



# **Assessing the social and economic impact of affordable housing investment**

**A REPORT PREPARED FOR G15 AND THE NATIONAL HOUSING  
FEDERATION**

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# Assessing the social and economic impact of affordable housing investment

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## Executive Summary

This report assesses the economic impact of public capital investment in new affordable housing. The report critically reviews new and existing evidence to assess the social and economic impact of capital investment in affordable housing. We set out our findings in line with our framework for assessing the impact of public capital investment. Our framework is in line with HM Treasury's Green Book, which specifies the methodology for appraising policies.

We find that government investment in affordable housing supports a range of social objectives by improving outcomes for residents, in areas including health, crime and employment. Affordable housing supports some of the highest need individuals in society. It offers a more affordable, often better quality alternative to renting privately, both through the quality of homes and the services that housing associations deliver to support tenants. Further, affordable housing developers are making public funding go further, for example by cross subsidising new affordable homes from sales and other commercial activities.<sup>1</sup>

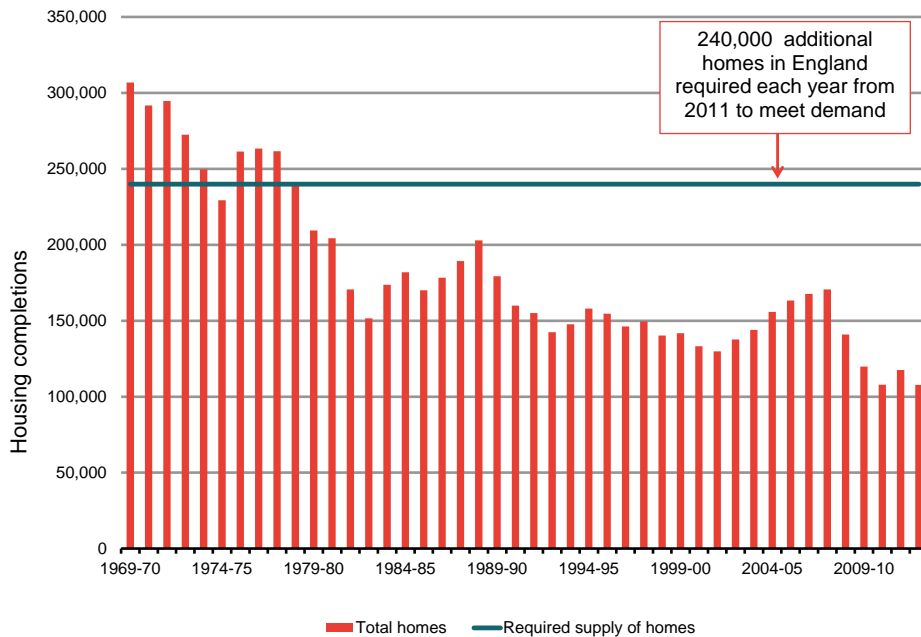
### *1. It is widely agreed that the supply of affordable housing is at a historic low, and requires urgent and decisive policy intervention*

To understand the economic impact of public investment in new affordable housing, it is important to understand the size of the problem that affordable housing is trying to alleviate.

The supply of both market and affordable housing is at a historic low despite high and growing need. As **Figure 1** shows, the overall number of housing completions in England has decreased steadily over the last few decades. This trend has accelerated since the financial crisis in 2008. UK housing supply is very unresponsive to prices, for example with Stewart (2002) finding low elasticity of housing supply, especially in the South East.

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<sup>1</sup> We define affordable housing as housing provided for rent or sale at below market rates. These rates are typically 80% of market rent or lower for rented affordable housing

**Figure 1.** Housing supply in England

Source: DCLG, Live Table 209; TCPA (2013)

The persistent undersupply of market housing more widely and affordable housing in particular has resulted in a backlog of high affordable housing need, added to by population growth. The Barker Review found in 2004 that for social housing alone, an increase in supply of 17,000 homes per year was required to meet new households' needs, with an additional 9,000 units per year required to meet the backlog caused by undersupply of social housing.<sup>2</sup>

More recent research concluded that a total of 240,000 new homes were needed each year in England to 2031, more than double the current rate of building, as shown in **Figure 1**.<sup>3</sup> Around 79,000 of these homes are required in the social sector.<sup>4</sup> Since 2004, the required increase in building of affordable homes identified by Barker has not been fully met. **Figure 2** illustrates the affordable housing supply over time in England, and shows that current affordable home

<sup>2</sup> Kate Barker, 2004, Review of Housing Supply Final Report – Recommendations, Delivering Stability: Securing our Future Housing Needs

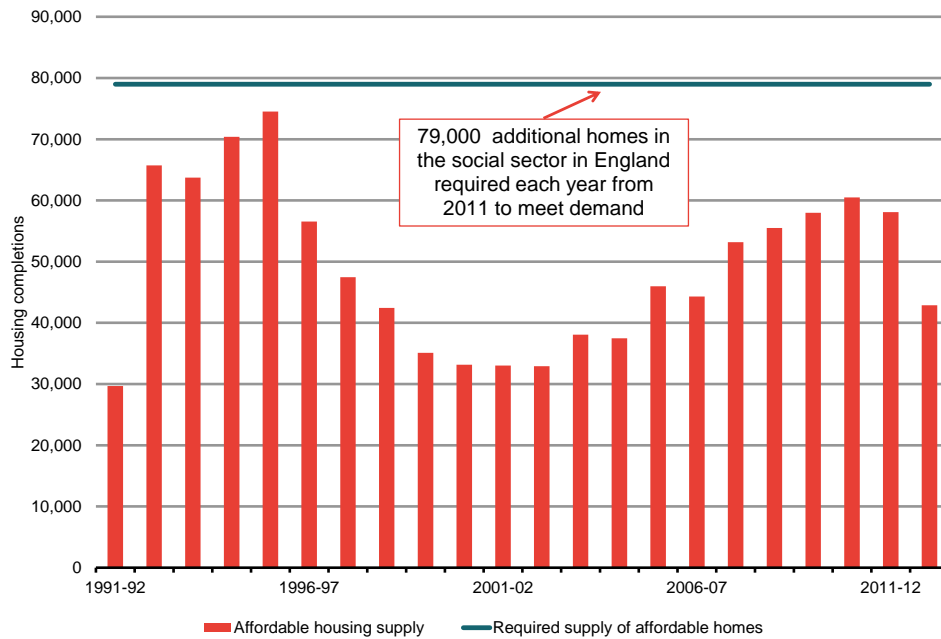
<sup>3</sup> Holmans, A., for the Town and Country Planning Association, 2014, New estimates of housing demand and need in England, 2011 to 2031, available at: [http://www.tcpa.org.uk/data/files/HousingDemandNeed\\_TCPA2013.pdf](http://www.tcpa.org.uk/data/files/HousingDemandNeed_TCPA2013.pdf)

<sup>4</sup> The study defined homes in the social sector as both below market rental homes, and private sector tenants with Housing Benefit. Holmans, A., for the Town and Country Planning Association, 2014, New estimates of housing demand and need in England, 2011 to 2031, available at: [http://www.tcpa.org.uk/data/files/HousingDemandNeed\\_TCPA2013.pdf](http://www.tcpa.org.uk/data/files/HousingDemandNeed_TCPA2013.pdf)



building is far below the requirement from the affordable sector. This current undersupply sets the context within which we consider the case for capital investment.

**Figure 2.** Affordable housing supply in England



Source: DCLG, Live Table 209; TCPA (2013)

*Note: The 79,000 social sector homes also include private sector homes with Housing Benefit. These account for around 15% of social sector homes. The housing supply figures for affordable housing is the sum of social rent, affordable rent, intermediate rent and affordable home ownership.*

In London, the Mayor's Housing Strategy identifies a need for 49,000 new homes each year until 2034-35.<sup>5</sup> This compares to average total supply of 20-25,000 new homes in London annually over the past decade. Similarly to the national picture, the high need for housing in London is as a result of population and household growth and persistent undersupply, with the population of London projected to be around 10 million by 2031.<sup>6</sup> Of the new homes required each year in London,

<sup>5</sup> Mayor of London, 2014, Homes for London, The London Housing Strategy, available at: [https://www.london.gov.uk/sites/default/files/Draft%20London%20Housing%20Strategy%20April%202014\\_0.pdf](https://www.london.gov.uk/sites/default/files/Draft%20London%20Housing%20Strategy%20April%202014_0.pdf)

<sup>6</sup> Mayor of London, 2014, Housing in London 2014, The evidence base for the Mayor's Housing Strategy, available at:

16,000 (almost a third) are required for affordable rent, and a further 10,000 (a fifth) are required to be built for supply at intermediate rates (e.g. shared ownership).<sup>7</sup>

Looking at a wide range of measures, housing has become less affordable for large numbers of families in England. The house price to earnings ratio in England doubled between 1997 and its peak in 2007, after which house prices have remained between six and seven times earnings.<sup>8</sup> With interest rates expected to rise,<sup>9</sup> the offsetting impact of low interest rates is set to reverse. Further, private rental prices have increased steadily since 2005, with the only exception in 2009-10.<sup>10</sup> For households renting in the private sector, on average, rent accounts for over half of their household's weekly income.<sup>11</sup>

**“The house price to earnings ratio doubled between 1997 and its peak in 2007, after which house prices have remained between six and seven times earnings.”**

*Source:* ONS, House price to earnings ratio over time, table 577

The affordability problem is the result of the reduced supply of homes, combined with an increase in the number of households, which has led to ever-rising house prices and market rents.

## **2. Affordable housing supports high need individuals**

The implication of the housing supply problem is felt acutely by households in the sphere in which the affordable housing sector operates, with historic undersupply and a growing population resulting in high and increasing need for affordable housing.

Because of the undersupply of affordable homes, those at the margin of entering affordable housing are higher-need than ever. The alternative to living in affordable housing is often living in adverse conditions. Prior to moving into affordable housing, 16% of households are statutory homeless, 19% move due to

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[https://www.london.gov.uk/sites/default/files/Housing%20in%20London%202014%20-%20Final\\_1.pdf](https://www.london.gov.uk/sites/default/files/Housing%20in%20London%202014%20-%20Final_1.pdf)

<sup>7</sup> Mayor of London, 2014, Homes for London, The London Housing Strategy

<sup>8</sup> ONS, House price to earnings ratio over time, table 577

<sup>9</sup> Office for Budget Responsibility, 2014, Economic and fiscal outlook – March 2014, available at: <http://budgetresponsibility.org.uk/economic-fiscal-outlook-march-2014/>

<sup>10</sup> ONS, Experimental Index of Private Housing Rental Prices, calculated on nominal rental prices

<sup>11</sup> DCLG, English Housing Survey, 2011-12, Chapter 2

problems with overcrowding and a further 8% move due to problems with their health.<sup>12</sup> There is also a large group with less extreme need that could benefit from affordable housing, but is currently unable to access it due to the lack of supply.

As a result of these developments, households are increasingly driven into housing in the private rented sector, which may be poor quality, less suited to households' needs, and increasingly unaffordable.

In 2011, 35% of homes in the private rented sector failed the Decent Homes Standard, which specifies minimum requirements of homes such as being in a reasonable state of repair.<sup>13</sup> This compares to just 16% of housing association properties not meeting the standard, and 18% of affordable sector properties (housing association and local authority owned) altogether.

The 2011 census found that the proportion of the population owning their home had fallen for the first time in the past century. In 2011, 36% of households in England and Wales rented privately, and in London this figure was 50% of households.<sup>14</sup>

**“Prior to moving into affordable housing, 16% of households are statutory homeless and 19% move due to problems with overcrowding.”**

*Source:* Frontier analysis of CORE lettings data.

**“In 2011, 35% of homes in the private rented sector failed the Decent Homes Standard.**

**This compares to just 16% of housing association properties not meeting the standard.”**

*Source:* Frontier analysis of DCLG's English Housing Survey, 2011-12, Chapter 2.

<sup>12</sup> Frontier analysis of CORE lettings data

<sup>13</sup> Frontier analysis of DCLG's English Housing Survey, 2011-12, Chapter 2

<sup>14</sup> Office for National Statistics, 2013, 2011 Census Analysis, A Century of Home Ownership and Renting in England and Wales, available at: <http://www.ons.gov.uk/ons/rel/census/2011-census-analysis/a-century-of-home-ownership-and-renting-in-england-and-wales/sty-home-ownership.html>

Government capital expenditure on affordable housing is motivated by distributional objectives, as the end outcomes associated with the market are undesirable. The pure market outcome would likely see larger numbers of individuals homeless and many households in poor quality homes and/or paying a large proportion of income on rent. Government intervenes to avoid these outcomes.

Affordable housing can provide a more affordable and better quality alternative for many households currently in the private sector. Households supported by affordable housing are those with the highest need. Over 70% of households in the affordable housing sector have an annual income of less than £20,000.<sup>15</sup> Those moving into the affordable sector in recent years are particularly high need: over half of these households have an annual income of less than £10,000.<sup>16</sup> Households in the affordable housing sector also have a greater proportion of pensioners and tenants with long term disabilities than previously.<sup>17</sup>

“Government capital expenditure on affordable housing is motivated by distributional objectives, as the end outcomes associated with the market are undesirable.”

### *3. To provide an appropriate level of affordable housing, public investment is required*

Recent Government policy has focused on the demand side of the market. However, the low elasticity of supply of housing suggests that an efficient solution to the current under-supply of affordable homes must involve supply side measures.

Recent policy interventions on the demand side include Help to Buy and Right to Buy. While these are linked to supply side government policy, for example Help to Buy equity loans apply only to newly built homes, the measures are predominantly demand side initiatives. Mortgage guarantees provided under Help to Buy are not linked to new supply, as both existing and new homes are eligible.

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<sup>15</sup> DCLG, English Housing Survey, 2011-12, Chapter 2

<sup>16</sup> Frontier analysis of CORE lettings data

<sup>17</sup> Kate Barker, 2004, Review of Housing Supply Final Report – Recommendations, Delivering Stability: Securing our Future Housing Needs; and John Hills, 2007, Ends and means: the future roles of social housing in England, available at: [http://eprints.lse.ac.uk/5568/1/Ends\\_and\\_Means\\_The\\_future\\_roles\\_of\\_social\\_housing\\_in\\_England\\_1.pdf](http://eprints.lse.ac.uk/5568/1/Ends_and_Means_The_future_roles_of_social_housing_in_England_1.pdf)

To date, it is unclear whether this has had any impact on affordability (in general), or on the availability of affordable housing (in particular). Both might be expected to have a limited impact on the availability of affordable housing, in particular as Right to Buy requires one for one replacement of sold stock, though with restrictions on how councils can use receipts from sales to build replacement affordable homes.

There has been some intervention on the supply side (e.g. loan guarantees)<sup>18</sup> but it has not spurred sufficient additional new housing starts to meet the scale of the supply challenge. An effective solution to providing affordable housing must involve the supply side.

Given the current housing shortage and growth in the number of households, focussing on the demand side alone would exacerbate the wider affordability problem, and could push households into more marginal housing, resulting in worse social and economic outcomes (e.g. poor health due to overcrowding). In addition, this demand would be unlikely to drive sufficiently increased supply, as housing supply in England has shown itself to be relatively unresponsive to market signals, primarily as a result of non-market factors such as land use and planning requirements.<sup>19</sup>

**“The low elasticity of supply of housing suggests that an efficient solution to the current under-supply of affordable homes must involve supply side measures.”**

**“Given the current housing shortage and growth in the number of households, focussing on the demand side alone would exacerbate the wider affordability problem, and could push households into more marginal housing, resulting in worse social and economic outcomes (e.g. poor health due to overcrowding).”**

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<sup>18</sup> See: <https://www.gov.uk/government/policies/increasing-the-number-of-available-homes>

<sup>19</sup> See for example Kate Barker, 2004, Review of Housing Supply Final Report – Recommendations, Delivering Stability: Securing our Future Housing Needs

#### 4. Investment in affordable housing supports multiple social objectives

The evidence shows that investment in affordable housing supports multiple social objectives. This includes improvements to individual outcomes such as employability, crime, health and wellbeing, and community cohesion. It is particularly important to assess the socio-economic impact of building affordable homes in light of the large set of households where demand for affordable homes cannot currently be met.

### The potential benefits of affordable housing

#### Illustrative examples

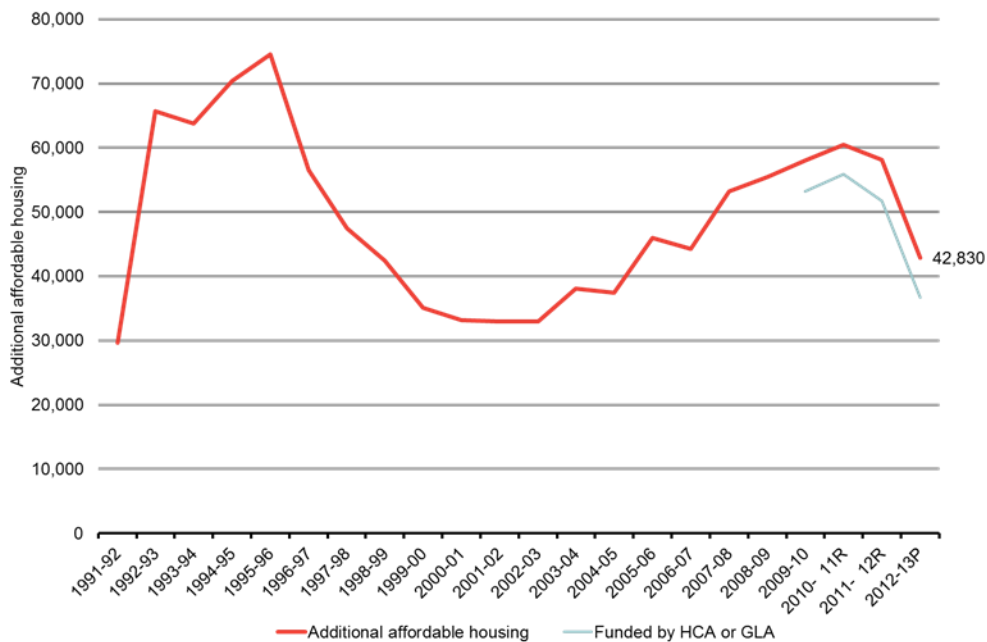
- **Health:** an elderly couple moving from a cold, poorly insulated private sector home to a good quality, insulated affordable home would be less at risk of suffering from excess cold. This could **save the NHS** an estimated **£8,000 per patient per year**.
- **Employment:** housing association employment programmes help on average, one in five participants find a job. A tenant in work for one year would earn **£11,100 in income** and save the government **£8,000 in benefit payments per year**.
- **Homelessness:** housing a previously homeless individual in affordable housing could result in **NHS savings of £3,000 per year**. This is through less time spent in hospital and reduced demand for mental health services.

*Source:* Frontier analysis - see section 7

This wide set of desirable socio-economic outcomes cannot be achieved through Housing Benefit or other operating expenditure on affordable housing alone. This is because many of these benefits are the result of affordable housing being better able to meet tenants' needs than alternatives such as housing in the private rented sector. Therefore public investment in affordable housing is vital.

#### 5. Affordable housing developers can support greater affordable housing supply, however public investment is crucial

Supplying new homes for affordable rent or sale requires public capital funding. In 2012-13, around 86% of new affordable homes were funded in part by the Homes and Communities Agency (HCA) and Greater London Authority (GLA). This is illustrated in **Figure 3**.

**Figure 3.** The role of government funding in the supply of affordable housing

Source: DCLG, Tables 1008 and 1012;

Note: Affordable housing is the sum of social rent, affordable rent, intermediate rent and affordable home ownership. This includes homes where all costs are met by a private developer.

Reducing grant funding reduces the number of new affordable homes that can be supplied. Our analysis suggests that, subject to additionality, at current rent policy and risk profiles, £100m of public grant funding results in 4,100 affordable homes being built on average.<sup>20</sup>

**“The average grant as a percentage of total cost has fallen from 41% under the National Affordable Homes Programme to 23% under the current Affordable Homes Programme.”**

*Source:* Frontier analysis of HCA IMS data

Housing associations built 22,000 homes in 2012-13.

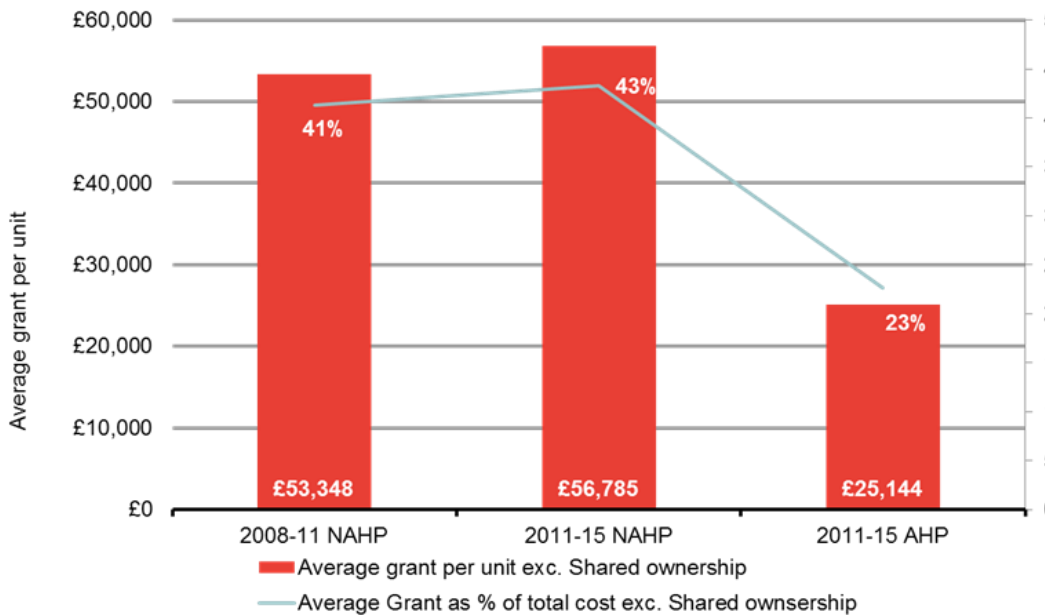
While the proportion of new affordable homes receiving grant funding has remained high, the actual funding received per home has fallen.

<sup>20</sup> Frontier analysis of HCA IMS data

The average grant as a percentage of total cost has fallen from 41% under the National Affordable Homes Programme (NAHP) in 2008-11 to 23% under the current Affordable Homes Programme (AHP). This is partly the result of changed rent regimes, with higher rents allowed under the AHP compared to the NAHP. The funding shortfall has pushed housing associations towards increased borrowing, with some housing associations reaching their borrowing limits. Further cuts in grants would result in reduced affordable home building, for example if housing associations were unable to sustainably borrow more to meet the funding shortfall.

The changing funding per affordable home under the NAHP and AHP is illustrated in **Figure 4** below.

**Figure 4.** Average grant per unit, and as % of total cost



Source: Frontier analysis of HCA Investment Management System (IMS) data

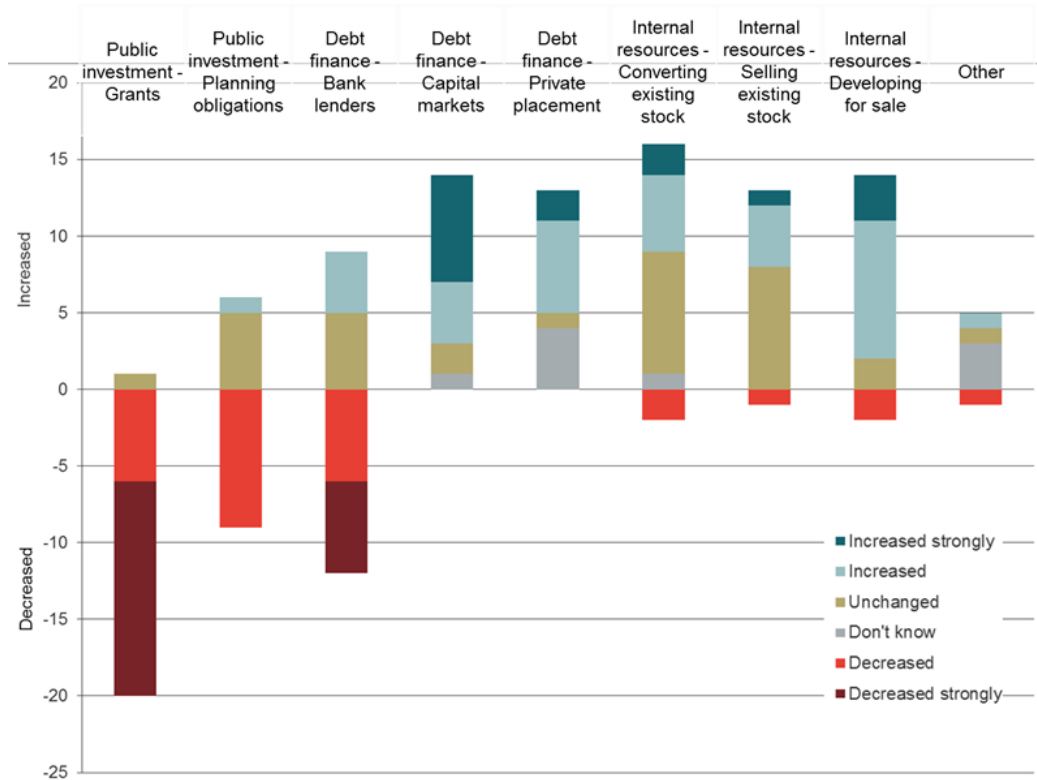
Note: The 2008-11 NAHP figures are for homes funded through the NAHP and built in 2008-11. The 2011-15 NAHP figures are for homes built after the NAHP policy ended, but funded under NAHP rules (e.g. strategic sites completed after the programme ended). 2011-15 AHP figures are for homes funded under the AHP, which does not allow for funding after 2015. Shared ownership homes are excluded.

Housing associations have responded to recent macroeconomic conditions and the new funding climate by being more innovative in how they fund new affordable housing. This makes public investment go further. Our survey of housing associations shows that while public investment and bank lending have declined as a source of funding over the last three years, housing associations have increased funding from other sources. For example, they have made better use of internal resources, such as converting existing stock and developing



properties for private sale to subsidise affordable homes. They have also raised funds from external sources, such as private placement and raising finance from the capital markets. This is illustrated in **Figure 5**.

**Figure 5.** How the availability of funding sources has changed since 2011



Source: Frontier analysis of online survey of housing associations

Note: The numbers on the vertical axis are the number of housing association respondents that answered each part of the question. We have shown decreased funding responses as negative, and all others (including unchanged funding or where respondents didn't know) as positive.

The additionality of new affordable homes, which is the extent to which affordable homes supported by some public funding are additional to those that would have been built by the private sector anyway for sale at market rates, is an important issue. There is mixed evidence on the degree of additionality of new affordable homes built with some public funding, with some commentators suggesting that crowding out could be high. However, bids for HCA funding are expected to be ‘the minimum necessary for development to be viable’<sup>21</sup> and payment is upon scheme completion.

<sup>21</sup> HCA, “2011-15 Affordable Homes Programme – Framework”, available at <http://www.homesandcommunities.co.uk/ourwork/affordable-rent> on 26/03/2014

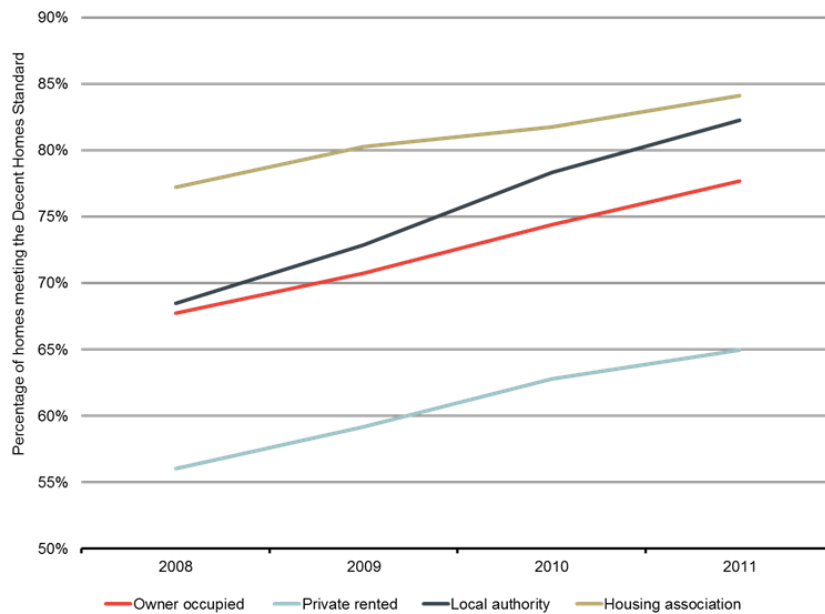
This is indicative of positive additionality of affordable homes part-funded by public grants. On balance, our view is that the evidence supports that crowding out in the medium term is likely to be limited.

“On balance, our view is that the evidence supports that crowding out in the medium term is likely to be limited.”

### 6. Affordable housing providers make public investment go further

Housing associations are not simply house builders. Using housing associations to build more affordable housing also achieves higher quality. As **Figure 6** shows, housing association and local authority houses provide better quality homes compared to the existing private sector stock, using the Decent Homes Standard as a measure of quality. Housing associations also deliver wider social benefits, for example through providing ongoing community support or back-to-work training programmes for tenants. The high quality of affordable housing and services provided by housing associations to their tenants is reflected in tenants being satisfied with their housing. Our survey of housing association tenants found that 83% of tenants are satisfied with their housing and almost 30% are completely satisfied.

**Figure 6.** Percentage of homes meeting the Decent Homes Standard



Source: DCLG, English Housing Survey, 2011-12

## Conclusions

### *Policy objectives and interventions*

- The main objective underlying public capital funding for new affordable housing is distributional, as the end outcomes associated with the market are undesirable. Planning policy also provides a constraint on the supply of new homes, by setting the framework within which they can be built.
- 86% of new affordable homes are funded in part by the HCA and GLA. Grant funding has fallen, with on average 23% of the cost of a new affordable home funded by the 2011-15 AHP, down from 35% in the 2008-11 NAHP. The number of new affordable homes built has therefore fallen.

### *Supply side response to funding*

- Housing supply in the UK is very inelastic. OECD analysis shows the UK responsiveness to be about half that of Japan and a quarter that of the USA (IPBR, 2011).
- The low elasticity of supply of housing suggests that an efficient solution to the current under-supply of affordable homes must involve supply side measures.
- Given the current housing shortage and growth in the number of households, focussing on the demand side alone would exacerbate the wider affordability problem, and could push households into more marginal housing, resulting in worse social and economic outcomes (e.g. poor health due to overcrowding).
- Public funding plays a significant role in increasing the financial capacity of affordable housing developers. In the context of reduced public funding, housing associations have become more innovative in funding affordable homes, for example through cross subsidy from developing for market sales, as well as through debt finance.
- However, this still leaves a funding shortfall, meaning the supply challenge cannot be met. As a result, public investment remains vital for affordable housing developers to be able to support greater affordable housing supply.
- The evidence on additionality, the degree to which new affordable homes part-funded by public capital grants crowd out market provision of new homes, is mixed. On balance, our view is that the evidence suggests that crowding out in the medium term is likely to be limited, though with a range of possible degrees of additionality.

### *Affordable housing output*

- 112,000 homes were built under the NAHP over five and a half years, and 8,800 homes have been built under the AHP in the two years up until September 2013 (not including forecast units).
- To date, the average cost of building a new affordable home under the AHP has been £116,379.
- Affordable homes are predominantly provided for renting. Under the 2011-15 AHP, 84% of funded homes are provided for rent, while 16% of affordable homes funded are for affordable home ownership.
- Housing association homes are more likely to meet the Decent Homes Standard compared to the existing stock of other housing types. This suggests that for tenants in new affordable homes, alternatives such as living in existing private rented sector housing may not provide the same quality of accommodation.

### *Demand side impact*

- The need for affordable housing is high. Local authority waiting lists provide an indication of the scale of current need, and show that 1,689,000 households were on waiting lists for housing in England in 2013, compared to 43,000 new affordable homes supplied in 2012-13.
- Affordable housing supports high need individuals. 16% of new tenants in affordable rental properties were previously homeless.
- Residents move into new affordable housing tenancies for a wide range of reasons. The most common reason for moving home amongst new affordable housing tenants was overcrowding, at 19% of all new tenants.

### *Economic and social outcomes*

- Quantified evidence on the directly attributable impact of affordable housing on individual outcomes is limited. This means that it is not possible to reliably estimate the full benefits of public investment in affordable housing in terms of outcomes for tenants.
- While not all fully quantifiable, the available evidence indicates that investment in affordable housing supports multiple social objectives.

We outline examples below:

- **Health:** Moving into new affordable homes or having an existing affordable home refurbished is associated with improved self-rated health. Health benefits associated with improved housing include reduced problems with self-care and reduced anxiety and depression. Tenants also reported fewer GP visits following the move to improved affordable housing, suggesting there may be considerable savings in health service expenditure from improved housing.
- **Crime:** The evidence suggests that decent housing can help crime prevention, especially for young homeless people. However, there are issues around identifying causality (Friedman 2010).
- **Labour market outcomes:** The evidence on the impact of affordable housing on labour market outcomes is limited. Affordable housing could improve employment outcomes for residents as many housing associations run programmes to help their tenants find work. Our simple analysis of the British Household Panel Survey (BHPS) suggests that affordable housing may improve employability for new housing association tenants.
- **Wellbeing:** Higher satisfaction with housing is associated with higher life satisfaction. In our survey of housing association tenants, 83% reported that they were satisfied with their current home as a place to live, and 70% also reported being satisfied with their lives overall. However, this does not establish causality.
- **Education:** Overcrowding may negatively affect educational outcomes for children, for example by worsening health or reducing support available from parents.
- **Community cohesion:** The literature finds changes to adult socialising and child development following home improvements, as well as increased feelings of safety.

*Source:* Frontier Economics, all findings detailed and referenced in the main report



# 1 Introduction

This report assesses the economic impact of public capital investment in affordable homes. The report reviews new and existing evidence to assess the social and economic impact of capital investment. This section provides an overview of the work, and then outlines our approach to understanding the economic case for investment.

## 1.1 Overview

Frontier Economics were commissioned by the National Housing Federation and g15, who represent London's 15 largest housing associations, to investigate the economic case for government investment in affordable housing. This report sets out our findings on the economic case for public capital funding for new affordable homes.

In this report, we set out our findings as follows:

- in **Section 2**, we discuss the policy objectives motivating public capital funding for affordable homes and current policy interventions;
- **Section 3** assesses the additionality of new affordable homes built with public funding and the constraints on the supply of affordable homes;
- **Section 4** sets out the current output of affordable homes, including the types of homes built;
- **Section 5** explores the demand side impact of new affordable homes, characterising the size of the group eligible for affordable housing and their counterfactual situation;
- in **Section 1**, we set out the evidence on the economic and social outcomes associated with new affordable homes; and
- **Section 7** concludes.

Detailed results of our surveys of tenants and housing associations are included in annexes. The remainder of this section describes our approach for each of the sections listed above.

## 1.2 Our approach

To understand the economic case for public funding for new affordable homes, we reviewed new and existing evidence. The existing evidence reviewed consists of academic literature, policy and research papers and data. We have assessed how good the evidence is in each area. We also surveyed housing associations and their tenants, as well as interviewing a small number of large housing associations currently developing new affordable homes. The new evidence we collected aimed to fill gaps identified in the existing evidence base.

### Appraising capital expenditure

To understand the economic case for public capital investment in affordable housing, we based our analysis on how the case would be assessed using the HM Treasury Green Book. This specifies how policies should be appraised using cost-benefit analysis, starting from the underlying objectives to motivate policy intervention.

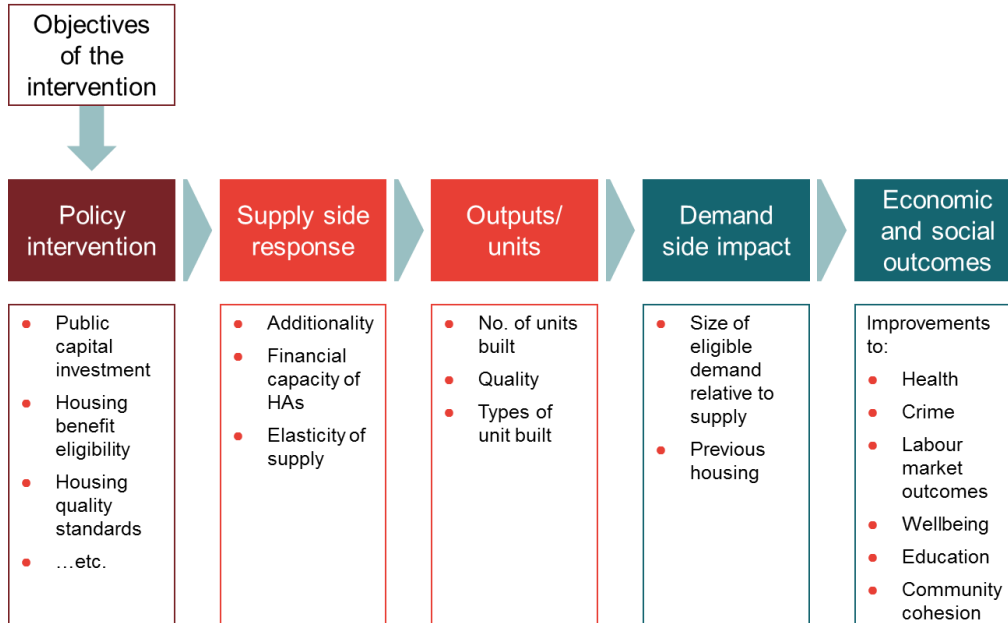
Following this approach shaped the scope of our analysis is as follows:

- **Rationale for intervention:** the motivation for investing in affordable housing is that the end outcomes associated with the market are undesirable on equity grounds.
- **Social and economic outcomes of individuals:** given that affordable housing aims to improve end outcomes for households, we focussed on understanding the impact of capital expenditure on new affordable homes on these end outcomes (for example health improvements or changed labour market outcomes).
- **Appraising capital expenditure projects:** the economic case for a given capital expenditure programme is assessed based on the merits of the spending, i.e. the costs and benefits of over time. Capital expenditure programmes are appraised by HM Treasury in relation to each other, for example the case for affordable housing capital expenditure may be compared to capital expenditure on transport infrastructure. This has informed our approach, which has not framed the economic case as one between capital expenditure and operational expenditure, to be consistent with the Green Book.



**Figure 7** summarises our framework (logic model) for understanding the economic case for investment in affordable housing. Starting from the rationale for policy intervention, it breaks down the key steps through which investment leads to changes in social and economic outcomes for residents. Each step forms a section of this report.

**Figure 7.** Framework (logic model) for government investment in affordable housing



Source: Frontier Economics

The remainder of this section provides an overview of the framework, and then provides a brief description of each step.

### 1.3 Framework for government investment

Our framework (or logic model) is a narrative for how capital investment is expected to improve economic and social outcomes, and therefore why government investment is justified. It requires analysis of:

- the inputs required for public capital investment;
- the outputs that this would be expected to lead to, for example in terms of additional units built, individuals housed; and
- the outcomes that ultimately would be achieved, for example improvement in the wellbeing of individuals who are housed as a consequence.

The steps illustrated in Figure 7 are now described in more detail.

### Policy objectives and interventions

Any policy intervention should have as its starting point an objective. Our focus is on government capital expenditure on new affordable homes, and we consider the objectives for this intervention in relation to those set out in the Green Book.

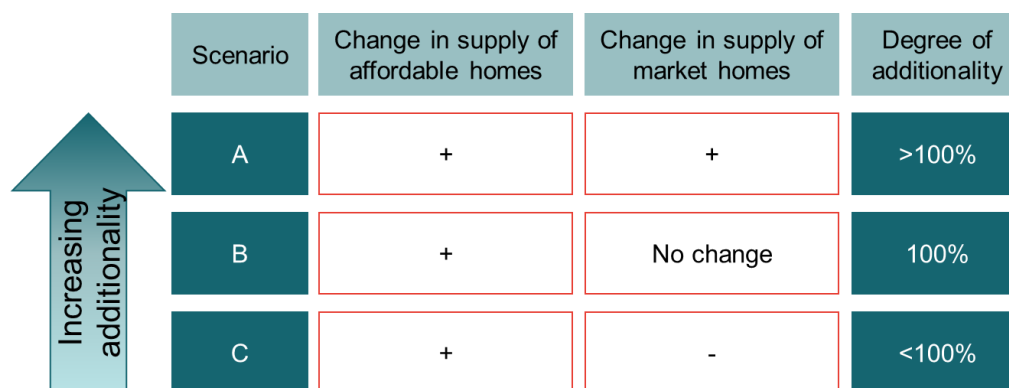
Policy interventions are the means with which Government influences the affordable housing market (including both supply and demand) and associated outcomes. They are therefore considered as an input in our framework.

### Supply side response

The next step in the framework assesses how government investment in affordable housing influences the supply of affordable homes relative to the counterfactual. Our focus is on the impact of government funding on the supply of affordable homes at the margin.

This can be understood by breaking down the possible supply responses to government investment into a set of scenarios. **Figure 8** sets out scenarios for the supply side response to government capital expenditure on affordable housing.

**Figure 8.** Scenarios for the impact of Government capital expenditure on affordable housing supply



Scenario	Change in supply of affordable homes	Change in supply of market homes	Degree of additionality
A	+	+	>100%
B	+	No change	100%
C	+	-	<100%

Source: Frontier Economics

Plus signs denote an increase in the supply, while minus signs denote a decrease in supply. Scenario C, where public investment results in an increase in the supply of affordable homes but displacement of the supply of other homes, corresponds to additionality below 100%, i.e. some degree of crowding out. Scenario A, where there is an increase in supply of affordable and other homes as a result of public funding for affordable housing, corresponds to high (in this case greater than 100%) additionality.

We assess the evidence on additionality, in particular the extent to which homes provided at market rates are crowded out by government funding for new affordable homes. We also assess the constraints on the supply of affordable homes.

### *Output of affordable homes*

This part of the framework assesses:

- the total quantity of affordable homes supplied as a result of government funding; and
- the specification of affordable homes built.

We do not focus on the economic activity directly resulting from increases in supply relative to the counterfactual (e.g. increased construction activity); or the land value uplift associated with policies that increase the supply of housing. Our focus is on the long-run end outcomes associated with (and motivating) public investment in affordable housing, rather than intermediate benefits.

Analysis of intermediate impacts can help to provide the wider context for the economic case for affordable housing.<sup>22</sup> An alternative methodology focuses on measuring the land value uplift<sup>23</sup> associated with policies that increase the supply of housing as well as applying distributional weights to the difference between market and affordable rents. Market prices and land value are imperfect guides to value received by tenants, especially where housing is supplied at below market rates. We therefore go directly to assessing economic and social outcomes affected by affordable housing, accepting that this is more difficult to establish.

### *Demand side impact*

This part of the framework analyses the households that receive new affordable housing at the margin. It sets out:

- where households in new affordable housing would have been housed absent the public funding for the new home (i.e. their counterfactual situation, for example homelessness or living in the private rented sector); and
- the size of the group that is eligible for affordable housing relative to the supply of affordable housing.

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<sup>22</sup> See: Centre for Economics and Business Research (CEBR) for the National Housing Federation, 2013, *The economic contribution of building new affordable homes and of housing associations at the national, regional and local levels*. This uses a well-established methodology, estimating direct, indirect and induced impacts of public funding, based on a construction multiplier

<sup>23</sup> When a site is granted planning permission, the price of the land increases, reflecting the value of the new homes which will be built

### *Tenants' social and economic outcomes*

The final step identifies and, where possible, values the impacts of affordable housing on residents. This is done at an individual and societal level (for example including savings to the public purse from changes in tenant behaviour). The main areas of impact we found included the following:

- health;
- crime;
- labour market outcomes;
- wellbeing;
- education; and
- community cohesion.

The following sections set out our findings in the framework described above.

## 2 Policy objectives and interventions

### Overview

This section first discusses the policy objectives motivating public funding for new affordable homes, and then sets out current policies for supply of affordable housing.

We found the following:

- The main objective underlying public capital funding for new affordable housing is distributional, as the end outcomes associated with the market are undesirable. Planning policy also provides a constraint on the overall supply of homes, by setting the framework within which they can be built.
- Currently around 86% of new affordable homes are funded in part by the HCA or GLA. Grants provided for new affordable homes have fallen substantially in recent years, both in absolute terms and as a percentage of the total cost of building the home. This in part reflects the move to funding affordable homes to be provided at ‘Affordable Rent’ which is higher than ‘Social Rent,’ which was previously used.

### 2.1 Objectives motivating policy

According to HM Treasury’s Green Book guidelines for appraisal and evaluation, there are typically two underlying objectives for policy intervention.<sup>24</sup>

These are:

1. market failure, which is where the market does not deliver an efficient outcome, and cannot be expected to do so without intervention; and
2. distributional objectives based on equity.

In the case of affordable housing, the main objective behind government capital expenditure is to satisfy distributional objectives, as the end outcomes associated with the market are undesirable. Government intervenes because the pure market outcome would likely see larger numbers of individuals homeless and many households in poor quality homes and/or paying a large proportion of income on rent. Government intervenes to avoid these outcomes.

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<sup>24</sup> Paragraph 3.2, Green Book

Planning policy acts as a constraint on the amount of homes that can be built, by setting the framework within which housing is supplied. This impacts on affordability.<sup>25</sup> Pure market failure arguments may apply to a limited extent. We discuss this further in the box below.

## Market failure and affordable housing

As set out above, market failure is where the market does not deliver an efficient outcome, and cannot be expected to do so without intervention. Examples of market failure include externalities (where costs or benefits from an action are not directly priced by the market, for example in the case of pollution) and market power (where markets are not competitive and this results in inefficient outcomes, for example where a firm adopts predatory pricing to drive competitors out of the market).

Market failure arguments are less applicable than distributional objectives motivating investment in affordable housing, as the market is theoretically likely to be able to deliver a higher supply of housing. However, there may be some limited exceptions:

- There may be externalities associated with providing affordable housing, such as public health benefits, which are not taken into account in the market due to a lack of incentives to do so.
- In the current context of historically low house building and restrictions in supply, there may be arguments that supply is below the market efficient level.

Even without market failures, the outcomes associated with the market may be undesirable, motivating redistribution as outlined above.

There are also wider undesirable outcomes associated with current historically low housing supply, such as high house price inflation which feeds into macroeconomic volatility.<sup>26</sup> The scope of this project is housing provided at below market rates, rather than wider issues of affordability in the market, therefore we do not consider these wider issues.

<sup>25</sup> See for example: DCLG, 2010, The impacts of restricting housing supply on house prices and affordability, Final report, available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6357/1767142.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6357/1767142.pdf)

<sup>26</sup> Kate Barker, 2004, Review of Housing Supply Final Report – Recommendations, Delivering Stability: Securing our Future Housing Needs

## Policy objectives and interventions

## 2.2 Current policies and supply of affordable housing

There are currently two main government policies inducing affordable housing supply. The first is through Section 106 agreements and the second through government capital grants, for instance the HCA's Affordable Homes Programme. Both of these policies have different impacts on the supply of both affordable and market housing. Public funding for new affordable homes is increasingly supplemented by cross-subsidy within a housing association. This is outside of and additional to any supply through Section 106 agreements.

We discuss operating expenditure on affordable housing in the box below.

### Capital and operating expenditure on affordable housing

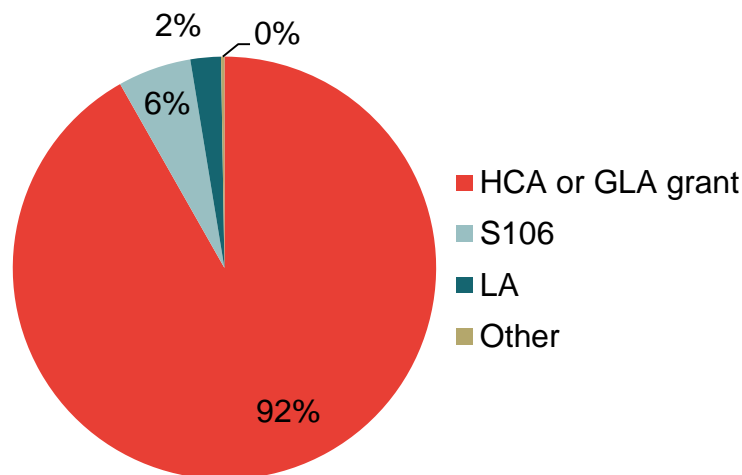
Capital and operating expenditure represent alternative ways of spending public money. As set out above, we have not explicitly assessed the case for capital expenditure on affordable housing in relation to the case for operating expenditure. This is in line with HM Treasury appraisal methodology considering the economic case for capital expenditure. This approach tends to consider operating and capital expenditure separately, with capital expenditure appraised on its merits and relative to other capital projects, without an explicit trade-off against operating expenditure.

Comparing the economic impacts of capital expenditure with operating expenditure on affordable housing is also problematic as operating expenditure is an unreliable benchmark. This is because operating expenditure is highly variable and depends upon a number of factors, such as the state of the economy or government policy such as welfare reform.

To some extent capital and operating expenditure on affordable housing offset each other. For example, peoples' housing costs can be reduced through public capital grants for building affordable homes, enabling these homes to be provided at below market rates; or via public operating expenditure on market rents. However, the timing of returns to spending varies, with the time to recover capital expenditure typically longer.

In 2012-13 around 86% of new affordable homes – both for rent and ownership – were part-funded by the HCA and GLA.<sup>27</sup> Focusing on just affordable rent, this percentage increases in 92%.<sup>28</sup> The breakdown of funding for new affordable homes for rent (which represent the bulk of new affordable home types) is illustrated in **Figure 9** below.

**Figure 9.** Sources of funding for new affordable rent housing, 2012-13



Source: DCLG, Table 1011

Note: Total homes: 6,961

These figures indicate that almost all additional affordable homes are currently part-funded through government capital expenditure.

In the past, grants provided for new affordable homes were substantially higher. Average grants for the most recent affordable homes programmes, the NAHP and the AHP, are illustrated in **Figure 10** overleaf, both in absolute terms and as a percentage of the total cost of building the home.

The chart shows that grants under the NAHP were on average more than double the grants available under the 2011-15 AHP. The NAHP is divided into two periods, with the 2011-15 NAHP period reflecting schemes on strategic sites allowed to continue beyond the end of the NAHP programme period but using the same terms agreed for the rest of the NAHP.

Grants under the NAHP were for new affordable homes to be provided at social rent, while homes must be provided at affordable rent under the AHP. Lower grants under the AHP are motivated by the fact that affordable rent is higher

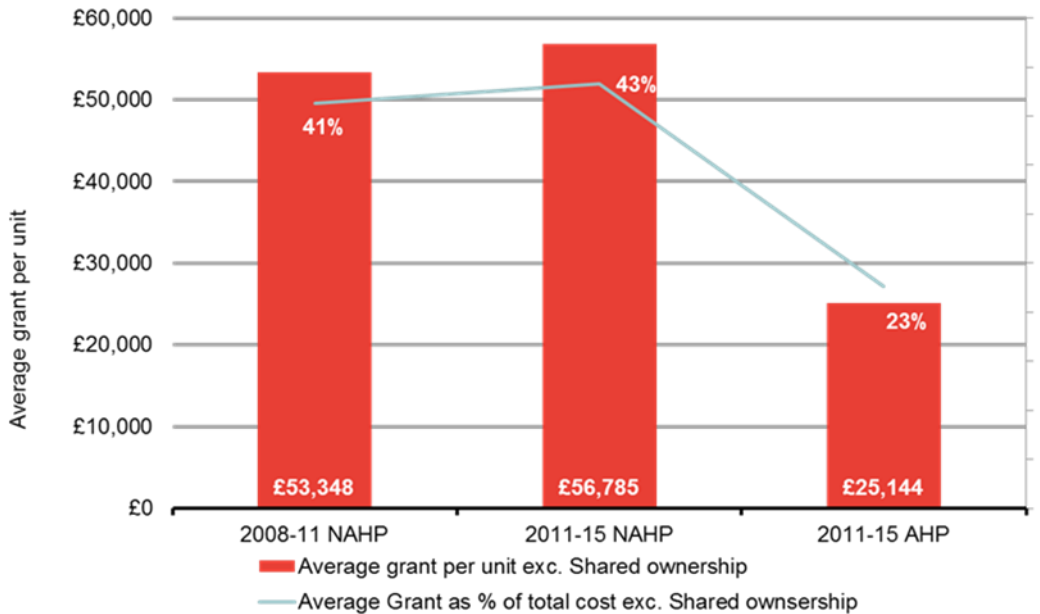
<sup>27</sup> DCLG, Tables 1008 and 1012

<sup>28</sup> DCLG, Table 1011



than social rent. This enables providers to recover more of the cost of building new homes over time, which can in turn make it easier to raise finance (e.g. through borrowing).

**Figure 10.** Average grant per unit, and as % of total cost



Source: Frontier analysis of HCA IMS data

There is variation in the grants received per new affordable home. The maximum average grant per unit for any scheme under the AHP was £92,000, according to HCA Investment Management System (IMS) data. This variation in grant received reflects the total cost per unit of schemes; schemes with substantially higher costs may receive higher grants.

## Summary

The main objective underlying public capital funding for new affordable housing is distributional, to deliver social and economic benefits to those in need. Planning policy provides an important constraint that shapes the current undersupply of both affordable and market homes.

Most affordable homes receive some public funding. The amount of public funding received for affordable homes has fallen in recent years, in part due to a move to higher rents.

Since the reduction in grants, housing associations have become more effective at making government funding go further, including through cross-subsidy. This is further discussed in the next section.

### 3 Supply side response to public funding

#### Overview

This section provides evidence on how affordable housing developers respond to public funding and how this has changed in light of falling grants. It addresses two main issues:

- the additionality of the supply response to public investment in affordable housing; and
- constraints on the supply of affordable housing.

We found the following:

- Housing supply in the UK is very inelastic. OECD analysis shows the UK responsiveness to be approximately half that of Japan and a quarter that of the USA (IPBR, 2011).
- Housing developers are constrained in their ability to supply new homes by their financial capacity, the planning framework, and land scarcity. Affordable housing developers are additionally constrained by rent and asset flexibility. This suggests that an efficient solution to providing affordable housing must involve the supply side, as high demand is not driving supply.
- Given the current housing shortage and growth in the number of households, focusing on the demand side alone would exacerbate the wider affordability problem, and could push households into more marginal housing, resulting in worse social and economic outcomes.
- Public funding plays a significant role in increasing the financial capacity of affordable housing developers. In the context of reduced public funding, housing associations have become more effective at raising finance for new affordable homes from other sources, for example cross-subsidising new affordable homes by building homes for sale at market rates, or raising finance from capital markets.
- However, given the funding shortfall in providing homes at below market rates, public investment remains vital to enable affordable housing developers to meet the costs of providing these homes, and therefore to be able to support greater affordable housing supply.

- A given amount of public investment in affordable housing could at one extreme crowd out private provision of homes; while at the other extreme the funding could result in more than one new home for each home directly funded.
- The evidence on this issue ('additionality') is mixed, and an in-depth study would be required to establish an accurate estimate of the degree of additionality. On balance, our view is that the evidence suggests that crowding out in the medium term is likely to be limited, though with a range of possible degrees of additionality.

### 3.1 Additionality of the supply response to public funding

Understanding the degree of additionality is central to understanding the full supply response to an increase in public investment in affordable housing. This section first defines a range of scenarios for additionality, and then sets out the evidence on additionality of the supply response to date.

#### Additionality scenarios

A given amount of public investment in affordable housing could result in a range of supply responses. At one extreme, public funding could crowd out private provision of homes; while at the other extreme the funding could result in more than one new home for each home directly funded, for example through the funding making a marginal new mixed housing development viable. The extent to which public funding results in additional homes being built relative to the counterfactual ('additionality') is important for understanding the likely magnitude of the economic impact of public funding.

The recent data on the supply of new affordable homes described in Section 2, supports the suggestion that public funding increases the supply of new affordable homes. The extent to which this supply is all "additional" is subject to much debate. It is clear that few affordable homes are provided without any government funding.<sup>29</sup> This suggests that relatively little affordable housing is displaced when government invests (i.e. additionality is high). The debate on additionality therefore focuses on whether affordable housing grants crowd out building of homes to be provided at market rates.

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<sup>29</sup> This is to be expected, given that affordable homes are provided for use at below market rates, leaving a shortfall for developers that they must make up elsewhere

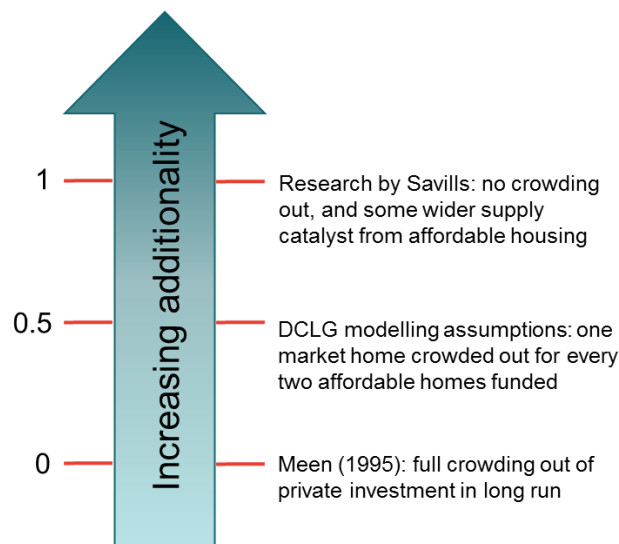
#### Supply side response to public funding

The socio-economic outcomes associated with new affordable housing may differ from those associated with private market housing (e.g. as housing associations deliver tenant support services such as back-to-work training programmes). This means that, even with some crowding out, there are likely to be significant benefits from public investment in affordable housing relative to the counterfactual.

## The evidence on additionality

There is mixed evidence on the additionality of affordable housing part funded by public investment, and the evidence base is too limited to support a point estimate of additionality. A full understanding requires an in depth assessment of the types of sites used for new affordable homes and their alternative use under the counterfactual. On balance however, it is unlikely that additionality is at the extremes of possible crowding out. The evidence supports that additional government funding increases the supply of affordable housing and that crowding out is likely to be limited in the medium term. **Figure 11 below** summarises the range of evidence on additionality, which we then set out in more detail.

**Figure 11.** The evidence on additionality of government expenditure on affordable housing



Source: Frontier Economics

### *There is some evidence to suggest there is additionality of 100%*

Research by Savills suggests additionality is close to one, and could be more than one, meaning that there is no crowding out and that affordable housing development operates as a supply catalyst for market homes.<sup>30</sup> The report finds that housing associations have increasingly moved away from development of affordable housing via Section 106 agreements on private sector led sites. Instead, Savills find that housing associations prefer to be the lead developer of a whole site, building both market and affordable housing, with a cross-subsidy provided by the market units. A move away from Section 106 sites suggests that affordable housing development does not displace market homes, if the sites are not suited to the appetite of the private sector. It should be noted that supply by Section 106 agreements is cyclical, as it depends directly on wider housing construction. While the Savills research found housing associations moving away from Section 106 agreements, one large housing association we interviewed found increasing supply via Section 106 since the economic upturn.<sup>31</sup>

More recently, Bramley<sup>32</sup> found that new social housing output has a positive effect on market house building. This positive connection is explained as being partly due to the growing importance of Section 106 policies over the period observed, which link the two sectors together. As such, this effect is likely to be less pronounced with respect to government funding of affordable housing, as opposed to Section 106 agreements. Again, it should be noted that affordable housing supply via Section 106 agreements is cyclical. While there is a positive association, the causality may not run from affordable housing to wider market house building.

Bids for HCA funding are expected to be ‘the minimum necessary for development to be viable’<sup>33</sup> and payment is upon scheme completion. In other words, the HCA’s funding assumption is that the grant should be the amount needed to ensure that schemes are viable. This is indicative of additionality, in that grant funding allows the development of otherwise unviable sites, provided that the site couldn’t have been used for other purposes.

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<sup>30</sup> Savills, Report to g15, 2013, Additionality of Affordable housing, available at: [http://www.lqgroup.org.uk/assets/files/Additionality-Final-Report-\(2\).pdf](http://www.lqgroup.org.uk/assets/files/Additionality-Final-Report-(2).pdf)

<sup>31</sup> See Annexe 2 for survey results

<sup>32</sup> “The Nature and Implications of a Model of Housing Development Costs in England”, Glen Bramley and Chris Leishman, Paper to be presented at ENHR Housing Economics Workshop, Copenhagen, 17<sup>th</sup> February 2006

<sup>33</sup> HCA, “2011-15 Affordable Homes Programme – Framework”, available at <http://www.homesandcommunities.co.uk/ourwork/affordable-rent> on 26/03/2014

## Supply side response to public funding

### *Others suggest public investment in affordable housing crowds out private expenditure*

Recent assessments by Government for grant funding have typically assumed additionality in the medium term is positive, but with some degree of crowding out. DCLG has assumed additionality of 0.5. Discussions with DCLG and HM Treasury suggest that additionality could be higher in the short run or potentially lower (i.e. with greater crowding out) in the long run.<sup>34</sup>

Meen (1995)<sup>35</sup> shows that, although there are positive short-term benefits from additional public expenditure on housing, almost full crowding out takes place in the long run and increased public housing expenditure is partly offset by a reduction in private housing.

More recently, there is evidence that the supply of affordable housing for a given amount of public funding has increased. Falling grants per unit, as discussed in Section 2.2, mean that the number of new affordable homes built for a given amount of public investment has increased sharply in recent years. This demonstrates that affordable housing developers have become increasingly efficient in making government funding go further to deliver affordable homes for those most in need. The next section explores constraints on the supply of affordable housing, and how developers have responded to changes in these in recent years.

## 3.2 Constraints on the supply of affordable housing

A number of factors constrain the ability of developers to increase the supply of housing.<sup>36</sup> These are outlined below:

- **Financial capacity in the sector:** affordable housing developers must be able to meet the cost of building new affordable homes provided at below market rates. Financial capacity includes the availability of grants, Section 106, and own financial sources arrangements.
- **Scarcity of land:** developers must be able to access suitable sites for new affordable housing. This is also affected by the pace of land release.
- **The planning framework:** this affects the types of affordable homes that developers can supply.

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<sup>34</sup> Discussions with DCLG and HM Treasury

<sup>35</sup> Cited in Meen et al, 2001

<sup>36</sup> L&Q, (2012) "The Numbers Game: Increasing housing supply and funding in hard times"

In addition, the supply of affordable housing is constrained by the following.

- **Rent and asset flexibility:** public funding for affordable housing sets requirements on how new affordable homes must be provided to residents. This can affect the ability of developers to deliver new affordable homes through impacting on their financial capacity. This may also be affected by the extent to which, and expectations about the extent to which, rent paying capacity is supported by benefits.

It is clear that public expenditure will affect financial capacity in the sector, both via capital grants helping to plug the shortfall that developers face in providing homes at below market rates, and via spending on benefits. We therefore explore financial capacity in more detail in the next section, and then set out the evidence on the elasticity of housing supply.

## Financial capacity in the affordable housing sector

Financial capacity in the affordable housing sector will determine how successful additional government funding is in increasing the supply of affordable housing. As public funding does not cover the whole cost of building new affordable homes, developers must be able to meet the remaining cost to be able to use public funding to provide new homes.

Public funding plays a significant role in increasing financial capacity. Given the decrease in the funding available per home under the AHP, housing associations had to meet the remaining costs of new homes from other sources. The evidence shows that housing associations were able to do this effectively, with a wide range of responses which enabled housing associations to deliver more new affordable homes for a given level of funding.

In addition to HCA and GLA funding, sources of funding from housing associations include the following:

- planning obligations (e.g. Section 106 agreements);
- debt finance (e.g. bank loan, capital markets, private placement);
- converting existing stock to market rent or near market rent;
- selling existing stock; and
- developing for sale at market rates.

The financial capacity of housing associations shapes the effect of government funding on the supply of affordable housing.

A credit constrained housing association may not be able to raise the remaining funding required to build an affordable home even after receiving a grant.

## Supply side response to public funding



However, in some cases grant funding may act as both a subsidy; making the project more financially viable; and as a guarantee, allowing a credit constrained housing association to borrow against this amount. The available evidence indicates that the degree of credit constraint varies across housing associations, and this may be related to their size. Smaller housing associations may be more likely to require grant funding to guarantee additional funding, while larger housing associations with more extensive affordable housing development programmes are less likely to be credit constrained.<sup>37</sup>

### Survey

Our survey of housing associations that are lead partners in building new affordable homes found the following changes in availability of finance for new affordable homes over the past three years.

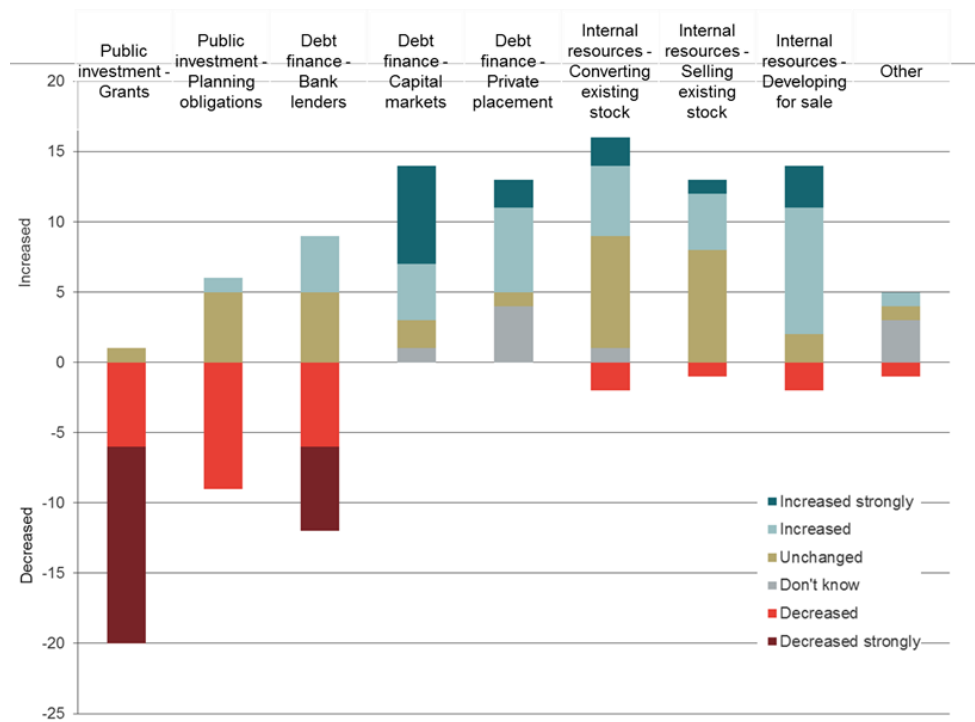
- Grant funding, funding through planning obligations, and bank lending for new affordable homes had decreased.
- Funding through private placement, capital markets, and developing for sale had increased.
- Converting or selling existing stock was unchanged for most respondents, but increasing for some.

These findings are illustrated in **Figure 12**.

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<sup>37</sup> However, this may change in future, for example if larger housing associations reach the limits placed on their borrowing (e.g. asset cover requirements).

**Figure 12.** How the availability of funding sources has changed since 2011



Source: Frontier analysis of online survey of Housing Associations

Note: The numbers on the vertical axis are the number of housing association respondents that answered each part of the question. We have shown decreased funding responses as negative, and all others (including unchanged funding or where respondents didn't know) as positive.

### Interviews

In depth interviews with four major housing associations that are currently building affordable homes were consistent with the findings from our survey. Similarly to the survey, the interviews illustrated that housing associations pursued a range of approaches in response to reduced grant funding. These developments included the following.

- Developing homes for market sale:** housing associations are increasingly cross subsidising new affordable homes by developing market housing and transferring the surplus within the organisation to fund affordable homes. This is important for large housing associations. One large housing association reported that in recent years it had moved from developing affordable homes with approximately £1 of internal funding for every £1 of public funding, to raising £7 of internal funding for every £1 of public funding. It had achieved this by building more units for sale at market rates, cross-subsidising affordable units.

### Supply side response to public funding

- **Selling existing stock:** another means of funding new developments following decreased grants is selling existing stock. Most survey respondents reported that the availability of finance from selling existing stock had not changed over the past three years. However, one housing association we interviewed reported that it sold around one existing home for every three new affordable homes built.
- **Increased borrowing:** some housing associations reported increasingly borrowing against future rental income to fund new affordable homes. This included borrowing via issuing bonds. The degree of gearing was a major constraint on the feasibility of new developments for some housing associations. In the longer term, there is some concern around the sustainability of the affordable rent and affordable home ownership models as vehicles for delivering affordable homes. This is because the funding shortfall has pushed housing associations towards increased borrowing, with some housing associations reaching their borrowing limits.
- **Increasing rents:** one housing association reported that it had raised rents to meet the shortfall in funding for new affordable homes following the recent fall in public funding. This is a result of flexibility provided under the Affordable Rent Programme, whereby public funding for new affordable homes requires that these homes are provided at affordable rent, which is higher than social rent. Other housing associations reported that they had not changed their rents, or raised them below the maximum specified under the affordable rent model.

Financial capacity in the sector, as well as the other supply constraints mentioned above, impact on the elasticity of the supply of affordable homes. The next section discusses the evidence on the elasticity of the UK housing supply more generally.

## Elasticity of UK housing supply

There is a large body of evidence that suggests that UK housing supply is very unresponsive to prices. There is also evidence to suggest that the supply elasticity varies by region.

We outline this evidence below:

- **Housing supply in the UK is very inelastic:** the result of the constraints on supply outlined above in the wider housing market is very inelastic supply. OECD analysis shows the UK responsiveness to be about half that of Japan and a quarter that of the USA (IPBR, 2011). Constraints such as land availability and planning limit supply and therefore affect any supply response to public funding for affordable homes.
- **The elasticity of housing supply in the UK may vary by region:** it is likely to be more inelastic in the South East and London. Stewart (2002) found that supply is unresponsive to housing demand, and that this is most pronounced in the South East, for which the regional share of GB private housing starts was relatively constant from 1960 to 2000, despite population and economic growth being disproportionately concentrated in London and the South East. In London, the Mayor's Housing Strategy identifies a need for 49,000 new homes each year until 2034-35, as a result of population and household growth and persistent undersupply.<sup>38</sup> This compares to average supply of 20-25,000 new homes in London annually over the past decade.

The low elasticity of supply of housing suggests that supply side rather than demand side measures are required to address the current under-supply of affordable homes relative to need.

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<sup>38</sup> Mayor of London, 2014, Homes for London, The London Housing Strategy, available at: [https://www.london.gov.uk/sites/default/files/Draft%20London%20Housing%20Strategy%20Appendix%202014\\_0.pdf](https://www.london.gov.uk/sites/default/files/Draft%20London%20Housing%20Strategy%20Appendix%202014_0.pdf)

## Supply side response to public funding

## Summary

An efficient solution to providing affordable housing and the associated beneficial socio-economic impacts must involve the supply side. We found that UK housing supply is very inelastic, so high demand is not driving supply.

Affordable housing developers can support greater supply of affordable housing, but this requires public investment to meet the shortfall in providing homes at below market rates. With reduced public funding, housing associations have become more effective at raising finance for new affordable homes from other sources.

The issue of additionality remains unresolved. Our view is that crowding out in the medium term is likely to be limited. This would benefit from further investigation.



## 4 Output of affordable homes

### Overview

Having discussed the additionality of the supply response to public funding and the current constraints on affordable housing developers, this section characterises the types of affordable homes being built. We detail the evidence on the following:

- the total quantity of affordable homes supplied as a result of government funding; and
- the specifications of the affordable homes that are built.

As set out above, we do not focus on intermediate outcomes such as the economic activity directly resulting from increased affordable housing supply relative to the counterfactual. This is because the focus of this study is the end outcomes associated with public investment in affordable housing.

We report the following:

- In total, 112,000 homes were built under the NAHP over five and a half years, while the number of homes built under the AHP has been 8,800 in the two years up until September 2013 (these figures do not include forecast units).
- Affordable homes are predominantly provided for renting. Under the 2011-15 AHP, 84% of funded homes are provided for rent, while 16% of affordable homes funded are for affordable home ownership.

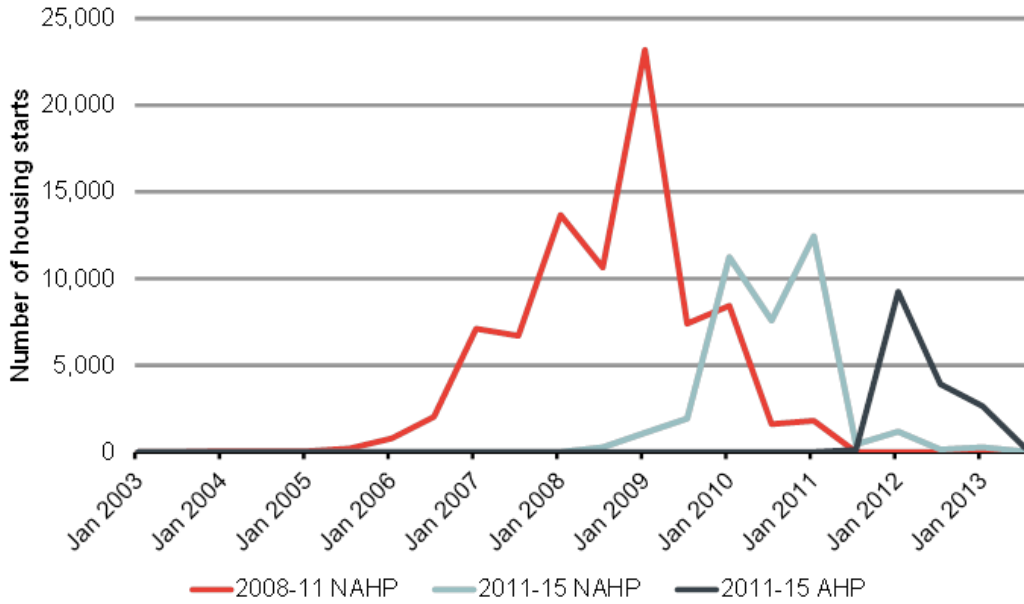
Housing association homes are more likely to meet the Decent Homes Standard (which specifies minimum requirements of homes such as being in a reasonable state of repair) compared to the existing stock of other housing types. This suggests that for tenants in new affordable homes, alternatives such as living in existing private rented sector housing may not provide the same quality of accommodation.

### 4.1 The total quantity of affordable homes supplied as a result of government funding

We analysed the total quantity of affordable homes supplied as a result of public funding by assessing the number of units built for a given amount of government funding in the recent and current affordable housing grant programmes.

This showed that the number of homes built under the NAHP was 112,000 over five and a half years, while the number of homes built under the AHP has been 8,800 in the two years up until September 2013.<sup>39</sup> These are outturn numbers and do not include forecast units. Housing starts under the NAHP and AHP are shown in **Figure 13** below.

**Figure 13.** Housing starts, by HCA programme



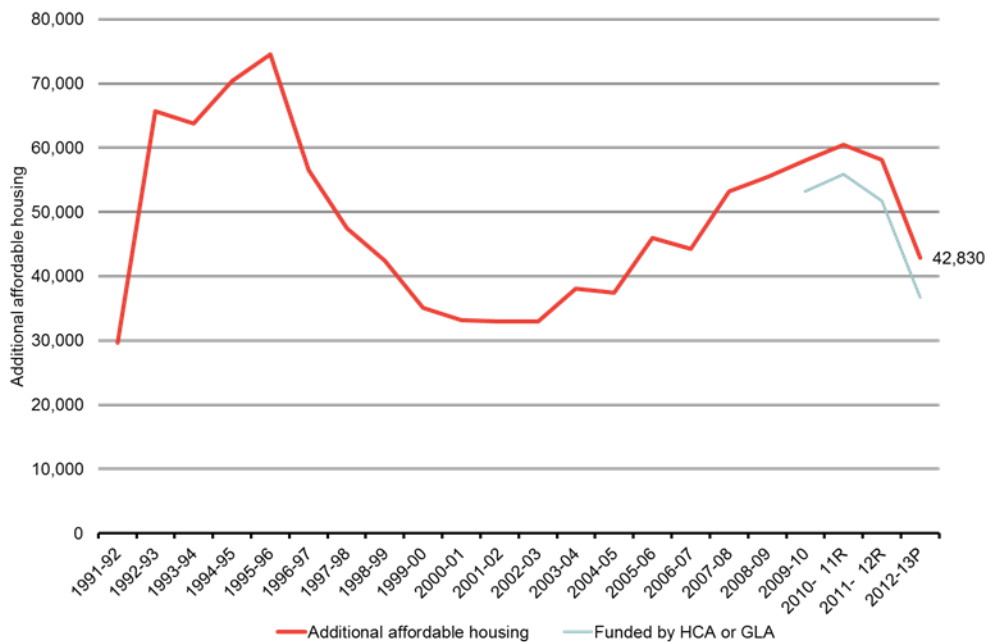
Source: Frontier analysis of HCA IMS data

As discussed above, almost all new affordable homes receive some grant funding. The total number of affordable homes built in England is shown in **Figure 14** on the following page.

<sup>39</sup> HCA IMS data. The supply trajectory may also be affected by the back-loaded nature of the AHP.

## Output of affordable homes



**Figure 14.** The role of government funding in the supply of affordable housing

Source: DCLG, Tables 1008 and 1012;

Note: Affordable housing is the sum of social rent, affordable rent, intermediate rent and affordable home ownership. This includes homes where all costs are met by a private developer.

Subject to additionality, these figures suggest that at current rent policy and risk profiles, for every £100m of public grant funding, 4,100 affordable homes are built on average.<sup>40</sup> This assumes the current rent policy attached to grants and risk profiles for housing associations, and does not imply that this would hold for different grant policies. For example, if grants were further reduced, this may result in disproportionately reduced affordable home building if housing associations were unable to meet the funding shortfall by sources such as borrowing more.

<sup>40</sup> Frontier analysis of HCA IMS data

## 4.2 The types of affordable homes built

The types of affordable homes built vary by local authority, for example depending on housing need, available sites, or developers' constraints. This is also shaped by grant programmes. The AHP moved towards the Affordable Rent model away from social rent. The two models differ as follows:<sup>41</sup>

- 'Affordable Rent' sets rents that are below market rates, up to a maximum of 80% of market rent, alongside reforms to increase flexibility of tenancies landlords can offer (with a minimum of two year tenancies), and increasing discretion for local authorities; while
- 'Social Rent' sets rents using the national rent regime, which are typically lower than those offered under Affordable Rent. Under the AHP, social rent may only be used in limited circumstances, for example where a local authority is using its own resources (e.g. free land) to support provision of homes at social rent.

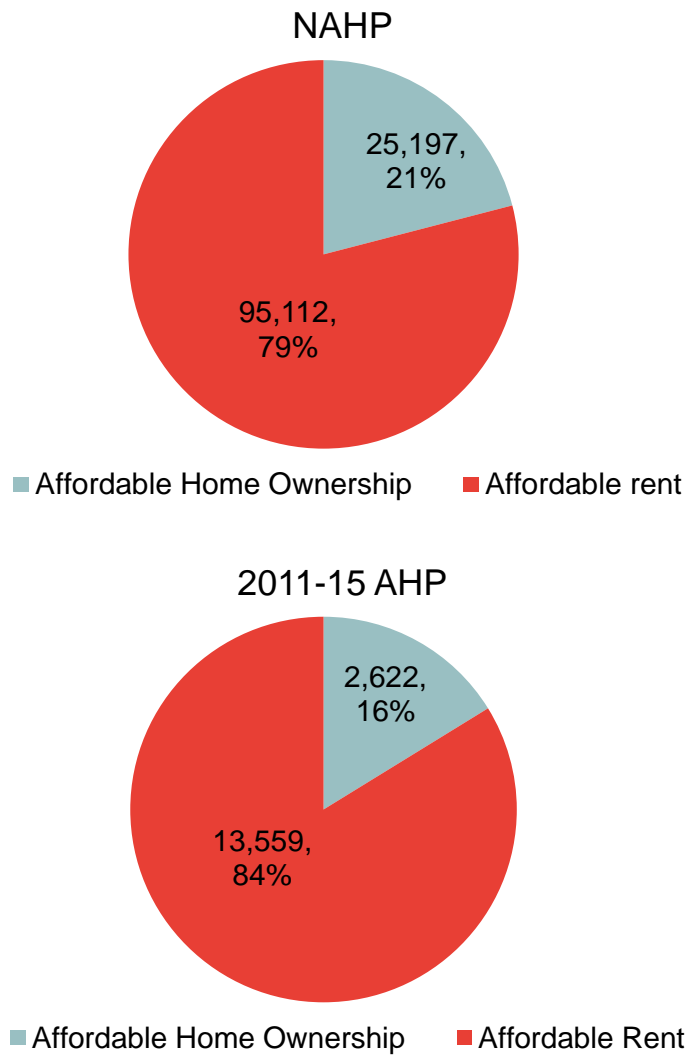
The statutory and regulatory obligations that apply for allocating Social Rent and Affordable Rent homes are the same.

Under the AHP 50% of homes built had two bedrooms, 33% had three bedrooms, and 12% had one bedroom. The majority of funding for affordable homes is for those provided for rent rather than ownership. 79% of affordable homes built under the NAHP were for rent, while 21% were for affordable home ownership. The proportion for rent under the AHP was slightly higher, at 84%, compared to 16% funded for affordable home ownership. This is illustrated for the NAHP and 2008-11 AHP in **Figure 15**.

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<sup>41</sup> DCLG and HCA, 2010. 2011-15 Affordable Homes Programme – Framework, available at: <http://www.homesandcommunities.co.uk/sites/default/files/our-work/affordable-homes-framework.pdf>

**Figure 15.** Number of houses by tenure, by HCA programme



Source: Frontier analysis of HCA IMS data

The quality of new homes built is also relevant. It is through the quality of affordable housing compared to the alternative that a number of a resident's improvements in outcomes will be achieved. While new private and affordable sector homes are likely to be of a similar standard, the alternative for some new tenants may be poor quality existing private rented housing.

In 2011 around 5.4 million dwellings (24%) failed to meet the Decent Homes Standard in England.<sup>42</sup> This requires that homes must meet the following four criteria:<sup>43</sup>

- statutory minimum housing standard;
- be in a reasonable state of repair;
- have reasonably modern services and facilities; and
- provide a reasonable degree of thermal comfort.

Private rented homes were most likely of all tenure types to fail at least one of the four decent homes criteria, with 35% rated as non-decent, followed by 22% of owner occupied homes. This compares to just 16% of existing housing association properties not meeting the standard, and 18% of social sector properties (housing association and local authority owned) altogether.

A further measure of housing quality is the Housing Health and Safety Rating System (HHSRS), which identifies defects in housing and potential effects of the defects on the health and safety of occupants, visitors, neighbours and passers-by.<sup>44</sup> Research on the hazards present in homes in Northern Ireland found that private sector homes were twice as likely to have Category 1 hazards as those in the social sector – 20% compared with 9%.<sup>45</sup> This compares to 6% of Housing Association homes with at least one Category 1 hazard. The presence of Category 1 hazards in homes in England was found to be slightly higher – 30%, 15% and 11% for private sector, local authority and housing association respectively.

This suggests that for tenants in new affordable homes, alternatives such as living in the existing private rented sector stock will not provide the same quality of accommodation, for example due to insufficient investment by some landlords. In addition, building new affordable homes drives up the quality of the overall affordable housing stock over time. This is reflected in the increase in the

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<sup>42</sup> DCLG, Table DT3101 (SST3.1): Decent Homes trend 2006 – 11, estimates based on the English Housing Survey, dwelling sample

<sup>43</sup> DCLG, 2006, A Decent Home: Definition and guidance for implementation, available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7812/138355.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7812/138355.pdf)

<sup>44</sup> The HHSRS scoring system rates the seriousness of any hazard so that it is possible to differentiate between minor and major hazards, meaning the relative seriousness of hazards are weighted. Potential hazards are assessed in relation to the most vulnerable class of person who may occupy the dwelling. For example, falls associated with stairs and steps the vulnerable group is the elderly (60+)

This should be considered when attempting to generalise the impact of poor housing on health across different demographics. As the HHSRS assesses the risk in relation to the most vulnerable, applying this impact across all tenants may overestimate the adverse effect on health

<sup>45</sup> Davidson, M., et al, 2010, “The Real Cost of Poor Housing”

proportion of housing association homes meeting the decent homes standard from 75% in 2006 to 84% in 2011.

Another measure of quality is insulation. In 2012, 40% of homes in Great Britain did not have insulation, in terms of both loft insulation and cavity wall insulation (DECC 2010). Increasing loft insulation from 50mm to 270mm for one average semi-detached three bedroom home would save £45 per year in heating costs and reduce CO2 emissions by 230kg (Bailey). This implies a six year payback period based on an installation cost of £270. Living in a warmer home can have significant health benefits for tenants, which we discuss further in section 6. Increased insulation would also help alleviate fuel poverty, with 11% of households in fuel poverty in England in 2011.<sup>46</sup> People living in affordable housing are likely to be particularly vulnerable to this as they are more likely to have a low income and high heating needs (e.g. due to being retired and at home during the day).

## Summary

The total supply of new affordable housing remains below that required to meet affordable housing need (see Figure 2). 112,000 homes were built under the NAHP over five and a half years, and 8,800 homes have been built up to September 2013 under the AHP.

New affordable homes provided by housing associations are likely to provide a better standard of accommodation than alternatives such as living in existing private rented sector housing. Housing association homes are more likely to meet the Decent Homes Standard than the existing stock of other housing types. Tenants are also likely to benefit from housing associations making public investment go further by providing services such as ongoing community support or back-to-work training programmes, which we discuss in Section 7.

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<sup>46</sup> This uses the Low Income High Cost indicator. DECC, 2013, Fuel Poverty Report – Updated August 2013, available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/226985/fuel\\_poverty\\_report\\_2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/226985/fuel_poverty_report_2013.pdf)



## 5 Demand side impact

### Overview

This section analyses the residents that are housed in new affordable homes. It includes evidence on:

- the size of the group that is eligible for affordable housing relative to the new supply of affordable housing; and
- where residents were previously housed before they moved to affordable housing.

Knowing where residents were previously housed is important as it affects the type of benefits they experience from moving to affordable housing. The benefits to a homeless person will vary greatly compared to a person previously living in the private rented sector. An understanding of the size of group that is eligible for affordable housing provides a picture of the scale of the need for affordable homes.

Our analysis uses CORE (Continuous Recording of Lettings and Sales by housing associations and local authorities) data, which records information on the characteristics of all those moving into a new housing association tenancy. It therefore characterises the flow (rather than the stock) of affordable housing residents.

Our findings in this section indicate that affordable housing supports high need individuals. We find the following:

- There is large unmet demand for affordable housing. Local authority waiting lists are an imperfect measure of need for affordable housing (for example there may be people in need of affordable housing that have not registered, while others will have registered but their circumstances may have changed since they first registered.). However, waiting lists provide an indication of the scale of current need. In 2013, 1,689,000 households were on local authority waiting lists for housing in England, compared to 43,000 new affordable homes supplied in 2012-13.
- 16% of new tenants in affordable rental properties were previously homeless. Households entering affordable home ownership are more likely to have previously been renting privately or living with friends and family.

Residents move into new affordable housing tenancies for a wide range of reasons. The most common reason for moving home amongst new affordable housing tenants was overcrowding, at 19% of all new tenants.

## 5.1 The size of the group that is eligible for affordable housing

Historically, local authority registers have not always been an effective way of measuring need for affordable housing as waiting lists reflect demand, which is not necessarily the same as the eligibility criteria for being housed in an affordable home.<sup>47</sup> Recent reforms which have increased the power of local authorities to determine who is and isn't eligible for affordable housing mean that the most recent figures are less likely to include those that aren't eligible for housing,<sup>48</sup> though the problem of some of those in need not being on registers is likely to remain. Therefore local authority waiting list figures provide a useful indication of the scale of demand relative to new affordable housing supply, but may not be a completely accurate measure of need.

The changes contributed to a 9% drop in the number of households on local authority waiting lists across England between 2012 and 2013. Even with this, demand for affordable housing remains high, and is not met by current supply. This is illustrated in **Table 1**, which shows waiting lists and the supply of new affordable homes in England as a whole, and for London. The new affordable homes supplied in London in 2012/13 are well below the current target of 15,000 additional affordable homes that London will seek to deliver each year (Mayor of London, 2013).

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<sup>47</sup> For example, there may be people in need of affordable housing that have not registered for affordable housing. Conversely, some households may have registered but will not be eligible for affordable housing

<sup>48</sup> The Localism Act gave local councils more power to manage their housing waiting lists. See: DCLG, 2012, Allocation of accommodation: guidance for local housing authorities in England, available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/5918/2171391.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/5918/2171391.pdf)



**Table 1.** Affordable housing waiting lists relative to new supply

	Households on local authority waiting lists, 2013	New affordable homes, 2012/13
<b>England</b>	1,689,000	43,000
<b>London only</b>	344,000	9,000

Source: DCLG, 2013, Table 600, Rents, lettings and tenancies: numbers of households on local authorities' housing waiting lists, by district: England; and DCLG, 2013, Gross affordable housing supply statistics.

For both England and London, the discrepancy between supply and demand for affordable housing is large. In the meantime, while most of these households will find alternative housing, they are at risk of paying unaffordable rents and living in sub-standard conditions.

## 5.2 Where new residents were previously housed

This section sets out the evidence on where new tenants in affordable homes lived previously, and their reasons for moving home. This is determined in part by policy on how new affordable housing should be allocated. For almost all housing associations we surveyed, new affordable homes were allocated mainly (or in some cases completely) by the local authority. Allocation of affordable homes by local authorities reflects their statutory obligations (for example to homeless people), though authorities have some discretion through the Localism Act. We analyse new affordable housing residents using CORE data.

### Previous housing situation

The most common previous housing situations for new tenants in the affordable sector are living with family and friends, renting in the private sector, and homelessness. Around a third of tenants are moving within the affordable sector, either from a local authority or housing association property. This is illustrated in **Table 2**, which shows the previous housing situation for households entering the affordable rented sector.

**Table 2.** Previous housing situations of new housing association tenants

Previous tenancy	Percentage of all new HA households
Family/friends	27%
Renting HA	25%
Private tenant	20%
Renting local authority	11%
Any temporary accommodation	10%
Other	4%
Owning/buying	2%
Renting with job	1%
<b>Total</b>	<b>327,984</b>

Source: CORE data

Across all these households, 16% of new tenants (almost 61,000 households) were previously classified as homeless, of which almost 80% were statutory homeless.<sup>49</sup> The previous housing categorisations of previously homeless tenants vary, with the majority categorised as previously living in temporary accommodation or with family and friends.

Table 2 shows the previous housing situation for households entering the affordable rented sector. The picture is slightly different for households entering affordable home ownership. CORE data shows these households are more affluent than those in affordable rent homes. This is reflected in their previous housing situation: a much higher proportion were previously renting privately (44%), living with friends or family (37%), or owned or were buying (10%). On the other hand, far fewer households were renting from their local authority (2%) or housing association (3%).

Our online survey of over 700 housing association tenants (both affordable rent and home ownership) found similar results for people who had moved house in the last three years. A lower proportion was previously living with family (15%), and a higher proportion came from another housing association property (36%). The proportion previously renting in the private sector, renting a local authority

<sup>49</sup> Non-statutory homelessness includes households that are not found statutorily homeless by a housing authority but are considered to be homeless by the letting landlord

property or living in temporary accommodation were broadly similar. See **Table 7** in Annexe 2 for more details. The slight differences between the survey and the CORE lettings data are likely to be because the CORE data is based on tenants as they move into a property; whereas our survey also includes tenants that have lived in their property for some time.

## The characteristics of households entering affordable housing

Households entering the affordable rented sector come from a range of different backgrounds.

42% of new tenancies in affordable homes are provided to families (of which 60% are single parent families); almost 10% to elderly households; 35% to single adults and 14% to multiple adult households.

The median annual income is around £10,000 for households entering affordable rented housing. This varies greatly by household type however. Two parent families have a median annual income of almost £18,000, whilst single adults have an average income of around £5,000 per year. Overall, the incomes of households entering affordable housing are significantly less than the average household income of around £22,000 across the population as a whole.<sup>50</sup>

*Source:* Frontier analysis of CORE data

## Reasons for moving home

The breakdown of different reasons for moving is shown in **Table 3**. The most common single reason for moving home amongst new affordable housing tenants was overcrowding, at 19% of all new tenants. Examples of the ‘other’ reasons given for moving home include harassment, support needs, and to be near work.

<sup>50</sup> ONS, TABLE 16: Average incomes, taxes and benefits by decile groups of NON-RETIRED households, 2011/12

**Table 3.** Reasons for moving amongst new affordable renters

Reason for moving home	Percentage of households
Overcrowding	19.0%
Need independence	15.8%
Told to leave home	8.0%
Health/medical reasons	7.6%
Relationship breakdown	4.6%
Nearer family/friends	4.2%
End of assured short-hold tenancy	4.0%
Poor housing conditions	3.8%
Financial difficulties	3.4%
Domestic violence	3.2%
Other	26.4%
<b>Total households</b>	<b>338,567</b>

Source: CORE data

Note: this is based on households paying affordable rent (including social rent). It excludes affordable home ownership.

## Summary

Affordable housing supports high need individuals. This is particularly the case given the undersupply of affordable homes. Local authority waiting lists provide an indication of how far current need exceeds supply, and show that in 2013, 1,689,000 households were on local authority waiting lists for housing in England, compared to 43,000 new affordable homes supplied.

The high degree of need amongst new affordable housing residents drives high benefits from affordable housing. We discuss this further in **Section 6**.

## Demand side impact

## 6 Tenants' social and economic outcomes

### Overview

This section sets out the evidence linking housing to tenants' social and economic outcomes.

There are three steps required to value social and economic outcomes resulting from housing. The first is identifying a link between housing and an outcome, second is quantifying this, and third is assigning a value to this effect. The evidence is strongest for the first step, suggesting the link between housing and various outcomes, though the literature emphasises the inherent difficulties in proving causation between an individual's housing and their outcomes. This is often because there are many other related factors that it is difficult to control for, meaning that a clear cause and effect relationship between housing and social and economic outcomes cannot always be demonstrated.

Quantified evidence on the directly attributable impact of affordable housing on individual outcomes is limited. Once a link has been quantified it is typically possible to monetise impacts, in line with the guidance in the Green Book. The lack of quantified, attributable, evidence means that it is not possible to reliably estimate the benefits of public investment in affordable housing in terms of outcomes for tenants, as the available evidence is not robust enough to support reliable estimates, while in some areas it is insufficient to quantify any impacts.

The available evidence indicates that investment in affordable housing supports multiple social objectives. It also suggests that the wide set of outcomes aided by affordable housing could not be achieved through operating expenditure (e.g. on Housing Benefit) alone, as:

- many of the outcomes are supported by the higher quality of new affordable homes relative to the existing private rental stock; and
- affordable housing providers make public investment go further, for example delivering social benefits by providing ongoing community support or back-to-work training programmes.

As well as resulting in better outcomes for residents, capital funding has been found to be more cost efficient in the long-term than a model solely based on operating expenditure.

We provide a brief summary of the main findings on economic and social outcomes below:

- **Health:** improved housing is associated with health benefits including reduced problems with self-care and reduced anxiety and depression.

Affordable housing may also lead to health benefits by raising the quality of the home (e.g. improved heating, reduced damp and mould), which is associated with health benefits. One study found residents that had moved to a new affordable home or had their home refurbished had fewer GP visits following the move, suggesting there may be considerable savings in health service expenditure from improved housing.

- **Crime:** there is evidence to suggest that decent housing can help crime prevention, especially for young homeless people. However, there are issues around identifying causality (Friedman 2010).
- **Labour market outcomes:** the evidence on the impact of affordable housing on labour market outcomes is limited. One advantage of affordable housing is that it could improve employment outcomes for residents as many housing associations run programmes to help their tenants find work.
- **Wellbeing:** higher satisfaction with housing is associated with higher life satisfaction, though this does not establish causality. In our survey of housing association tenants, 83% reported that they were satisfied with their current home as a place to live, and 70% also reported being satisfied with their lives overall.
- **Education:** overcrowding may negatively impact on educational outcomes for children, for example via negative impacts on health or by reducing the support available from parents.
- **Community cohesion:** affordable housing may result in benefits in terms of community cohesion, with the literature finding changes to aspects such as adult socialising and child development following home improvements, as well as increased feelings of safety.

## 6.1 Health

There is a large body of research suggesting that poor housing conditions such as overcrowding leads to poor health outcomes, typically measured by self-assessment. However the correlation between housing and health may reflect a range of factors, making it difficult to prove causality.

This section first describes the evidence on the impact of affordable housing in general on health, before setting out the health impacts of two factors associated with poor housing:

- under-heating; and
- damp and mould.

### Tenants' social and economic outcomes

## General impact

We found evidence on the overall impact of affordable housing on three aspects of health:

- overall health, typically self-reported;
- mental health, which may also be captured in overall health measures; and
- GP visits.

We discuss the evidence on each area below.

### Overall health

One study of the health and wellbeing impacts of social housing in Scotland, the SHARP study,<sup>51</sup> found that self-rated health improved after moving into new, general purpose, social housing: 32% of tenants reported their overall health as ‘excellent’ or ‘very good’ after moving, compared with 26% previously. There was a significant improvement in tenants’ average vitality score after moving, indicating that they felt less tired and had more energy to accomplish things.

Similarly, a study by Shepherd’s Bush Housing Association<sup>52</sup> found that, of tenants that moved to new affordable homes or whose homes had been refurbished, fewer stated that they had current health problems after improvements were made to their housing. It also found that the intervention reduced tenants reporting a problem with self-care by seven percentage points, controlling for the group with no intervention. Overall, after the intervention,

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<sup>51</sup> SHARP is a longitudinal study of the health and wellbeing impacts of moving into new, general purpose, social housing provided by Registered Social Landlords across Scotland.

The study is designed to compare the experiences of two groups: a group of households who are rehoused into new social housing (the Intervention Group) and a group who reside in the same locality as the newly developed housing but are not themselves rehoused (the Comparison Group).

Samples of 334 Intervention households and 389 Comparison households were recruited at the beginning of the study. The new social houses are provided at around 60 sites across Scotland, by 45 different landlords, spanning 21 local authority areas. The study consists of three household surveys, and 28 in-depth interviews with a small sample of people who have moved into a new home. The surveys took place just before rehousing (the baseline survey), then one year after rehousing, and finally two years after rehousing.

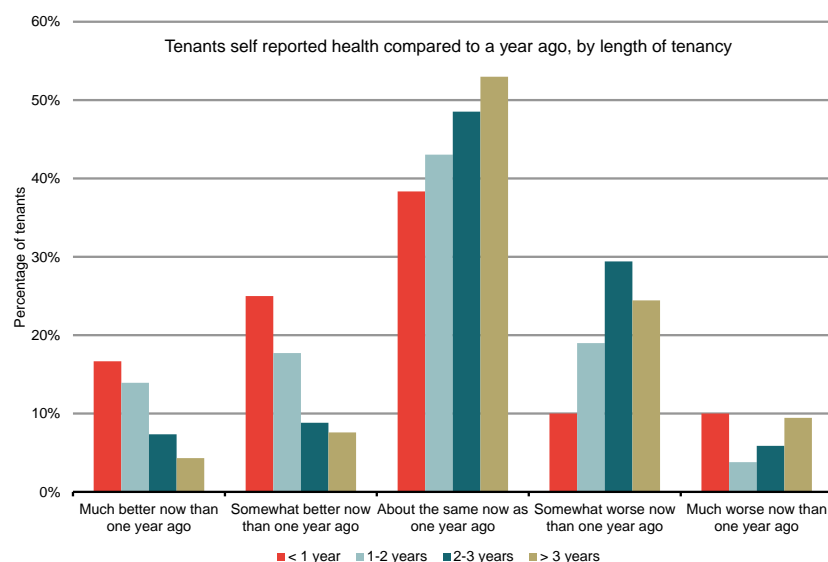
<sup>52</sup> In the main survey, two groups of tenants were surveyed: those whose homes were being renovated or who were being reallocated to new housing (“reinvestment and reallocation tenants”); and those whose housing situation was unlikely to change within the period of the study (“baseline tenants”).

For the first group - refurbishment and reallocation tenants - the questionnaires were completed after the decision was taken to refurbish their home or to allocate new housing to them, again after the change had taken place and subsequently at intervals, usually of around six months although this period varied according to the availability of the tenants for interview. This collection of “before” and “after” data meant that responses could be compared and changes over time could be tracked.

8% of the reinvestment and reallocation tenants reported a problem with self-care. This compared to 17% for the baseline tenants – and 6% nationally including households not in social housing. One study also found that overcrowding was associated with poorer health outcomes. The study, by Shelter, found that six month old infants were found to have a 26% greater chance of symptoms of wheezing if they were living in overcrowded conditions.<sup>53</sup>

Our online survey of tenants asked about tenant's current self-reported health and how this had changed over the last year. **Figure 16** below shows that 17% of tenants that have moved into a housing association home within the last year rate their health as much better than one year ago. This compares to 4% for those who have lived in their current home for over three years. Whilst not conclusive, this provides some indication that moving into affordable housing can have a positive impact on tenants' self-reported health.

**Figure 16.** Compared to one year ago, how would you rate your current health?



Source: Frontier analysis

### *Mental health*

The Shepherd's Bush study found that the proportion of tenants suffering some problems due to anxiety and depression reduced from 33.3% before the housing change to 26.3% immediately afterwards and, from then, remaining at a lower level than before throughout the course of the study. The SHARP study found little change in mental health scores after moving home, although tenants were

<sup>53</sup> Friedman, Social impact of poor housing



more likely to report significant psychosocial benefits (e.g. feelings of progress) from the home after rehousing.

### *GP visits*

The Shepherd's Bush study found that respondents that had moved to a new affordable home or had their home refurbished had fewer GP visits following the move, falling from an average of 4.4 GP visits per person per year to 3.4 visits. This suggests that there may be considerable savings in health service expenditure which can be associated with housing improvements at least in the short term, assuming that the lower frequency of visits is associated with better health and less need for medical treatment.

This is supported by a study which estimated savings to the NHS of over £600 million per year if home standards in England were improved to the average, based on the Housing Health and Safety Rating System (HHSRS).<sup>54</sup>

### **Under-heating**

The main sufferers from cold related health problems are older households who are vulnerable through heart attacks, hypothermia and more general ill health. In England and Wales around 30,000 more people die in winter than in the summer, of which over 80% are over the age of 75 (ONS 2013). Many of these excess winter deaths can be attributed to the cold. Historically, excess winter deaths have been higher in England and Wales compared to countries in continental Europe and Scandinavia (Wilkinson 2001). This is despite the UK's relatively mild winters. A part explanation for this may be that the quality of British housing stock is less thermally efficient than in most other European countries and so provides less protection against the cold.

Wilkinson found that the risk of excess winter death varied very little by socio-economic group. However, the winter excess was greater in people living in poorly heated dwellings and in those dwellings with low energy efficiency ratings. There was also a risk associated with the age of the property. The findings suggest that people in poorly heated homes are more vulnerable to winter deaths than those in well heated homes.

Davidson et al found that 8% of households with one or more people aged 75 or over lived in homes with Category 1 excess cold hazards, compared to 4% experiencing this on average. This is significant as the impact of under-heating on the elderly is likely to be more severe.

As set out above, affordable homes are more likely to meet the decent homes standard (which includes providing a reasonable degree of thermal comfort) than the private rented sector stock. This suggests that new affordable homes benefit

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<sup>54</sup> Davidson, M., et al, 2010, "The Real Cost of Poor Housing"

residents by reducing their likelihood of experiencing the health disadvantages associated with under-heating, relative to living in a poor quality private rented home.

## The impact of affordable housing on elderly households

This box monetises the health impacts of affordable housing for elderly households from reducing excess cold and the risk of falls. We monetise the possible health benefits on a per patient basis. For a full appraisal of a public investment programme in affordable housing, the total benefits over time and across the group affected should be taken into account.

Elderly households accounting for almost 1 in 10 households in new affordable homes are particularly vulnerable to poor quality housing, especially through the impact on their health. As such they are a group that can benefit greatly from moving into affordable housing.

Elderly households moving into the affordable sector have an average income of £200 per week. This puts them in the poorest 30% of households in the country, making them particularly susceptible to fuel poverty.

Around one third of elderly households move into affordable housing for health and medical reasons. Often their previous accommodation can no longer meet their needs.

Moving into affordable housing can generate significant health benefits:

- **Excess cold:** an affordable home that has good insulation, central heating and no damp could reduce the risk of excess cold for tenants. Excess cold has an estimated average treatment cost to the NHS of over **£8,000 per patient** due to the cardiovascular and respiratory conditions, among others, that it causes.
- **Falls:** the elderly are more at risk from falls around the home. A safe, good quality home can reduce the risk of falls. Treating a fracture, cut or other injuries sustained from a fall around the home costs the NHS an estimated average of **£3,800 per patient**.

*Source: Frontier analysis of CORE data and [The Real Cost of Poor Housing](#).*

## Tenants' social and economic outcomes

## Damp and mould

Living in a damp and mouldy house has been associated with poor health, especially respiratory problems. However, evidence can be inconsistent and causality is difficult to establish.

A Scottish study found that adults living in damp and mouldy houses were much more likely to suffer nausea and vomiting, blocked nose, breathlessness, backache, fainting and bad nerves. For example, 21% of people in mouldy homes had blocked noses compared to 14% in dry homes (Wilkinson, 1999).

As before, affordable housing tenants are likely to benefit from the higher quality of new affordable homes relative to the alternative. This means that moving to a new affordable home may reduce a resident's likelihood of experiencing damp and suffering from the associated health problems.

## 6.2 Crime

This section outlines the evidence linking housing and crime. Overall, the evidence base is limited. The relationship between housing and crime can be considered in two ways: the community effects of housing on crime, and the individual effects of housing on crime. We consider both below.

- The literature on the community impacts of housing on crime focuses on regeneration and the design of communities in reducing the prevalence of crime.
- Areas with high rates of crime are typically (CCHPR 2010):
  - mixed inner metropolitan areas with poor private rented and owner occupied housing;
  - non-family areas with a mix of affluent homes and private rented housing in multiple occupation; and
  - the poorest local authority estates, both inner city and peripheral.

However, the evidence on the effect of improved design of housing on crime and anti-social behaviour is weak and most studies fail to find a strong link. Other literature focuses more on the effect of regeneration and 'cycles of decline'. However, investing in housing will not necessarily reduce crime as there are many other social and economic characteristics to consider. The causes of crime are not strongly associated with the quality housing. As such, crime is often considered to be better addressed by other social policies, such as those addressing poverty and unemployment (CCHPR 2010).

The individual effects of housing on crime look at both the propensity to commit a crime, or to be a victim of crime. There is less comprehensive evidence on the effect of housing on the individual, as opposed to the community. It is difficult to isolate the effect of housing on crime as there are many other contributing factors. There is evidence to suggest that decent housing can help crime prevention, especially for young homeless people. However, there are issues around identifying causality (Friedman 2010).

### 6.3 Labour market outcomes

The Hills review in 2007 found that, for a given labour market disadvantage (e.g. disability), tenants in the social sector were more likely to be unemployed than those with the same disadvantage and not in the social sector.<sup>55</sup> However, tenants in the social sector are more likely to have multiple disadvantages, which may mean that, for a given labour market disadvantage, their ability to work is lower than for a tenant outside the sector. As discussed above, higher levels of need in the affordable housing sector reflect the shortage of supply resulting in a greater proportion of affordable housing residents with high needs due to receiving priority.

Our analysis of data from the British Household Panel Survey (BHPS) suggests that affordable housing may improve employability for new tenants. It shows that, after moving into a rented housing association property, there was a three percentage point increase in the percentage of those employed compared to a year previously. This was statistically significant at the 10% level.<sup>56</sup> It should be noted that this was simple analysis, which did not control for other factors that could have impacted on employment outcomes over the period.

For the simple analysis, we first identified individuals at the point in time when they moved from a private sector rented house into a rented housing association property. We then calculated how their employment outcomes changed in the following year after the move. To provide a more robust conclusion, an approach using econometric techniques would be required.

Such an approach would attempt to control for a range of other factors that may affect an individual's employment outcome. This may include household income, education, number of dependent children and the macroeconomic climate, among others. A good approach to controlling for these factors would be to compare individuals that move into affordable housing with very similar individuals who don't move into affordable housing. The difference in

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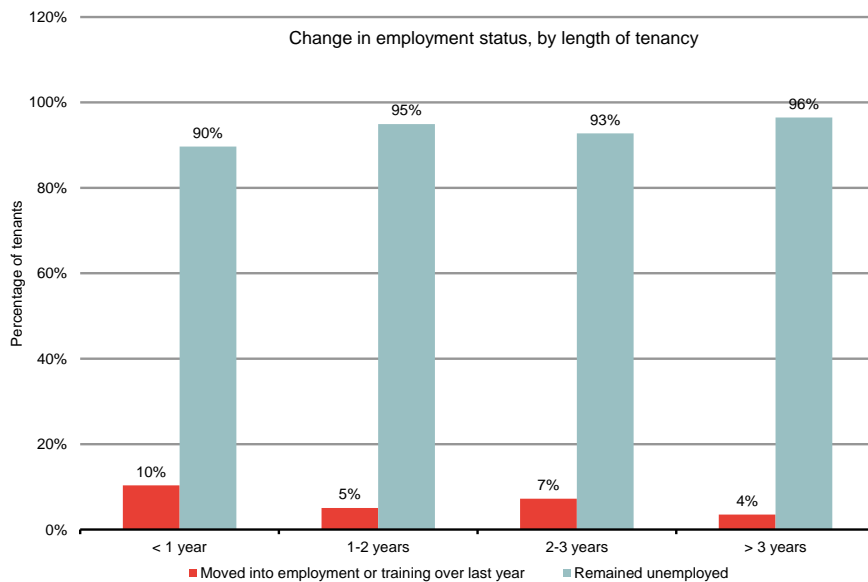
<sup>55</sup> John Hills, 2007, Ends and means: the future roles of social housing in England, available at: [http://eprints.lse.ac.uk/5568/1/Ends\\_and\\_Means\\_The\\_future\\_roles\\_of\\_social\\_housing\\_in\\_England\\_1.pdf](http://eprints.lse.ac.uk/5568/1/Ends_and_Means_The_future_roles_of_social_housing_in_England_1.pdf)

<sup>56</sup> Our analysis looked at Waves 9-15 of the BHPS covering the years 1999-2005

employment outcomes then provides a good estimate of the impact of moving into affordable housing on employment outcomes. This approach was beyond the scope of this study.

Our online survey of housing association tenants offers some further inconclusive, yet indicative, evidence on the association between affordable housing and employment status. **Figure 17** below shows that 10% of unemployed tenants that moved into affordable housing moved into employment or training within that year. This compares to just 4% of unemployed tenants who had lived in affordable housing for more than three years. These differences are not statistically significant due to the small sample size, so they are inconclusive. However, they could suggest that moving into affordable housing provides a supportive environment to gaining employment for new affordable housing tenants.

**Figure 17.** How would you describe your employment status one year ago?



Source: Frontier analysis

A further advantage of affordable housing compared to housing in the private sector is that many housing associations run programmes to help their tenants find work. This has increasingly been the case in recent years, with housing associations running 1,000 projects to tackle unemployment in 2010-11, with more than 200,000 people in training. In 2011-12 in London, 5,000 young people progressed through g15 programmes addressing educational or training needs, providing a potential saving to the public purse of £29m.<sup>57</sup> Research on the

<sup>57</sup> Report for g15, “Capital Communities: g15 investing in communities – added value for Londoners”

impact of housing association employment programmes found that the most successful programmes involved collaborations between housing associations and benefit agencies, housing services and employment agencies and job centres.<sup>58</sup> This suggests that housing association employment programmes are complementary to other government programmes to get people into work, and may make other programmes more effective.

It is likely that these employment programmes have been effective as housing associations are well placed to deliver employment and skills schemes due to their local knowledge and close connections to people in need of help. Many participants in housing association employment programmes joined due to front-line HA staff, or from receiving a leaflet through the door.<sup>59</sup>

Our online survey of tenants found that almost one quarter (23%) of respondents had participated in an employment or training programme in the last year, of which almost half (45%) reported that it made them feel more confident about finding a job.<sup>60</sup>

As tenancy models associated with affordable housing change, the impact of affordable housing on employment outcomes for residents may also evolve. In recent years, housing associations have moved towards shorter tenancies, which may raise labour mobility and result in higher employment rates associated with the provision of new affordable housing. We found limited evidence available on this to date.

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<sup>58</sup> NHF, (2013), “Housing, Employment and Skills: Key Findings and Impact analysis”

<sup>59</sup> NHF, (2013), “Housing, Employment and Skills: Key Findings and Impact analysis”

<sup>60</sup> See Table 14 and Table 15

## The impact of affordable housing on single parents

Single parents; accounting for one in four entrants into affordable housing, are likely to benefit significantly from moving into an affordable home. Single parents entering the affordable sector have an average weekly income of £98, putting them in the poorest ten per cent of households in the UK. Seventy per cent of these households are unemployed.

We quantify the potential benefits for these households from moving into affordable housing, across employment, health and rent savings. As noted above, a full appraisal would require these benefits to be monetised over time and across the group affected by public investment in affordable housing.

- **Employment:** a tenant that gains employment for a year following a housing association employment programme would earn **£11,100 in income**, in addition **£8,000** would be saved by government from **reduced benefit payments**. Typical success rates from housing association employment programmes are 20%.
- **Health:** one quarter of single parent households move into affordable housing because of overcrowding. Shelter (2006) found that infants below the age of six months had a 25% higher chance of experiencing breathing problems if they lived in overcrowded conditions. The average cost to the NHS of treating a patient with asthma is **£275 per year**, with severe asthma costing over **£1,000 per year**.
- **Rent savings:** moving into affordable housing could save the average single parent household over **£1,000 per year** in rent. This saving is a transfer.

*Source:* Frontier analysis of CORE data, The Real Cost of Poor Housing; Social Impact of Poor Housing; and Capital Communities.

## 6.4 Wellbeing

ONS survey data indicates that satisfaction with living accommodation and life satisfaction are related. Of adults aged 16 and over in Great Britain who reported a medium or high satisfaction (7 to 10 out of 10) with their accommodation, a fifth reported a low satisfaction (0 to 6 out of 10) with their life. However, of those reporting a low satisfaction with their accommodation, nearly half (47%) reported a low satisfaction with their life.

While the ONS's survey data does not establish causality, it suggests that access to affordable housing could be an important factor in improving life satisfaction and wellbeing. This is supported by the findings of DCLG's 2008 Place Survey, which found that affordable, decent housing was voted as the fourth most important priority that made a good place to live.

The association between affordable housing and life satisfaction is borne out by the results of our online survey of housing association tenants. 83% of housing association tenants reported that they were satisfied with their current home as a place to live, and 70% of tenants also reported being satisfied with their lives overall.<sup>61</sup> These findings don't prove causation, and it would be useful to compare these results to similar individuals in private sector accommodation. However, they are indicative that satisfaction with housing and life overall are interrelated.

Living in poor quality or badly maintained accommodation can put people's wellbeing at risk. As set out in Section 4.2, a higher proportion of existing private rented and owner occupied homes fail the decent homes standard compared to affordable housing. Given a number of new tenants in housing association properties were previously in private rented accommodation, this implies an improvement in the standard of their home associated with moving into affordable housing, which may result in higher wellbeing.

This is supported by research on the impact of different qualities of housing on life satisfaction.<sup>62</sup> As shown in **Figure 18**, the research found that, for someone living in poor quality private rental accommodation, an estimated compensation of £997 would be required for the person to have the same life satisfaction as they would have in a good quality housing association home. This is based on the impact of different housing problems (such as damp and neighbour noise) on life satisfaction. The average, poor, and good quality measures are based on the number of these problems present in the home.

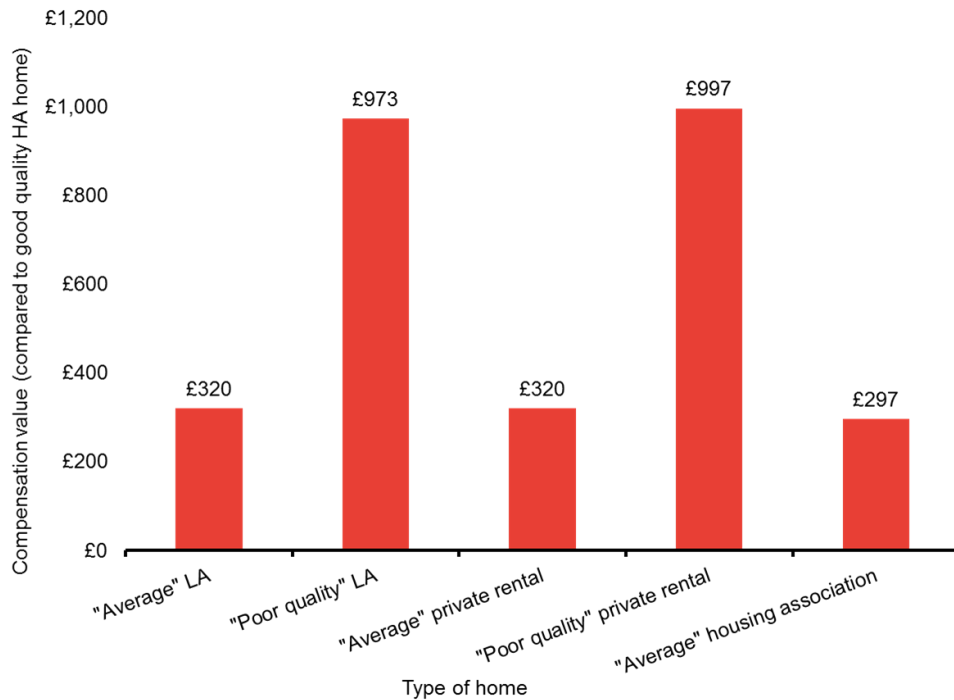
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<sup>61</sup> See Table 6 and Table 17 for more details

<sup>62</sup> Daniel Fujiwara and HACT, 2013, The social impact of housing providers



**Figure 18.** Comparing housing of different quality with a good quality housing association home



Source: Fujiwara and HACT, 2013, The social impact of housing providers

## 6.5 Education

There is limited evidence on the impact of affordable housing on education. Friedman (2010) cited the National Child Development Study, which links overcrowding, poor health and an increased number of school days missed. A study by Shelter<sup>63</sup> highlights a number of pieces of research that have made the link between stressed parents in overcrowded homes and a lack of educational support for children; increased risk of dropping out of school by children in overcrowded homes; and a slower progression through the educational system.

<sup>63</sup> Shelter, 'Chance of a lifetime'

## 6.6 Community cohesion

There is limited evidence on the impact of affordable housing on community cohesion. The SHARP in-depth interviews revealed that respondents made changes in terms of adult socialising and child development after moving into new social housing, suggesting increased community engagement.

The Shepherd's Bush study found that a significantly higher number of tenants whose homes were being renovated or who were being reallocated new affordable housing felt safe inside their homes than felt unsafe compared to tenants in the non-renovation or reallocated group. It also found a significantly higher number of these tenants felt safe in the area outside their homes.

### The impact of affordable housing on homeless people

A significant number of households; over 1 in 10, would be statutory homeless if it were not for affordable housing. Of these, over half are single adults. Households that were previously homeless have an average income of £129 per week, putting them in the poorest ten per cent of households in the UK.

Homelessness has severe consequences for individuals, including poor health, incidence of crime, and economic insecurity. Therefore, affordable housing can have a large impact on individuals as well as the costs of homelessness to society.

We provide an indication of the magnitude of these benefits below. A full cost-benefit analysis would require that currently non-quantified benefits of affordable housing for homeless people (e.g. reduced crime) are estimated and monetised.

- The health savings to the NHS from a homeless person being in affordable housing relative to their previous circumstances is **£3,000 per year**. This includes savings from less time spent in hospital and less demand for mental health services.
- A report cited by Homeless Link estimates a cost to government of **£26,000 per homeless person per year**. This includes the cost of benefits, hostel accommodation, and care of children.

*Source:* Frontier analysis; Homeless Link

## Tenants' social and economic outcomes

## Summary

Investment in affordable housing supports multiple social objectives. Improved housing can deliver improvements in health, crime, labour market outcomes, wellbeing, education, and community cohesion.

The evidence also suggests that the wide set of outcomes aided by affordable housing could not be achieved through operating expenditure (e.g. on Housing Benefit) alone. This is in part due to affordable housing providers delivering services such as back-to-work training for tenants.

While the available evidence supports that affordable housing delivers multiple benefits, the quantified evidence base is relatively limited in some areas, preventing a full and robust cost-benefit analysis. This would merit further investigation.



## 7 Conclusion

In this report, we have reviewed new and existing evidence to assess the social and economic impact of capital investment in affordable housing. We found that government investment in affordable housing supports a range of social objectives by improving outcomes for residents in areas including health, crime and employment.

### Policy objectives and interventions

The main underlying objective for public investment in affordable housing provision is distributional. Planning policy also provides a constraint on supply of affordable homes, by setting the framework within which they can be built.

Supplying new affordable homes relies on public funding, due to the shortfall associated with providing homes at below market rates. 86% of new affordable homes are funded in part by the HCA and GLA. Grant funding has fallen, with on average 23% of the cost of a new affordable home funded by the 2011-15 AHP, down from 41% in the 2008-11 NAHP. The number of new affordable homes built has therefore fallen.

This funding decrease is against a backdrop of high and growing need for affordable housing, due to a backlog caused by persistent undersupply of affordable housing and of market housing more widely, and due to population growth. Recent research concluded that a total of 240,000 new homes were needed each year in England to 2031, more than double the current rate of building. Around 79,000 of these homes are required in the social sector.<sup>64</sup>

### Supply side response to public funding

Public funding plays a significant role in increasing the financial capacity of affordable housing developers. With reduced public funding, housing associations have become more innovative in funding affordable homes, for example through cross subsidy from developing for market sales, as well as through debt finance.

However, this still leaves a funding shortfall, meaning the supply challenge cannot be met. As a result, public investment in affordable housing is vital to resolve the affordable housing problem.

The evidence on the additionality of new affordable homes part funded by public investment is mixed. On balance, our view is that the evidence suggests that

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<sup>64</sup> The study defined homes in the social sector as both below market rental homes, and private sector tenants with Housing Benefit. Holmans, A., for the Town and Country Planning Association, 2014, New estimates of housing demand and need in England, 2011 to 2031, available at: [http://www.tcpa.org.uk/data/files/HousingDemandNeed\\_TCPA2013.pdf](http://www.tcpa.org.uk/data/files/HousingDemandNeed_TCPA2013.pdf)

crowding out in the medium term is likely to be limited, and that this would merit further research.

## Affordable housing output

Since 2004, the required increase in building of affordable homes identified by Barker has not been fully met. Current affordable home building is far below the requirement from the social sector (which also includes private sector tenants receiving Housing Benefit).<sup>65</sup> Under the NAHP, 112,000 homes were built over five and a half years, and 8,800 homes have been built under the AHP in the two years up until September 2013.<sup>66</sup>

Housing association homes are more likely to meet the Decent Homes Standard compared to the existing stock of other housing types. This suggests that for tenants in new affordable homes, alternatives such as living in existing private rented sector housing may not provide the same quality of accommodation.

## Demand side impact of new affordable homes

Our analysis shows that affordable housing supports high need individuals. Given the persistent undersupply of affordable homes, those at the margin of entering affordable housing are higher-need than ever. Prior to moving into affordable housing, 16% of households are statutory homeless, 19% move due to problems with overcrowding and a further 8% move due to problems with their health.<sup>67</sup>

Local authority waiting lists are an imperfect measure of need for affordable housing, but they provide a useful indication of the scale of current need. Waiting list data shows that there is large unmet demand for affordable housing. 1,689,000 households were on waiting lists for housing in England in 2013, compared to 43,000 new affordable homes supplied in 2012-13.

## Economic and social outcomes

Quantified evidence on the directly attributable impact of affordable housing on individual outcomes is limited. This means that it is not possible to reliably estimate the full benefits of public investment in affordable housing in terms of outcomes for tenants.

While not all fully quantifiable, the available evidence indicates that investment in affordable housing supports multiple social objectives, summarised below.

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<sup>65</sup> Holmans, A., for the Town and Country Planning Association, 2014, New estimates of housing demand and need in England, 2011 to 2031, available at: [http://www.tcpa.org.uk/data/files/HousingDemandNeed\\_TCPA2013.pdf](http://www.tcpa.org.uk/data/files/HousingDemandNeed_TCPA2013.pdf)

<sup>66</sup> This does not include forecast units

<sup>67</sup> Frontier analysis of CORE lettings data

## Conclusion

- **Health:** moving into new affordable homes or having an existing affordable home refurbished is associated with improved self-rated health.<sup>68</sup> Health benefits associated with improved housing include reduced problems with self-care and reduced anxiety and depression.<sup>69</sup> Tenants also reported fewer GP visits following the move to improved affordable housing, suggesting there may be considerable savings in health service expenditure from improved housing.<sup>70</sup>
- **Crime:** the evidence suggests that decent housing can help crime prevention, especially for young homeless people. However, there are issues around identifying causality (Friedman 2010).
- **Labour market outcomes:** the evidence on the impact of affordable housing on labour market outcomes is limited. Affordable housing could improve employment outcomes for residents as many housing associations run programmes to help their tenants find work. Our simple analysis of the British Household Panel Survey (BHPS) suggests that affordable housing may improve employability for new housing association tenants.<sup>71</sup>
- **Wellbeing:** higher satisfaction with housing is associated with higher life satisfaction. In our survey of housing association tenants, 83% reported that they were satisfied with their current home as a place to live, and 70% also reported being satisfied with their lives overall.<sup>72</sup> However, this does not establish causality.
- **Education:** overcrowding may negatively affect educational outcomes for children, for example by worsening health or reducing support available from parents.
- **Community cohesion.** The literature finds changes to adult socialising and child development following home improvements, as well as increased feelings of safety.

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<sup>68</sup> Communities Scotland, 2006, The effects of social housing on health and wellbeing – initial findings from the SHARP study, available at: <http://www.scotland.gov.uk/Resource/Doc/1125/0086317.pdf>

<sup>69</sup> Shepherd's Bush Housing Association, 2003, Housing & Health Uncovered, Available at: [http://www.housinglin.org.uk/library/Resources/Housing/Housing\\_advice/Housing\\_Health\\_Uncovered.pdf](http://www.housinglin.org.uk/library/Resources/Housing/Housing_advice/Housing_Health_Uncovered.pdf)

<sup>70</sup> Shepherd's Bush Housing Association, 2003, Housing & Health Uncovered

<sup>71</sup> It should be noted that this did not control for other factors that could have impacted on employment outcomes over the period. Our analysis looked at Waves 9-15 of the BHPS covering the years 1999-2005

<sup>72</sup> See Table 6 and Table 17 for more details





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## Annexe 2: Online survey results

In addition to our review of the existing evidence we conducted two online surveys; one of housing associations and one of their tenants. The aim of the surveys was to fill in evidence gaps identified by our review of the existing evidence.

This Annexe provides some background on the surveys and a summary of the results.

### Tenant survey

For the survey of tenants, we asked 531 housing associations to distribute the survey to their tenants via email, their website and other means. We received 702 responses. The survey consisted of 13 short multiple choice questions.

The questions we asked on the survey were:

- In which region of the country do you live?
- How many years have you lived in your current home for?
- How satisfied are you with your current home as a place to live?
- If you have been in your current home less than 3 years, what type of accommodation were you in previously?
- How many people live in your household?
- Compared to one year ago, how would you rate your health in general now?
- How would you describe your current employment status?
- How would you describe your employment status one year ago?
- Compared to one year ago, how confident do you feel about finding a job?
- In the past year, have you participated in an employment or training programme?
- If you have participated in an employment or training programme in the past year, has this made you feel more confident about finding a job?
- If you have moved in the past 3 years, has your new home made you feel more confident about finding a job?
- How dissatisfied or satisfied are you with your life overall?

Below we provide a summary of our results.

**Table 4.** In which region of the country do you live?

Region	All respondents		Tenants that have moved in last three years		Tenants that have not moved in last three years	
	Number	%	Number	%	Number	%
North East	26	4%	7	3%	19	4%
North West	50	7%	13	6%	37	8%
Yorkshire and the Humber	14	2%	9	4%	5	1%
East Midlands	2	0%	0	0%	2	0%
West Midlands	4	1%	2	1%	2	0%
East of England	23	3%	11	5%	12	3%
London	304	44%	76	37%	222	46%
South East	164	24%	54	27%	109	23%
South West	104	15%	31	15%	71	15%
<b>Total</b>	<b>691</b>		<b>203</b>		<b>479</b>	

Source: Frontier analysis



**Table 5.** How many years have you lived in your current home for?

	Number	%
Less than one year	62	9%
1 - 2 years	79	11%
2 - 3 years	69	10%
More than three years	481	70%
<b>Total</b>	<b>691</b>	

Source: Frontier analysis

**Table 6.** How satisfied are you with your current home as a place to live?

	All respondents		Tenants that have moved in last three years		Tenants that have not moved in last three years	
	Number	%	Number	%	Number	%
Completely satisfied	189	27%	56	27%	132	28%
Mostly satisfied	296	43%	87	42%	206	43%
Somewhat satisfied	91	13%	29	14%	62	13%
Neither satisfied nor dissatisfied	29	4%	9	4%	18	4%
Somewhat dissatisfied	47	7%	16	8%	30	6%
Mostly dissatisfied	17	2%	3	1%	13	3%
Completely dissatisfied	26	4%	9	4%	17	4%
<b>Total</b>	<b>695</b>		<b>209</b>		<b>478</b>	

Source: Frontier analysis

## Annexe 2: Online survey results

**Table 7.** If you have been in your current home less than 3 years, what type of accommodation were you in previously?

	All respondents		Tenants that have moved in last three years	
	Number	%	Number	%
Private landlord or private letting agency	62	26%	55	30%
Living with family	35	15%	29	16%
Housing association or charity trust (not local authority)	85	36%	54	29%
Council (local authority)	31	13%	25	14%
Temporary accommodation (e.g. homeless shelter, Bed & Breakfast)	26	11%	22	12%
<b>Total</b>	<b>239</b>		<b>185</b>	

Source: Frontier analysis

**Table 8.** How many adults live in your household?

	All respondents		Tenants that have moved in last three years		Tenants that have not moved in last three years	
	Number	%	Number	%	Number	%
0	8	1%	2	1%	6	1%
1	300	44%	108	53%	189	40%
2	277	40%	74	36%	199	42%
3	82	12%	16	8%	65	14%
4	21	3%	4	2%	17	4%
5+	0	0%	0	0%	0	0%
<b>Total</b>	<b>688</b>		<b>204</b>		<b>476</b>	

Source: Frontier analysis

## Annexe 2: Online survey results

**Table 9.** How many children live in your household?

	All respondents		Tenants that have moved in last three years		Tenants that have not moved in last three years	
	Number	%	Number	%	Number	%
0	207	46%	64	45%	139	45%
1	119	26%	31	22%	87	28%
2	78	17%	27	19%	51	17%
3	35	8%	13	9%	22	7%
4	13	3%	6	4%	7	2%
5+	0	0%	0	0%	0	0%
<b>Total</b>	<b>452</b>		<b>141</b>		<b>306</b>	

Source: Frontier analysis

**Table 10.** Compared to one year ago how would you rate your health in general now?

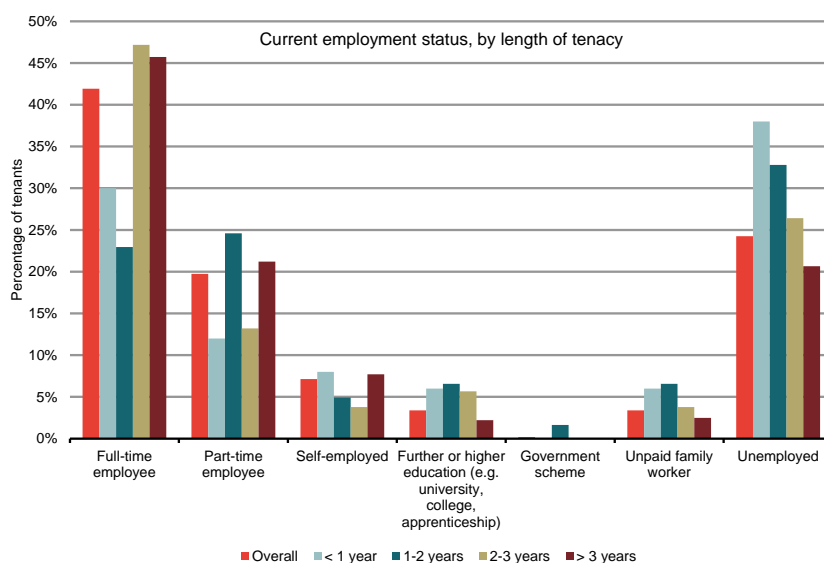
	All respondents		Tenants that have moved in last three years		Tenants that have not moved in last three years	
	Number	%	Number	%	Number	%
Much better now than one year ago	47	7%	26	13%	21	4%
Somewhat better now than one year ago	72	10%	35	17%	36	8%
About the same now as one year ago	348	50%	90	43%	254	53%
Somewhat worse now than one year ago	160	23%	41	20%	118	25%
Much worse now than one year ago	59	9%	13	6%	45	9%
Don't know	8	1%	2	1%	5	1%
<b>Total</b>	<b>694</b>		<b>207</b>		<b>479</b>	

Source: Frontier analysis

**Table 11.** How would you describe your current employment status?

	All respondents		Tenants that have moved in last three years		Tenants that have not moved in last three years	
	Number	%	Number	%	Number	%
Full-time employee	223	42%	54	33%	166	46%
Part-time employee	105	20%	28	17%	77	21%
Self-employed	38	7%	9	5%	28	8%
Further or higher education (e.g. university, college, apprenticeship)	18	3%	10	6%	8	2%
Government scheme	1	0%	1	1%	0	0%
Unpaid family worker	18	3%	9	5%	9	2%
Unemployed	129	24%	53	32%	75	21%
<b>Total</b>	<b>532</b>		<b>164</b>		<b>363</b>	

Source: Frontier analysis

**Figure 19.** How would you describe your current employment status?

Source: Frontier analysis

**Table 12.** How would you describe your employment status one year ago?

	All respondents		Tenants that have moved in last three years		Tenants that have not moved in last three years	
	Number	Percent	Number	Percent	Number	Percent
Full-time employee	226	42%	55	32%	168	47%
Part-time employee	112	21%	32	19%	80	22%
Self-employed	34	6%	11	6%	22	6%
Further or higher education (e.g. university, college, apprenticeship)	18	3%	10	6%	8	2%
Government scheme	2	0%	0	0%	2	1%
Unpaid family worker	17	3%	9	5%	8	2%
Unemployed	128	24%	55	32%	71	20%
<b>Total</b>	<b>537</b>		<b>172</b>		<b>359</b>	

Source: Frontier analysis

**Table 13.** Compared to one year ago, how confident do you feel about finding a job?

	All respondents		Tenants that have moved in last three years		Tenants that have not moved in last three years	
	Number	%	Number	%	Number	%
Much more employable than one year ago	70	12%	29	17%	41	11%
Somewhat more employable than one year ago	79	14%	32	18%	46	12%
About the same now as one year ago	244	43%	76	43%	166	43%
Somewhat less employable than one year ago	66	12%	18	10%	47	12%
Much less employable now than one year ago	88	15%	21	12%	66	17%
Don't know	91	16%	28	16%	62	16%
<b>Total</b>	<b>568</b>		<b>175</b>		<b>387</b>	

Source: Frontier analysis

**Table 14.** In the past year have you participated in an employment or training programme?

	Number	%
Yes	155	23%
No	518	77%
Don't know	3	0%
<b>Total</b>	<b>676</b>	

Source: Frontier analysis

**Table 15.** If you have participated in an employment or training programme in the past year, has it made you feel more confident about finding a new job?

	Number	%
Yes	90	45%
No	76	38%
Don't know	33	17%
<b>Total</b>	<b>199</b>	

Source: Frontier analysis

**Table 16.** If you have moved home in the past 3 years, has your new home made you feel more confident about finding a job?

	Number	%
Yes	56	27%
No	106	52%
Don't know	43	21%
<b>Total</b>	<b>205</b>	

Source: Frontier analysis

## Annexe 2: Online survey results



**Table 17.** How satisfied are you with your life overall??

	All respondents		Tenants that have moved in last three years		Tenant that have not moved in last three years	
	Number	%	Number	%	Number	%
Completely satisfied	71	10%	23	11%	48	10%
Mostly satisfied	285	41%	86	42%	196	41%
Somewhat satisfied	131	19%	35	17%	94	20%
Neither satisfied nor dissatisfied	59	9%	17	8%	39	8%
Somewhat dissatisfied	82	12%	19	9%	63	13%
Mostly dissatisfied	35	5%	15	7%	19	4%
Completely dissatisfied	25	4%	9	4%	16	3%
<b>Total</b>	<b>688</b>		<b>204</b>		<b>475</b>	

Source: Frontier analysis

## Developer survey

The survey of developers was sent to 78 housing associations that are currently lead partners in developing new affordable housing. We received 25 responses, a response rate of 32%.

The questions we asked on the survey were:

- In which regions is your organisation active? E.g. either in terms of housing tenants or current development activity.
- How many new affordable homes did your organisation begin developing in 2013?
- How many new affordable homes did your organisation complete in 2013?
- If your organisation built no affordable homes last year, why was this the case?
- What was the total grant received by your organisation from the HCA and/or GLA in 2013 for affordable homes?
- What type of homes did your organisation build in 2013?
- What are your main sources of funding for new affordable housing?
- For each funding source selected in (8), how has the availability for new affordable homes changed over the past 3 years?
- How do you allocate new affordable housing?
- How many households do you house in affordable properties?
- How many tenants, across all households, do you house in affordable homes?
- Of your tenants, how many have accessed an employment or skills programme run or supported by your organisation in the past year?
- Of your tenants, what is the average household income?
- On average, what proportion of household heads are in work on average?

## Annexe 2: Online survey results

Below we provide a summary of our results.

**Table 18.** In which regions is your organisation active? E.g. either in terms of housing tenants or current development activity

	Percent	Response count
North East	2%	1
North West	8%	4
Yorkshire and the Humber	6%	3
East Midlands	10%	5
West Midlands	8%	4
East of England	10%	5
London	16%	8
South East	26%	13
South West	14%	7

Source: Frontier analysis: Note

- **How many new affordable homes did your organisation begin developing in 2013?** Total: 10,344; Average: 470; Responses: 22
- **How many new affordable homes did your organisation complete in 2013?** Total: 8,267; Average: 359; Responses: 23
- **If your organisation built no affordable homes last year, why was this the case?** No responses.
- **What was the total grant received by your organisation from the HCA and/or GLA in 2013 for affordable homes?** Total: £154 million; Average: £7.7 million; Responses: 21; Average grant per unit (completions): £20,471.

**Table 19.** What type of homes did your organisation build in 2013?

	%
Market sale	11%
Market rent	7%
Commercial	0%
Affordable sale (e.g. shared ownership)	23%
Affordable rent	72%
Other	6%

Source: Frontier analysis; Note: 23 responses

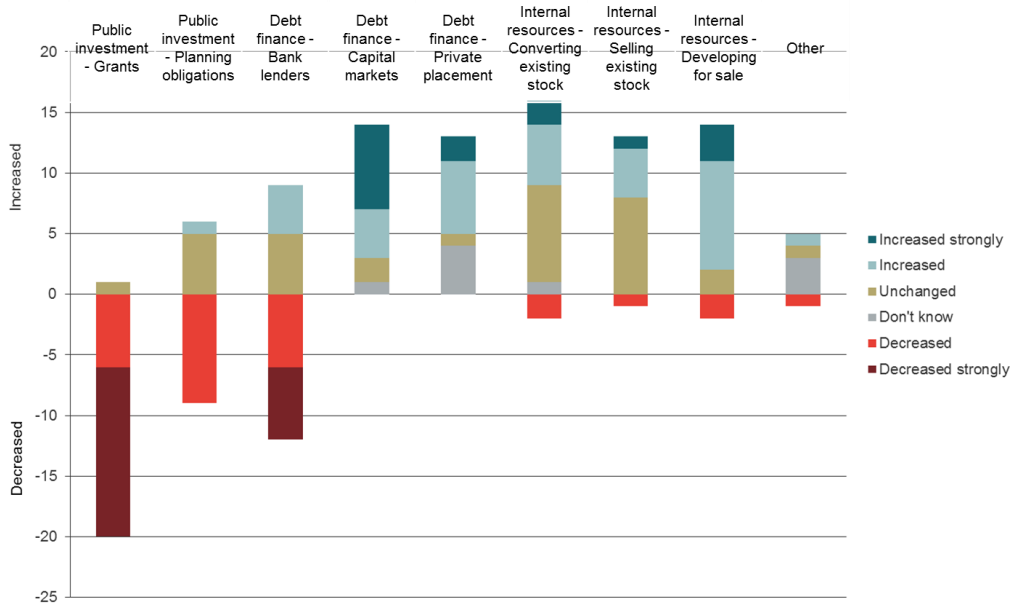
**Table 20.** What are your main sources of funding for new affordable housing?

	%
Public investment - Grants	91%
Public investment - Planning obligations	45%
Debt finance - Bank lenders	73%
Debt finance - Capital markets	41%
Debt finance - Private placement	18%
Internal resources - Converting existing stock	55%
Internal resources - Selling existing stock	41%
Internal resources - Developing for sale	50%
RCGF	9%

Source: Frontier analysis; Note: 22 responses

## Annexe 2: Online survey results

**Figure 20.** How the availability of each funding source has changed over the last three years



Source: Frontier analysis of online survey of Housing Associations

Note: The numbers on the vertical axis are the number of housing association respondents that answered each part of the question. We have shown decreased funding responses as negative, and all others (including unchanged funding or where respondents didn't know) as positive.

**Table 21.** How do you allocate new affordable housing?

	%
All nominations are from the local authority	17%
Most nominations are from the local authority	67%
Roughly even split between local authority and housing association nominations	4%
Most nominations are from the housing association	0%
All nominations are from the housing association	0%
Choice based letting system	13%

Source: Frontier analysis; Note: 24 responses

- **How many households do you house in affordable properties?** Average: 21,507; Minimum: 350; Maximum: 70,000; Responses: 17.
- **How many tenants, across all households, do you house in affordable homes?** Average: 32,786; Minimum: 6,459; Maximum: 60,000; Responses: 6.
- **Of your tenants, how many have accessed an employment or skills programme run or supported by your organisation in the past year?** Average: 1,591; Minimum: 0; Maximum: 9,956; Responses: 16.
- **Of your tenants, what is the average household income?** Average: £15,617; Minimum: £10,399; Maximum: £20,000; Responses: 11.
- **On average, what proportion of household heads are in work on average?** Average: 46%; Minimum: 17%; Maximum: 75%; Responses: 15.

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