10 years, source average of EHS 2009 and 2010 (Pannell, Aldridge, and Kenway 2012b).

Age of HRP	Households that have moved home in the last 10 years (000s)	% of age group that have moved home in the last 10 years
55-64	760	33%
65-74	700	29%
75-84	430	23%
85+	120	18%
<b>Total</b>	<b>2,000</b>	<b>28%</b>

Table 3. Summary of process used to allocate appropriate properties to downsize into.

	Couple	Single person
Not low income (> 60% of median income)	3 bedroom property	2 bedroom property
Low income (≤ 60% of median income)	2 bedroom property	1 bedroom property

earner must be over the age of 60. Firstly a suitable number of bedrooms for the downsize property is selected based on income and whether it is a single person household or a couple. Table 3 summarises the process.

Only households that could reduce the number of bedrooms in their home according to this process are considered for downsizing.

Clearly not all three bedroom properties are alike; floor areas vary significantly by property age, value and from region to region. For this reason we assume that, for example, those living in larger than average 4 bedroom homes will downsize to larger than average 3 bedroom homes. This is done on a percentile basis such that those living in a 65<sup>th</sup> percentile 4-bed property by floor area will downsize to a 3-bed property in the 65<sup>th</sup> percentile of 3 bedroom properties by floor area. This is capped at the 75<sup>th</sup> and 25<sup>th</sup> percentiles so that those living in the very largest and smallest properties downsize to homes in the 75<sup>th</sup> and 25<sup>th</sup> percentile respectively, rather than moving into abnormally large or small homes.

The result of this process is an estimate of number of bedrooms and internal floor area of an appropriately sized new property for all households in the 2010 EHS sample for that are suitable for downsizing. The internal floor area is used to estimate the value of the property by assuming that the new property is in the same or similar area and of the same 'quality' i.e. the price per square meter is the same.

To exclude downsize moves that might be seen as not worth the cost or effort of moving, only those where a 30 % or greater reduction in floor area is achieved are considered. The data set of possible downsizers can now be used to characterise the types of household where downsizing potential might exist.

It is helpful to separate potential downsizers into a number of groups according to how they might best be targeted by policy makers. For this purpose six main groups of interest are identified, those in social housing, private renters, and owner occupiers split into four sub-groups by age and income.

There is sufficient potential for downsizing in any one of the target groups to alleviate the housing deficit for overcrowded households. The largest potential is found in the '60 to 74, higher income' target group, they are the largest of the groups

and have some of the largest properties. The potential in the '75+, higher income' group comes from a small proportion with substantial downsize potential, these are likely to be the many single person households found in the oldest age bracket. Whilst there is still significant potential in the socially housed target group we find a far lower proportion able to downsize and lower gains in terms of value released and floor size reduction. Private renters make up the smallest target group but typically live in smaller homes so will tend to have a reduced benefit from a downsizing move.

The results of this analysis are dependent on a number of broad assumptions and simplify the highly complex decision process of downsizing into just a few principles. They do however help to frame the discussion around downsizing by highlighting the relative importance of each target group. The proportion of potential downsizers within each group gives a measure of the likelihood of encouraging these household types to downsize whilst the measures of floor size reduction and property value released can give an indication of the societal and financial benefit that could be gained by targeting each group.

### What are the energy efficiency implications of downsizing?

There are three main areas of energy efficiency that are influenced by the process of downsizing; firstly it changes operational energy use, secondly it affects the demand for new build properties and the embodied energy implications of construction and thirdly the type and size of household inhabiting a given property can affect the chance of energy efficiency retrofit being undertaken.

The housing market is a complex system of exchanges quite unlike other more liquid markets. For the purpose of exploring the consequences of increased rates of downsizing in this paper the process is simplified to the following assumptions. There is a demand for additional housing space in the market which will be met in the most part by the construction of new dwellings. An older household making the decision to downsize will move from a larger, older property into a newly built



Table 4. Downsizing potential of each target group measured in floor area and property value released (Department for Communities and Local Government 2011a).

Target group	Number of households in group (thousands)	Number of households with potential to downsize (thousands)	Proportion of group with potential to downsize	potential reduction in floor area (millions m <sup>2</sup> )	average floor size reduction (m <sup>2</sup> )	potential property value unlocked (£billions)	average property value released (£)
Social housing	651	123	19%	4	36	7	55,284
Private renters	324	97	30%	6	64	12	124,144
60 to 74, higher income	2,623	628	24%	56	89	121	192,855
60 to 74, low income	1,125	609	54%	32	52	61	100,053
75+, higher income	935	162	17%	18	112	43	264,473
75+, low income	1,021	667	65%	29	44	63	94,584
Total	6,680	2,287	34%	146	64	307	134,219

smaller home. A working age family will move into the vacated home. The end result of the downsizing process is that a small new property is built instead of a large one and the large, old property is now occupied by a working age family rather than a retired household.

#### OPERATIONAL USE

The difference in heating energy use of a home occupied by a working age family versus a retired household living in an identical property is dependent on a number of factors; the amount of time spent in the home, the number of rooms left unheated or partially heated and the temperature to which the living area is heated. Other energy uses such as power (with the exception of lighting) and hot water will be dependent mostly on the size and behaviour of the family and so would not be affected by moving from one property to another.

We might expect that the large property occupied by a retired household would be heated throughout the day and to a higher temperature, especially for less physically active older people. This would lead to a greater heating demand in the property when occupied by an older household. However, factors also work in the opposite direction. The average internal temperature of homes in the UK has increased greatly over the last 30 years, from 13.4 degrees C in 1980 to 16.9 degrees in 2010 (DECC 2012), older households may well have a lower expectation of comfort in their home and so heat to a lower temperature than a younger, working age household. In addition older households may well leave some un-used bedrooms unheated or partially heated, further reducing their heating demand.

To assess how the factors highlighted above might affect the amount of energy we use in our housing stock overall might change if we were to encourage greater numbers of downsizers we can look at current household energy consumption data for households in the UK.

The Office of National Statistics' Family Spending Survey (Office for National Statistics 2012d) records weekly expenditure on fuel and power. Ideally we would like to isolate fuel used

for heating from this data; nationally electricity expenditure is predominantly used for power as 82 % of homes are heated by gas (DECC 2012) and so expenditure on electricity can be excluded. Hot water consumption is still included in our expenditure figures but this cannot be helped and will not sufficiently distort the picture for our purposes.

Looking at the weekly energy expenditure in Table 5 we can see that expenditure on energy peaks at the '50 to 64' age range and then drops off for older households. This pattern however, correlates closely with the typical size of the homes lived in by each age group. If we want to try to isolate the influence of behavioural factors identified above on energy consumption a simple method would be to normalised for the floor area of the property. The heating expenditure estimate can be normalised for floor area by using data from the EHS to calculate an average property floor area for each household age grouping. The normalised heating and hot water expenditure of each household age grouping gives a broad indication of the 'energy intensity' of the households. The calculations are summarised in Table 5.

By looking at the 'energy intensity' by floor area rather than straight consumption per household we can see that once normalised for property floor area expenditure on heating and hot water is not strongly dependent on the age or composition of households. This broad brush analysis indicates that an increased rate of downsizing would not have a substantial impact on the over-all heat demand in the housing stock. A more complete understanding of how the energy consumption of the housing stock depends on the age of those occupying may be gained through a bottom-up modelling approach to the question and further analysis of the different factors involved. This however would be beyond the scope of this paper.

#### EMBODIED ENERGY IN NEW BUILD PROPERTY

There is currently a significant demand for new family housing in the UK which is likely to be met by the construction of new family sized homes. The process of downsizing may provide a

Table 5. Calculation of Energy expenditure intensity (Office for National Statistics 2012d).

	Age Less than 30	30 to 49	50 to 64	65 to 74	75 and over
Weekly expenditure on energy excluding electricity (£)	7.70	11.40	12.20	11.10	10.60
average property floor area(m <sup>2</sup> )	73.57	96.79	106.07	98.06	89.36
Expenditure per floor area (£/m <sup>2</sup> )	0.105	0.118	0.115	0.113	0.119



Figure 3. 'Energy intensity' by age of main earner in household.

more resource efficient way to alleviate this demand. If instead of building a large new family home a small home was built, suitable for a downsizing household. The housing needs of both households are met whilst reducing the demand for new-build properties in square meter terms.

Estimating the energy consumed in the construction of new properties is a complex process and as a result estimates made differ greatly depending on methodology and regional variations in building practice and industrial processes (Dixit, Fernandez-Solis, and Culp 2010). For residential buildings published results range from 3.6 GJ/m<sup>2</sup> (Pullen 2000), up to 8.76 GJ/m<sup>2</sup> (Treloar 1998). In the UK, Hammond and Jones reported an average of 5.3 GJ/m<sup>2</sup> embodied energy and 403 kgCO<sub>2</sub>/m<sup>2</sup> embodied carbon for the 14 cases they studied (Monahan and Powell 2011). As this figure is geographically relevant and falls in the middle of the range found by Dixit et al it will be sufficient for our purposes.

When a household downsizes their property it increases the available space in the housing market. If this additional space is taken up by households that would have otherwise increased demand for new build properties we can assign an avoided embodied energy to the act of downsizing.

The process of downsizing could provide substantial savings of resources and energy by reducing the demand for new build properties. The construction of new homes is not solely dependent on demand for housing space and not all housing

space is equivalent. As such, it is unlikely that housing space released by downsizing will translate to a reduction in the need for new build with a one to one relationship. The results however provide a useful baseline to understand the embodied energy implications of the downsizing process.

#### INFLUENCE OF OCCUPANCY ON RETROFIT

The housing stock in the UK is some of the least energy efficient in Europe. Combined with a slow stock turn-over this means that two thirds of the existing housing stock will still be in use in 2050 (Brenda Boardman et al. 2005). This makes the energy efficiency retrofit of old homes vitally important to the UK's energy and climate change goals. Energy efficiency retrofit policy in the UK is currently in a state of change. Policies such as the Carbon Emission Reduction Target (CERT) and Warm Front focussed on simple, low cost improvements such as loft and cavity wall insulation. The Energy Company Obligation (ECO) and the Green Deal which replace these old policies have a different focus. ECO will focus predominantly on solid wall insulation and the Green Deal will encourage packages of energy efficiency improvements. This policy shift represents a significant change in the nature of retrofit in the UK, with households being encouraged to undertake more disruptive improvements to their homes.

The success of this new phase of deeper retrofits will be dependent on households overcoming the costs and hassle in-

Table 6. Embodied energy avoided by a typical downsizing in each of the target groups. (Department for Communities and Local Government 2011a).

Target group	average floor size reduction (m <sup>2</sup> )	Typical embodied energy avoided (GJ)	Typical embodied energy avoided (kWh)
Social housing	36	190	52,744
Private renters	64	339	94,017
60 to 74, higher income	89	473	131,424
60 to 74, low income	52	277	77,001
75+, higher income	112	594	165,051
75+, low income	44	232	64,523
Average	64	338	93,968

volved in improvements such as internal wall insulation. The greater freedom of time enjoyed by the recently retired may make them more able to deal with the planning and inconvenience of a major retrofit compared to a working age household. However, the 'older old' may struggle with the upheaval of disruptive improvements.

One view of delivery for energy efficiency retrofits is the concept of trigger points. The idea is that events such as moving home or the renovation of a room can trigger energy efficiency improvements by reducing hassle. The Energy Saving Trust's report 'Trigger points – a convenient truth' (Energy Saving Trust 2011) looked at the trigger points that spur households into improving the efficiency of their homes and also the likelihood of different demographics to undertake these works. The study identified young families as the most likely group to undergo major renovations and also the most likely to include energy-efficiency upgrades in the process. The study also found that 'empty-nesters', that is couples who no longer have dependent children and are planning for retirement, were also likely to be planning upgrades to their homes.

Although newly retired households are still likely to have refurbishment plans, the rate of refurbishment tends to drop-off with age. The EHS 2009 household interviews found that for households where the main earner was over 60, 6.8 % had replaced their kitchen in the last 12 months compared to 9.1 % for those under 60 (Department for Communities and Local Government 2011a). Similarly over 60s refurbished their bathrooms typically once every 14 years compared to once every 11 years for under 60s. The reduced rate of refurbishment provides fewer trigger points where workmen are in a home and could facilitate energy efficiency upgrades.

Moving home is another major trigger point for renovations and energy efficiency upgrades. Older households move far less frequently, the average length of residence of a household over 60 is 23 years compared to 8 years for those under 60 (Department for Communities and Local Government 2011a). This lower rate of refurbishment could lead to older people's homes becoming left behind in the housing stock upgrade the UK needs over the next 20 years.

Deep energy efficient retrofit is still a relatively rare event in the UK housing stock, where it happens it is usually driven by social or environmental schemes rather than a free market. It remains to be seen whether or not the new policy regime will prove unattractive to older generations, it is likely that a

targeted approach to this demographic will be needed if we are not to leave their properties behind in the refurbishment of our housing stock.

### Policy interventions to encourage downsizing

The process that a household must go through before deciding to downsize is long and complex. There are several barriers along this process that can stop households from progressing with the process. Lack of awareness of the potential benefits of moving to a smaller home and availability of useful information on which to base a decision can stop the process before it has even started. Sufficient liquid assets to cover up-front financial cost involved in the downsizing process. These costs must also be weighed against the long-term benefits. Vitally a property suitable for the household's needs must be available. Finally the work and stress involved in moving home may stop a household from acting even if the finances and long-term benefits stack up. Each of these barriers must be overcome in turn and represents an opportunity for policy makers to smooth the process and encourage a greater number of older households to downsize their home.

### AWARENESS AND INFORMATION

Provision of information and advice can put people on the first step to considering their future housing needs and the options available to them. The growing population of older households and the huge potential for social change in downsizing has not gone unnoticed with policy makers in the UK. The Department of Communities and Local Government published a National Housing Strategy in November 2011. The report acknowledged the challenges of both providing housing for younger households and suitable accommodation for the elderly (Department for Communities and Local Government 2011b). It announced a 'New Deal for older people's housing' – this included the free, independent advice service FirstStop to help older people understand their housing options, and the provision of £51 million for a 'handyperson' scheme to deliver small home repairs and adaptations.

Advice services such as FirstStop aim to help older people understand the complex process involved in making the right housing decision. The scheme, however, is aimed primarily at the 'older' old, particularly those in a crisis situation who may have to go into care. Although this is a vitally important service



for many, it is unlikely to catch people early enough to manage a downsize to a suitable property before their health deteriorates and will instead work to help people stay out of care homes by making simple improvements to their existing home.

Energy efficiency advice is currently available from many sources whether a local council or national sources like the Energy Saving Trust. Including advice on downsizing into existing advice services could be a useful avenue to starting a discussion about the energy benefits it can bring. Energy efficiency savings will always be just one of many important factors considered in downsizing, there is a risk that providing downsizing advice as part of an energy efficiency remit could be seen as an interfering in a separate personal matter. It may be more productive for energy efficiency advice providers to work with providers of financial advice so that the energy efficiency benefits of downsizing can be presented as part of wider advice on planning for retirement and old age.

### FINANCIAL INCENTIVES

Financial incentives can strengthen the case for downsizing and help overcome the problem of up-front cost. Grants and tax breaks can also be big news and a strong signal to investors whilst also increasing awareness of downsizing as an option.

Many local Councils and Housing Associations in the UK are offering cash incentives to tenants who move out of the largest properties. In areas with severe overcrowding and high property prices these can be substantial rewards. The London Borough of Camden offers up to £15,000 to those leaving 4 bedroom properties (London Borough of Camden 2012). In areas with lower property prices the offerings can be more modest, Oldham council offers up to £1,000 but also provides a dedicated support staff for those going through the downsizing process.

The relatively wealthy recently retired age group should be an attractive target for the private sector, however a 'chicken and egg' scenario exists where older people are put off downsizing due to a lack of suitable property in their area and developers are not keen to build suitable properties due to uncertain demand. A strong lead from central government could give investors confidence to build the properties and provide the services that will encourage this group to downsize. A reduction in property sale tax (Stamp Duty Land Tax) for those moving to a smaller property would provide a highly visible incentive. Using such a tax to influence the housing market has precedence in the UK, first time buyers struggling to get on the property ladder were exempt from this tax between 2009 and 2012.

### PRACTICAL HELP AND SUPPORT

Practical help and support for those going ahead with a downsize move can remove some of the hassle and stress that delays households from going ahead with a move to a smaller home. These so called 'soft' factors can be substantial problems in the case of downsizing. Moving to a smaller home may be considerably more stressful than a typical house move, possessions may have to be discarded and typically the household will have lived in the previous home for many years.

Socially housed older people often already have access to downsizing help services and incentives in many Local Authority areas. The London Borough of Redbridge has extended their reach to those living in their own homes through its FreeSpace

scheme (London Borough of Redbridge 2013). FreeSpace helps owner occupiers to downsize from their own homes to a council property, the household retains ownership of the property which is managed and let out by the council. The profits from letting the home out are passed on to the owner, any renovations needed to make the home ready to rent are paid for by a lifetime interest free equity release from the council of up to £25,000. Redbridge's pioneering downsizing scheme could provide a model for other councils but the offer of council accommodation is unlikely to tempt higher income owner occupiers. The private sector has also realised the potential for supported downsizing services and companies such as Seamless Relocation will manage the downsizing process for a fee (Elderly Accommodation Council 2012) although currently the market for these services is still small.

Programmes such as these may play an important role for 'older old' groups. As households age the case for downsizing becomes stronger, particularly as single pensioner households become more common, in addition health concerns become more immediate. The financial barriers become less important and hassle and stress a greater issue, for this reason programmes providing practical help may be a stronger driver of downsizing in this age group than financial incentives would be.

### BUILDING LEGISLATION

The growing number of older people will require an increase in the number of properties that meet their needs, particularly if downsizing is to be encouraged. However, suitable retirement properties are still relatively rare in the UK. Legislation can be imposed on the construction industry to increase the supply of retirement suitable properties and make the prospect of downsizing more appealing.

Legislation to ensure new homes are accessible to older people has been left to the local government level as future needs of accessible housing will vary considerably by region. Many local planning policies require that a proportion of new developments meet the 'Lifetime Homes standard' for accessibility (The Foundation for Lifetime Homes and Neighbourhoods 2012). The standard requires homes to meet 16 design criteria that can be universally applied to new homes at minimal cost.

The housing needs of our ageing population will require substantial changes to the UK's housing stock. Legislation such as the 'Lifetime Homes Standard' will play an important role in this transformation. This transformation is an excellent opportunity to improve energy efficiency standards and it is vital that energy considerations are included when making housing suitable for older people. New build properties designed for older people will already have high energy efficiency standards, a 'retrofit lifetime home standard' could require a greater level of energy efficiency for existing dwellings adapted for older households. Such a standard could provide a guarantee of suitability for households considering a move to a retirement property.

### COMPULSION

Legislative compulsion is one way to cut through any potential 'barriers' a household might face. Clearly such a policy would be extremely unpopular with negative consequences for many households.

Despite the negative consequences an example of such a policy does exist in the UK. Changes to the benefit system an-

nounced in the National Housing Strategy mean that Housing Benefit will no longer cover the full housing cost for working age households in the social rented sector with spare rooms. This policy is an unprecedented inducement for households to downsize their homes, although it is only applied to working age households.

### Political acceptability and public backlash

The housing crisis is a very emotive topic, everyone can relate to the desire of families to have more space and the concern of older people in moving from homes they have lived in for many years. Many of the findings from reports referenced by this paper have caused heated debate in the media and the policies described above have received as much scorn as praise. Much of the debate has been framed as an intergenerational conflict and stoked by the exaggerations of media commentators. The concerns however cannot be dismissed, the Joseph Rowntree Foundation has found that “There is some evidence (from our interviews and other consultations with older people) that the current discussion of downsizing and under-occupation (especially from the government) is upsetting, annoying and distressing, and reflects a lack of concern or understanding of wellbeing and quality of life issues from an older person’s perspective.” (Pannell, Aldridge, and Kenway 2012b).

The Daily Telegraph ran an online poll alongside an article regarding Housing Minister Grant Shapps stating that older households should be encouraged to downsize. Just 18 % or respondents were positive to the idea in the (highly unscientific) poll despite the article being mostly positive (Tim Ross 2012).

It is important that researchers and policy makers are not dismissive of the strong emotional attachment all people have to their homes. There is a danger that insensitive and even provocative language such as “the hoarding of housing” (The Intergenerational Foundation 2011) may turn large numbers of older people against downsizing policy good or bad. The voice of older generations carries a great deal of political weight. They are more likely to be politically active and have high levels of voter turnout and they are generally held in high regard and with sympathy by other voters. Without the support of the elderly even the best designed policies may be abandoned for fear of political backlash. However, if policy is designed well, and communicated clearly, the backing of older generations could provide a strong political drive to create real change in housing policy for all generations.

### Conclusion

The decision to move out of a family home once children have ‘left the nest’ is a complex one involving financial, practical and emotional considerations. The broad brush analyses applied to the process of downsizing in this paper are designed to help frame discussion of this emotive subject. It is interesting to note that the benefits, from an energy efficiency perspective, are also not as clear-cut as might be expected. If the UK is to meet the demands of housing and health for its growing population of old, and very old people significant investment will be required. By encouraging the younger old to think about their current and future housing needs the households that would benefit

from downsizing can be incentivised to do so or plan for a time when they will. Even a small increase in the number of households in this group deciding to move to smaller properties can drive new markets for active retirement properties whilst relieving the deficit in family sized homes.

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