
Chapter 2

Services, amenities, and accessibility

- 2.1. This chapter provides a brief overview of key services and amenities present in the English housing stock in 2013 focussing on mains services, water meters, and security. For water meters, logistic regression analysis was used to determine which types of dwellings and households were most likely to have this feature. The chapter also examines the key features that enable homes to be more accessible to occupants (and their visitors) and how easy it would be to adapt dwellings to improve accessibility.
- 2.2. Additional findings relating to amenities and services, including the age of kitchens and bathrooms and secondary amenities can be found in web tables A2101 to DA2303¹.

Mains services

Electricity

- 2.3. Virtually all homes² in England had a mains electricity supply in 2013, an unchanged position since 1996, Annex Table 2.1.
- 2.4. Around 3.1 million homes (13%) had an off-peak electricity supply³ in 2013, a fall from 1996 when 3.7 million homes (18%) had this feature. The number of houses and bungalows with an off-peak supply fell from 2.8 million to 1.9 million over this period, likely reflecting the increased installation of gas central heating in these homes. Conversely the number of flats with this feature rose from 0.9 million to 1.2 million; partly reflecting the growth of these homes and that the installation of other means of heating such as gas central heating is not generally viable among flats. The number of dwellings with this feature rose in urban areas (where flats are over represented, Annex Table 1.11). Off-peak supply also rose in the private rented and housing association sectors, which have grown notably over this period, for example, through the

¹ see <https://www.gov.uk/government/collections/english-housing-survey#2012-to-2013>

² a very small number of sampled addresses reported no mains electricity supply but the sample size is too small to provide an estimate of the number of dwellings in England

³ see the glossary for more details on off-peak electricity supply

transfer of local authority homes to the housing association sector through LSVT⁴, Annex Table 2.2.

2.5. Electric storage heaters normally use electricity to ‘charge up’ overnight and then release heat during the day, so having an off-peak electricity supply is more cost-effective. Virtually all the 1.4 million homes with storage heating had an off-peak electricity supply (98%), a rise from 90% in 1996, Annex Table 2.2.

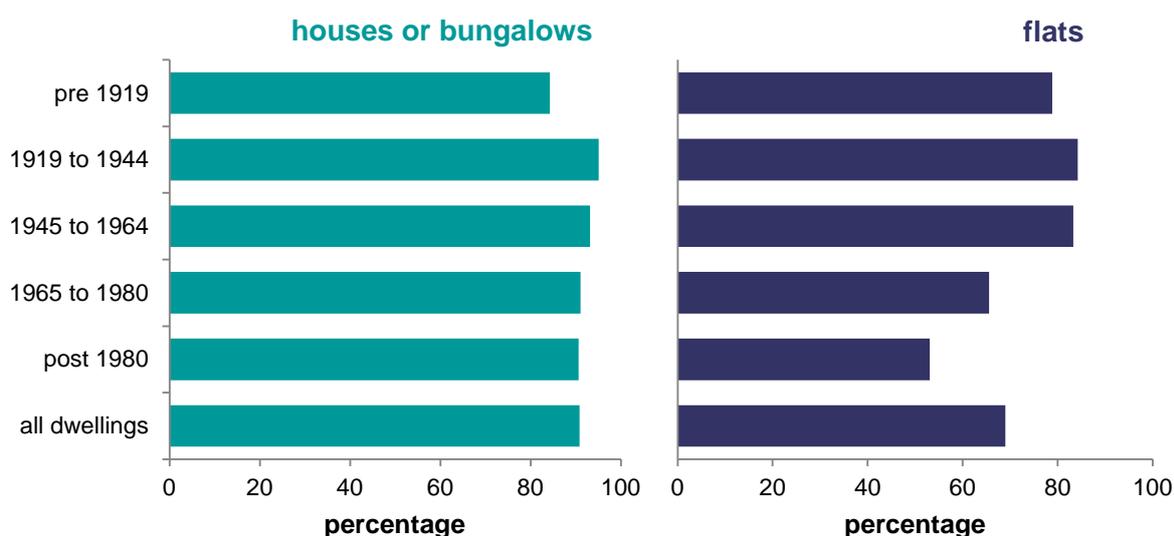
Mains gas

2.6. A mains gas supply was present in 86% of homes in 2013, and this varied by dwelling characteristics. Flats were less likely to have mains gas (69%) compared with houses and bungalows (91%) but for both types of homes, dwelling age also impacted on provision, Annex Table 2.3.

2.7. Among houses and bungalows, the oldest houses, built before 1919, were less likely to have mains gas (84%). This is partly because these older homes had a higher proportion of dwellings in urban areas, which were less likely to have a mains gas supply compared with homes in suburban areas (Annex Table 2.4). In addition urban areas had a higher proportion of flats (Annex Table 1.11) which were less likely to have mains gas, Figure 2.1.

2.8. For flats, the provision of mains gas was notably lower in homes built from 1965, Figure 2.1.

Figure 2.1: Mains gas provision by dwelling age and dwelling type, 2013



Base: all dwellings

Note: underlying data are presented in Annex Table 2.3

Source: English Housing Survey, dwelling sample

⁴ see Glossary or chapter 1 of this report for further information on LSVT

2.9. The provision of a mains gas supply among the whole stock rose from 82% in 1996 to 86% in 2013. Although all four tenures experienced a rise in the proportion of stock with mains gas, the number of homes with mains gas actually fell among local authority homes from 2.7 million to 1.5 million. This is most likely due to the impact of stock changes through LSVT, as the number of housing association homes with mains gas rose from 640,000 to 1.9 million over this period, Annex Table 2.4.

2.10. Homes in rural areas were least likely to have a gas mains supply throughout this period (61% in 1996 and 66% in 2013), Annex Table 2.4.

Mains drainage

2.11. In 2013, only 3% of homes lacked mains drainage. This was an improvement on the 1996 position when 9% of homes lacked this service. Despite improved provision for homes in rural areas and those built before 1919, lack of provision remained higher for these types of homes (15% and 9% respectively) in 2013, Annex Table 2.1.

Water meters and occupied homes

2.12. Water use in homes, with or without meters, varies to a great extent. Energy Savings Trust research estimates that each person in the UK uses about 142 litres of water each day, and that the average household in the UK uses 349 litres of water each day⁵. Water metering has a key role to play in improving water efficiency, detecting any water leaks and giving customers more control of their water usage bills.

2.13. Some households can save money by having a meter installed but this is dependent on a number of factors including:

- the number of people in the household
- the rateable value of the home⁶
- how much water is normally used and how much the household is able to reduce water use

2.14. In addition the amount of water used impacts on gas or electricity bills since heating water uses a lot of energy. Consequently, using water wisely can save household expenditure on these services too. See Box 2.1 for legal rights in relation to water meters.

⁵ Based on an average household size of 2.52. Figures include all metered and unmetered households. For full report see [http://www.energysavingtrust.org.uk/sites/default/files/reports/AtHomewithWater\(7\).pdf](http://www.energysavingtrust.org.uk/sites/default/files/reports/AtHomewithWater(7).pdf)

⁶ the rateable value of the dwelling is used to calculate water charges in non-metered homes

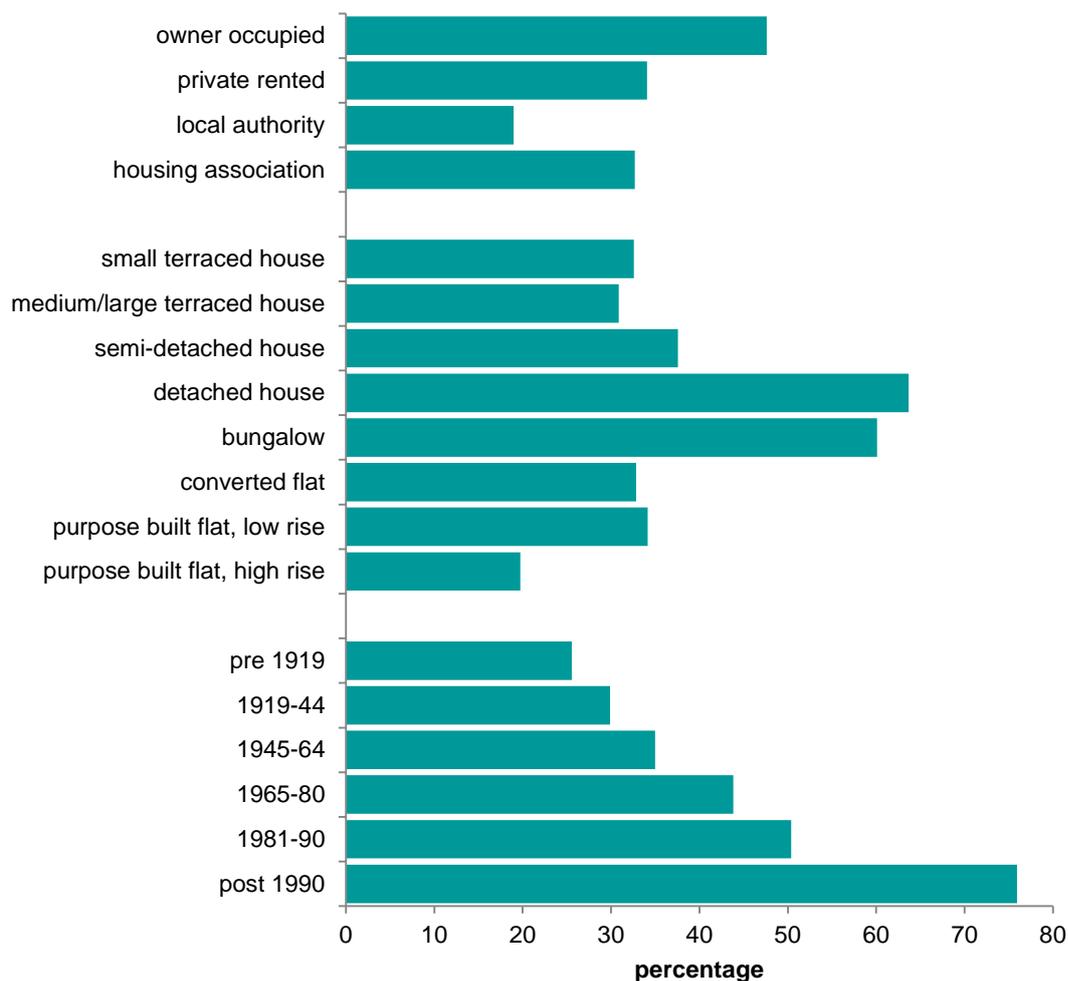
Box 2.1: Water meters

The Water Industry Act 1999 introduced the right to remain on an unmetered charge. Domestic customers paying on an unmetered basis have a legally protected right to choose whether or not they are charged for water according to a meter in their current home. The Act also introduced the right for customers to have a meter installed free of charge where it is practical for the water company to do so and does not entail excessive costs. Companies have had discretionary powers to install meters in all new homes since 1990, although if an operating area is an 'area of water scarcity' the company can be given the right to compulsorily meter all its customers over the next ten years in order to reduce overall demand for water.

- 2.15. In 2013, around 9.2 million occupied homes had water meters⁷ (42%). At the time of the survey around 576,000 households (3%) were unsure as to whether they had this provision, Annex Table 2.5.
- 2.16. Some 48% of owner occupied homes had a water meter, but provision was lower among rented homes, particularly local authority dwellings (19%). This is because local authority homes contained a higher proportion of high rise flats, which are sometimes unsuitable for metering due to the practical difficulties of isolating the water supply to an individual property. Around 20% of high rise purpose built flats had a water meter whilst provision was highest among detached houses (64%) and bungalows (60%), Figure 2.2.
- 2.17. There was a relationship between dwelling age and water meter provision; the newer the home, the greater the likelihood of having a water meter. Water meters were present at 76% of homes built after 1990 but only 26% of homes built before 1919. As over one-third of terraced homes were built before 1919 (see Annex Table 1.2 of this report) the impact of age likely explains the lower incidence of water meters in these types of homes compared with other types of houses and bungalows, Figure 2.2.

⁷ this analysis excludes those cases where data could not be obtained through the household questionnaire e.g. because they household did not wish to offer a response

Figure 2.2: Percentage of occupied dwellings with water meters by dwelling characteristics, 2013



Base: all occupied dwellings

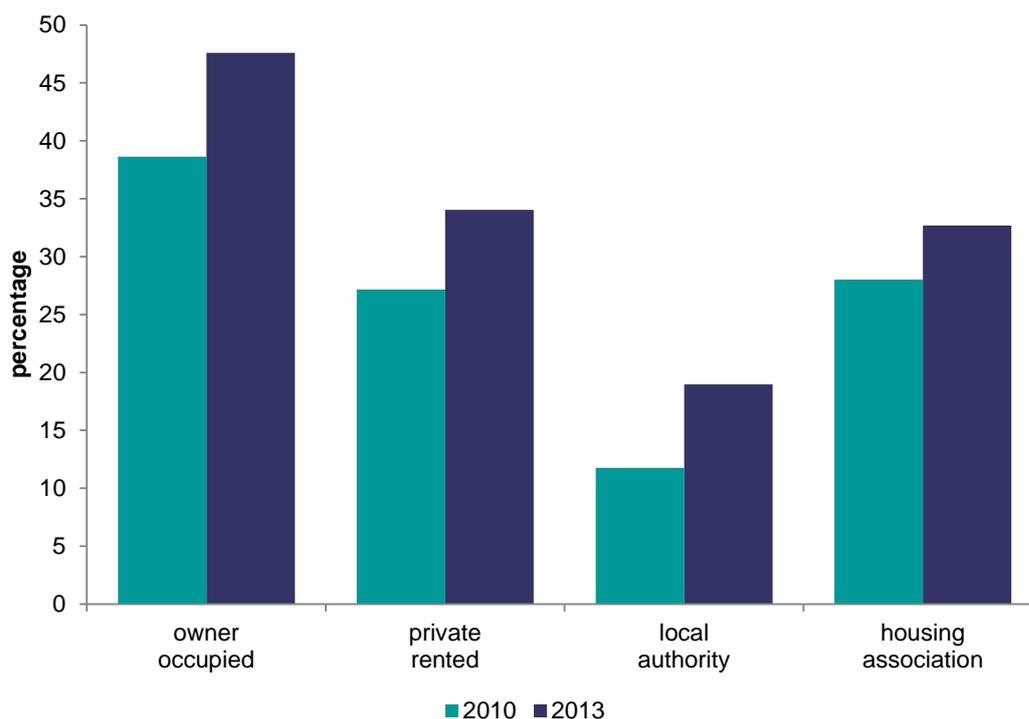
Note: underlying data are presented in Annex Table 2.5

Source: English Housing Survey, dwelling sample

- 2.18. Due to the higher concentration of flats and older homes in urban areas (Annex Table 1.11), water meters were less prevalent in these locations (27%) compared with suburban residential areas (44%) and rural areas (50%), Annex Table 2.5.
- 2.19. There was an increase in the proportion of dwellings with a water meter from 34% in 2010 to 42% in 2013⁸. Improved provision was evident among all tenures. Although metering was lowest among local authority homes throughout this period, the percentage with water meters increased from 12% in 2010 to 19% in 2013, Figure 2.3.

⁸ The 2010 figures are from the combined 2009+2010 dataset. Since 2009, the EHS has collected data on water meters from the short household questionnaire that forms part of the physical survey. Prior to this, data was collected in the full household survey but the figures are not directly comparable due to differences in the question wording and sample coverage.

Figure 2.3: Water meters by tenure, 2010 and 2013



Base: all occupied dwellings

Note: underlying data are presented in Annex Table 2.6

Sources: 2010 and 2013, English Housing Survey, dwelling sample

Water meters and types of households

- 2.20. Water meter provision also varied by type of household. Households with at least one member aged 60 or over were more likely to have a water meter compared with other households. Around half (52%) of single households where the HRP was 60 years of age or more had a water meter, as did 50% of couples aged 60 or over with no dependent children, compared with 41% of all households. Those in full-time education (21%) and unemployed households (25%) were less likely to have a meter compared with working households (40%) showing that household income may have impacted on provision, Annex Table 2.7.
- 2.21. Ethnic minority HRP households (26%), especially black HRP households (20%) were less likely to have water meters than households with a white HRP (43%), Annex Table 2.7.
- 2.22. These findings are likely to reflect the different distributions of tenure and accommodation type among these household groups; for example, ownership and residence in a house (as opposed to a flat) was more common among white HRP households. Conversely non-working households and ethnic minority HRP households were more likely to reside in a rented property and/or in a flat where water meter provision was less prevalent.

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- 2.23. Generally speaking, the larger the household, the lower the likelihood of being metered. This may suggest that some larger households were less confident about making financial savings through being metered. There was no clear relationship between household size and tenure, Annex Table 2.7.

Multivariate analysis of water meter provision

- 2.24. Multivariate analysis was conducted to identify dwelling and household characteristics most likely to influence presence of water meters. Logistic regression was used to assess which key factors were statistically related to having this amenity. These factors are outlined below. Although logistic regression can be used to explore associations between variables, it does not necessarily imply causation and the following findings should be treated as indicative of a relationship, rather than conclusive. For further information on the logistic regression methodology and the results for this analysis see Appendix 1 of this chapter.
- 2.25. Factors were identified that were deemed likely to affect water meter ownership. These consisted of two dwelling characteristic variables, dwelling type and dwelling age and seven household characteristic variables.
- 2.26. Table 2.1 in Appendix 1 shows the variables that were in the final model listed in the order of the strength of their predictiveness on water meter usage. It shows that dwelling age and dwelling type were the strongest predictors of a household having a water meter in 2013. These findings are not unexpected given the relationships found earlier in this Chapter: the newer the home, the greater the likelihood of having a water meter; and the type of accommodation can predetermine whether or not a household can feasibly install a water meter, irrespective of their specific characteristics. The model shows that household types were also predictors of owning a water meter, though the relationships were less strong (further details below).

Dwelling age

- 2.27. Households living in homes built after 1990 had the highest likelihood of having a water meter. All other types of households had a significantly lower likelihood of having this amenity. This likely reflects the fact that water companies have had discretionary powers to install meters in all new homes since 1990.

Dwelling type

2.28. Households living in detached houses had the highest likelihood of having a water meter and households that lived in bungalows and converted properties were not significantly different. Households in all other dwelling types had a significantly lower likelihood of having a water meter. Households living in high rise purpose built flats had the lowest likelihood of all types. This is likely to be due to these homes being unsuitable for metering due to the practical difficulties of isolating the water supply to an individual flat.

Tenure

2.29. Tenure along with the combined household composition and size were the strongest household characteristic predictors of having a water meter. Owner occupier households were found to have the highest likelihood of having a water meter compared to other tenures. Private renters were only slightly less likely than owner occupiers, whilst local authority and housing association tenants had the lowest likelihood.

Household composition and size combined⁹

2.30. Single person households had the highest likelihood of having a water meter. This is probably because single person households are likely to use less water than a multi person household, so would have the most economic incentive to install a water meter.

Household age

2.31. Households that had an HRP age 65 or over had the highest likelihood of having a water meter and was significantly higher than all other age groups except 16-24 year olds.

Ethnicity

2.32. Compared to households with a white HRP, households with a Black or other ethnicity HRP had lower odds of having a water meter at their home. Households with an Asian HRP were not significantly more or less likely to have a water meter than households with a White HRP.

Income level¹⁰

2.33. Households in the highest income band quintile were found to have the highest likelihood of having a water meter. Those households in the lowest income quintile had the lowest odds.

⁹ A new variable was created by combining the household compositions variable with the size of the household. This was to eliminate the influence of the interrelationship between these two variables in the modelling.

¹⁰ Basic annual net household income of the HRP and their partner including non-work related income, such as savings and investments, banded into quintiles.

Employment status of the HRP and long term disability or sickness

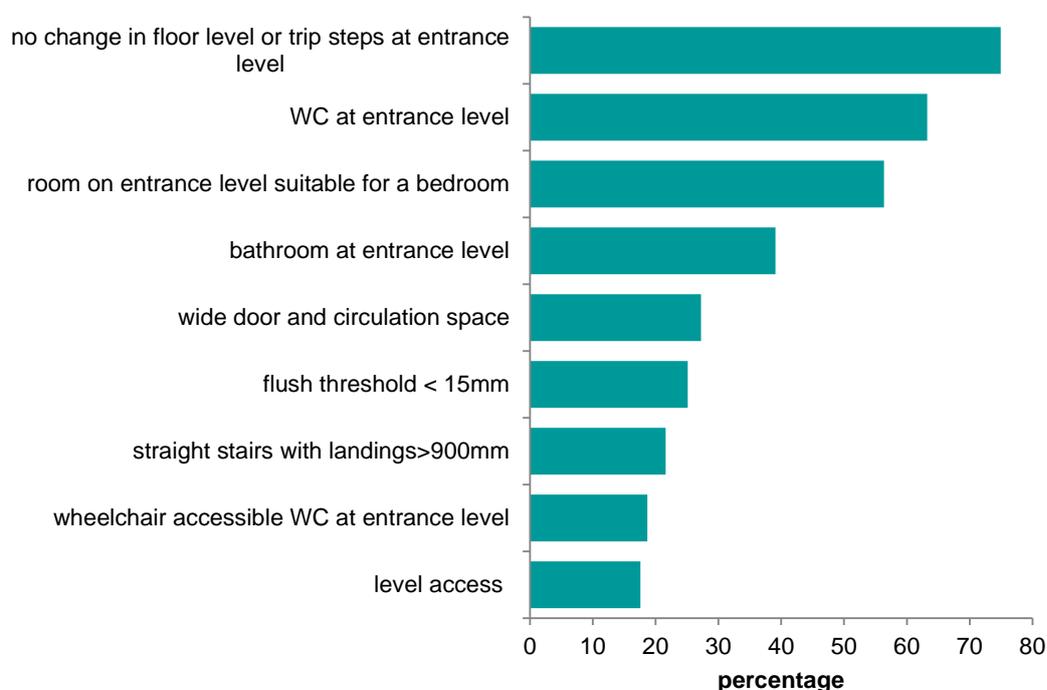
2.34. The employment status of the HRP and households with a long term disability or sickness were not found to be predictors of water meter ownership in this model.

Accessibility of dwellings and disability adaptations

2.35. This section examines the prevalence of features within the housing stock that enable dwellings to be more accessible for people with disabilities, including wheelchair users. The 'visitability' of homes, based on four key accessibility features, is then examined by dwelling characteristics (see Box 2.2 for definitions). The section then looks at how the 2013 position on visitability compares with 2007. Finally, it investigates the relative ease of adapting homes to provide all four visitability features where these did not already exist.

2.36. The most common accessibility feature, assessed for the EHS, was the absence of a change in floor level or trip steps at entrance level (75%). Some 63% of homes had a WC at entrance level and 56% had a room at entrance level that would be suitable for a bedroom. Other features were far less common; just 18% of homes had level access and 19% had a wheelchair accessible WC at entrance level, Figure 2.4.

Figure 2.4: Accessibility features of dwellings, 2013



Base: all dwellings

Note: underlying data are presented in Annex Table 2.8

Source: English Housing Survey, dwelling sample

Visitability of dwellings

Box 2.2: Visitability: four key features

Visitability comprises four key features which are considered to be the most important for enabling people with mobility problems to either access their home or visit someone else's home. These four features form the basis for the requirements in part M of the Building Regulations, although the EHS cannot exactly mirror the detailed requirements contained there.

1. **Level access:** For all dwellings with a private or shared plot, there are no steps between the gate/pavement and the front door into the house or block of flats to negotiate. This includes level access to the entrance of the survey module (i.e. a group of flats containing the surveyed flat). Dwellings without a plot are excluded from the analysis as access is, in effect, the pavement/road adjacent to the dwelling.
2. **Flush threshold:** a wheelchair can be wheeled directly into the dwelling from outside the entrance door with no steps to negotiate and no obstruction higher than 15mm.
3. **Sufficiently wide doors and circulation space:** the doors and circulation space serving habitable rooms, kitchen, bathroom and WC comply with the requirements of part M of the Building Regulations.
4. **WC at entrance level:** there is an inside WC located on the entrance floor to the dwelling.

2.37. In 2013, around 1.4 million homes (6%) possessed all four of the key features for full visitability. Some 16 million homes (69%) had between one and three of these visitability features; of these 10% had three features, 21% had two and 38% had one. The remaining 25% (5.8 million dwellings) had none of the four visitability features, Annex Table 2.9.

2.38. The likelihood of a home being fully visitable was dependent upon its age, tenure and type. Owing to the requirements of modern building regulations it is not surprising that the highest proportion of homes with all four visitability features were those built after 1990 (27%). Similarly just 8% of these homes had no visitability features. Conversely only a very small proportion of homes built before 1945 had all four visitability features (1%) and 32-33% had no visitability features, Annex Table 2.9.

2.39. As housing association dwellings had the highest proportion of the newest homes built after 1990, it is not surprising that these were markedly more likely to have all four visitability features (16%) than other tenures (4-7%).

Local authority homes were less likely to have no visitability features (21%) compared with owner occupied homes (25%) and privately rented homes (29%). This is most likely due to the higher proportion of purpose built flats, which are generally more accessible, within the local authority stock, Figure 2.5.

Figure 2.5: Visitability of dwellings by tenure, 2013



Base: all dwellings

Note: underlying data are presented in Annex Table 2.9

Source: English Housing Survey, dwelling sample

2.40. Purpose built high rise flats (33%) and purposes built low rise flats (17%) were markedly more likely to have full visitability, with 5% or less of other types of dwellings having all four accessibility features. Almost half of small terraced houses (48%) had none of the four accessibility features, compared with 11% of detached houses and 2% of bungalows, Annex Table 2.9.

Visitability of dwellings over time

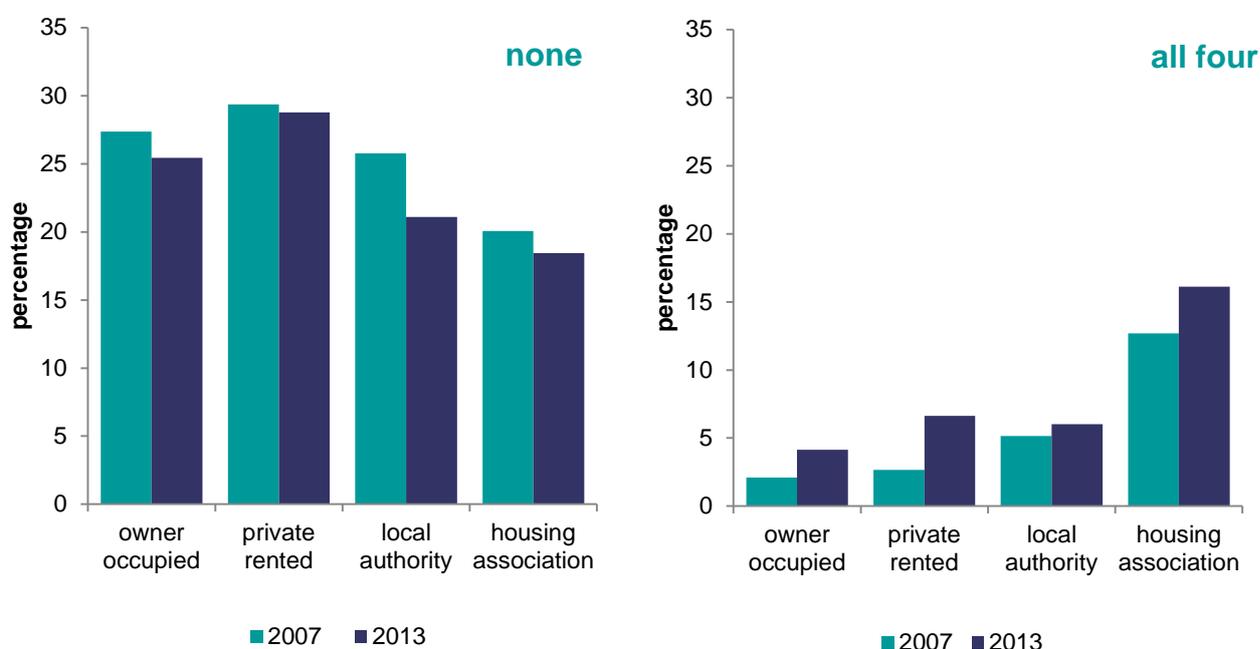
2.41. There was an overall improvement in the visitability of English housing stock from 2007 to 2013, with the number of fully visitable homes increasing by around 87% from 744,000 to 1.4 million (3% of the stock to 6%). Furthermore

around 128,000 fewer homes had no visitability features in 2013 than in 2007, Annex Table 2.9.

2.42. Notable improvements in full visitability since 2007 occurred among purpose built high rise flats (12% rising to 33%), and homes built after 1990 (14% rising to 27%). Interestingly there was a notable reduction in the proportion of converted flats with no visitability features, falling from 26% to 16% over this period, Annex Table 2.9.

2.43. The proportion of homes with all four visitability features increased for all tenures except local authority homes¹¹. However, the proportion of local authority homes with no visitable features fell from 26% to 21%, Figure 2.6.

Figure 2.6: Proportions of dwellings with no or all four visitability features by tenure, 2007 and 2013



Base: all dwellings

Note: underlying data are presented in Annex Table 2.9

Sources:

2007: English House Condition Survey, dwelling sample;

2013: English Housing Survey, dwelling sample

Difficulty of adapting homes to make them visitable

2.44. The required scope and nature of remedial work required to provide all four visitability features, where these do not already exist, has been grouped into a straightforward four-point scale detailed in Box 2.3.

¹¹ the increase for local authority homes was not statistically significant

Box 2.3: Scale of difficulty in adapting homes to make them visitable

Each dwelling is classified according to the highest degree of difficulty of the required work, for example, if work to provide a flush threshold is minor but providing a WC at ground floor involves building an extension, the dwelling is classed as requiring major works in order to make it fully visitable.

1. **Minor work** - no structural alterations required. Costs likely to be under £1,000. Examples include replacing a door and frame to create a flush threshold or installing a ramp for level access.
2. **Moderate work** - rearrangements of internal space required that will involve removing internal partitions and/or increasing size of doorways. Costs are likely to be in the region of £1,000-£15,000 depending on the size of dwelling and the precise nature of the work. Examples include:
 - internal structural alterations such as using an integral garage, storage cupboard or larder to create a WC at entrance level. This will likely involve partitioning off existing rooms together with associated works to water supplies, wastes and heating.
 - removing some wall partitions (where this does not contravene fire regulations) to create sufficient width for internal doorways or hallways.
3. **Major work** - building extensions required. Works will be in excess of about £15,000 and the precise amount will depend on the size of the extension to be built, the scale of work to water and drainage services and ground conditions. A home, for example, may require an extension for a downstairs WC.
4. **Not feasible** - it is not physically possible to carry out the necessary work. For example, this could be due to the physical impossibility of building an extension or installing a ramp up to the front door.

- 2.45. Of the 21.9 million homes that were not already fully visitable, around 2.7 million (12%) could comply through minor work and a further 9.6 million (44%) could comply with moderate work. Around 3.5 million (16%) homes could only be made fully visitable through major (and more problematic) works and the remaining 6.0 million (28%) homes were considered not feasible to make fully visitable, Annex Table 2.10.

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- 2.46. Not surprisingly, the ease of adaptability varied considerably for different groups of dwellings. The newest aged homes built after 1990 were much more likely to require only minor works to make them fully visitable (21%). In contrast, over half (54%) of the oldest homes built before 1919 were not feasible to make fully visitable, Annex Table 2.10.
- 2.47. The types of homes most likely to be classed as not feasible to make fully visitable were small terraced houses (69%), converted flats (48%) and medium/large terraced houses (42%), as the design of these homes is more likely to prevent sufficient extension of space. Even though a small proportion of bungalows were fully visitable in 2013, 84% could be made so through minor or moderate work, Annex Table 2.10.
- 2.48. The ease of adaptability by tenure is provided in Figure 2.7 below. The owner occupied sector had the largest proportion of homes that could be made fully visitable through either minor or moderate works (63%). The proportion of homes that could be made fully visitable through either minor or moderate works was similar for local authority (50%) and housing association (49%) homes but lower for private rented homes (40%).
- 2.49. Owner occupied homes had the lowest proportion of homes in need of more major work to provide full visitability (13%) compared with all types of rented homes. The private rented sector had the highest proportion of homes (39%) that were assessed as not feasible to make visitable. Almost one third (32%) of private rented homes were built before 1919 (see Annex Table 1.1 of this report) and these oldest homes were most likely to be not feasible to make fully visitable, Figure 2.7.

Figure 2.7: Level of work required to provide all four visitability features by tenure, 2013



Base: all dwellings that are not currently fully 'visitable'
Notes: underlying data are presented in Annex Table 2.10
Source: English Housing Survey, dwelling sample

Security

2.50. This section looks at key security measures present in homes and any variations in the provision of these by tenure. The measures examined are: security provided by windows and doors (in terms of ease of physically breaking into the dwelling); door viewers; burglar alarms; external lighting; and controlled door entry systems for flats with common areas.

2.51. In 2013, the presence of secure windows and doors¹² was fairly similar among owner occupied, local authority and housing association homes (82-86%), but was notably lower among privately rented homes (75%), Figure 2.8.

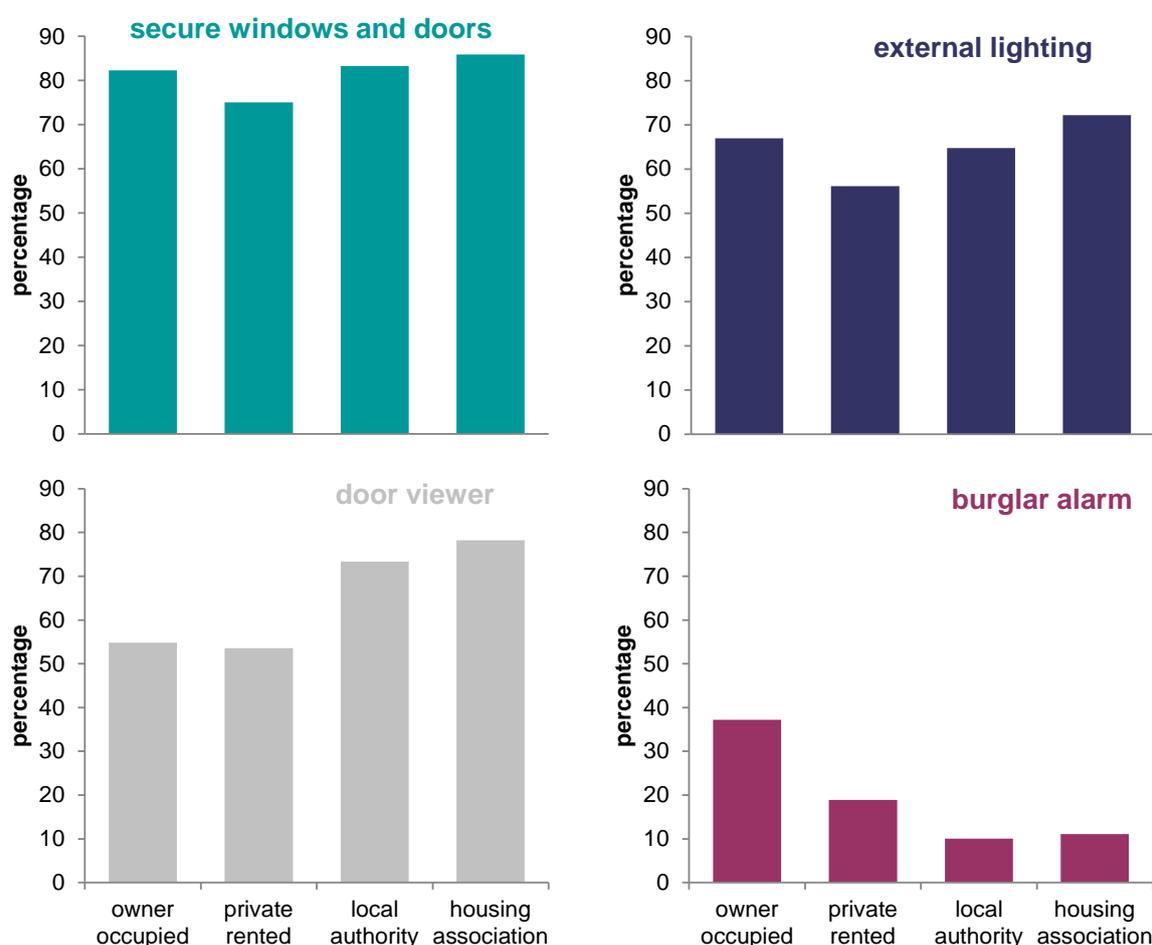
2.52. Door viewers were far more common among social rented homes (73-78%) compared with those in the private sector (54-55%). These findings likely

¹² see Glossary for definition

reflect the greater prevalence of door viewers among flats which were more common in the social rented sector. They may also be due to many social landlords establishing a door replacement programme, for example, as part of Decent Homes work, Figure 2.8.

2.53. Owner occupied homes were more likely to have a burglar alarm (37%) particularly when compared with social rented homes (10-11%). Around two-thirds (65%) of all homes had external lighting to private entrances or shared areas. This feature was most common among housing association homes (72%) but least common in the private rented sector (56%), Figure 2.8.

Figure 2.8: Provision of security measures by tenure, 2013



Base: all dwellings

Note: underlying data are presented in Annex Table 2.11

Source: English Housing Survey, dwelling sample

Controlled entry systems in flats with common areas

- 2.54. Around 3.6 million flats had shared common areas in 2013 and 77% of these had a controlled door entry system for added security. Housing association flats (81%) and local authority flats (79%) with common areas were more likely to have this feature compared with privately rented homes (75%), Annex Table 2.12.
- 2.55. At the time of the survey, the vast majority (94%) of these door systems were working. This proportion was very similar across all tenures, Annex Table 2.13.

Appendix 1 Logistic regression analysis

1. Stepwise logistic regression has been used to assess which key factors (independent variables) are predictors of households having a water meter (the dependent variable). The stepwise method involves adding independent variables to the model in steps and keeping only if they appear to have a relationship to the dependent variable.
2. As all of the independent variables for the modelling are categorical variables, the regression analysis provides an insight into which categories or groups of households are more or less likely to have a water meter. When using categorical variables in regression analysis one of the groups needs to be specified as the baseline group. The odds ratio, EXP (β) of the baseline group, is set as 1 (labelled as 'Reference category' in Table 1). Where the odds ratio is less than 1 this group is less likely to have a water meter compared with the baseline group. Conversely, a higher odds ratio indicates that the group is more likely to have a water meter.
3. A significance value is given to indicate if the odds ratio is significantly different from one i.e. no more or less likely to have a water meter than the baseline group. A value less than 0.05 is normally taken to mean that the difference is not due to chance.
4. The 'Nagelkerk R-squared' indicates the amount of variation in the population which is explained by the model. It takes a value between 0 and 1 with a higher figure meaning that the model predicts water meter presence more accurately. The 'Contribution to R-squared' indicates the amount that each independent variable contributes to the model.
5. The independent variables in the table are presented in order of their 'usefulness as predictors' as informed by the 'Contribution to R-squared'. This mirrors the order of the descriptive information provided in this chapter.
6. The 'Nagelkerk R-squared' value of the model is 0.26 which shows that the independent variables account for 26% of the variability in the dependent variable. This suggests there may be other factors not identified which could influence the presence of water meters.
7. The logistic regression used standardised weighted data, (by weighting the weights by the overall mean weight) so that any relationships found would not be biased to the over-sampled groups or the very large weighted sample size.
8. Although logistic regression can be used to explore associations between variables, it does not necessarily imply causation and results should be treated as indicative rather than conclusive.

Table 2.1: Logistic regression model for dwelling and household characteristics for owning a water meter, 2013-14

all households

independent variables	odds ratios	significance	Contribution to R-squared
dwelling age			
<i>post 1990</i>	<i>Reference category</i>		
pre 1919	0.07	**	0.00
1919-44	0.09	**	0.00
1945-64	0.12	**	0.00
1965-80	0.17	**	0.00
1981-90	0.26	**	0.00
			0.154
dwelling type			
<i>detached house</i>	<i>Reference category</i>		
small terraced house	0.43	**	0.00
medium/large terraced house	0.49	**	0.00
semi-detached house	0.52	**	0.00
bungalow	0.84		0.07
converted flat	0.84		0.24
purpose built flat, low rise	0.34	**	0.00
purpose built flat, high rise	0.16	**	0.00
			0.062
tenure			
<i>owner occupier</i>	<i>Reference category</i>		
private renter	0.85	*	0.02
local authority tenant	0.41	**	0.00
housing association tenant	0.58	**	0.00
			0.023
household composition			
<i>single person households</i>	<i>Reference category</i>		
couple only	0.73	**	0.00
lone parent and one child	0.74	*	0.01
multi-person household, two people	0.75	**	0.01
couple household with three or more people	0.56	**	0.00
single parent household with three or more people	0.55	**	0.00
multi-person household, with three or more people	0.39	**	0.00
			0.015

continued

all households

independent variables	odds ratios	significance	Contribution to R-squared
age of hrp			
<i>65 or older</i>	<i>Reference category</i>		
16-24	0.82		0.14
25-34	0.69	**	0.00
35-44	0.80	**	0.01
45-54	0.72	**	0.00
55-64	0.74	**	0.00
			0.003
ethnicity			
<i>white</i>	<i>Reference category</i>		
black	0.59	**	0.00
asian	0.90		0.36
other	0.74	**	0.04
			0.002
income level			
<i>highest 20%</i>	<i>Reference category</i>		
lowest 20%	0.79	*	0.01
quintile 2	0.82	*	0.02
quintile 3	0.81	*	0.01
quintile 4	0.82	*	0.01
			0.001
constant value for the odds ratio	19.75		
Nagelkerk R-squared			0.260

sample size

11,600

Note: significance: * the result is significant at the .05 level / ** the result is significant at the 1% level

Sources: English Housing Survey, household sub sample