



Ministry of Housing,  
Communities &  
Local Government



# English Housing Survey

Variations in housing circumstances, 2016-17



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# Introduction and main findings

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1. The English Housing Survey (EHS) is a national survey of people's housing circumstances and the condition and energy efficiency of housing in England. In its current form, it was first run in 2008-09. Prior to then, the survey was run as two standalone surveys: the English House Condition Survey and the Survey of English Housing. It is one of the longest standing surveys in government, with 2017 marking the 50<sup>th</sup> anniversary since the first survey in 1967.
2. The EHS has consistently shown that housing circumstances such as tenure and the physical condition of the home vary according to a number of factors. This report explores the relationship between those factors and provides statistics on the characteristics of the various tenure groups.
3. The first chapter uses multivariate analysis to explore the factors that are related to housing circumstances in their own right. It also evaluates the strength of those factors and describes the way in which they are linked to the housing circumstances of households.
4. The second chapter compares a number of demographic and household characteristics of eight groups: outright owners; mortgagors; private renters; social renters; recent first time buyers; future home owners; those who have recently moved into the private renter sector; and households who were recent movers into the social rented sector.

## Main findings

This report explores the relationship between housing circumstances and the following factors: the size, income, employment status and composition of the household; whether any household members had a long-term illness or disability; the age, sex, ethnicity, marital and socio-economic status of the household reference person (HRP)<sup>1</sup>; region of residence; type of dwelling occupied; the length of time in the dwelling; and, where applicable, housing tenure.

**The type of dwelling the household occupied, the size and income of the household were particularly strongly associated with housing tenure.**

- Households living in houses were more likely to be owner occupiers while those in purpose built and converted flats were more likely to be social renters and private renters respectively.
- Households with five or more people were more likely to rent their accommodation. Smaller households were more likely to own their own home.

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<sup>1</sup> The household reference person is the householder in whose name the accommodation was owned or rented.

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- The higher the household income, the more likely was the household to be an owner occupier.

**Whether the household had a member with a long-term illness or disability were also strongly associated with owner occupation and social renting.**

- Household with a member who was long-term sick or had a disability were more likely to be social renter and less likely to own their own home.

**Of the factors examined, tenure had the strongest link to the likelihood of living in a non-decent or a damp home.**

- Private renters were more likely than owner occupiers to live in a non-decent home while households in social rented accommodation were less likely to do so.
- Private renters were more likely than owner occupiers to live in a home with damp.

**The age of the HRP and tenure were particularly strongly related to both overcrowding and under-occupation.**

- Households where the HRP was aged 30-44 years were most likely to live in an overcrowded home and least likely to live in an under-occupied home.
- Private and social renters were more likely to live in an overcrowded home and less likely to live in an under-occupied home.
- Overcrowding became less likely as household income increased.

**Households in different tenure groups tended to have different characteristics.**

- Outright owners were more likely to be couples with no children (45%) or single person household (33%). They also tended to be older (61% of the HRPs who owned their accommodation outright were aged 65 or older).
- Households who were buying their home with a mortgage were more likely than outright owners or renters to contain couples with dependent children (41%). Mortgagors were also more likely than outright owners or renters to be in the middle aged ranges with 61% of HRPs aged 35-54.
- Households in the private rented sector tended to contain the younger age groups: the HRP of 11% of private renters were aged under 25; a third (33%) were aged between 25 and 34. HRPs in the private rented sector were also less likely to be White (82%) than outright owners (94%) or mortgagors (90%).
- Compared with owner occupiers and private renters, social renters had the highest proportion of single person households (41%) as well as the highest proportion of lone parents with dependent children (16%). Households in the social rented sector were also most likely to have someone with a long-term illness or disability (50% compared with between 21% and 36% among the other main tenure groups). HRPs in the social rented sector, like private renters, were

less likely to be White (83%) but they were also more likely to be Black (8% compared with 4% of private renters, 2% of mortgagors and 1% of outright owners).

## Acknowledgements and further queries

5. Each year the English Housing Survey relies on the contributions of a large number of people and organisations. The Ministry for Housing, Communities and Local Government (MHCLG) would particularly like to thank the following people and organisations, without whom the 2016-17 survey and this report, would not have been possible: all the households who gave up their time to take part in the survey, NatCen Social Research, the Building Research Establishment (BRE) and CADS Housing Surveys.
6. This report was produced by Alun Humphrey and Jane Lakey at NatCen in collaboration with MHCLG.
7. If you have any queries about this report, would like any further information or have suggestions for analyses you would like to see included in future EHS reports, please contact [ehs@communities.gsi.gov.uk](mailto:ehs@communities.gsi.gov.uk).
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# Chapter 1

## Variations in housing circumstances – a multivariate analysis

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- 1.1 The English Housing Survey (EHS) has consistently shown that tenure and the physical condition of the home vary according to the demographic characteristics of the household and the person responsible for the accommodation (the 'HRP')<sup>2 3, 4, 5, 6</sup>. In addition, EHS findings published on the Ethnicity Facts and Figures pages of Gov.uk have indicated that the ethnic origin of the HRP was related to a range of housing circumstances, including overcrowding/under-occupation and aspects of housing costs such as spending on rent, mortgages and deposits<sup>7</sup>. The factors related to housing circumstances are often related to each other. For example, minority ethnic groups tend to have a younger age profile than the white British population. As the younger age groups are also more likely to rent rather than own their home, the differences in tenure by ethnicity may, in part, be due to differences in the age profile between ethnic groups. The relationships between the factors need to be allowed for when determining which factors are associated with housing circumstances in their own right.
- 1.2 This chapter uses multivariate methods to explore the factors that are related to housing circumstances while taking account of their relationships with each other. Two sets of findings are presented. The first identifies the factors that are associated with housing circumstances in their own right and compares the strength of the associations. The second describes the way in which the factors are linked to the housing circumstances of households. The commentary will illustrate the relative strength of the associations between the various factors and housing circumstances by setting out the factors in groups according to the strength of their link to the housing circumstances covered. It will then describe how the factors are linked to housing circumstances.<sup>8</sup> The methodology used is summarised in the technical notes section of this report.

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<sup>2</sup> The HRP (household reference person) is the 'householder' in whose name the accommodation is owned or rented.

<sup>3</sup> See Annex Table 1.4 in the English Housing Survey 2016 to 2017: Headline report at

<https://www.gov.uk/government/statistics/english-housing-survey-2016-to-2017-headline-report>.

<sup>4</sup> See Annex Tables 1.3, 1.4, 1.6, 1.10 and 1.11 in the English Housing Survey 2015 to 2016: Private Rented Sector Report at <https://www.gov.uk/government/statistics/english-housing-survey-2015-to-2016-private-rented-sector>.

<sup>5</sup> See Annex Table 1.2 in the English Housing Survey 2015 to 2016: Social Rented Sector Report at <https://www.gov.uk/government/statistics/english-housing-survey-2015-to-2016-social-rented-sector>.

<sup>6</sup> See Annex Table 2.1 in the English Housing Survey 2015 to 2016: Housing Cost and Affordability Report at <https://www.gov.uk/government/statistics/english-housing-survey-2015-to-2016-housing-costs-and-affordability>.

<sup>7</sup> <https://www.ethnicity-facts-figures.service.gov.uk/>

<sup>8</sup> In order to be comparable with previous EHS findings released on the Ethnicity Facts and Figures the analysis in this chapter is based on data of the 2014-15 and 2015-16 EHS. For analysis of overcrowding and under-

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- 1.3 It is beyond the scope of this chapter to cover all the aspects of housing circumstances recorded on the EHS. This chapter therefore focuses on tenure and four dimensions of housing conditions: living in a non-decent<sup>9</sup>; a damp; an overcrowded; or an under-occupied home<sup>10</sup>.

## Factors associated with tenure

### Owner occupation

- 1.4 The factors most strongly associated with whether or not a household owned its own home were: the type of dwelling the household occupied; the length of time the household had lived in the dwelling; the size of the household; household income; and whether someone in the household had a long term sickness or disability. All things being equal, taking account of any one of those characteristics would change the odds of a household owning its own home by more than 1.6 times, Annex Table 1.1 and Figure 1.1.
- 1.5 Compared with the factors with the strongest links, the relationship between home ownership and household type and the age and socio-economic group of the HRP was more moderate. All things being equal, taking account of any one of those characteristics would change the odds of a household being an owner occupier by between just over 1.3 and 1.6 times.
- 1.6 Ethnicity, along with the sex and marital status of the HRP, household employment status<sup>11</sup> and region of residence, had a relatively weaker association with owner occupation. All things being equal, taking account of any one of those characteristics would change the odds of a household being owner occupiers by 1.3 times or less.

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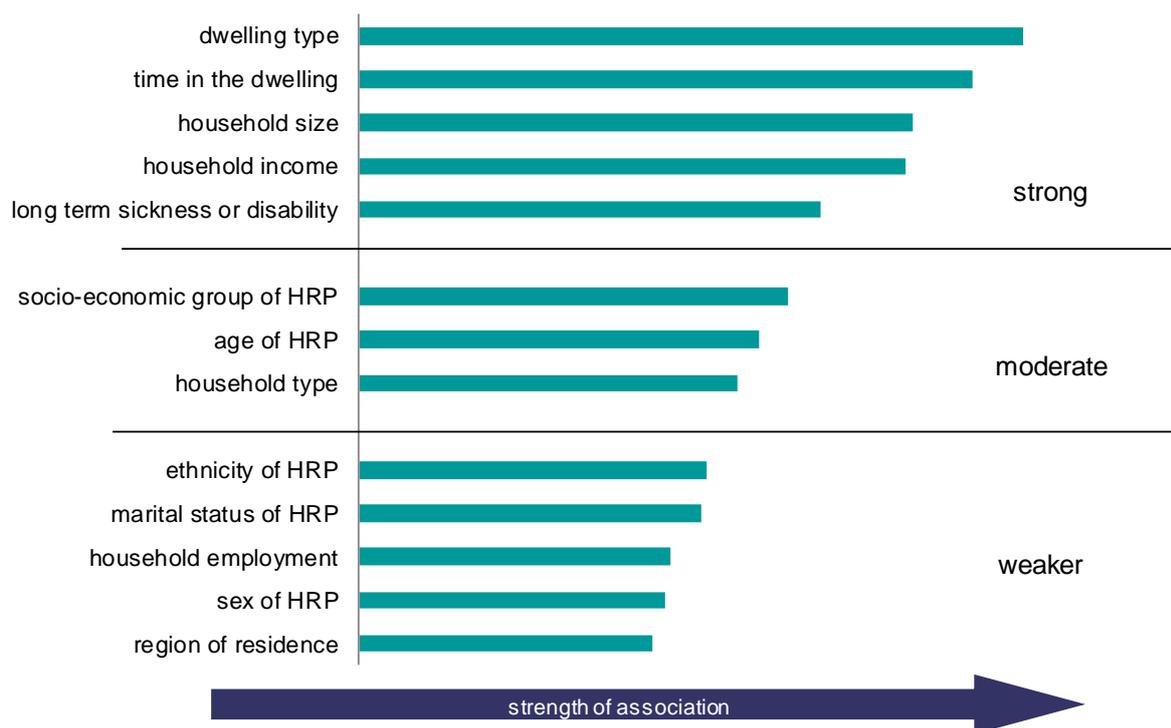
occupation, it is based on combined data from 2013-14, 2014-15 and 2015-16, in order to obtain sufficient sample sizes for detailed ethnicity categories.

<sup>9</sup> For a home to be considered 'decent' it must: meet the current minimum standard for housing; provide a reasonable degree of thermal comfort; be in a reasonable state of repair; and have reasonably modern facilities and services. See the glossary for further details.

<sup>10</sup> The analysis has also explored the factors related to various aspects of housing cost. Those findings are presented in the Annex Tables without commentary.

<sup>11</sup> Household employment status categorises households according to whether they have: no adult in paid work; one or more adults working part-time but no adult working full-time; or one or more adults working full-time.

**Figure 1.1: The factors associated with owner occupation, 2015-16**



**Base: all households**

**Notes:**

- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) negative logistic regression coefficients have been converted to their reciprocal in the charts
- 3) underlying data are presented in Annex Table 1.1

**Source: English Housing Survey, full household sample**

1.7 After taking account of all the factors covered in this chapter, some factors were found to be linked to a higher likelihood of owner occupation while others tended to be associated with a lower likelihood, Annex Table 1.2 and Figure 1.2. For example:

- Those living in houses were more likely to be owner occupiers than those living in flats, with households living in detached houses the most likely to be owner occupiers.<sup>12</sup>
- The longer a household had lived in their dwelling, the more likely it was to own the dwelling.
- Similarly, the higher the household income, the more likely was the household to be owner occupiers.
- Households with five or more people (larger households) were relatively unlikely to be owner occupiers.

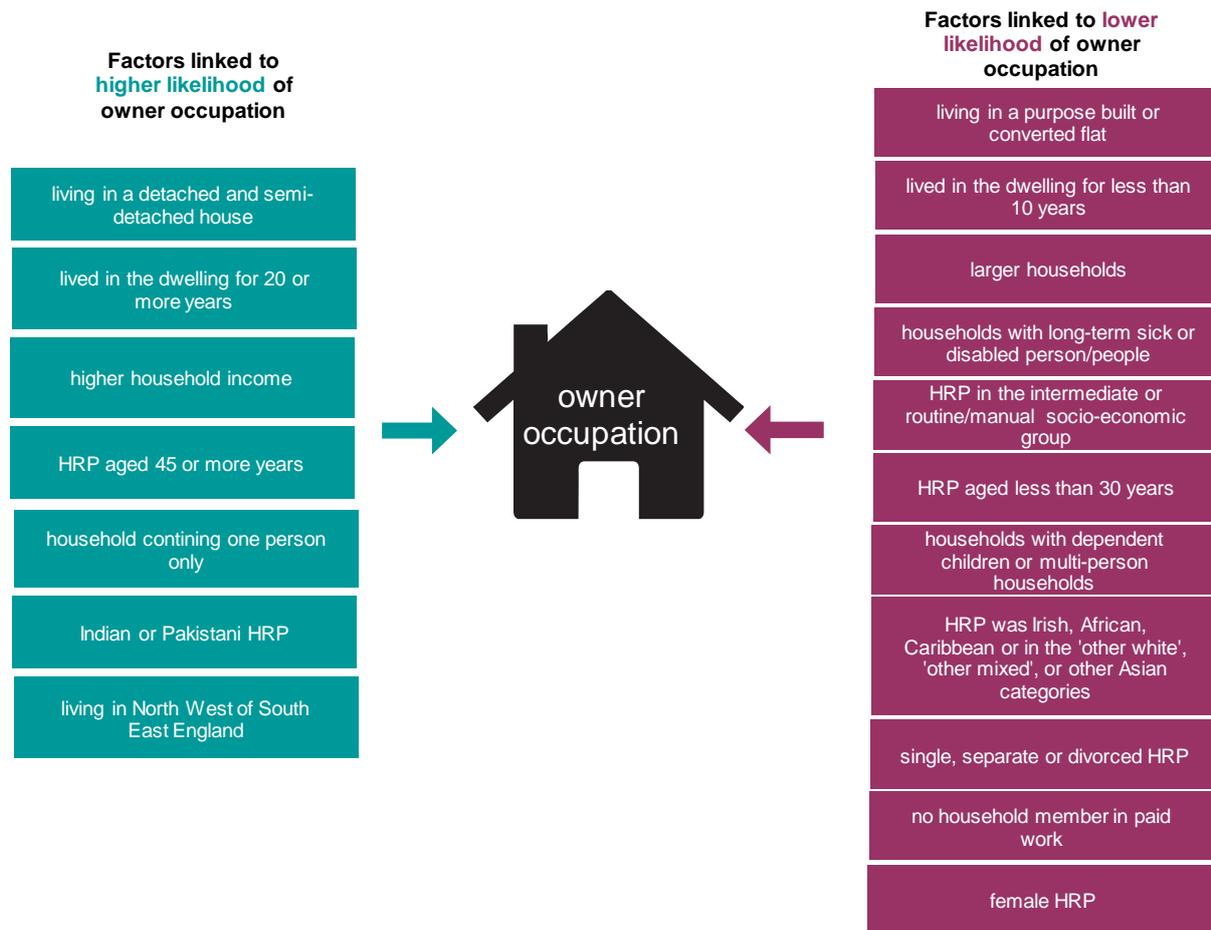
<sup>12</sup> In 2016-17, 92% of owner occupied dwellings were houses so it is not surprising that those living in houses were more likely to be owner occupiers. See Figure 2.3 and Annex Table 2.1 in the English Housing Survey 2016 to 2017: Headline report at <https://www.gov.uk/government/statistics/english-housing-survey-2016-to-2017-headline-report>.

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- Households with someone who was long-term sick or disabled were also less likely to own their home.
  - Households with an HRP in the intermediate or routine/manual socio-economic groups were less likely to be owner occupiers.<sup>13</sup>
  - The likelihood of owner occupation rose with the age of the HRP.
  - Compared with couples with no dependent children, households containing only one person were more likely to be owner occupiers, while households with dependent children and other multi-person households were less likely to be owner occupiers.

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<sup>13</sup> The EHS uses the eight-class version of the National Statistics Socio-economic Classification (NS-SEC) to define socio-economic status. The NS-SEC classes are based on occupation. See the glossary for further details.

**Figure 1.2: The relationship between owner occupation and the factors associated with it, 2015-16**



**Base: all households**

**Reference category: White British; male; aged 30 to 44 years; married; in highest socio-economic group; living in Greater London; in a household with fewer than 5 people; consisting of a couple with no dependent children; with one or more members working full-time; no members disabled or long-term sick; in the lowest income quintile; Dwelling is a terraced house; length of residence between 10 and 19 years; tenure is owned with mortgage.**

**Notes:**

1) findings are based on two years of EHS data up to and including the labelled date

2) underlying data are presented in Annex Table 1.2

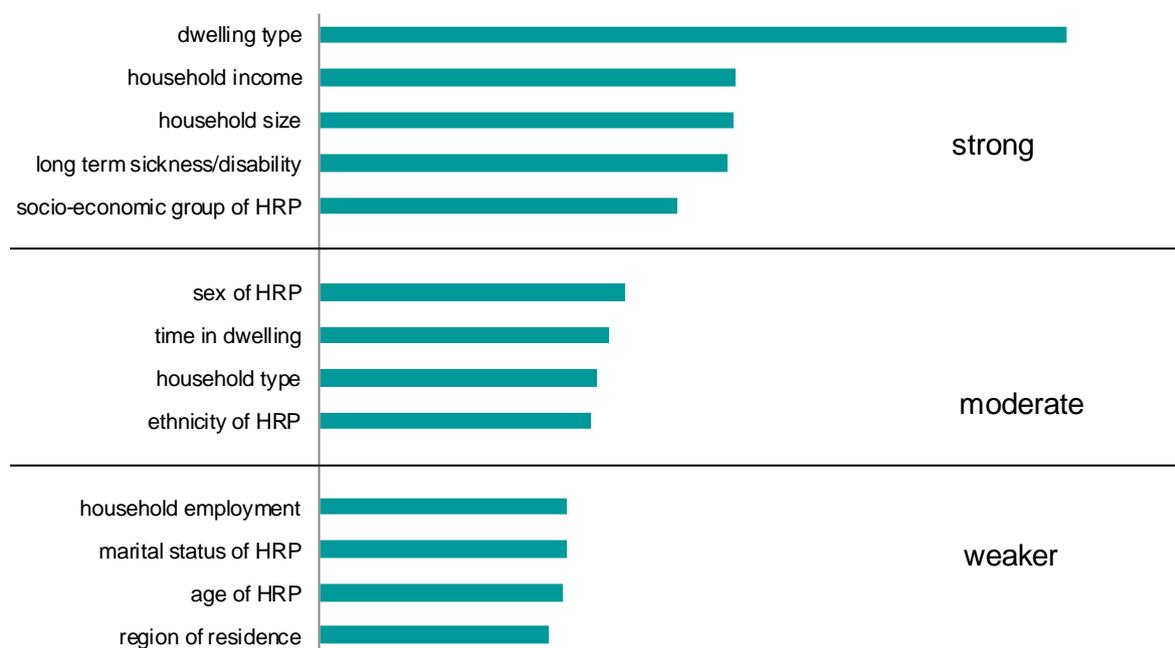
Source: English Housing Survey, full household sample

## Social renting

1.8 The factors that were strongly associated with social renting were: dwelling type; household income; household size; whether someone in the household had a long term sickness or disability; and the socio-economic group of the HRP. Household type, the length of residence in the dwelling, and the sex and ethnicity of the HRP were moderately associated with the likelihood of renting from a social landlord. The marital status and age of the HRP, region and

household employment status had a relatively weaker association with social renting, Annex Table 1.3 and Figure 1.3.<sup>14</sup>

**Figure 1.3: The factors associated with social renting, 2015-16**



**Base: all households**

**Notes:**

- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) negative logistic regression coefficients have been converted to their reciprocal in the charts
- 3) underlying data are presented in Annex Table 1.1

**Source: English Housing Survey, full household sample**

1.9 After taking account of all the factors covered in this chapter, some factors were found to be associated with a higher likelihood of social renting while others tended to be linked to a lower likelihood, Annex Table 1.4 and Figure 1.4. For example:

- Those living in purpose built flats or maisonettes were more likely to be social renters than households living in terraced houses, whereas those in detached or semi-detached houses or converted flats were less likely to rent in the social rented sector.<sup>15</sup>

<sup>14</sup> As in owner occupation, all things being equal, taking account of any one of the characteristics identified as strongly related to social renting would change the odds of a household living in the social rented sector by more than 1.6 times. Taking account of a factor identified as moderately associated with social renting would change the odds by between just over 1.3 and 1.6 times and a factor deemed to have a weaker relationship would change the odds by 1.3 times or less.

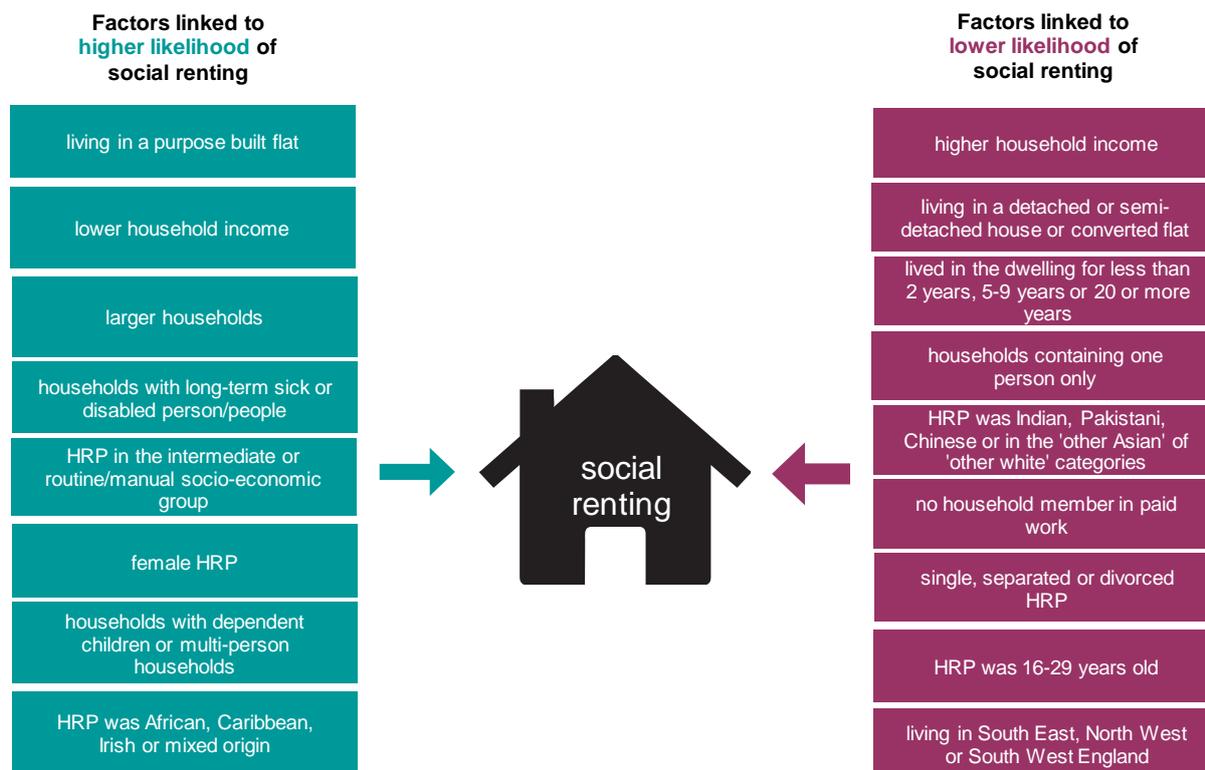
<sup>15</sup> As 42% of dwellings in the social rented sector were purpose built flats or maisonettes, it is not surprising that households living in purpose built flats or maisonettes were more likely to be social renters. See Annex Table 2.1 in the English Housing Survey 2016 to 2017: Headline report at <https://www.gov.uk/government/statistics/english-housing-survey-2016-to-2017-headline-report>

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- Households with five or more household members (larger households) were more likely to be social renters.
  - Households with a member who was disabled or long-term sick were also more likely to be in the social rented sector.
  - The lower the household income the more likely the household would be in the social rented sector.
  - Households where the HRP was in the higher socio-economic group were the least likely to be social renters<sup>16</sup>.
  - Households where the HRP was of African, Caribbean, Irish or mixed origin were more likely to be social renters than households where they were white British. Households with an HRP of Indian, Pakistani, Chinese, 'other Asian' or 'other white' origin were less likely to be social renters.
  - Compared with couples with no dependent children, households with dependent children and multi-person households were more likely to be social renters while households containing only one person were less likely to do so.
  - Those who had lived in their current dwelling for less than two years, between five to nine years or 20 or more years were less likely to be social renters than other households.
  - Households with a female HRP were more likely to be social renters.

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<sup>16</sup> The EHS uses the eight-class version of the National Statistics Socio-economic Classification (NS-SEC) to define socio-economic status. The higher socio-economic group is formed by combining the two highest NS-SEC classes: higher managerial and professional occupations and lower managerial and professional occupations. See the glossary for further details.

**Figure 1.4: The relationship between social renting and the factors associated with it, 2015-16**



**Base: all households**

**Reference category: White British; male; aged 30 to 44 years; married; in highest socio-economic group; living in Greater London; in a household with fewer than 5 people; consisting of a couple with no dependent children; with one or more members working full-time; no members disabled or long-term sick; in the lowest income quintile; Dwelling is a terraced house; length of residence between 10 and 19 years; tenure is owned with mortgage.**

**Notes:**

- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) underlying data are presented in Annex Table 1.4

Source: English Housing Survey, full household sample

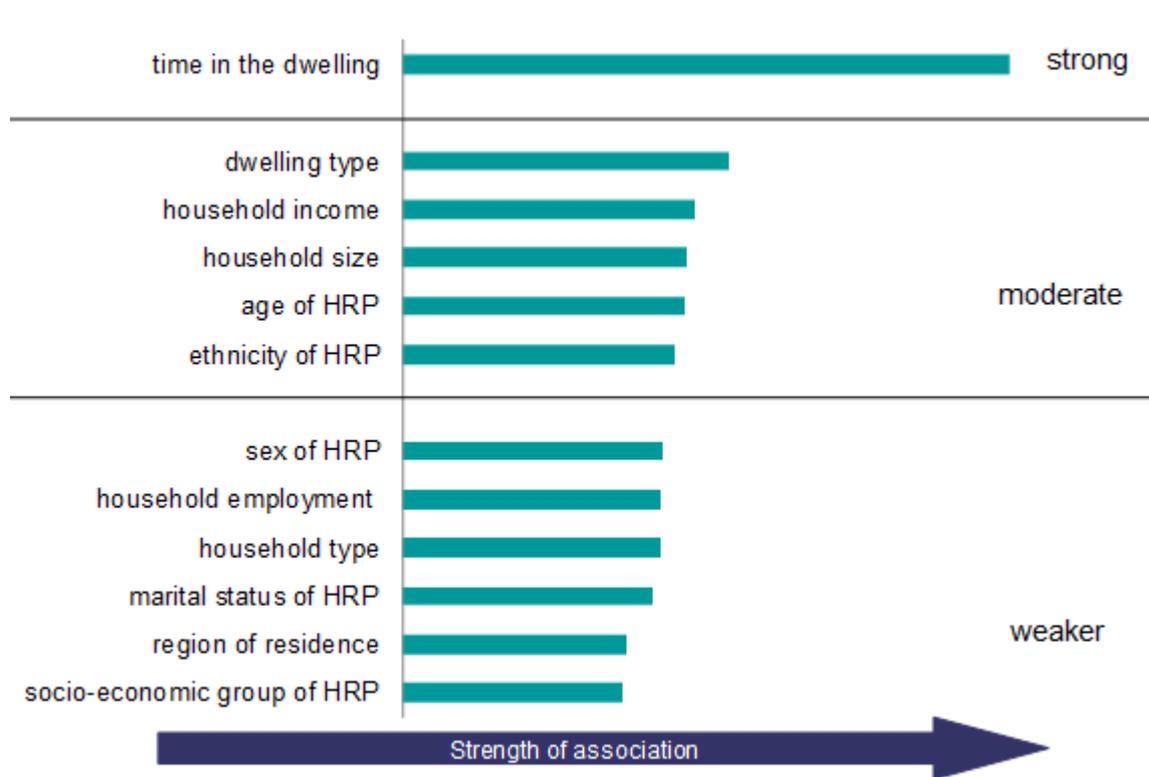
## Private renting

1.10 The factor with the strongest association with private renting was the length of residence in the current dwelling.<sup>17</sup> In contrast to owner occupiers and social renters, dwelling type, household income and household size were only moderately associated with private renting. The other factors that were also moderately associated with private renting were the age and ethnicity of the HRP.

<sup>17</sup> As with the other tenure types, all things being equal, taking account of any one of the characteristics identified as strongly related to private renting would change the odds of a household living in the private rented sector by more than 1.6 times. Taking account of a factor identified as moderately associated with private renting would change the odds by between just under 1.3 and 1.6 times and a factor deemed to have a weaker relationship would change the odds by 1.3 times or less.

1.11 Factors with a relatively weak link to private renting were region, sex, marital status and socio-economic group of the HRP, household employment status and household type. Whether a household had a member who was disabled or long-term sick was not associated with private renting at all, Annex Table 1.5 and Figure 1.5

**Figure 1.5: The factors associated with private renting, 2015-16**



Base: all households

Notes:

- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) negative logistic regression coefficients have been converted to their reciprocal in the charts
- 3) underlying data are presented in Annex Table 1.1

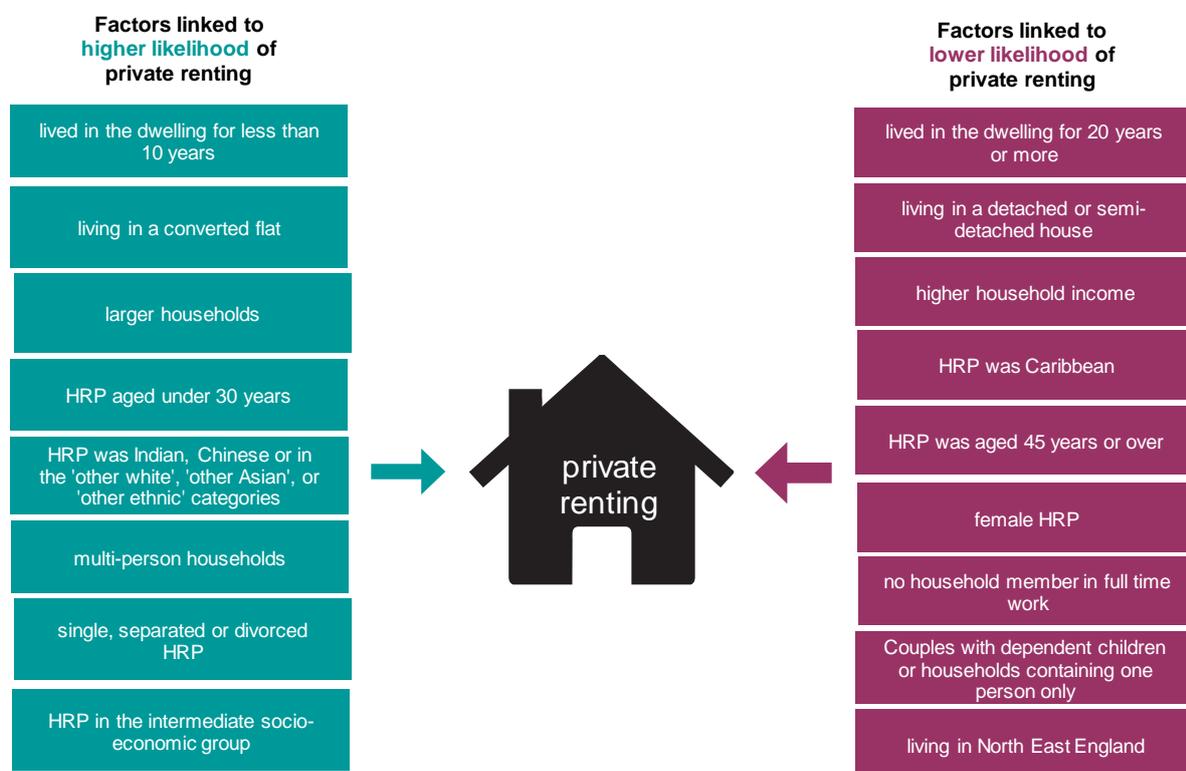
Source: English Housing Survey, full household sample

1.12 After taking account of all the factors covered in this chapter, some factors were found to be associated with a higher likelihood of living in the private rented sector while others tended to be linked to a lower likelihood, Annex Table 1.6 and Figure 1.6. For example:

- The shorter the household had been in their current dwelling, the more likely it was to be a private renter.
- Compared with households living in terraced houses, those in converted flats were more likely to be private renters, whereas those living in detached or semi-detached houses were less likely to be private renters.

- Private renting was less likely among households with higher incomes and was more likely for households with five or more members (larger households).
- The younger the HRP, the more likely it was that the household was renting privately.
- Households where the HRP was Indian, Chinese, or in the 'other white', 'other Asian' or 'other ethnic origin' categories were more likely to be private renters than those of white British origin. In contrast, those with a Caribbean HRP were less likely to be private renters.

**Figure 1.6: The relationship between private renting and the factors associated with it, 2015-16**



**Base: all households**

**Reference category: White British; male; aged 30 to 44 years; married; in highest socio-economic group; living in Greater London; in a household with fewer than 5 people; consisting of a couple with no dependent children; with one or more members working full-time; no members disabled or long-term sick; in the lowest income quintile; Dwelling is a terraced house; length of residence between 10 and 19 years; tenure is owned with mortgage.**

**Notes:**

1) findings are based on two years of EHS data up to and including the labelled date

2) underlying data are presented in Annex Table 1.6

Source: English Housing Survey, full household sample

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## The factors associated with the physical condition of the home

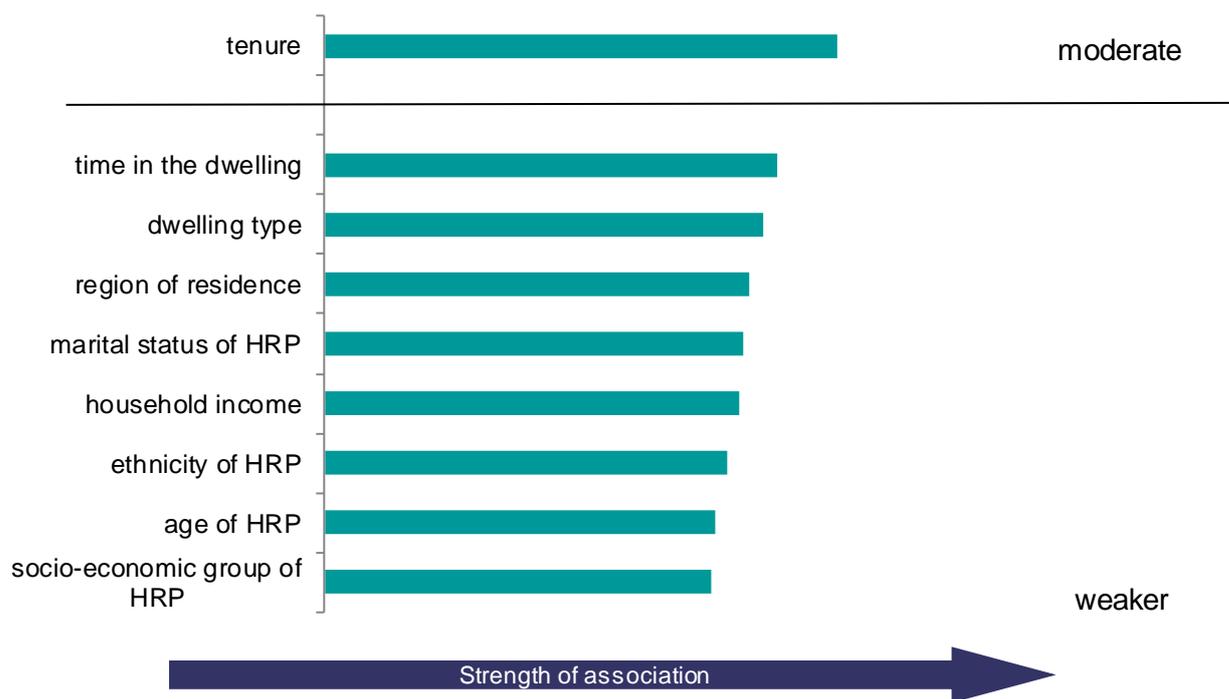
### Living in a non-decent home

- 1.13 None of the factors explored were strongly linked to living in a non-decent home.<sup>18</sup> Tenure was the factor that was most associated with the likelihood of living in a non-decent home. All things being equal, taking account of tenure would change the odds of the likelihood of living in a non-decent home by 1.4 times, Annex Table 1.7 and Figure 1.7.
- 1.14 The other factors associated with living in a non-decent home included the length of residence in the dwelling, dwelling type, region of residence, household income and the marital status, ethnicity, age, and socio-economic group of the HRP. The relationship between those factors and living in a non-decent home was relatively weak. All things being equal, taking account of one of those factors would change the odds of living in a non-decent home by between 1.3 and 1.1 times.
- 1.15 After allowing for the other factors, the size, employment status and composition of the household, whether any household members had a long term sickness or disability and the sex of the HRP were not related to the likelihood of living in a non-decent home.

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<sup>18</sup> All things being equal, taking account of any one of the characteristics identified as strongly related to private renting would change the odds of a household living in the private rented sector by more than 1.6 times. Taking account of a factor identified as moderately associated with private renting would change the odds by between just under 1.3 and 1.6 times and a factor deemed to have a weaker relationship would change the odds by 1.3 times or less.

**Figure 1.7: The factors associated with living in a non-decent home, 2015-16**



**Base: all households**

**Notes:**

- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) negative logistic regression coefficients have been converted to their reciprocal in the charts
- 3) underlying data are presented in Annex Table 1.1

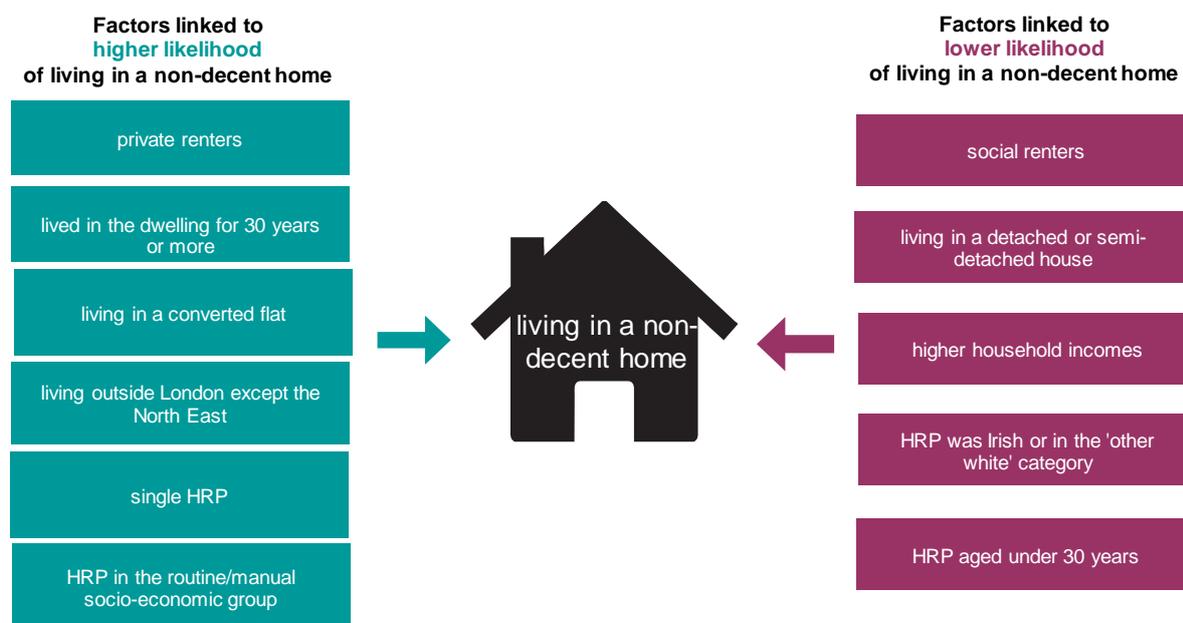
**Source: English Housing Survey, full household sample**

1.16 As in the case with tenure, after taking account of all the factors covered in this chapter, some factors were found to be associated with a higher likelihood of living in a non-decent home while others tended to be linked to a lower likelihood, Annex Table 1.8 and Figure 1.8. For example:

- Private renters were more likely than owner occupiers to live in a non-decent home, whereas those who lived in social rented accommodation were less likely to do so.
- Living in a non-decent home was more likely for households who had lived in their dwelling for 30 years or more.
- Compared with terraced houses, detached or semi-detached houses were less likely to be non-decent, and converted flats or rooms were more likely to be so.
- Except for the North East, homes in the other regions were more likely to be non-decent compared with homes in London.

- Higher income households were less likely to live in a non-decent home.
- Households with an HRP who was single were more likely to live in a non-decent home, compared with households with an HRP who was married.

**Figure 1.8: The relationship between living in a non-decent home and the factors associated with it, 2015-16**



**Base: all households**

**Reference category: White British; male; aged 30 to 44 years; married; in highest socio-economic group; living in Greater London; in a household with fewer than 5 people; consisting of a couple with no dependent children; with one or more members working full-time; no members disabled or long-term sick; in the lowest income quintile; Dwelling is a terraced house; length of residence between 10 and 19 years; tenure is owned with mortgage.**

**Notes:**

1) findings are based on two years of EHS data up to and including the labelled date

2) underlying data are presented in Annex Table 1.8

Source: English Housing Survey, full paired sample

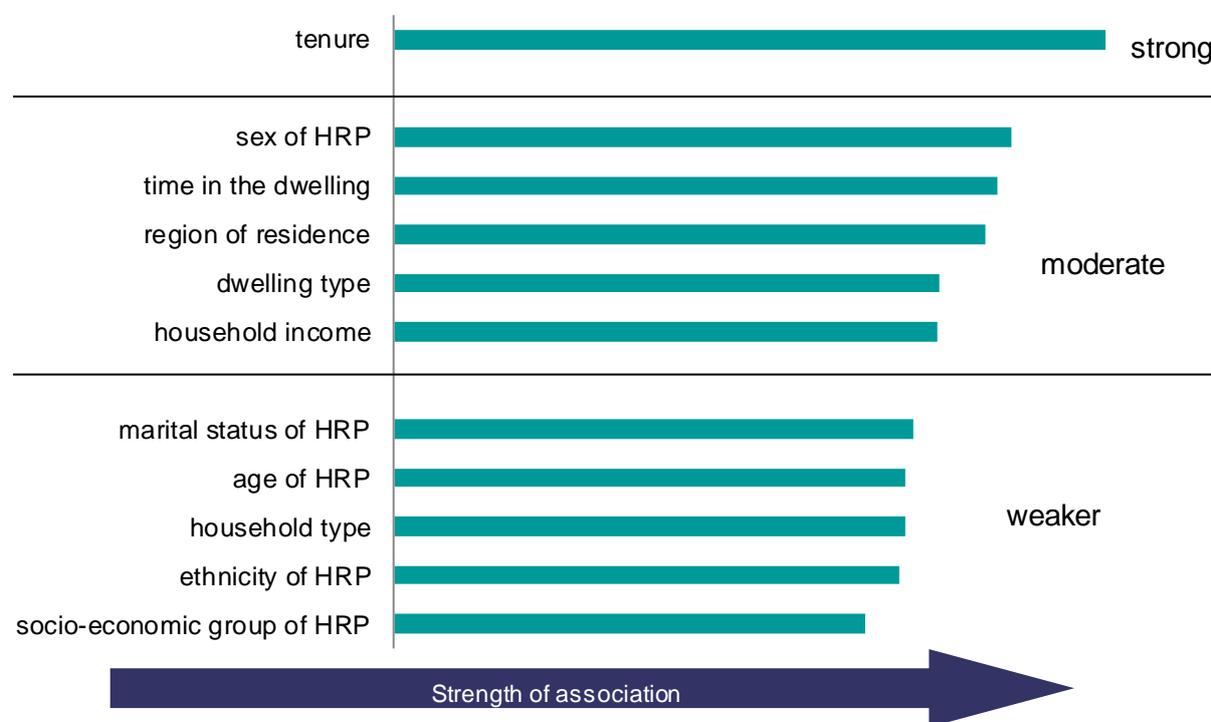
## Living in a damp home

1.17 As with non-decent homes, the strongest factor associated with living in a damp home was tenure.<sup>19</sup> Factors moderately associated with the likelihood of living in a damp home were the sex of the HRP, length of residence in the current dwelling, region of residence, dwelling type and household income. Household type and the ethnicity, age, marital status and socio-economic group of the HRP all had a relatively weaker association with the likelihood of living in a damp home. After allowing for the other factors, the size and

<sup>19</sup> All things being equal, taking account of any one of the characteristics identified as strongly related to private renting would change the odds of a household living in the private rented sector by more than 1.6 times. Taking account of a factor identified as moderately associated with private renting would change the odds by between just under 1.3 and 1.6 times and a factor deemed to have a weaker relationship would change the odds by 1.3 times or less.

employment status of the household as well as whether the household had a member with a long term sickness or disability were not related to the likelihood of living in a non-decent home, Annex Table 1.9 Figure 1.9.

**Figure 1.9: The factors associated with living in a damp home, 2015-16**



**Base: all households**

**Notes:**

- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) negative logistic regression coefficients have been converted to their reciprocal in the charts
- 3) underlying data are presented in Annex Table 1.1

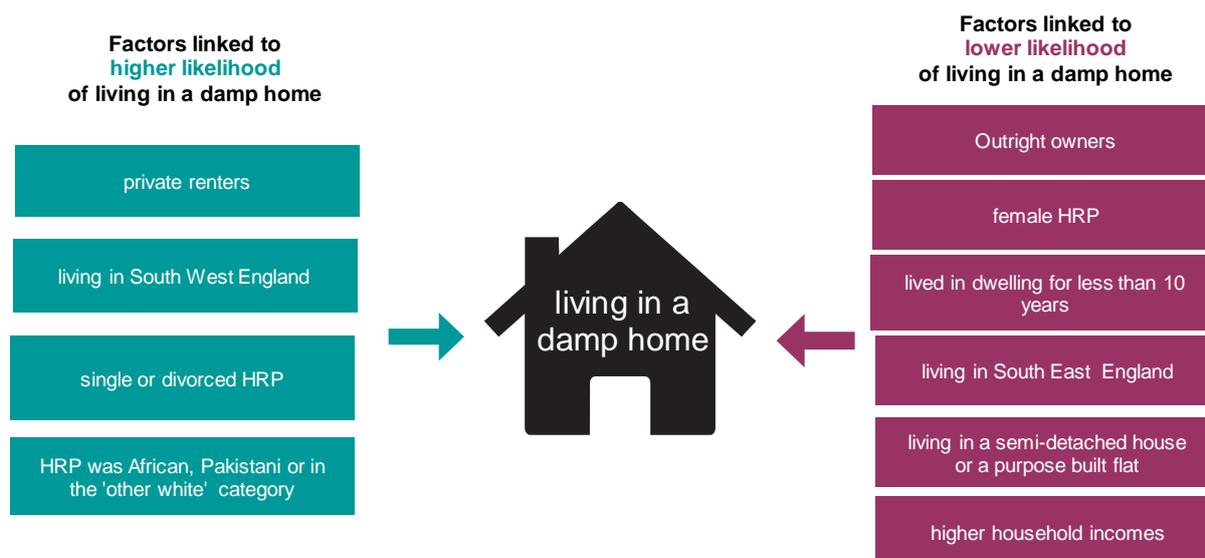
**Source: English Housing Survey, full household sample**

1.18 After taking account of tenure and all the factors covered in this chapter, some factors were found to be associated with a higher likelihood of living in a damp home while others tended to be linked to a lower likelihood, Annex Table 1.10 and Figure 1.10. For example:

- Private renters were more likely to live in a damp home compared with owner occupiers who had a mortgage, whereas outright owners were less likely to live in a damp home than mortgagors.
- Households who had lived in their dwelling for less than 10 years were less likely to live in a damp home.
- Compared with those in other regions, households in the in the South East were less likely to live in a damp home while those in the South West were more likely to do so.

- Households with a female HRP were less likely to live in a damp home.
- Households in semi-detached houses and purpose built flats were less likely to live in a damp home than households living in other types of dwelling.
- Higher incomes households were less likely to live in a damp home.

**Figure 1.10: The relationship between living in a damp home and the factors associated with it, 2015-16**



**Base: all households**

**Reference category: White British; male; aged 30 to 44 years; married; in highest socio-economic group; living in Greater London; in a household with fewer than 5 people; consisting of a couple with no dependent children; with one or more members working full-time; no members disabled or long-term sick; in the lowest income quintile; Dwelling is a terraced house; length of residence between 10 and 19 years; tenure is owned with mortgage.**

**Notes:**

1) findings are based on two years of EHS data up to and including the labelled date

2) underlying data are presented in Annex Table 1.10

Source: English Housing Survey, full paired sample

## Factors associated with living in an overcrowded or an under occupied home

### Living in an overcrowded home

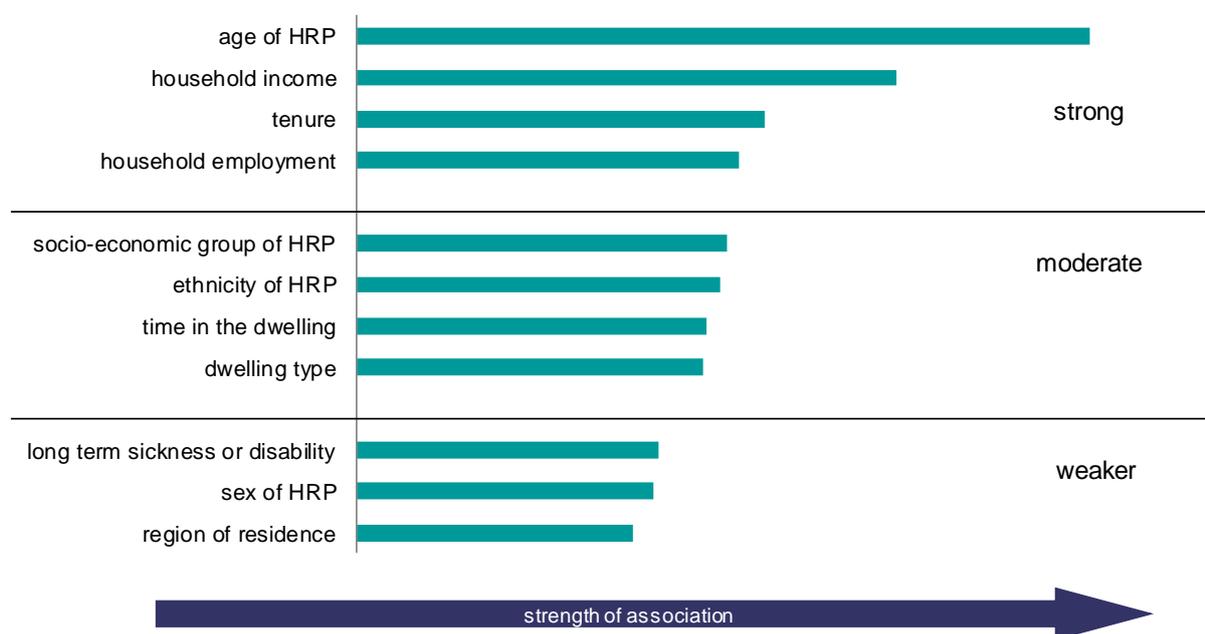
1.19 The factors with a strong association with overcrowding were the age of the HRP, household income, tenure, and household employment status.<sup>20 21</sup> The

<sup>20</sup> Levels of overcrowding is measured using the bedroom standard (see glossary). This is essentially the difference between the number of bedrooms needed to avoid undesirable sharing (given the number, ages and relationship of the household members) and the number of bedrooms actually available to the household.

<sup>21</sup> All things being equal, taking account of any one of the characteristics identified as strongly related to overcrowding would change the odds of a household living in an overcrowded home by more than 1.61 times. Taking account of a factor identified as moderately associated with overcrowding would change the odds by

ethnicity and socio-economic group of the HRP, along with the length of residence in the dwelling, and the type of dwelling were moderately associated with the likelihood of living in an overcrowded home. Other relatively weaker factors associated with the likelihood of living in an overcrowded home were the sex of the HRP, having a household member who was disabled or long-term sick, and region of residence, Annex Table 1.11 and Figure 1.11.

**Figure 1.11: The factors associated with living in an overcrowded home, 2015-16**



**Base: all households**

**Notes:**

- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) negative logistic regression coefficients have been converted to their reciprocal in the charts
- 3) underlying data are presented in Annex Table 1.1

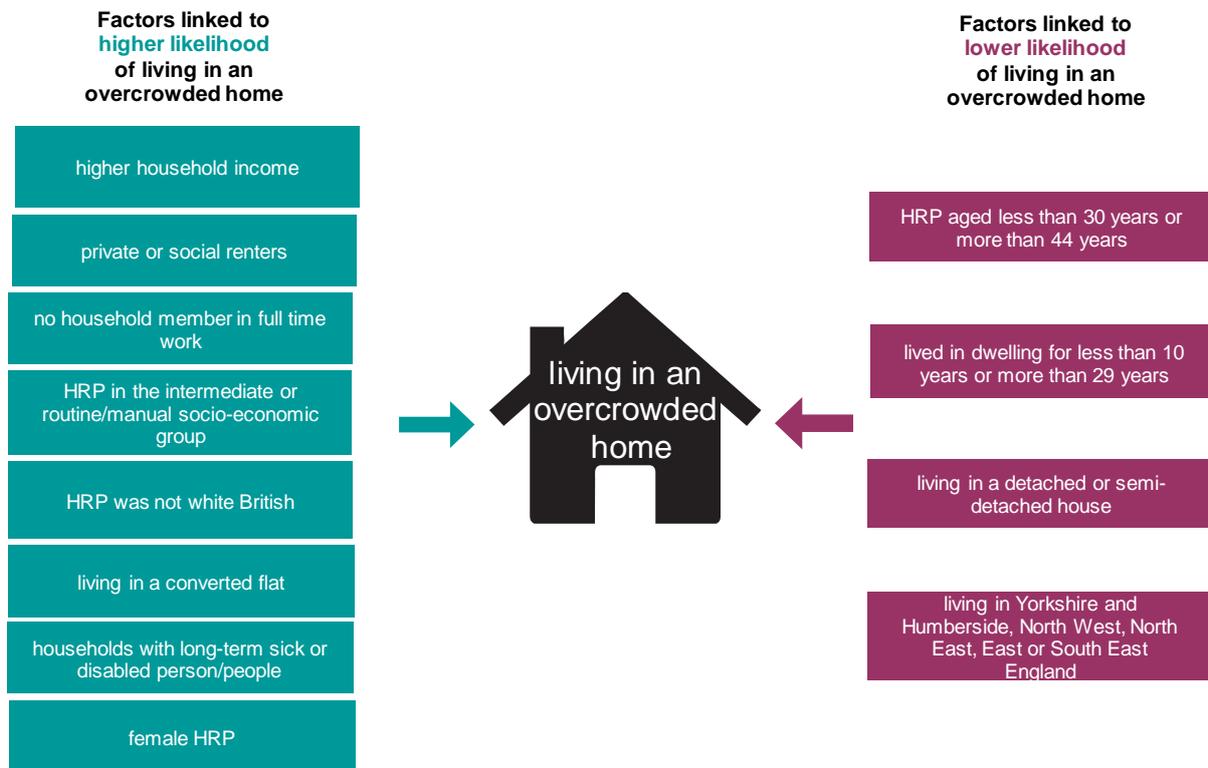
**Source: English Housing Survey, full household sample**

1.20 After taking account of all the factors covered in this chapter, some factors were found to be associated with a higher likelihood of living in an overcrowded home while others tended to be linked to a lower likelihood, Annex Table 1.12 and Figure 1.12. For example:

between just under 1.31 and 1.6 times and a factor deemed to have a weaker relationship would change the odds by 1.3 times or less.

- 
- Households with an HRP aged between 30 to 44 years were more likely to live in an overcrowded home than households with an older or young HRP.
  - Households in which no member was in full-time employment were more likely to be overcrowded.
  - The homes of private and social renters were more likely to be overcrowded than those of owner occupiers.
  - Households with an HRP of minority ethnic origin were more likely to live in overcrowded homes than those with a white British HRP. Households with a Bangladeshi HRP were the most likely to be living in overcrowded homes, followed by those with a Pakistani, African or Indian HRP.
  - Overcrowding was more likely in the intermediate or routine/manual socio-economic groups.
  - Households who had lived in their dwelling for between 10 and 29 years were more likely to be overcrowded than households who had lived in the dwelling for a longer or shorter period.
  - Overcrowding was less likely in detached and semi-detached houses than in terraced houses, and more likely in converted flats or rooms.
  - Overcrowding became more likely as household income increased. This was likely to be because overcrowded households were more likely to contain more people some of whom would be contributing to the income of the household.

**Figure 1.12: The relationship between living in an overcrowded home and the factors associated with it, 2015-16**



**Base: all households**

**Reference category: White British; male; aged 30 to 44 years; married; in highest socio-economic group; living in Greater London; in a household with fewer than 5 people; consisting of a couple with no dependent children; with one or more members working full-time; no members disabled or long-term sick; in the lowest income quintile; Dwelling is a terraced house; length of residence between 10 and 19 years; tenure is owned with mortgage.**

**Notes:**

1) findings are based on two years of EHS data up to and including the labelled date

2) underlying data are presented in Annex Table 1.10

Source: English Housing Survey, full paired sample

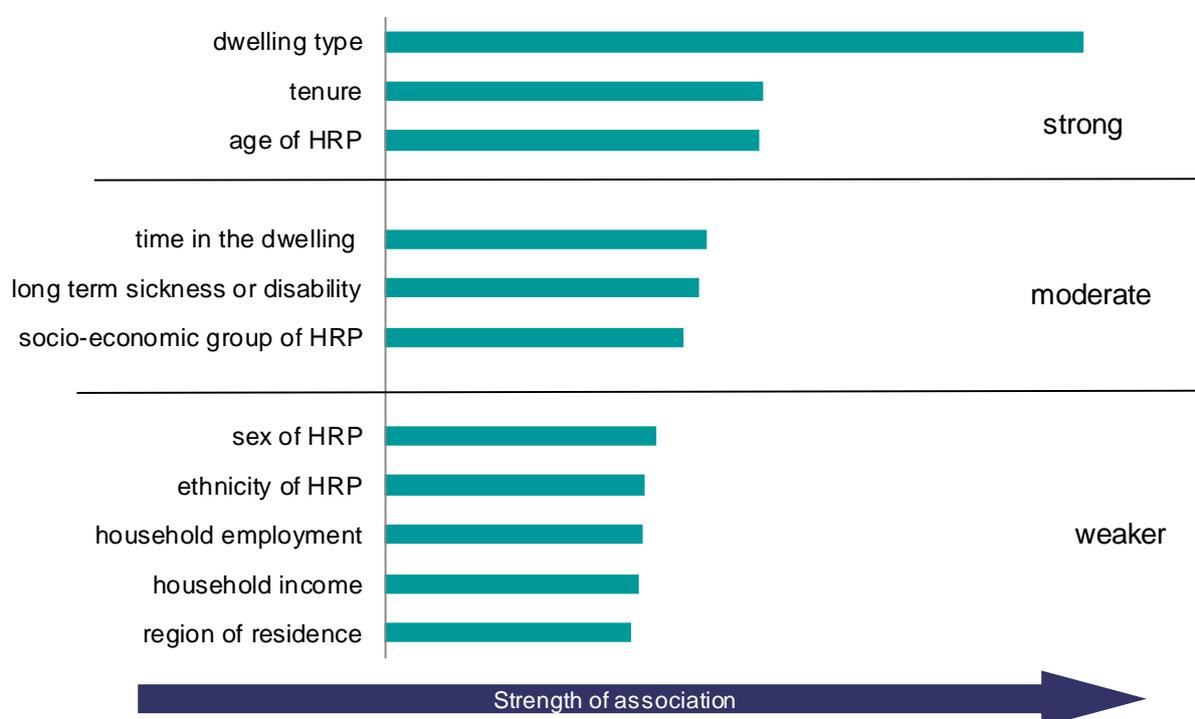
## Living in an under-occupied home

- 1.21 The same factors found to be associated with overcrowding were also related to the likelihood of living in an under-occupied home; however the strength of the relationships were not the same.
- 1.22 The factor with the strongest association with under-occupation was dwelling type.<sup>22</sup> Other factors that had a strong relationship with under-occupation were housing tenure and the age of the HRP, Annex Table 1.13 and Figure 1.13.

<sup>22</sup> All things being equal, taking account of any one of the characteristics identified as strongly related to under-occupation would change the odds of a household living in an under-occupied home by more than 1.61 times. Taking account of a factor identified as moderately associated with under-occupation would change the odds by between just under 1.31 and 1.6 times and a factor deemed to have a weaker relationship would change the odds by 1.3 times or less.

- 1.23 As with overcrowding, length of residence in the dwelling and the socio-economic group of the HRP were moderately associated with under-occupation. Households with a member who was long-term sick or disabled were also moderately related to under-occupation.
- 1.24 Factors with a relatively weaker association with under-occupation were the sex and ethnicity of the HRP, the household employment status, household income and region of residence.

**Figure 1.13: The factors associated with living in an under-occupied home, 2015-16**



**Base: all households**

**Notes:**

- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) negative logistic regression coefficients have been converted to their reciprocal in the charts
- 3) underlying data are presented in Annex Table 1.1

**Source: English Housing Survey, full household sample**

- 1.25 After accounting for all the factors covered in this report, some factors were found to be associated with a higher likelihood of living in an under-occupied home while others tended to be linked to a lower likelihood, Annex Table 1.14 and Figure 1.14 For example:

- Households living in detached or semi-detached houses were more likely to be under-occupying their home than those in terraced houses while

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those in purpose built or converted flats or rooms were less likely to be under-occupying their home.<sup>23</sup>

- Compared with mortgagors, outright owners were more likely to be under-occupying their home while renters in all sectors were less likely to do so.
- Households with an HRP aged between 30 to 44 years less likely to live in an under-occupied home than households with a younger or older HRP.
- Under-occupation was less likely in the intermediate or routine/manual socio-economic groups.
- Households who had lived in their dwelling for one year or less as well as those who had been in their dwelling for 20 years or more were more likely to under-occupy their home.
- Under-occupation was also less likely in households with someone with a long term sickness or disability.

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<sup>23</sup> Dwelling size is not uniform across the different types of dwellings so it is not surprising that households living in some types of dwelling were more likely to be under-occupying their homes than others. See Annex Table 3.1 in the English Housing Survey 2014 to 2015: Housing Stock Report at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/539600/Housing\\_Stock\\_report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/539600/Housing_Stock_report.pdf)

**Figure 1.14: The relationship between living in an under-occupied home and the factors associated with it, 2015-16**



**Base: all households**

**Reference category: White British; male; aged 30 to 44 years; married; in highest socio-economic group; living in Greater London; in a household with fewer than 5 people; consisting of a couple with no dependent children; with one or more members working full-time; no members disabled or long-term sick; in the lowest income quintile; Dwelling is a terraced house; length of residence between 10 and 19 years; tenure is owned with mortgage.**

**Notes:**

- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) underlying data are presented in Annex Table 1.10

**Source: English Housing Survey, full paired sample**

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# Chapter 2

## Variations in the profile of the key tenure groups

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- 2.1 The EHS has consistently shown that households in the key tenure groups tend to have distinctive characteristics<sup>24</sup>. This chapter follows up those findings by comparing selected demographic and household characteristics of eight groups: outright owners; mortgagors; private renters; social renters; recent first time buyers; future home owners; those who have recently moved into the private renter sector; and households who were recent movers into the social rented sector<sup>25 26 27</sup>.
- 2.2 The demographic and household characteristics explored include household type, whether the household contains someone with a long term sickness or disability, the age of the household reference person (HRP)<sup>28</sup>, the ethnicity of the HRP and the gender profile of the people in the eight groups.

### Household type

- 2.3 Among outright owners, 45% were couples with no children and 33% were households containing only one person. Mortgagors, by contrast, were more likely to be couples with dependent children (41%); 26% were couples with no children, Annex Table 2.1. This is consistent with findings from the 2016-17 EHS Home Ownership Report, which shows that outright owners were more likely to have reached retirement age, with grown up children who no longer

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<sup>24</sup> See: Annex Table 1.3 in the English Housing Survey 2016 to 2017: Headline report at <https://www.gov.uk/government/statistics/english-housing-survey-2016-to-2017-headline-report>.

<sup>25</sup> Recent first time buyers are those households that have become owners for the first time within the three years prior to taking part in the EHS. Future home owners are households that do not currently own their own home but think that they will eventually do so. Recent entrants to the private rented and social rented sectors are those that have moved into the respective sectors for the first time in the three years prior to taking part in the EHS.

<sup>26</sup> The eight groups explored in this chapter are not mutually exclusive. Recent entrants into the private and social rented sector are subgroups of private and social tenants respectively. Both outright owners and mortgagors contain a subgroup of recent first time buyers.

<sup>27</sup> As in Chapter 1, the analysis in this chapter is based on two years' combined data. Unlike Chapter 1, which needs to use the 2014-15 and 2015-16 EHS data in order to produce findings consistent with the EHS findings released on the Ethnicity Facts and Figures pages of Gov.uk (<https://www.ethnicity-facts-figures.service.gov.uk/housing>), the findings in this chapter are based on the 2015-16 and 2016-17 EHS. Two years' data are used in this chapter to ensure that we have sufficient number of households to produce reliable findings on the smaller subgroups. Data from the two years are first aggregated and then re-grossed such that the total represents an average of the population between 2015-16 and 2016-17.

<sup>28</sup> The household reference person is the 'householder' in whose name the accommodation is owned or rented.

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live in the family home, while mortgagors were more likely to be newer households and younger families.<sup>29</sup>

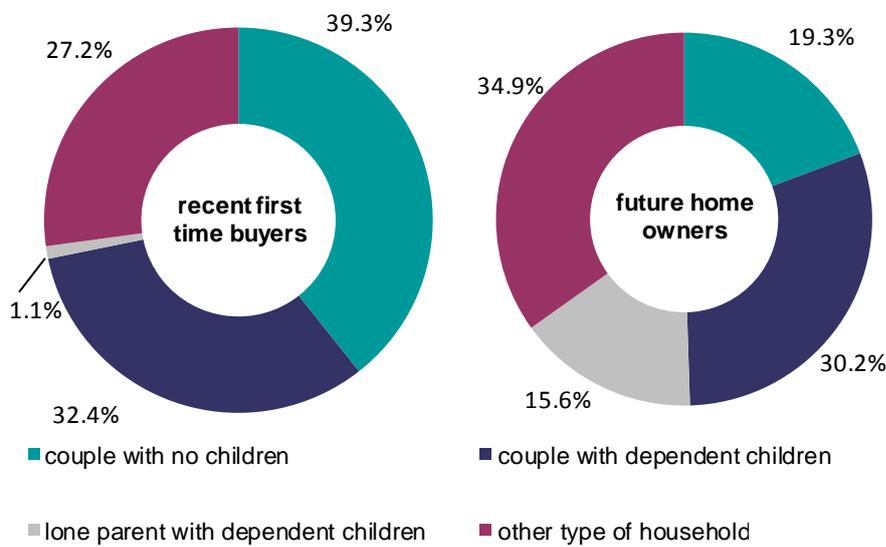
- 2.4 Social renters had the highest proportion of households containing only one person (41%), as well the highest proportion of lone parents with dependent children (16%) when compared with outright owners, mortgagors or private renters.<sup>30</sup>
- 2.5 Recent first-time buyers disproportionately comprised couples, both with and without children; 39% were couples without children and 32% couples with dependent children. In contrast to recent first-time buyers, 16% of future home owners were lone parents with dependent children while only 1% of recent first-time buyers were lone parents with dependent children, Figure 2.1.
- 2.6 Among new entrants to the rented sector, social renters were more likely than private renters to be lone parents with dependent children or households containing only one person. A fifth of new social renters were lone parents with dependent children (20%) and 43% were households containing only one person, compared with 11% and 31% respectively among new private renters. New entrants to the private rented sector, on the other hand, were more likely to be other types of household (i.e. not a single person, a couple or lone parent with or without children) (12% compared with 2% among new entrants to social renting).

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<sup>29</sup> See: the English Housing Survey 2016 to 2017: Home Ownership report at <https://www.gov.uk/government/collections/english-housing-survey>.

<sup>30</sup> In contrast to the discussion in the second bullet point in paragraph 1.11 which explores how the different types of households were associated with living in the social renter sector, this and the preceding paragraph discuss how the different groups were linked to particular household types.

**Figure 2.1: Household type of recent first time buyers and future home owners, 2016-17**



**Base: all households**

**Notes:**

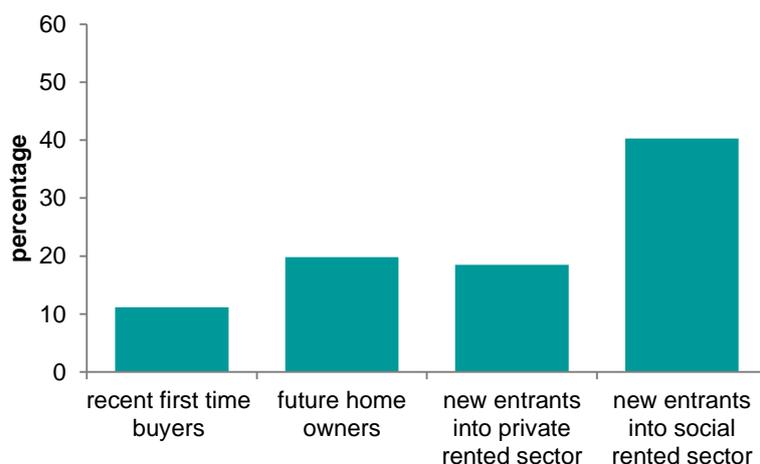
- 1) findings are based on two years of EHS data up to and including the labelled date
- 2) underlying data are presented in Annex Table 2.1
- 3) 'other types of households' includes couple or lone parents with independent children, single persons or other types of household

Source: English Housing Survey, full household sample

## Long term sickness or disability

- 2.7 Overall, 31% of households contained someone with a long term sickness or disability. Half (49%) of social renters had someone in the household with a long term sickness or disability, higher than other groups (36% of outright owners, 21% of mortgagors and 23% of private renters). Annex Table 2.2.
- 2.8 The pattern above was also evident among recent movers into the main tenure groups. Recent movers into the social rented sector were more likely to have a member with a long term sickness or disability (40%) compared with new entrants into the private rented sector (18%) or recent first time buyers (11%), Figure 2.2.

**Figure 2.2: Households including someone with a long term sickness or disability, 2016-17**



**Base: all households**

**Notes:**

1) findings are based on two years of EHS data up to and including the labelled date

2) underlying data are presented in Annex Table 2.2

Source: English Housing Survey, full household sample

## Age of the HRP

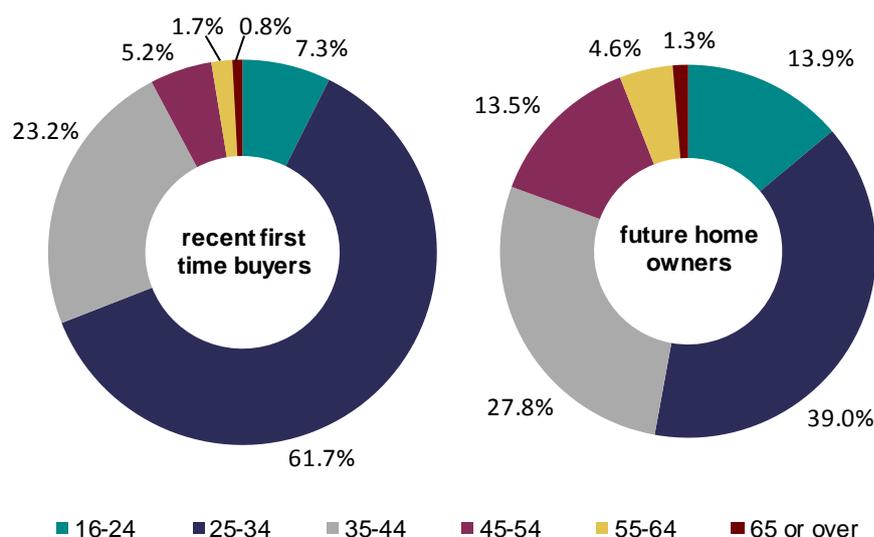
- 2.9 The main tenure types had different age profiles. As expected, outright owners were the oldest group; 30% had a Household Reference Person (HRP) aged 65-74 and a further 30% had one aged 75 or over<sup>31</sup>. Only 5% of outright owners had HRPs aged under 45. Mortgagors were more likely to be in the middle aged ranges with 61% of HRPs aged 35-54. Private renters were the youngest group; 11% of privately renting HRPs were aged under 25 and another 33% were aged 25-34. Social renters were more evenly spread across the age bands, Annex Table 2.3.
- 2.10 Most recent first-time buyers (85%) had an HRP aged 25-44 with 62% aged 25-34. A proportion of recent first-time buyers (7%) were aged 45-64, Figure 2.3.
- 2.11 Future home owners were mostly from the younger and middle age ranges; 14% had an HRP aged under 25, a further 39% aged 25-34 and 41% were aged 35-54.
- 2.12 Around a fifth of recent entrants to the social rented sector (21%) had an HRP who was aged under 25. This group had a higher percentage of HRPs in the older age groups compared with recent first-time buyers or recent entrants into the private rented sector; the HRPs of 20% of recent entrants to the social

<sup>31</sup> The HRP (household reference person) is the 'householder' in whose name the accommodation is owned or rented.

rented sector were aged 55 or older (compared to 6% of future home owners and 12 % of new entrants to the private rented sector).

2.13 The majority (74%) of recent entrants to the private rented sector were under 45 years of age. Around a quarter (24%) had an HRP aged under 25 and, in total, 55% had one aged under 35. The HRP of 21% of the recent entrants to the private rented sector were aged between 45 and 64.<sup>32</sup>

**Figure 2.3: Age of Household Reference Person of recent first time buyers and future home owners, 2016-17**



Base: all households

Notes:

1) findings are based on two years of EHS data up to and including the labelled date

2) underlying data are presented in Annex Table 2.3

Source: English Housing Survey, full household sample

## Ethnicity of the HRP<sup>33</sup>

2.14 Most outright owners (94%) and mortgagors (89%) had a white HRP. Households in the rented sectors were less likely to have a White HRP (82% among private renters and 83% among social renters). Among social renters, 8% had a black HRP, higher than among private renters (4%), mortgagors (2%) or outright owners (1%) Annex Table 2.4.

2.15 Similar to private and social renters recent first time buyers were also less likely to be white (83%). They also had a larger share of HRPs who were of

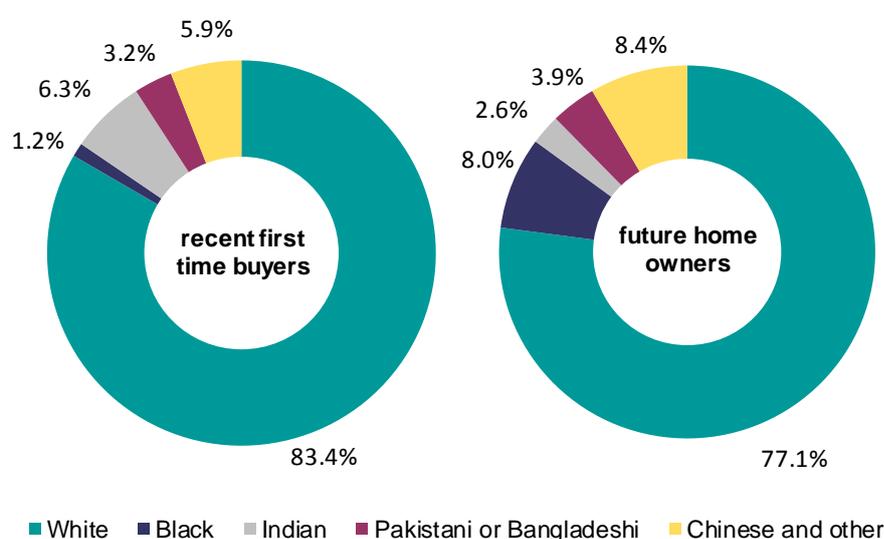
<sup>32</sup> Not all the households in that older group were first time entrants to the private rented; some may have spent a period in the private rented sector some time ago.

<sup>33</sup> This chapter uses a less detailed classification for ethnicity to that used in Chapter 1. The sample size of some of the groups is too small to provide reliable ethnic profiles to the level of detail presented in Chapter 1.

Indian origin (6%) compared with private (3%) and social renters (1%), Figure 2.4.

- 2.16 Future home owners had a larger proportion of Black HRPs (8%) than recent first time buyers (1%). This was also the case among HRPs who were of 'other ethnic' origin (8% of future home owners were of 'other ethnic' origin compared with 5% of recent first-time buyers).
- 2.17 New entrants into the social rented sector were more likely to have a Black HRP than new entrants into the private rented sector (9% compared with 3%).

**Figure 2.4: Ethnicity of HRP of recent first time buyers and future home owners, 2016-17**



Base: all households

Notes:

1) findings are based on two years of EHS data up to and including the labelled date

2) underlying data are presented in Annex Table 2.4

Source: English Housing Survey, full household sample

## Gender profile of household members

- 2.18 Within all households, 49% of the adults were men and 51% were women<sup>34</sup>. The composition of men and women was not uniform across subgroups. Households who were outright owners had a higher proportion of women (52%) compared with households who were mortgagors (50%). Households in the social rented sector also had a higher proportion of women (55%) compared with those in the private rented sector (49%), Annex Table 2.5.
- 2.19 A higher proportion of adults in households who had recently become first-time buyers were men (54%) compared with those in households who aspired

<sup>34</sup> This analysis is conducted at the level of individual people as opposed to household-level.

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to be home owners in the future (50%). Households who had recently entered the private rented sector also had a higher proportion of men (52%) than those who had recently become social renters (45%).

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## Technical notes and glossary

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1. The reliability of the results of sample surveys, including the English Housing Survey, is positively related to the unweighted sample size. Results based on small sample sizes should therefore be treated as indicative only because inference about the national picture cannot be drawn. To alert readers to those results, percentages based on a row or column total with unweighted total sample size of less than 30 are italicised. To safeguard against data disclosure, the cell contents of cells where the cell count is less than 5 are replaced with a “u”.
2. Where comparative statements have been made in the text, these have been significance tested to a 95% confidence level. This means we are 95% confident that the statements we are making are true.
3. Additional annex tables, including the data underlying the figures and charts, are published on the website: <https://www.gov.uk/government/collections/english-housing-survey>, alongside many supplementary tables that are too numerous to include in our reports. Further information on the technical details of the survey, and information and past reports on the Survey of English Housing and the English House Condition Survey, can also be accessed via this link.

### Multivariate analysis

4. In this report, binary logistic regression was used to assess which personal and household characteristics and property-related factors were statistically related to various measures related to housing tenure and conditions in England. The annex tables also present the results of ordinary least squares regression models used to assess which factors were related to the age of first home ownership and the proportion of income spend on rent and mortgage.
5. Results for the six dependent variables below are discussed in the commentary of this report:
  - whether the household was in owner occupied accommodation;
  - whether the household was in social-rented accommodation;
  - whether the household was in privately rented accommodation;
  - whether the household lived in a non-decent home;
  - whether the household lived in a damp home; and

- 
- whether the household lived in an overcrowded home.
6. Results for seven more dependent variables are presented in annex tables:
- whether the household lived in an under-occupied home;
  - whether current owner occupiers had help from their family to purchase their home;
  - age of first home ownership of current owner occupiers who were first time buyers;
  - value of the deposit (log transformed) for first-time buyers in owner occupation for less than four years;
  - proportion of household income that renters spent on rent;
  - proportion of household income that mortgagors spent on their mortgage (log transformed); and
  - whether the household had lived in their dwelling for 1 year or less.
7. All explanatory variables in the model were entered as categorical variables. When using categorical variables in regression analysis they are introduced as dummy variables and one of the categories is specified as the 'reference category'. The model assigns a zero value to this group and all others are estimated in comparison to it. In general, the reference category was set to be the group with the highest sample size, or, in particular cases, the group that was most relevant from a substantive point of view. The reference category for each of set of dummy variables is detailed in each annex table and associated figures illustrating the findings for the multivariate analysis.
8. The following categorical variables were entered in all models except the model of the amount of the deposit for first time buyers<sup>35</sup>: type of tenure, type of dwelling, household type, whether household had five or more members, marital status of HRP, gender of HRP, age of HRP, ethnicity of HRP, socio-economic group of the HRP, the weekly income of the household, household employment status, whether anyone in the household was disabled or long-term sick, and region.
9. Categorical variables for the marital status of the HRP and household type were included in all models except those for overcrowding, under-occupation and the amount of the deposit for first-time buyers; a categorical variable for whether the household had five or more members was also left out of these

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<sup>35</sup> This was a cut-down model including categorical variables for age (3 groups), ethnicity (4 groups), socio-economic group, income and region only. Some variables were excluded due to small numbers of individuals in some categories (for example small numbers of cases with large household sizes in particular subgroups); others were excluded in the interests of efficiency as they were not significantly associated with the outcome.

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models and also left out of the model of the age of first home ownership (which also left out the variable for age of the HRP)<sup>36</sup>.

10. A categorical variable for length of residence at the current dwelling was included in all models except: those for whether owners had help from family to buy their accommodation, age of first home ownership, amount of the deposit for first-time buyers and whether the household had been living in their dwelling for one year or less<sup>37</sup>.
11. A categorical variable for housing tenure was included in models of housing conditions, the proportion of income spent on rent and whether the household had been living in their dwelling for one year or less.
12. The regression analyses were carried out on standardised weighted data. Standardisation involved scaling the household population weights (2 year combined dataset for 2014-15 and 2015-16 and the 3 year combined dataset which also included data for 2013-14 used aagall; the 2 year combined dataset with structural data used aagpd1415) so that the sum of scaled weights (associated with cases in the regression model) equalled the sample size. This ensured that any relationships found would not be biased to the over-sampled groups or the very large weighted data sample size.
13. The 'significance' of a regression parameter is an indication of how reliably it has been estimated. Where parameters have significance equal to, or less than 0.05 they are treated as reliable and are highlighted in the relevant tables. Where the regression analysis yields a parameter with significance greater than 0.05 that parameter value is treated as unreliable.
14. In addition to the results of the logistic regressions that generated the odds ratios comparing each group to its reference category, we also computed the overall effect size for each factor that was introduced as a set of dummy variable (irrespective of the reference category that was used).
15. To compare between the effects of the categorical variables their overall effects were computed using sheaf coefficients. The computation of sheaf coefficients was detailed by Heise5 and was implemented in Stata14. This method implements a post-estimation calculation which is executed after the logistic regression. In essence it reorganises the information in the logistic regression output and generates the overall effect of each underlying variable which is defined in the model by a set of dummy variables. As such, we

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<sup>36</sup> In addition to the reasons for excluding some variables outlined above, some household type and marital status variables were excluded from the overcrowding/under-occupation models due to correlation with the outcome. For example, single person households will by definition not be overcrowded.

<sup>37</sup> Length of residence was not included for these models because the sample base was selected to include only those who had been resident for a certain amount of time, e.g. first time buyers from the last 3 years, or because of correlation with the outcome variable (e.g. whether living in dwelling for one year or less).

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generate one estimate for each set of dummy variables. The results were graphed.

16. Figures 1.1, 1.3, 1.5, 1.7, 1.9, 1.11, 1.13 and 1.15 to 1.20 illustrate the odds ratios associated with each significant factor (except Figure 1.16 which plots regression coefficients because the model was an ordinary least squares regression which did not have a log-transformed dependent variable). The bars are plotted on a logarithmic scale that ranges between 1 and 2. To ensure comparability, we compare the absolute effect of a variable, without emphasising the sign of the effect<sup>38</sup>. All the figures (except for Figure 1.16) use the same size of scale. The scale itself is removed from the graphs to make interpretation easier. The aim of the graphs is to illustrate visually the relative importance of factors.
17. In addition, factors were grouped by the size of their impact. Factors that had an impact smaller than an odds ratio of 1.3 or less were classed as 'small'. Factors that had an effect equal to an odds ratio that ranged between 1.31 and 1.6 were classified as having a 'medium effect'. Finally, those factors that achieved effects higher than an odds ratio of 1.61 were designated as having a large effect<sup>39</sup>.
18. Finally, although regression analysis can be used to explore associations between variables, it does not necessarily imply causation and results should be treated as indicative rather than conclusive.

## Glossary

**Bedroom standard:** The 'bedroom standard' is used by government as an indicator of occupation density. A standard number of bedrooms is calculated for each household in accordance with its age/sex/marital status composition and the relationship of the members to one another. A separate bedroom is allowed for each married or cohabiting couple, any other person aged 21 or over, each pair of adolescents aged 10-20 of the same sex, and each pair of children under 10. Any unpaired person aged 10-20 is notionally paired, if possible, with a child under 10 of the same sex, or, if that is not possible, he or she is counted as requiring a separate bedroom, as is any unpaired child under 10.

This notional standard number of bedrooms is then compared with the actual number of bedrooms (including bed-sitters) available for the sole use of the household, and differences are tabulated. Bedrooms converted to other uses are not

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<sup>38</sup> Odds ratios vary between 0 and plus infinity. 1 indicates no relationship. Values between 0 and 1 indicate a negative relationship and values over 1 indicate a positive relationship.

<sup>39</sup> Heise, David (1972) 'Employing Nominal Variables, Induced Variables, and Block Variables in Path Analyses' *Sociological Methods Research* 1 (2): 147-173 <http://smr.sagepub.com/content/1/2/147> 6 See here: <http://maartenbuis.nl/software/sheafcoef.html> for more information.

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counted as available unless they have been denoted as bedrooms by the respondents; bedrooms not actually in use are counted unless uninhabitable.

Households are said to be overcrowded if they have fewer bedrooms available than the notional number needed. Households are said to be under-occupying if they have two or more bedrooms more than the notional needed.

**Damp and mould:** There are three main categories of damp and mould covered in this report:

- **rising damp:** where the surveyor has noted the presence of rising damp in at least one of the rooms surveyed during the physical survey. Rising damp occurs when water from the ground rises up into the walls or floors because damp proof courses in walls or damp proof membranes in floors are either not present or faulty.
- **penetrating damp:** where the surveyor has noted the presence of penetrating damp in at least one of the rooms surveyed during the physical survey. Penetrating damp is caused by leaks from faulty components of the external fabric e.g. roof covering, gutters etc. or leaks from internal plumbing, e.g. water pipes, radiators etc.
- **condensation or mould:** caused by water vapour generated by activities like cooking and bathing condensing on cold surfaces like windows and walls. Virtually all dwellings have some level of condensation. Only serious levels of condensation or mould are considered as a problem in this report, namely where there are extensive patches of mould growth on walls and ceilings and/or mildew on soft furnishings.

**Decent home:** A home that meets all of the following four criteria:

- it meets the current statutory minimum standard for housing as set out in the Housing Health and Safety Rating System (HHSRS – see below).
- it is in a reasonable state of repair (related to the age and condition of a range of building components including walls, roofs, windows, doors, chimneys, electrics and heating systems).
- it has reasonably modern facilities and services (related to the age, size and layout/location of the kitchen, bathroom and WC and any common areas for blocks of flats, and to noise insulation).
- it provides a reasonable degree of thermal comfort (related to insulation and heating efficiency).

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The detailed definition for each of these criteria is included in *A Decent Home: Definition and guidance for implementation*, Department for Communities and Local Government, June 2006<sup>40</sup>.

**Dependent children:** Any person aged 0 to 15 in a household (whether or not in a family) or a person aged 16 to 18 in full-time education and living in a family with his or her parent(s) or grandparent(s). It does not include any people aged 16 to 18 who have a spouse, partner or child living in the household.

**Economic status:** Respondents self-report their situation and can give more than one answer.

- **working full-time/part-time:** full-time work is defined as 30 or more hours per week. Part-time work is fewer than 30 hours per week. Where more than one answer is given, 'working' takes priority over other categories (with the exception that all those over State Pension Age (SPA) who regard themselves as retired are classified as such, regardless of what other answers they give).
- **unemployed:** this category covers people who were registered unemployed or not registered unemployed but seeking work.
- **retired:** this category includes all those over the state pension age who reported being retired as well as some other activity. For men the SPA is 65 and for women it is 60 if they were born before 6th April 1950. For women born on or after the 6th April 1950, the state pension age has increased incrementally since April 2010<sup>41</sup>.
- **full-time education:** education undertaken in pursuit of a course, where an average of more than 12 hours per week is spent during term time.
- **other inactive:** all others; they include people who were permanently sick or disabled, those looking after the family or home and any other activity.

On occasions, **full-time education** and **other inactive** are combined and described as **other economically inactive**.

**Ethnicity:** Classification according to respondents' own perceived ethnic group.

**Ethnic minority background** is used throughout the report to refer to those respondents who do not identify as White.

The classification of ethnic group used in the EHS is consistent with the 2011 Census. Respondents are classified as White if they answer one of the following four options:

1. English / Welsh / Scottish / Northern Irish / British

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<sup>40</sup> <https://www.gov.uk/government/publications/a-decent-home-definition-and-guidance>

<sup>41</sup> For further information see: [www.gov.uk/browse/working/state-pension](http://www.gov.uk/browse/working/state-pension)

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2. Irish
  3. Gypsy or Irish Traveller
  4. Any Other White background

Otherwise, they are classified as being from an ethnic minority background.

**First time buyer:** First time buyers are defined as households that have purchased a property that is their main home in the last three years, and in which neither the HRP or partner have previously owned a property. It includes households who have purchased their property outright as well as those who are buying with the help of a mortgage or loan.

**Gross household income:** The gross annual income of all adults living in a household from wages, pensions, other private sources, savings and state benefits. This does not include any housing related benefits or allowances. This measure is divided by 52 to calculate weekly income. Income is presented in quintiles throughout this report (see income quintiles definition – below).

**Household:** One person or a group of people (not necessarily related) who have the accommodation as their only or main residence, and (for a group) share cooking facilities and share a living room or sitting room or dining area.

The EHS definition of household is slightly different from the definition used in the 2011 Census. Unlike the EHS, the 2011 Census did not limit household membership to people who had the accommodation as their only or main residence. The EHS included that restriction because it asks respondents about their second homes, the unit of data collection on the EHS, therefore, needs to include only those people who have the accommodation as their only or main residence.

**Household reference person (HRP):** The person in whose name the dwelling is owned or rented or who is otherwise responsible for the accommodation. In the case of joint owners and tenants, the person with the highest income is taken as the HRP. Where incomes are equal, the older is taken as the HRP. This procedure increases the likelihood that the HRP better characterises the household's social and economic position. The EHS definition of HRP is not consistent with the Census 2011, in which the HRP is chosen on basis of their economic activity. Where economic activity is the same, the older is taken as HRP, or if they are the same age, HRP is the first listed on the questionnaire.

**Household type:** The main classification of household type uses the following categories; some categories may be split or combined in different tables:

- couple no dependent child(ren)
- couple with dependent child(ren)
- couple with dependent and independent child(ren)
- couple with independent child(ren)
- lone parent with dependent child(ren)
- lone parent with dependent and independent child(ren)

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- lone parent with independent child(ren)
  - two or more families
  - lone person sharing with other lone persons
  - one male
  - one female.

**Logistic regression:** a regression model where the dependent variable is binary i.e. takes one of two values which are assigned as 0 or 1. The model predicts the probability of the dependent variable taking the value 1 for particular values of the independent variables. The regression coefficients are usually estimated using maximum likelihood.

Logistic regression measures the relationship between the categorical dependent variable and one or more independent variables by estimating probabilities using a [logistic function](#), which is the cumulative logistic distribution. Thus, it treats the same set of problems as [probit regression](#) using similar techniques, with the latter using a cumulative normal distribution curve instead. Equivalently, in the latent variable interpretations of these two methods, the first assumes a standard [logistic distribution](#) of errors and the second a standard [normal distribution](#) of errors.

**Long-term limiting illness:** This is consistent with the core definition of disability under the Equality Act 2010. A person is considered to have a disability if they have a long-standing illness, disability or impairment which causes substantial difficulty with day-to-day activities.

**Marital status:**

- **single**, that is never married and never registered in a same-sex civil partnership,
- **married**, or in a registered same-sex civil partnership
- **separated**, but still legally married or in a same-sex civil partnership,
- **divorced**, or formerly in a same-sex civil partnership which is now legally dissolved
- **widowed**, or a surviving partner from a same-sex civil partnership.

**Non-dependent children:** any person aged over 18 or those aged 16-18 who are not in full-time education living in a family with his or her parent(s) or grandparent(s).

**OLS (ordinary least squares or linear) regression:** OLS regression is an approach for modelling the relationship between a continuous dependent variable and one or more explanatory variables (or independent variables). The relationships are modelled using linear predictor functions whose unknown model parameters are estimated from the data using the least squares approach.

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**Overcrowding:** Households are said to be overcrowded if they have fewer bedrooms available than the notional number needed according to the bedroom standard definition. See bedroom standard.

**Socio-economic groups:** The EHS uses the eight-class version of the National Statistics Socio-economic Classification (NS-SEC). The eight classes are:

- Higher managerial and professional occupations
- Lower managerial and professional occupations
- Intermediate occupations (clerical, sales, service)
- Small employers and own account workers
- Lower supervisory and technical occupations
- Semi-routine occupations
- Routine occupations
- Never worked or long-term unemployed.

No EHS respondent is assigned to the last class because the survey does not collect enough information to code someone as never worked or long-term unemployed.

In this report, the seven classes to which EHS data were collected and the group formed by respondents who did not state or had not adequately described their occupation are grouped into the following categories in this report:

- Higher - higher and lower managerial and professional occupations
- Intermediate - intermediate occupations (clerical, sales, service), small employers and own account workers
- Routine/manual - lower supervisory, technical, semi-routine and routine occupations
- Occupation not stated or inadequately described.

**Tenure:** In this report, households are typically grouped into three broad categories known as tenures: owner occupiers, social renters and private renters. The tenure defines the conditions under which the home is occupied, whether it is owned or rented, and if rented, who the landlord is and on what financial and legal terms the let is agreed.

- **owner occupiers:** households in accommodation which they either own outright, are buying with a mortgage or as part of a shared ownership scheme.
- **social renters:** this category includes households renting from Local Authorities (including Arms' Length Management Organisations (ALMOs) and Housing Action Trusts) and Housing Associations, Local Housing Companies, co-operatives and charitable trusts.

A significant number of Housing Association tenants wrongly report that they are Local Authority tenants. The most common reason for this is that their home used

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to be owned by the Local Authority, and although ownership was transferred to a Housing Association, the tenant still reports that their landlord is the Local Authority. There are also some Local Authority tenants who wrongly report that they are Housing Association tenants. Data from the EHS for 2008-09 onwards incorporate a correction for the great majority of such cases in order to provide a reasonably accurate split of the social rented category.

- **private renters:** this sector covers all other tenants including all whose accommodation is tied to their job. It also includes people living rent-free (for example, people living in a flat belonging to a relative).

**Under-occupation:** Households are said to be under-occupying their property if they have two or more bedrooms more than the notional number needed according to the bedroom standard definition. See bedroom standard.

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In accordance with the Statistics and Registration Service Act 2007 the United Kingdom Statistics Authority has designated these statistics as National Statistics, signifying that they are fully compliant with the Code of Practice for Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

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