



Final Report prepared for

**The London Borough of Waltham Forest
Council**

Private Sector

Housing Stock Condition Survey

June 2011

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1. Introduction

What is the purpose of the survey and how was it done?

Why conduct a housing stock condition survey (HCS)?

- 1.1 Local authorities have an obligation under the Housing Act 2004 to keep housing conditions in their area under review. This includes all tenures of housing, not just stock that may be owned by the local authority. To meet this obligation, The London Borough of Waltham Forest Council commissioned Opinion Research Services (ORS) to carry out a survey on a random sample of housing within the Borough.
- 1.2 Councils have an obligation to enforce certain statutory minimum standards in housing and have powers that they can use to do this. These mandatory duties are outlined in Appendix D. There are a number of non-mandatory powers available to the Authority under the Housing Act 2004. In addition to statutory obligations on the Council, in relation to all housing tenures, the Council also has broader policies. Decisions on the nature of these policies and any alteration to them can be strongly influenced by the findings of a housing stock condition survey. Finally, local authorities are required by government to complete certain returns indicating the distribution of their housing stock by tenure and the condition of certain aspects of the stock.
- 1.3 This report will summarise the findings of the sample survey conducted on all housing in Waltham Forest. Conclusions will be drawn and recommendations made in the context of improving or adding to existing policies.

How was the survey conducted?

- 1.4 It would be impractical, time consuming and expensive to survey all dwellings in a London Borough such as Waltham Forest. In order to gain a representative picture, therefore, a random sample survey was conducted. This means selecting address at random from a list of all dwellings and then surveying these. By surveying enough dwellings it is possible to gain an understanding of all housing in the Borough.
- 1.5 ORS carried out surveys on 1,200 dwellings across the Borough during the spring of 2011. A total of 2,400 addresses were sampled in order to gain 1,200 surveys, as not all home-owners and tenants were able to take part. The 2,400 addresses were selected at random from a list of all private sector (excluding Council owned) dwellings.
- 1.6 For all of the 1,200 surveys conducted information on these factors was collected: general characteristics of the dwelling; condition of the internal and external fabric; provision of amenities; compliance with housing health and safety; age and type of elements; energy efficiency measures; compliance with the Decent Homes Standard and socio-economic information about the household (where occupied).

Knowing how to conduct house condition surveys

- 1.7 In 1993 the Department of the Environment issued a Guidance Manual setting out how Local House Condition Survey should be conducted. The guidance included a detailed survey form in a modular format, and a step-by-step guide to implementing a survey.
- 1.8 The 1993 guidance was updated in the year 2000. In addition to this, guidance was issued in 2004, and updated in 2006, on the Housing Health and Safety Rating System (HHSRS), discussed in chapter 5. Local authorities are encouraged, by both sets of guidance, to make full use of information gathered from house condition surveys in conjunction with data from other sources.
- 1.9 ORS has a long track record of conducting complex sample surveys and their associated analysis. For this reason, it was decided that ORS should use its own bespoke systems to carry out the data processing and analysis, rather than use off-the-shelf systems, which tend to be inadequate for this type of survey.

How does Waltham Forest compare to the country as a whole?

- 1.10 HCS are not only conducted by individual local authorities, they are also carried out for England as a whole and updated on an annual basis. This is done through the English Housing Survey (EHS). The EHS combines the former English House Condition Survey (EHCS) and the Survey of English Housing, a social interview survey.
- 1.11 The EHS takes a lot of work to carry out and a lot of time to input and carefully check the data. A great deal of time is also spent carefully analysing the data before a report is produced. For this reason, EHS results are only available up to 2009. Comparisons with national figures in this report are, therefore, based on comparisons with the 2009 EHS unless otherwise stated. Additionally, some comparisons were made with the Family Resources Survey 2007-2008 published by the Department for Works and Pensions (DWP).

Accuracy of the findings in the report

- 1.12 A sample survey works by applying a weight to each dwelling surveyed. Put simply, if we were to survey 1,200 dwellings from a total of 84,000 dwellings, we would assign a weight of 70 to each survey. In other words, each property surveyed would represent 70 others in the borough. By using as many as 1,200 surveys and choosing addresses randomly we can be fairly confident that results are representative of the housing stock as a whole.
- 1.13 Because not all dwellings were surveyed, however, there will always be some difference between the survey results and the real world. This difference is called statistical variance. We described statistical variance in terms of 'confidence limits' and 'standard deviation'.
- 1.14 Standard Deviation is the extent to which a result from the survey, say percentage of dwellings that are privately rented, may be inaccurate either above or below its stated level. Confidence limits state that if the entire survey process were repeated, out of how many of these repetitions would there be confidence in staying within the variation. Traditionally, and in the case of this report, 95% confidence limits have been used, which state that if the survey were carried out 100 times, in 95 cases the standard deviation would be a given amount. More detail on the calculation of standard deviation is given in the appendices.

Presentation of figures

- ^{1.15} The figures presented in this report are estimates, since they are based on a sample, not an actual count. Quoting an exact figure for any number, for example: the number of privately rented dwellings is not necessary and would not be accurate. For this reason, as with the EHS, figures are quoted to the nearest 100 dwellings, or nearest 10 for smaller numbers. Percentages within the report are only quoted to 1 decimal place for the same reason. An additional reason for doing this is that most issues will be changing on a daily basis across a housing stock of this size, so the results can only ever be a snap-shot in time.

2. General Housing Characteristics

What is the make-up of the housing in Waltham Forest?

The total dwelling stock

- 2.1 The total number of domestic residential dwellings in Waltham Forest is 98,100. By definition domestic excludes any commercial properties and residential excludes any property not considered habitable living space. The stock total includes dwellings owned by Registered Social Landlords (RSL) also referred to as housing associations and figures are given for Waltham Forest Borough Council housing stock, currently managed by Ascham Homes. Only RSL stock, in addition to private dwellings, formed part of the survey and not Waltham Forest's stock, which is surveyed and monitored separately. Council dwellings are therefore only quoted in the tenure section below for completeness. For the remainder of the report, all totals are based on the private sector and RSL housing stock total of 87,700 dwellings.
- 2.2 The stock total is derived from a list of private sector dwellings drawn from Council Tax records. The total takes into account newly built dwellings, changes of tenure and any demolitions. The total was agreed with the Council, taking into account all these factors.
- 2.3 At the time of the last HCS in 2004 there were estimated to be 70,800 private sector dwellings and a total of 12,220 RSL dwellings, giving a stock total excluding council housing of 83,020. This suggests an increase in the dwelling stock of 4,680, but given a drop of 1,360 in RSL dwellings, there has been a net increase in private sector dwellings of 6,040 since 2004. The majority of this change has come from the conversion of houses into flats, as described under the next section in this chapter.

Tenure

- 2.4 Figure 2.1 draws tenure comparisons between the stock profile for Waltham Forest and that for England as a whole.

Figure 2.1 Tenure proportions (Source: 2011 House Condition Survey & EHCS 2009)

Tenure	Dwellings	Per cent	EHS 2009
Owner occupied	45,090	46%	67%
Privately Rented	31,810	32%	15%
Private Sector Stock	76,900	78%	82%
Housing Association (RSL)	10,860	11%	9%
Local Authority	10,420	11%	9%
Social Housing	21,280	22%	18%
All Tenures	98,180	100%	100%

- 2.5 The breakdown given in Figure 2.1 includes local authority and other public sector housing for the sake of comparative purposes with the EHS.

- 2.6 Socially rented dwellings are slightly more common in Waltham Forest than nationally, reducing private sector housing to 78% compared to 82% in England as a whole. The most striking figure is the size of the privately rented sector at 32% of all residential dwellings. This has increased from just under 18% at the time of the 2001 Census.

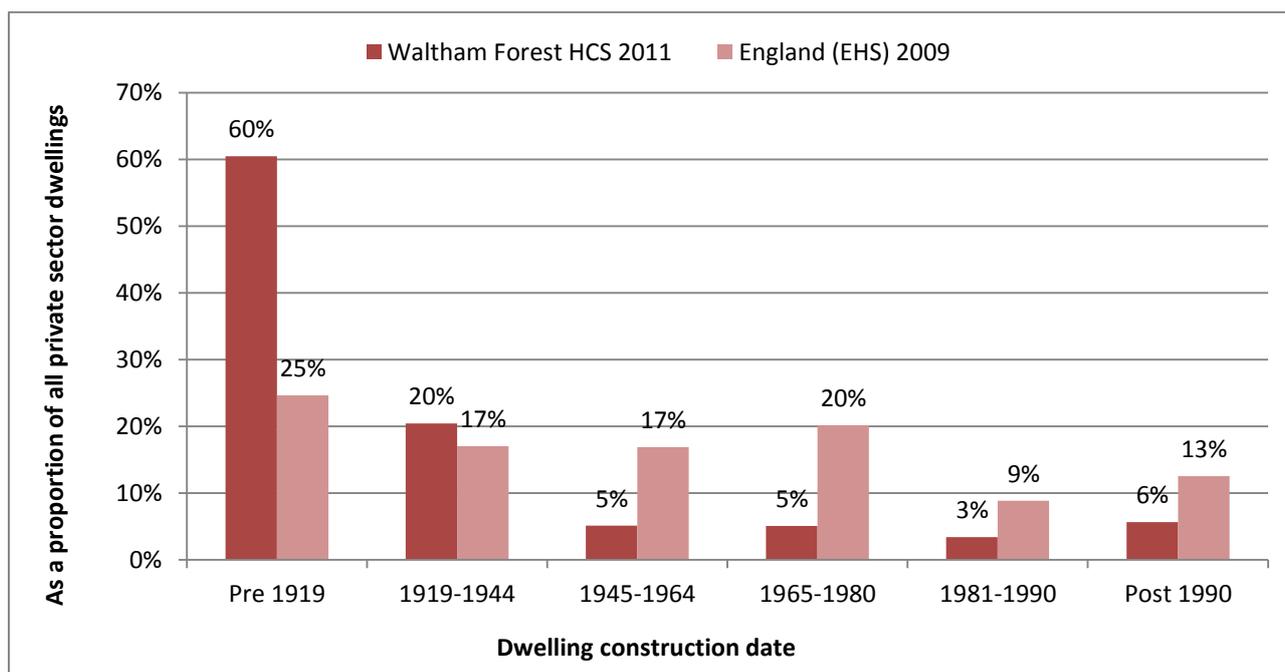
Changes in the privately rented dwelling stock

- 2.7 The past decade, since the 2001 Census, have seen a substantial and rapid change in the tenure distribution of housing in England. Privately rented dwellings had increased from approximately 10% of dwellings up to nearly 15% of all dwellings by the time of the 2009 EHS and approximately 16% by 2010. This increase has not been evenly distributed, but rather, has been affected by demand and suitability of housing stock.
- 2.8 One of the key regions driving up the national average is London, with an estimated 8% average growth per annum in the capital since 2001. By comparison, Waltham Forest's private rented sector has grown by an average of 6.5% per annum over this period. Housing affordability and the cost of living, coupled with increased demand, have driven up private renting in London dramatically.
- 2.9 Such a substantial change in the size of the private rented sector in Waltham Forest has substantial implications for the Council.

Date of construction of private sector dwellings

- 2.10 The following is the construction date profile of owner occupied and privately rented dwellings in Waltham Forest. The majority of housing in Waltham Forest was built before the First World War, particularly during the Victorian era. Building during the inter-war period occurred at a similar rate to the national average, but from 1945 onwards, private sector housing was built only in small quantities. Much of the social housing in the borough was built between 1965 and the present day, but this is not included in these figures.

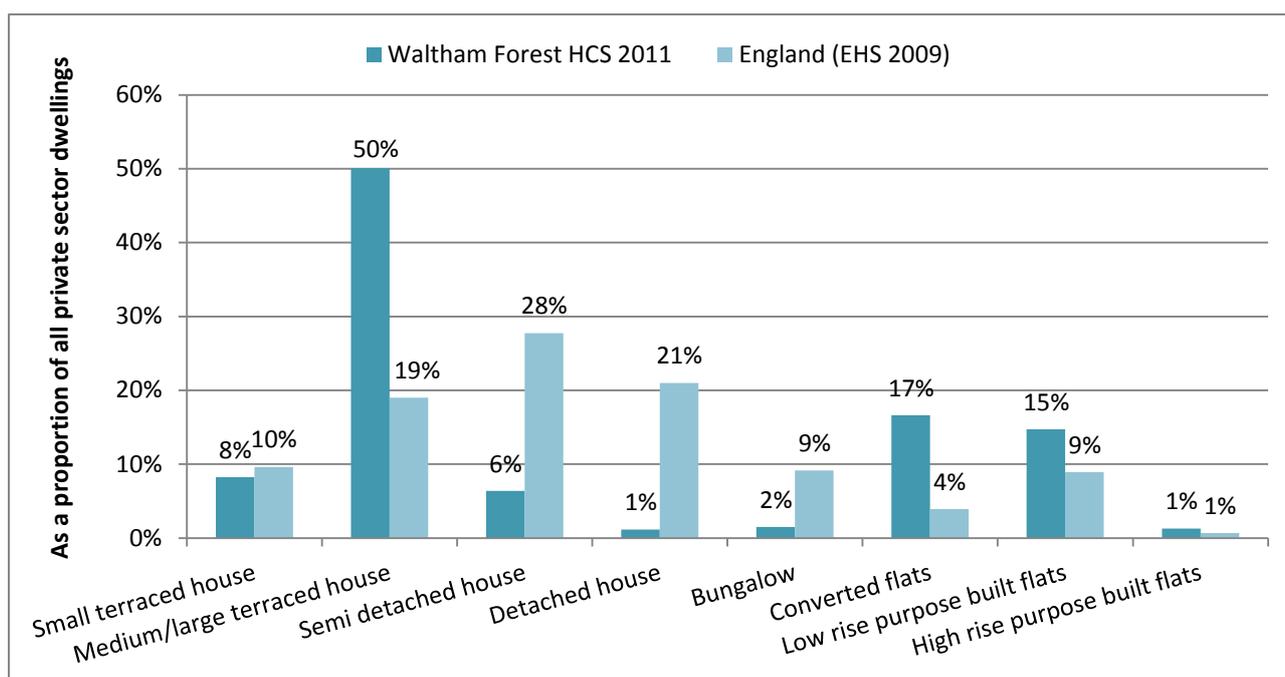
Figure 2.2 Dwelling age profile England and Waltham Forest (Source: House Condition Survey 2011 and EHS 2009)



- 2.11 The 2004 private sector house condition survey indicated a total of just under 41,000 private sector dwellings built before 1919. The 2011 survey indicates just under 46,500 dwellings from this period. Initial this may seem incongruous since any newly built dwellings will be in the post 1990 construction date band. It is important to understand, however, that it is the age of the building that determines the age of the dwelling. As a consequence, any conversion of a pre-1919 building into flats, subsequent to the last survey, will have increased the number of pre 1919 dwellings, with no reference to the date of conversion. This is because many dwelling condition indicators relate to the nature and age of the building, and not to the period of its conversion.
- 2.12 Taking all surveys where the date of conversion to flats occurred after the last HCS in 2004 gives a total increase in the number of pre 1919 dwellings of 5,100. Added to the figure for pre 1919 dwellings from 2004 this gives a total of around 46,000 pre 1919 dwellings, very close to the 46,500 dwellings quoted and well within the margin of error of the survey. This finding amply demonstrates how and why the proportion of pre 1919 dwellings has managed to increase so significantly in the past seven to eight years.

Dwelling type profile

Figure 2.3 Dwelling type profile Waltham Forest and England (Source: House Condition Survey 2011 and EHS 2009)



- 2.13 The private sector building type profile in Waltham Forest is also a reflection of the borough and of the age of the dwelling stock. Terraced houses are far more common than the average for England and these are largely pre 1919 dwellings. Converted flats are far more common than nationally, reflecting the large private rented sector with which they are typically associated. Low rise purpose built flats are more common than average, even in private sector dwellings. Bungalows and detached houses are far less common than for England as a whole, which is normal for London due to high housing density.

Building use and Houses in Multiple Occupation (HMOs)

- 2.14 A house is both a dwelling and the building in which that dwelling sits. Flats and Houses in multiple occupation (HMO) differ from this model however. A flat is a dwelling, but it is located in a building (block) along with a number of other flats. A bedsit or other unit type is a dwelling within an HMO in a similar way to a flat.

Figure 2.4 Building use profile Waltham Forest and England (Source: House Condition Survey 2011 and EHS 2009)

Dwelling use	Dwellings	Per cent	EHS 2009
House	49,070	63.8%	85.4%
Purpose Built Flat	11,860	15.4%	8.6%
Converted Flat	6,620	8.6%	3.0%
Converted Flat (section 257)	5,430	7.1%	0.5%
HMO	3,470	4.5%	2.0%
Licensable HMO	440	0.6%	0.5%
Total	76,900	100%	100%

- 2.15 A majority of dwellings (63.4%) are houses generally occupied as built. Of the remainder, most are purpose built or converted flats. Certain converted flats fall under Section 257 (S257) of the Housing Act 2004 and these can also be considered as HMOs (converted flats where the work does not meet specified standards (generally the Building Regulations 1991) and where less than two thirds are owner occupied).
- 2.16 Including S257 flats approximately 12% of dwellings in Waltham Forest are either HMOs or flats within an HMO. This is approximately four times the rate found in England overall, but is fairly typical of a number of London boroughs.
- 2.17 Under the Housing Act 2004 certain types of HMO were defined as licensable. For these HMOs there is an obligation on the landlord to apply to the local authority where the HMO is located for a license. Local authorities, therefore, must be in a position to manage the application for licenses. Specifically, licensable HMOs are those that are of three or more storeys with five or more residents living as two or more households.
- 2.18 There are approximately 440 licensable HMOs in Waltham Forest. Such a small number cannot reliably be derived from a sample survey as it would represent only one out of the 1,200 surveys conducted. For this reason, the figure for licensable HMOs has been compared to that derived from the Council's own inspection programme and other secondary sources.

Vacant dwellings

- 2.19 Vacant dwellings can be difficult to identify and there are frequently problems in gaining access. By using a combination of sources, including the survey, Council Tax lists, the Census and the Council's own figures, it is possible to estimate that there are 1,990 vacant dwellings, 2.6% of the private housing stock. The national average is approximately 4.1%.
- 2.20 Based on the results taken from the stock condition survey it was estimated that 1,270 (1.7%) of private sector dwellings within Waltham Forest were long-term vacant, defined as any dwelling vacant for six

months or more, or subject to unauthorised occupation. This figure will be subject to constant fluctuation and is affected by a small size making it less reliable; however, it is the best estimate available.

Figure 2.5 All dwellings by Occupancy Status (Source: House Condition Survey 2011)

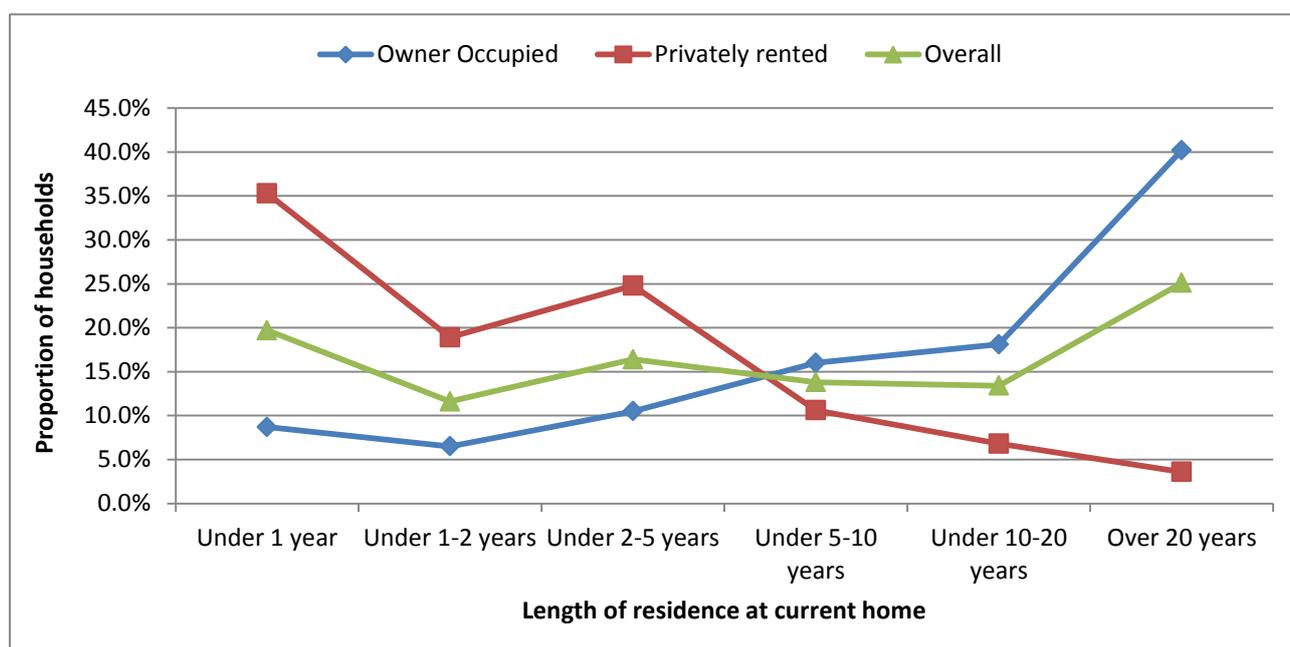
Vacancy Status	Dwellings	Per cent
Occupied	74,910	97.4%
Unlicensed occupation		0.0%
Vacant awaiting new owner	57	0.1%
Vacant awaiting new tenant	414	0.5%
Vacant being modernised	249	0.3%
Utilised non-res purpose		0.0%
Other		0.0%
Long term vacant*	1,270	1.7%
Total vacant dwellings	1,990	2.6%
Total stock	76,900	100.0%

- 2.21 There is a strong government drive towards bringing vacant dwellings back into use to help ease the housing shortage and maximise the use of existing stock. At over 1,250 dwellings, long-term vacant dwellings represent a significant issue in Waltham Forest that needs to continue to be addressed.

Length of residence

- 2.22 The proportion of households who have been resident for a year or less is nearly 20%. Typically this tends to be lower, but generally, where there is high proportion of privately rented dwellings and in urban areas, turnover of the stock is higher and thus length of residence is lower. The average length of time that people live in a dwelling is approximately eleven years, with owner occupiers averaging nearly seventeen years and private tenants just over four years.

Figure 2.6 Length of residence (Source: House Condition Survey 2011)



3. Private sector residents

A socio-economic profile of homeowners & private tenants

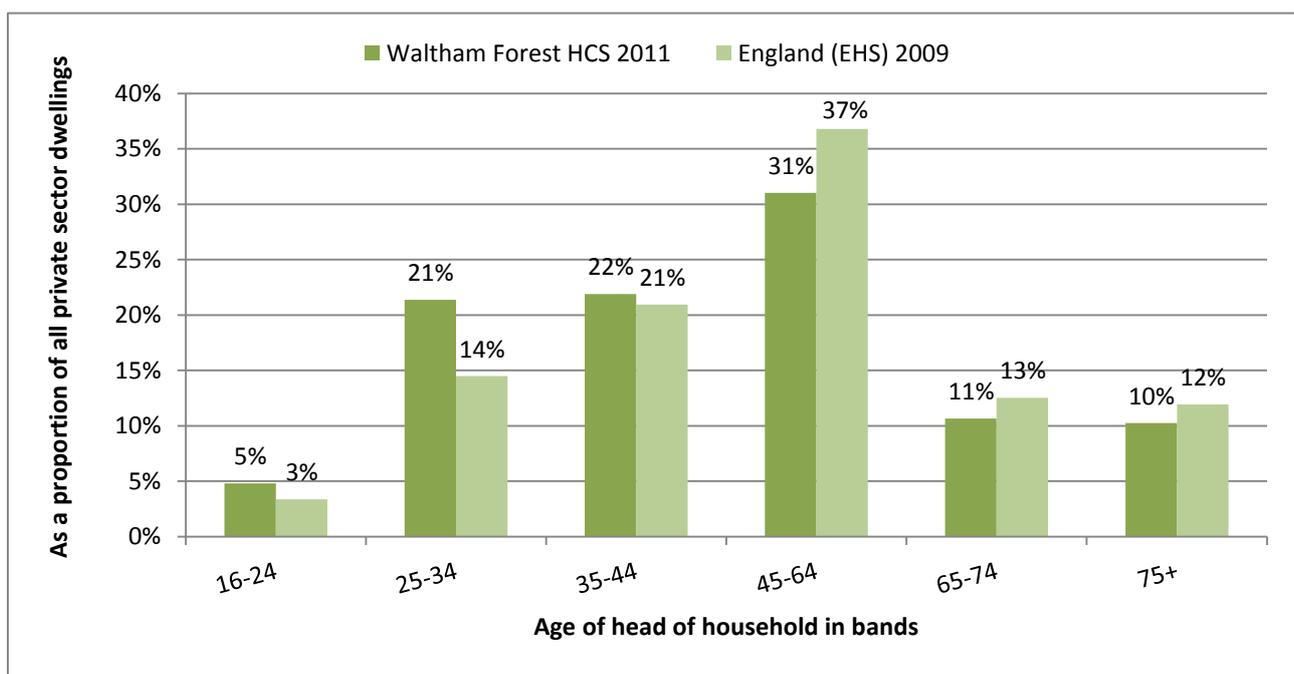
Introduction

- 3.1 As part of the survey process, households were asked a selection of socio-economic questions. The principal reason for doing so was to allow cross analysis with physical condition data. This will allow an understanding of issues such as affordability; housing and health; fuel poverty and many others.
- 3.2 An important issue to consider in relation to the analysis in this chapter is that not all dwellings are occupied. As was made clear in the last chapter, some dwellings are vacant and by definition will provide no socio-economic data. The analysis in this chapter is, therefore, based on the approximately 75,900 occupied private sector dwellings in Waltham Forest.

Age of head of household

- 3.3 Because this study is a dwelling level survey it would not make sense to include analysis at the level of individual people. In considering the age of residents therefore, the age of the head-of-household is typically used. Head-of-household is self-defined by the resident(s) of a dwellings and not imposed but the surveyor in any way. Figure 3.1 examines the age distribution, of heads of household within the stock, both for Waltham Forest and for England as a whole.

Figure 3.1 Age of head of household Waltham Forest and England (Source: House Condition Survey 2011 and EHS 2009)



- 3.4 Overall, Waltham Forest's head-of-household profile indicates a younger than average age profile with more heads of household aged under 24 and between 25 and 34. Heads of household over the age of 64 are slightly less frequently found than is the case nationally, but not significantly so. The biggest differential is found for heads of household aged between 45 and 64, which are substantially below the national average. The age profile is reflective of the tenure profile with the large proportion of private rented dwellings attracting younger residents.
- 3.5 The younger age profile of residents has some implications for private sector housing policy. Whilst younger residents may be more able to carry out repairs and maintenance and are less likely to be affected by housing condition issues (see chapter 5) they also tend to have few savings and limited disposable income after taking into account housing costs. With a clearly high demand for private renting, much of which will be occupied by residents of this age, there may be issues with sustaining and improving dwelling conditions in the private rented sector.

Household types

- 3.6 Figure 3.2 gives the distribution of different household types, within the stock, and compares this to England as a whole. Household types were derived from interviewing occupiers and determining the number of adults and children within the household. These figures were then used to determine household type. For example, two or more adults who are not a couple were considered an 'other multi-person household' for the purposes of this analysis which follows the convention used in the Survey of English Housing.

Figure 3.2 Household type distribution (Source: House Condition Survey 2011 and EHS 2009)

Household type	Waltham Forest HCS 2011		England 2008
Couple no Dependent Child	20,820	27.4%	39.2%
Couple with Dependent Child	21,230	28.0%	22.9%
Lone parent with dependent child	4,640	6.1%	4.7%
One person household	16,560	21.8%	25.7%
Other multi-person household	12,680	16.7%	7.5%
Total Household Type	75,930	100.0%	100%

- 3.7 The household profile in Waltham Forest in many ways reflects the age distribution of heads of household and the tenure make-up of the borough. Couples with no dependent children and one person households are less common than average and these are household types that cover the majority of older residents. Multi-person households largely describes where groups of adults are living together, such as in HMOs. The above average proportion of private renting, and particularly the high level of HMOs, is the cause of a well above average proportion of multi-person (adult) households.

Changes in household profile

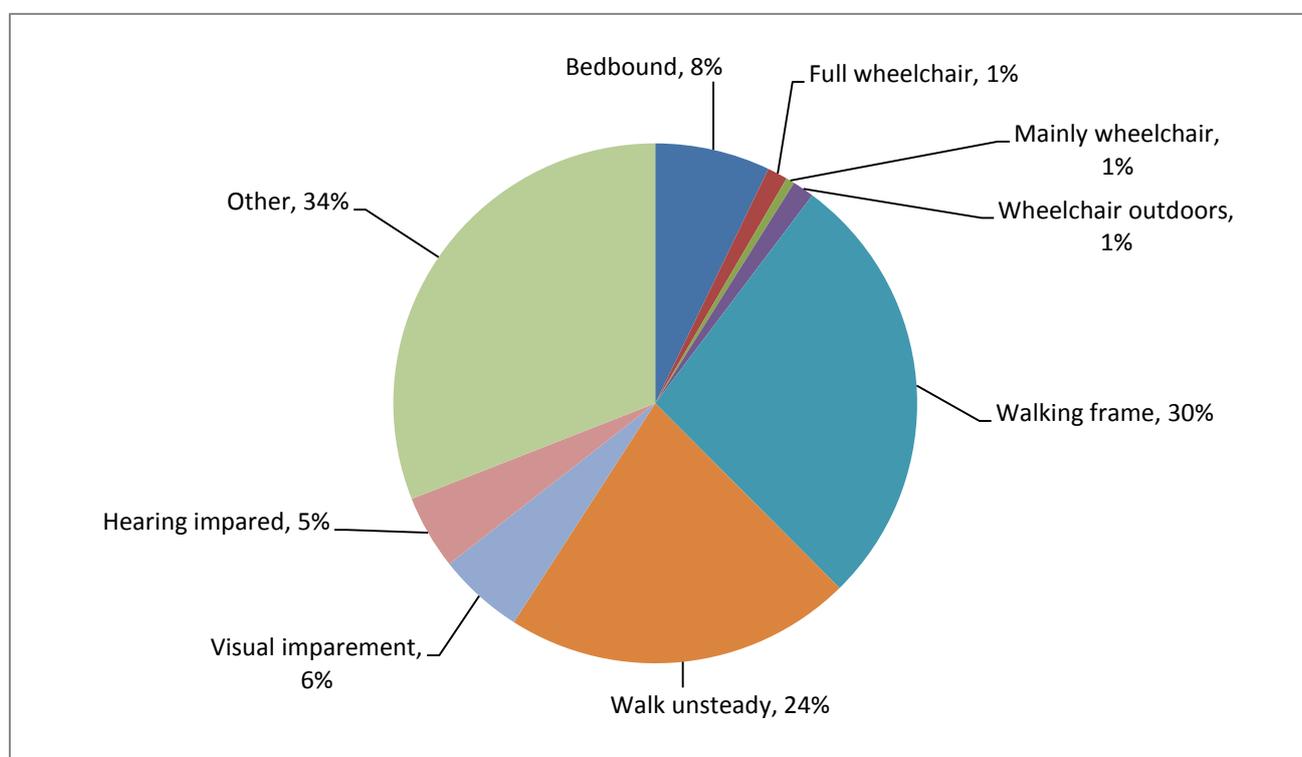
- 3.8 It is not possible to make a direct comparison between the 2004 HCS and this survey in relation to the distribution of household types as the previous survey did not distinguish between households with two adults with no dependent children and three or more adults with no dependent children. It is possible, however, to compare the totals for households with two or more adults with no dependent children. In 2004 this group represented 34.8% of all households, but by 2011, based on the results of this survey, this

figure has risen dramatically to 44.1%. This is a reflection of the massive increase in converted flats and the private rented sector generally, which lend themselves to smaller households and households without children.

Residents with disabilities

- 3.9 Residents were asked if any member of the household suffers from a long term illness or disability. Based on the results of this question approximately 12,100 (15.9%) occupied dwellings had at least one resident with a long term illness or disability. Residents were further asked to choose the condition that best described their disability and the Figure 3.3 illustrates the results of this.

Figure 3.3 Residents with disabilities by type (Source: House Condition Survey 2011)



- 3.10 In order to address the specific housing needs of residents with a disability, the provision of Disabled Facilities Grants (DFG) by local authorities remains mandatory. The potential requirement for adaptations or equipment for disabled occupiers and the potential DFG demand are discussed in more detail below.

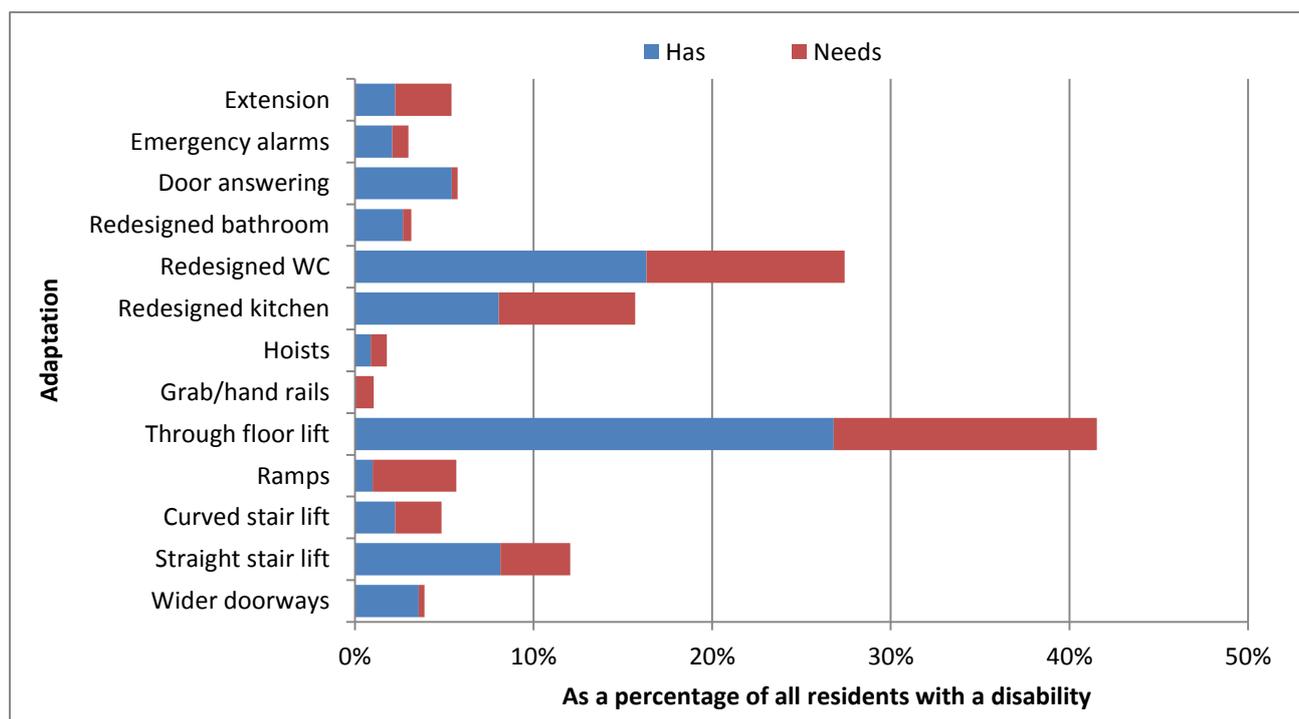
Adaptations/Equipment

- 3.11 Where it was indicated that a member of the household suffered from a long term illness or disability, the survey form included a section regarding the existing provision of adaptations or equipment and also whether the occupier felt there was the need for further adaptations or adaptations.
- 3.12 The provision of adaptations for disabled residents is mandatory under the Disabled Facilities Grants (DFG) scheme, and local authorities must consider this when assigning budgets to housing provision. There are

certain factors that mitigate this demand: firstly, DFGs are subject to means testing, except for adaptations for children and the provision of equipment, and secondly, there needs to be an assessment by an Occupational Therapist who will consider whether an adaptation is necessary and appropriate and also by the authorities disability service to establish if any recommended adaptations can be reasonably and practically undertaken taking into account the construction and configuration of the dwelling.

- 3.13 Figure 3.4 illustrates the proportion of dwellings, with residents who had existing adaptations/equipment and their perceived need for further adaptations or equipment; although it should be made clear that the following needs data has not been included as a direct result of a formal assessment of need. The chart is broken down by adaptation type.

Figure 3.4 Disabled adaptations/equipment present and required (Source: House Condition Survey 2011)



- 3.14 Figure 3.4 shows that grab/hand rails had the highest level of current provision, present in 36% of dwellings occupied by a resident with a disability, followed by redesigned bathrooms at 33%. The most needed was a redesigned bathroom (14%) followed by the provision of grab/hand rails at 11%.
- 3.15 Figure 3.5 takes the figures for adaptations/equipment a step further and looks at the numbers of adaptations/equipment needed and the associated costs. Costs are estimated averages for each of the elements listed.

Figure 3.5 Cost of adaptations for the disabled (Source: House Condition Survey 2010)

Adaptations	Adaptations*	Cost	Cost after means testing
Wider doors	40	£45,800	£1,145
Straight stair lift	470	£2,242,800	£4,772
Curved stair lift	310	£3,113,900	£10,045
Ramps	570	£1,832,400	£3,215
Through floor lift	1,780	£973,400	£547
Grab/hand rails	130	£253,100	£1,947
Hoists	110	£644,900	£5,863
Redesigned kitchen	920	£2,308,100	£2,509
Redesigned WC	1,340	£9,521,700	£7,106
Redesigned bath	60	£171,800	£2,863
Door answer	40	£38,200	£955
Emergency alarms	110	£0	£0
Extension	380	£822,200	£2,164
Total	6,260	£21,968,300	£3,509

**Figures are for numbers of adaptations/equipment, Some dwellings may need multiple provision*

- 3.16 The total cost of all adaptations and equipment that could potentially be fitted to benefit residents with a disability is just under £22 million. It is not possible to judge how much of this potential demand will come forward, as many residents will not be aware of DFGs and others will not be eligible. The figure does, however, give a current estimate for maximum demand and the level of adaptations that could be fitted in an ideal world. It should also be considered, that whilst such expenditure would resolve all immediate need, as the population ages and as people become disabled and/or move home, fresh demand is created.
- 3.17 The figure of £22 million is indicative only and could vary substantially if there are significant adaptations for children (applications for which are no longer subject to the test of resources), which would significantly increase the authorities overall contribution. The figure does, however, give some indication of the potential demand for DFG that should be taken into account when considering future DFG budgets.

Nationality and Ethnic Origin of residents

3.18 Residents were asked to specify the majority ethnic origin type within their household and the results are given in Figure 3.6 **Error! Reference source not found.:**

Figure 3.6 Ethnic origin of residents (Source: House Condition Survey 2011)

Ethnic Origin	Dwellings	Per cent
White British	32,390	42.7%
White Irish	1,080	1.4%
White Other	13,850	18.2%
White/Black Caribbean	2,820	3.7%
White/Black African	680	0.9%
White/Asian	860	1.1%
Other mixed	810	1.1%
Indian	2,440	3.2%
Pakistani	6,970	9.2%
Bangladeshi	1,460	1.9%
Asian Other	2,270	3.0%
Black Caribbean	3,950	5.2%
Black African	3,970	5.2%
Black Other	490	0.6%
Chinese	880	1.2%
Other	1,000	1.3%
Total	75,920	100.0%

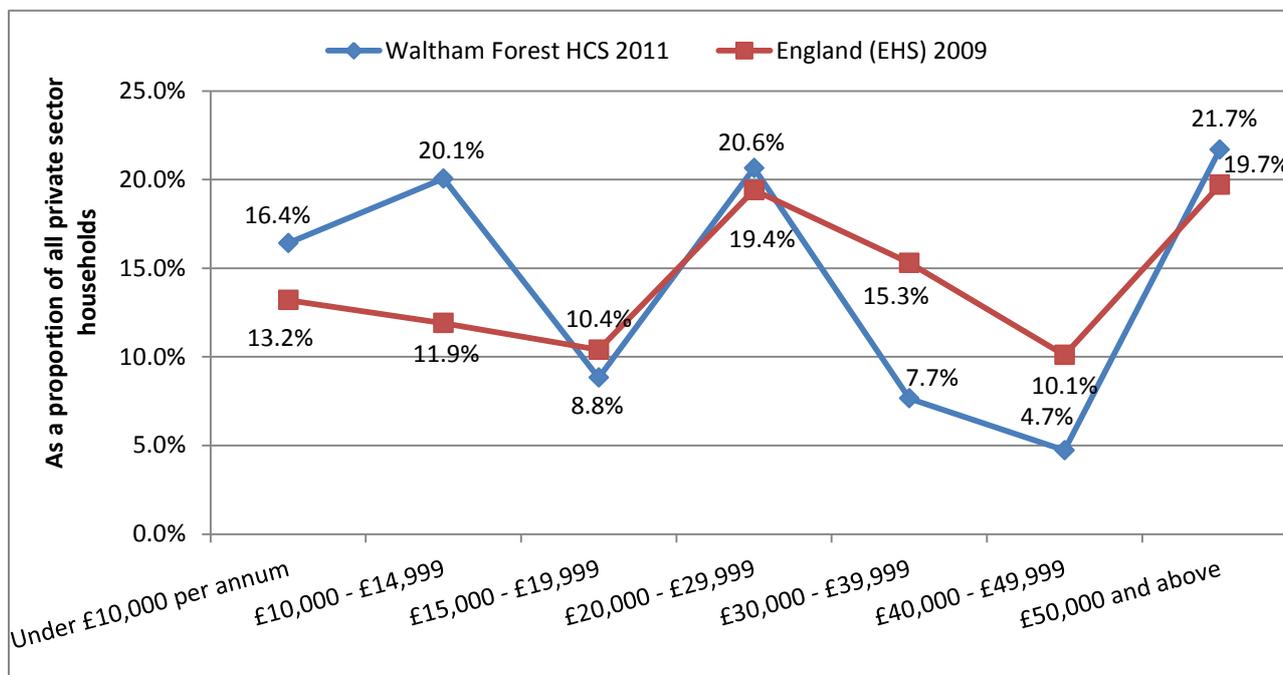
3.19 The majority, roughly six-in-ten, of households described their ethnic origin as being predominantly white, but nearly a third of these are White Irish\White Other. In England as a whole, just under 92% of households describe their ethnic origin as white and thus Waltham Forest is considerably more ethnically diverse than the national average. The most common household ethnicity after white households is Pakistani households at nearly one-in-ten of all homes. This is followed by Black Caribbean and Black African households each at roughly one-in-twenty households. There is notable representation beyond this for every ethnic origin grouping recorded.

3.20 The national identity of households in Waltham Forest is hugely diverse with 95 different nationalities or combinations of nationality identified from the 1,200 surveys carried out alone. With so many nationalities it is impossible to provide accurate or meaningful figures for every individual nationality. Amongst the largest nationality populations, after British, are Polish (3,770 households); Romanian (2,060 households); Pakistani (1,450 households) and French (820 households). A key issue in terms of nationality is that it does not necessarily overlap with ethnicity. It is down to individual households to determine what nationality they feel they are.

Income

- 3.21 Residents were asked about the income of the head of household and, where appropriate, the partner of the head of household. Responses were combined to give a gross household income and the results of these are given in Figure 3.7.

Figure 3.7 Household incomes in bands (Source: House Condition Survey 2010 and Survey of English Housing 2008)



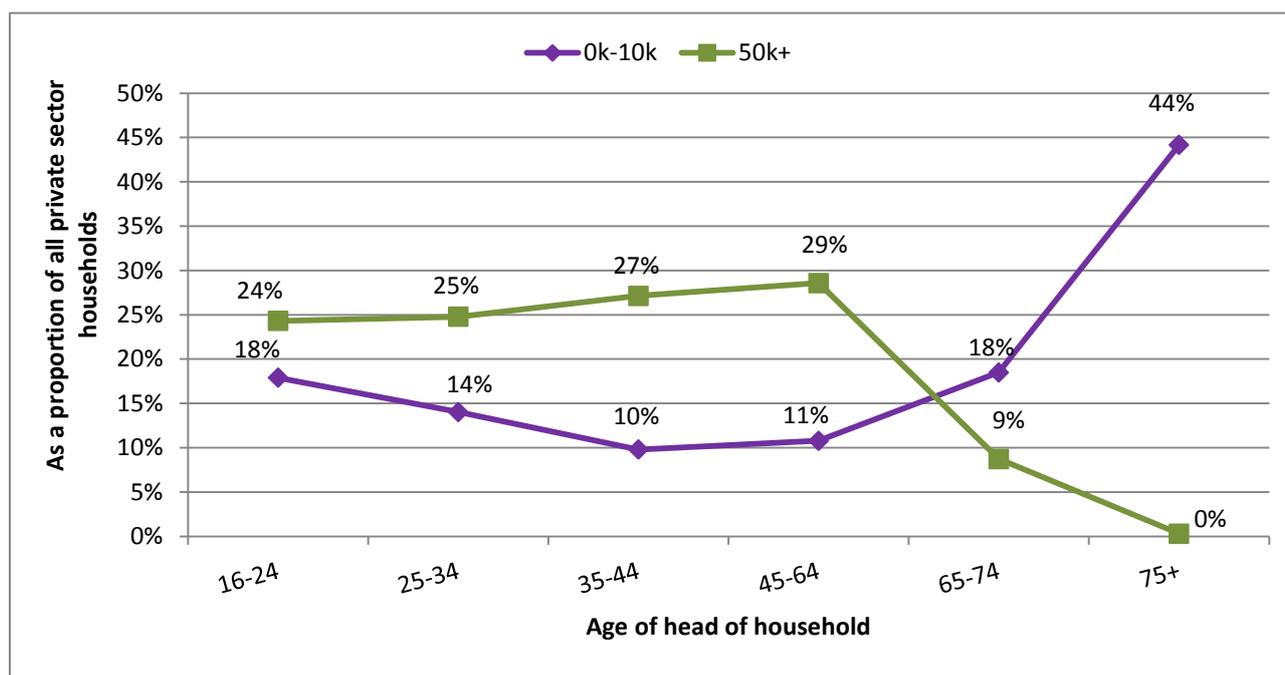
- 3.22 Average household incomes in Waltham Forest are lower than those in England overall and are distributed quite differently. Lower average incomes will impact on people's ability to fund repairs and improvements, as well as the choices they are able to make about affording good condition housing.

Figure 3.8 Number of households by income band (Source: House Condition Survey 2011 and Survey of English Housing 2009)

Income band	Waltham Forest HCS 2010		England 2008
Under £10,000 per annum	12,460	16.4%	13.2%
£10,000 - £14,999	15,230	20.1%	11.9%
£15,000 - £19,999	6,700	8.8%	10.4%
£20,000 - £29,999	15,680	20.6%	19.4%
£30,000 - £39,999	5,810	7.7%	15.3%
£40,000 - £49,999	3,580	4.7%	10.1%
£50,000 and above	16,470	21.7%	19.7%
Total	75,930	100.0%	100%

- 3.23 Variations in income level are often associated with social characteristics such as the age of head of household, household type or disability.

Figure 3.9 High and low incomes by age of head of household (Source: House Condition Survey 2011)



3.24 Figure 3.9 above illustrates that low income (annual household income below £10,000 per annum) is strongly associated with the older age groups (65 years and older). High incomes are predominantly associated with households aged between 25 and 64 years. This pattern suggests that the greatest need for assistance to vulnerable occupiers is at the youngest and oldest ends of the age range. It is usual for very low incomes to be far more common in the 16-24 age band, but this is not the case for Waltham Forest. This is likely to reflect the fact that affordability is such an issue that only wealthier 16-24 year olds can afford to establish a separate household.

3.25 Figure 3.10 compares low and high annual household income figures by household type. Figure 3.10 does show that clear associations exist. One person households were most strongly associated with low incomes, followed by other multi-person households. Couple with dependent child households had greater proportions of higher incomes followed by couples with no dependent child.

Figure 3.10 Low and high household incomes by household type (Source: House Condition Survey 2010)

Household Type	Low income (household income less than £10,000 per annum)	Medium income (household income £10,000 - £30,000 per annum)	High income (household income above £30,000 per annum)
Couple no Dependent Child	3%	34%	63%
Couple with Dependent Child	4%	22%	74%
Lone parent with dependent child	11%	80%	9%
One person household	30%	52%	18%
Other multi-person household	18%	49%	33%

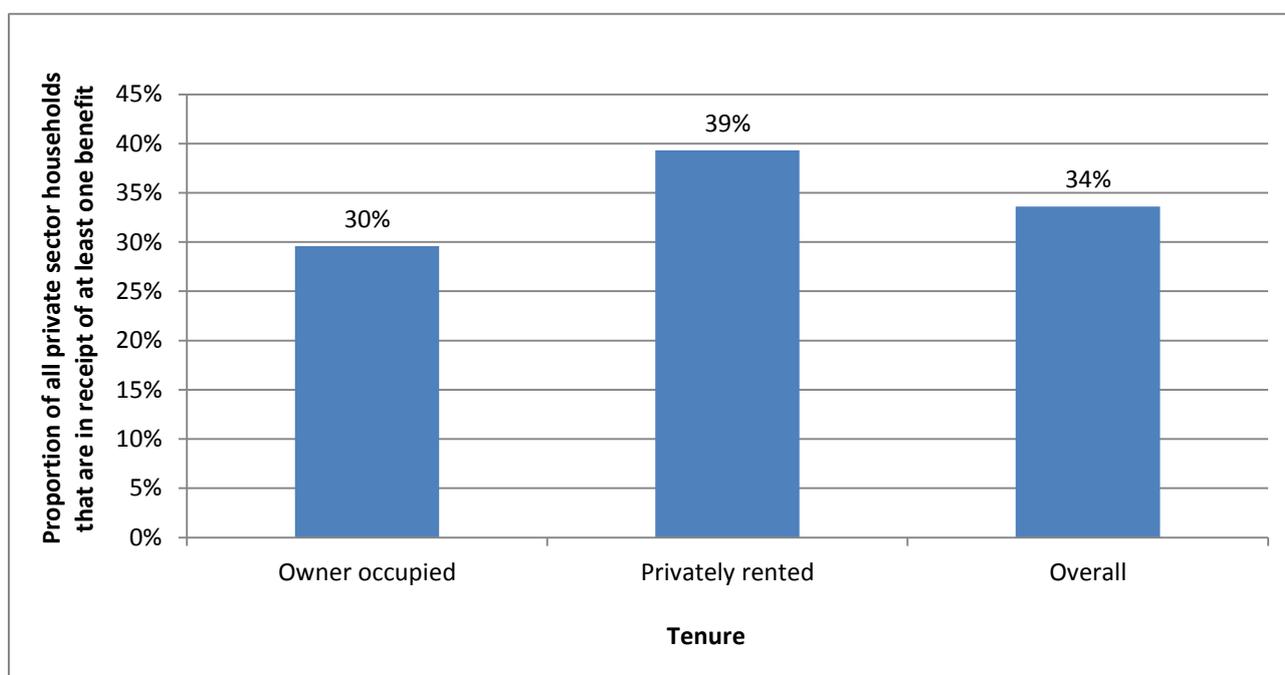
3.26 It is important to note that this survey used a broad definition of disabled person. This included residents that were frail elderly, as well as registered disabled persons and other persons with a disability.

- 3.27 When looking at the association between disability and income, 26% or 2,330 dwellings, of households with a disabled resident had a household income below £10,000 per annum, which was substantially higher than the 14% where there was no person with a disability. The residents of these dwellings may not only have had physical difficulty dealing with repairs, but may not be able to afford alternative, more suitable accommodation provision. This will place an emphasis on the authorities Home Improvement Agency to develop, where there is an assessed need, a package of assistance to meet those needs.

Benefit receipt

- 3.28 In addition to income, householders were asked if anyone within the dwelling was in receipt of one or more of a range of benefits (see 4.38). Overall 25,400 (34%) households are in receipt of one or more benefits. At the national level 17% of private sector households also had at least one resident in receipt of a benefit. The distribution of benefit receipt by tenure shows the highest proportion, for the privately rented sector at 39% compared with 33% in the owner occupied sector.

Figure 3.11 Benefit receipt by tenure (Source: House Condition Survey 2011)



- 3.29 The high rate of benefit receipt in the Borough is largely down to an above average proportion of low income households coupled with a high cost of living. This increases the number of households in receipt of benefits such as Council Tax benefit, Income support and Tax Credits. A substantial proportion of private tenants (just over 10,000) are also receiving Housing Benefit whilst renting privately.

Changes in benefit receipt levels

- 3.30 The level of benefit receipt outline above is based on those benefits that define a household as having a vulnerable occupant, which are a wide-ranging set of benefits. They are, however, the same range of benefits that were collected and measured by the 2004 HCS. The proportion of all households that had one or more residents in receipt of benefit in 2004 was 33.8%, however, RSL dwellings were not separated from this figure and thus it is likely that the level for the private sector would be lower. Based on extrapolating the current level of benefit receipt for RSL tenants it is likely that private sector uptake of benefits would

have been between 29% and 30% of private sector housing in 2004. With the growth of the private rented sector and the economic downturn, an increase to 34% of private sector households being in receipt of benefit does not appear out of line.

Value of dwellings and equity

- 3.31 Owner occupiers were asked about the value of their dwelling, the level of any outstanding mortgage, any other debt and the consequent total equity. This was to allow the relationship between available equity and dwelling condition to be examined. Such relationships are relevant to the Regulatory Reform Order 2002; Government guidance focuses on local authorities moving towards facilitating loans/equity release rather than giving grants when offering financial assistance to householders.
- 3.32 The average value of a dwelling in Waltham Forest is £234,000, as of May 2011. This figure was based on the average sale prices in Waltham Forest compiled by the Land Registry from January to March 2010. The figure is fractionally above the average value across the UK of £232,600, but substantially below the average for Greater London of £408,500.
- 3.33 The average mortgage level for owner-occupied dwellings in Waltham Forest, based upon occupier responses, is £119,500, but including all dwellings that are owner occupied and owned mortgage free reduces this average to £46,500. This results in an average equity of £187,500 per dwelling using the Land Registry average value.

Owner occupiers plans to repair their property

- 3.34 Owner occupiers were asked whether they were aware of any defects requiring remedial work to their property, how much they estimated this work would cost, how they would finance the proposed work and whether or not they would be interested in considering a low interest repayable loan/grant from the Council to undertake the works.
- 3.35 The great majority of owner occupied residents (79.2%) indicated that they were not aware of any defects requiring repair to their property. The remaining 9,380 (20.8%) said that they were aware of works or defects that need doing. Figure 3.12 shows the costs estimated by occupiers for the work put into cost bands:

Figure 3.12 Occupiers estimated cost of improvement works (Source: House Condition Survey 2011)

Improvement Cost Band	Owner occupiers	Per cent
£1 to £2,499	4,910	52%
£2,500 to £4,999	1,970	21%
£5,000 to £9,999	1,000	11%
£10,000 to £14,999	960	10%
£15,000 to £29,999	150	2%
£30,000 +	390	4%
Total	9,380	100%

- 3.36 Just over a half said that the work would cost under £2,500, with the bulk of the remainder, 21%, saying the work would cost between £2,500 and £5,000. Nearly 4% estimated the cost of the work would be £30,000

or more. The average cost of works, based on owner's estimates, is £3,950 per dwelling where work has been identified by the owner.

- 3.37 Owners were asked if they could afford to carry out these works. Those who said they could afford to carry out these works represent 39% of owners, with a further 13% being unsure and the remaining 48% feeling that the works are unaffordable.
- 3.38 Figure 3.13 illustrates the responses by owner occupied residents when asked if they would be interested in a range of funding options from the Council to assist their ability to undertake the remedial/improvements works. The question was asked of all owner occupiers, not just those who had identified a need for works.

Figure 3.13 Owner occupied residents prepared to consider funding from the Council (Source: House Condition Survey 2010)

Option	Interested in loan	Per cent
Flexible loan	1,350	21.6%
Equity share loan	580	9.3%
Neither	4,310	69.1%

- 3.39 The majority of owners that cannot afford to carry out works are not interested in a flexible loan or an equity share loan. The remainder, however, still represent nearly 2,000 owner occupiers that would be interested in assistance, with flexible loans being the more appealing choice.
- 3.40 Residents of 2.8% of owner occupied dwellings indicate that they have received a previous Council loan/grant.

4. The Decent Homes Standard

Measuring housing condition against the standard

What is the Decent Homes Standard?

- 4.1 The Decent Homes Standard was created as a broad measure of housing condition. It was intended to be a minimum standard that all housing should meet and that to do so should be easy and affordable. It was determined that in order to meet the standard a dwelling must achieve all of the following:
- A - be above the legal minimum standard for housing, and
 - B - be in a reasonable state of repair, and
 - C - have reasonably modern facilities (such as kitchens and bathrooms) and services, and
 - D - provide a reasonable degree of thermal comfort (effective insulation and efficient heating).
- 4.2 If a dwelling was to fail any one of these criteria it would be considered “non-decent”. A detailed definition of the criteria and their sub-categories are described in the ODPM guidance: “A Decent Home – The definition and guidance for implementation” June 2006.
- 4.3 Guidance was originally laid out in 2002 and thus the 2006 guidance was an update to this. The revised guidance did not substantially change the criteria for the standard laid out in 2002. What changed was the measurement under two of the criteria, the statutory minimum standard and the thermal comfort criterion. The former changed from the Fitness Standard to the Housing Health and Safety Rating System (HHSRS) and this change is described in more detail in the next chapter. The thermal comfort measure changed from a calculated, energy efficiency based approach to a simpler, but more practical system. This takes into account the heating systems, fuel and insulation in a dwelling to determine if it provides adequate thermal comfort.
- 4.4 Social housing was originally the sole tenure to be covered by the Decent Homes Standard. The private housing sector fell under “The Decent Homes Target Implementation Plan” June 2003 – as modified April 2004. This gave a commitment, under Public Service Agreement (PSA) 7, which stated that PSA 7 will have been met if:
- » There is a year on year increase in the proportion of vulnerable private sector households in decent homes;
 - » If the proportion of vulnerable private sector households in decent homes is above 65% by 2006/07.
 - » If the proportion of vulnerable private sector households in decent homes is above 70% by 2010/11.

- » If the proportion of vulnerable private sector households in decent homes is above 75% by 2020/21.
- 4.5 PSA7 was scrapped (effective from 1 April 2008) following the Comprehensive Spending Review in 2007. The percentage of vulnerable households in decent homes in the private sector has remained part of CLG's own Departmental Strategic Objectives (DSO2, 2.8)
- 4.6 Aside from governmental obligations and measures, the Decent Homes Standard has become the norm for measuring housing conditions and is described at the national level. For this reason the 2010 Waltham Forest private sector HCS collected Decent Homes data, which is herein presented.

Change of emphasis and the Housing Act 2004

- 4.7 Whilst the changes under the revised definition and guidance for the decent homes standard apply, there was a change in Criterion A of the standard from April 2006. Prior to this change, Criterion A used the Housing Fitness Standard as the measure of whether a dwelling meets the minimum legal standard. From April 2006 the Housing Health and Safety Rating System (HHSRS) under Part 1 of the Housing Act 2004 replaced the former statutory fitness standard.
- 4.8 The HHSRS system assesses "hazards" within dwellings and categorises them into Category 1 and Category 2 Hazards. Local housing authorities have a duty to take action to deal with Category 1 Hazards. The Housing Health and Safety Rating System also applies to the Decent Homes Standard – if there is a Category 1 Hazard at the property it will fail Criterion A of the standard.

'Non-decent' terminology

- 4.9 The term non-decent has, on occasion, proven to be a contentious one. The word decent itself tends to have implications of goodness, honour and virtue. As a consequence, the opposite state, non-decent, can be seen as unduly negative and evocative. In reality, a non-decent dwelling need not be in a terrible state of repair or in appalling condition. Something as simple as inefficient heating and a lack of insulation can cause a dwelling in otherwise pristine condition to be classified as non-decent. The owner of such a property may well not think that there is anything wrong with their home.
- 4.10 It is; perhaps, better to consider the Decent Homes Standard as a 'comfort' standard. A standard, which is achieved, would allow any resident to live comfortably and affordably. In practice, the standard is a relatively low one and failure to meet it should be regarded as a trigger for action. In some cases, however, it may not be practical to make a dwelling decent and it may also not be in the best interests of the occupiers to do so. The guidance on recording outcomes recognises that there may be instances where it is appropriate to record cases. For example, where work to achieve only partial compliance with the standard has been achieved, or where non-compliance results from the occupier refusing to have work carried out.

Prevalence of non-decency amongst private sector dwellings

- 4.11 It is estimated that there are 25,800 private sector dwellings (33.5%) that are non-decent in Waltham Forest. The figure for England as a whole is 31.5% (owner occupied and privately rented stock). The all England figure was taken as the proportion of non-decent private sector dwellings from the EHS 2009.

When the HHSRS for Criterion A was used for the first time in the EHCS 2006, a significant increase in Criterion A failure (homes not meeting the statutory component of the Decent Homes standard) was recorded. This rose from just over 4% under the former fitness standard to 22.4% under the HHSRS Category 1 Hazard rate, increasing the overall non-decency rate from 26.8% for privately occupied dwellings in 2005 to 35.3% in 2006.

- 4.12 The Decent Homes Standard contains 4 criteria. Figure 4.1 gives a breakdown of the reasons for failure:

Figure 4.1 Reasons for failure of dwellings as a decent home (Source: House Condition Survey 2011 and EHS 2009)

Reason	Dwellings	Per cent (of non-decent)	Per cent (of stock)	Per cent (EHCS 2009)
Category 1 hazard dwellings	13,670	53.0%	17.8%	22.0%
In need of repair	5,650	21.9%	7.3%	6.3%
Lacking modern facilities	990	3.8%	1.3%	2.8%
Poor degree of thermal comfort	12,060	46.8%	15.7%	10.9%
Non decent*	25,800	100.0%	33.5%	31.5%

**Note: failure reasons total more than the figure for non-decent dwellings as some will fail on more than one criteria*

- 4.13 It is possible for a dwelling to fail the Decent Homes Standard for more than one reason. As a consequence, the number of dwellings failing in Figure 4.1 totals more than the number of non-decent dwellings overall. As an example, there is often a strong overlap between category 1 hazards and thermal comfort failures.
- 4.14 The order of reasons for failure of the Decent Homes Standard in Waltham Forest follows the national profile. The most common failure type is for category 1 hazards, followed by thermal comfort failures. Disrepair and Thermal Comfort failures are above the national average, which is to be expected given the much older age profile of the stock. The lower levels of category one hazards and modern facilities failures reflect the urban nature of the Borough.
- 4.15 Prior to the reported data from the EHCS 2006 being published, which used the HHSRS for the first time, poor degree of thermal comfort was the primary reason for failure of the Decent Homes Standard. It should however, be borne in mind that excess cold was the main Category 1 Hazard reason for failure (see chapter 5) and this overlaps heavily with poor thermal comfort.

Changes in non-decent homes

- 4.16 Repairs and improvements by owners and occupiers, as well as interventions by the Council can have a positive impact in reducing non-decent and thus increasing the number of Decent Homes in the Borough. Figure 4.2 gives a comparison between the reasons for non-decency and failure rates from 2004, 2006 and 2011.
- 4.17 It is important to note that the 2004 figures differ from those in the 2004 HCS report as in 2004 the Housing Fitness Standard was still being used as criterion A of the Decent Homes Standard. In order to make the figures comparable this has been changed to category one hazards to bring it in to line with the later reports. In addition, the level of category one hazards has been recalculated to take account in changes in the HHSRS that are described in more detail in chapter five of this report.

Figure 4.2 Reasons for non-decency trends over time (Source: HCS 2004, BRE Models 2006 and HCS2011)

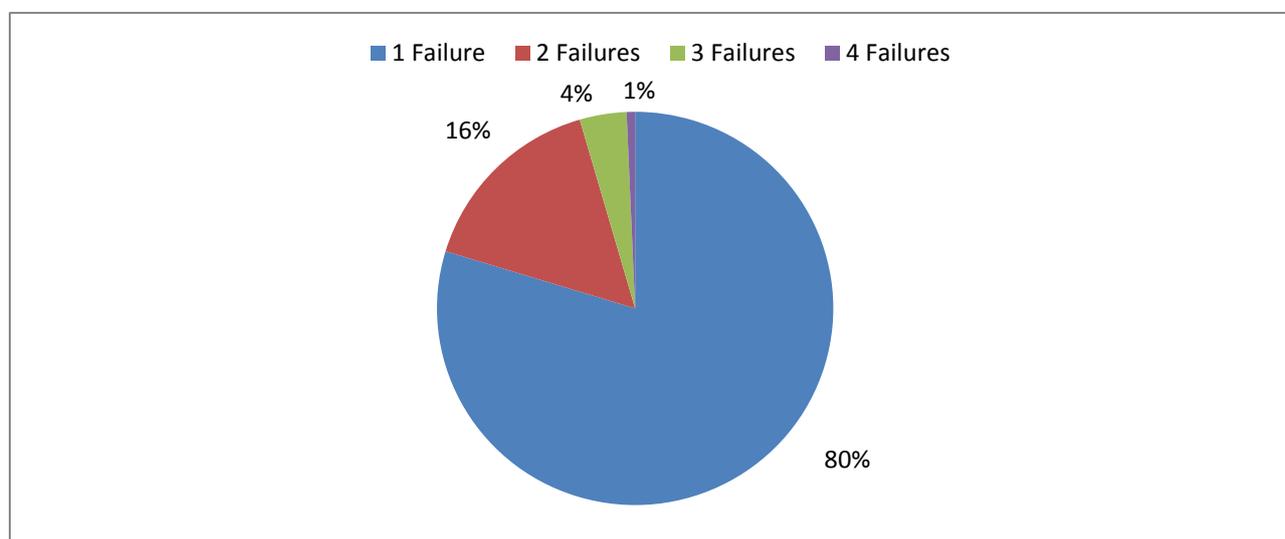
Reason	HCS 2004 Per cent (of stock)	BRE 2006 Per cent (of stock)	HCS 2011 Per cent (of stock)
Category 1 hazard dwellings	21.3%	20.3%	17.8%
In need of repair	9.2%	10.6%	7.3%
Lacking modern facilities	1.8%	3.1%	1.3%
Poor degree of thermal comfort	25.4%	19.7%	15.7%
Non decent*	40.8%	38.0%	33.5%

4.18 Figure 4.2 illustrates that there has been a significant improvement in housing stock conditions over the past seven years. There are some fluctuations in the results, particularly with the BRE models, however, the BRE figures are modelled and will therefore be subject to some variance. Key areas such as Thermal Comfort and Category One Hazards show a clear downward trend. It is unlikely that this trend will be able to continue indefinitely as there is a law of diminishing returns in dwelling improvement as non-decent dwellings become harder to find. In addition, the remaining owners are likely to be those least able to help themselves or least willing to make changes.

Extent of non-decency

As mentioned above, dwellings can fail to be decent for more than one reason. The total number of failures per dwelling can give an indication of the severity of problems in particular dwellings. Figure 4.3 looks at the number of failures per dwelling in non-decent dwellings.

Figure 4.3 Degree of failure of the Decent Homes Standard (Source: House Condition Survey 2011)

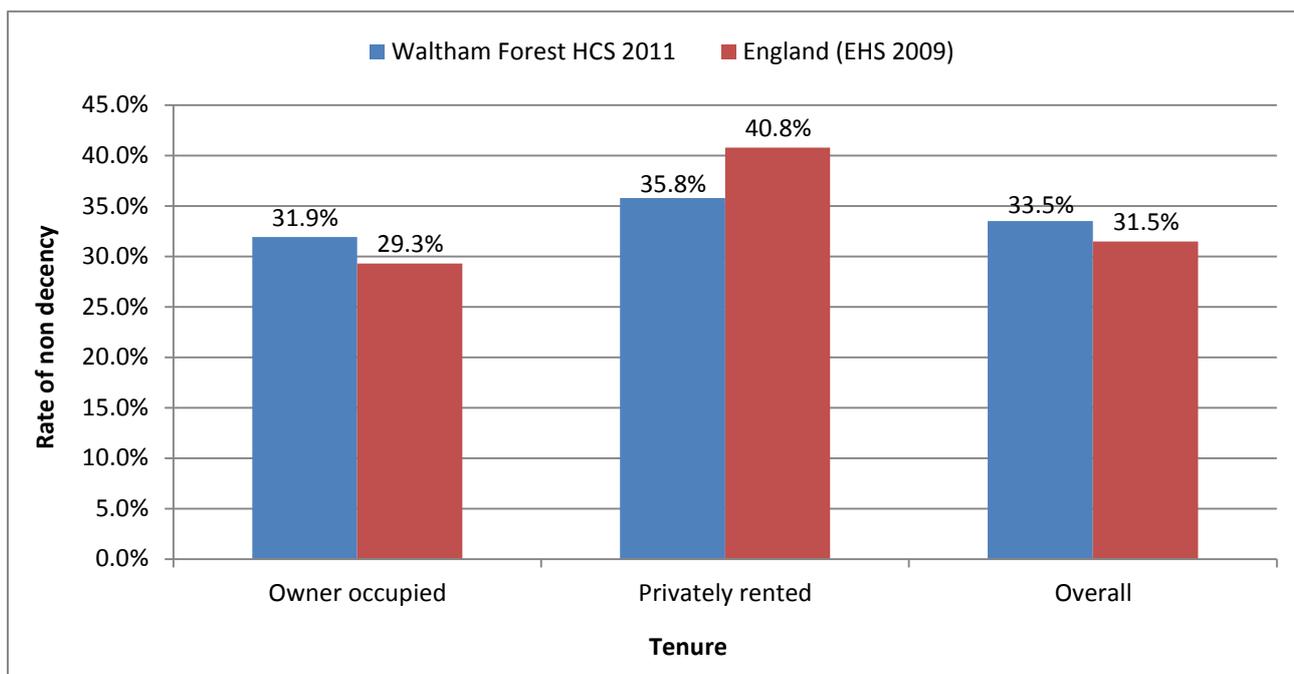


4.19 The majority of failures were in respect of one criterion only, with the number of dwellings with two or more failures being 20%. Realistically in the majority of cases this will have been related to heating/insulation issues as the excess cold hazard and thermal comfort criterion are interlinked.

Non-decency and dwelling stock characteristics

4.20 Figure 4.4 shows the proportions of non-decent private sector dwellings by tenure, which follows that found nationally; the rate in the private rented sector (35.8%) being higher than that found in the owner occupied sector (31.9%). Waltham Forest differs from the national position in that the relative levels for the two tenures are much closer than for England. This also results in non-decency being above average for owner occupied dwellings and below average for privately rented ones.

Figure 4.4 Tenure distribution of non-decent dwellings (Source: House Condition Survey 2011 and EHS 2009)



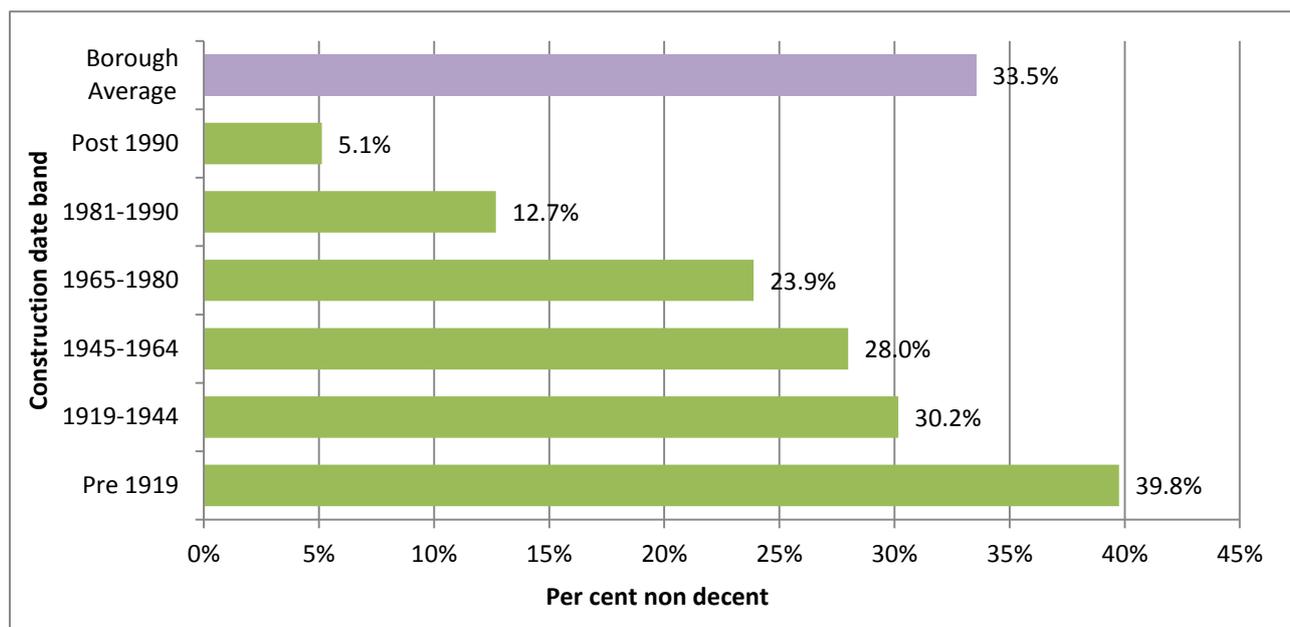
4.21 Whilst privately rented dwellings have a lower incidence of non-decency than is the case for owner occupied dwelling, they also have a lower incidence of non-decency than their national counterpart. In Waltham Forest there has been a substantial increase in the level of private renting in a relatively short space of time (doubling in ten years). Much of this has been through flat conversion and such conversions have had to comply with the relevant building regulations at the time. The levels of insulation and energy efficiency requirements outlined in building regulations since 1991 mean that any dwelling converted to these standards should automatically comply with the thermal comfort element of the Decent Homes Standard. In addition, they are extremely unlikely to have an Excess Cold hazard and will also have modern kitchens and bathrooms.

4.22 With a substantial reduction in mortgage lending nationally many new build properties have not been sold to owner occupiers but have instead been bought by private landlords. Any new build property will meet the Decent Homes Standard in all respects.

4.23 The private rented sector has lower levels of non-decent dwellings when compared to the national average for the two reasons outlined above.

4.24 Figure 4.5 examines decent homes failures by dwelling type.

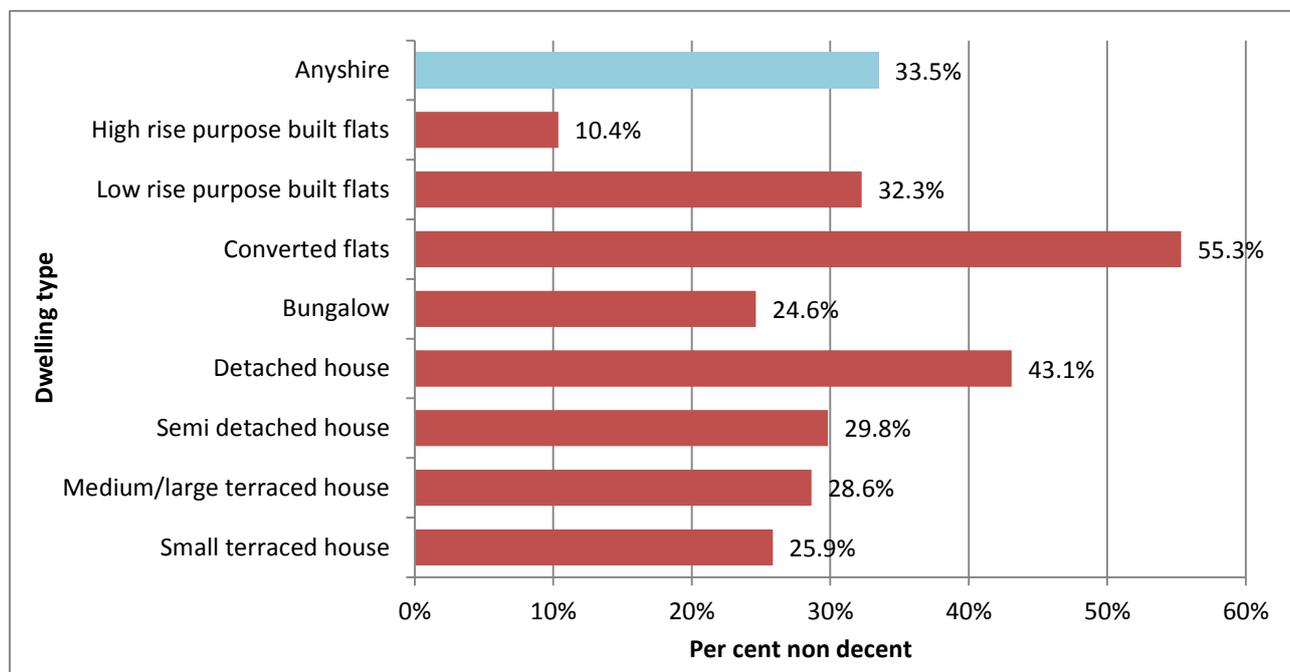
Figure 4.5 Non-decent dwellings by date of construction (Source: House Condition Survey 2011)



4.25 Waltham Forest follows the trend typical found with the highest rates of non-decency for the oldest dwelling stock and the lowest rate in the most modern, post 1990 dwellings. Only dwellings built before are above the Waltham Forest average with those built after 1945 below the borough average.

4.26 Figure 4.6 examines decent homes failures by dwelling type.

Figure 4.6 Non-decent dwellings by dwelling type (Source: House Condition Survey 2011)



4.27 The highest rates of non-decency were found in converted flats and detached houses. All these dwelling types are associated with the oldest age of dwelling stock and for converted flats, also with the privately rented sector. Low rise flats tend to be amongst the most modern stock and have the lowest rate of non-decency. Bungalows and semi-detached houses also have non-decency rates below the Borough average.

Cost to Remedy

- 4.28 Having determined the reasons for dwellings being classified as non-decent, it is possible to indicate what level of repairs / improvements would be needed to make all dwellings decent.
- 4.29 The cost to remedy non-decency was determined by examining the specific failures of each non-decent dwelling and determining the work necessary to make the dwelling decent. This was done for each criterion of the standard and Figure 4.7 shows the cost distribution for all non-decent dwellings in the stock, with the costs being based on the assumption that only those items that cause dwellings to be non-decent are dealt with.

Figure 4.7 Repair cost by non-decency reason (Source: House Condition Survey 2011)

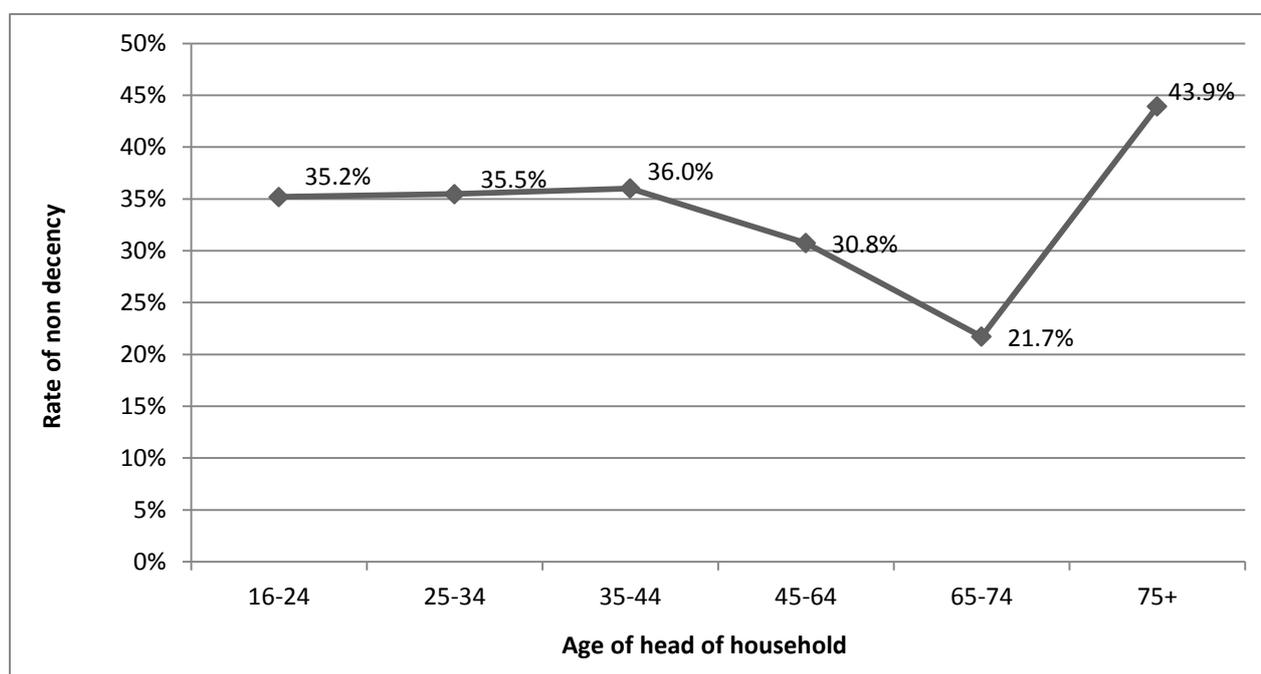
Reason	Total Cost (£ million)	*Cost per dwelling (£)
Category 1 hazard dwellings	£42.0	£3,070
In need of repair	£24.5	£2,030
Lacking modern facilities	£21.0	£21,330
Poor degree of thermal comfort	£27.4	£4,520
Total	£114.8	£4,450

* Rounded to nearest £10

Non decent dwellings and their residents

- 4.30 Chapter three examined the results of the interview survey with residents carried out at the same time as the physical inspection. By combining interview responses with survey data it is possible to see what, if any, relationships exist between a dwelling's condition and the characteristics of its residents.
- 4.31 It was established in chapter three that age of head of household is a good indicator of the overall age profile of people living in a dwelling. It also tends to be a key differentiating factor between households. Figure 4.8 gives a breakdown of dwelling condition by age of head of household.

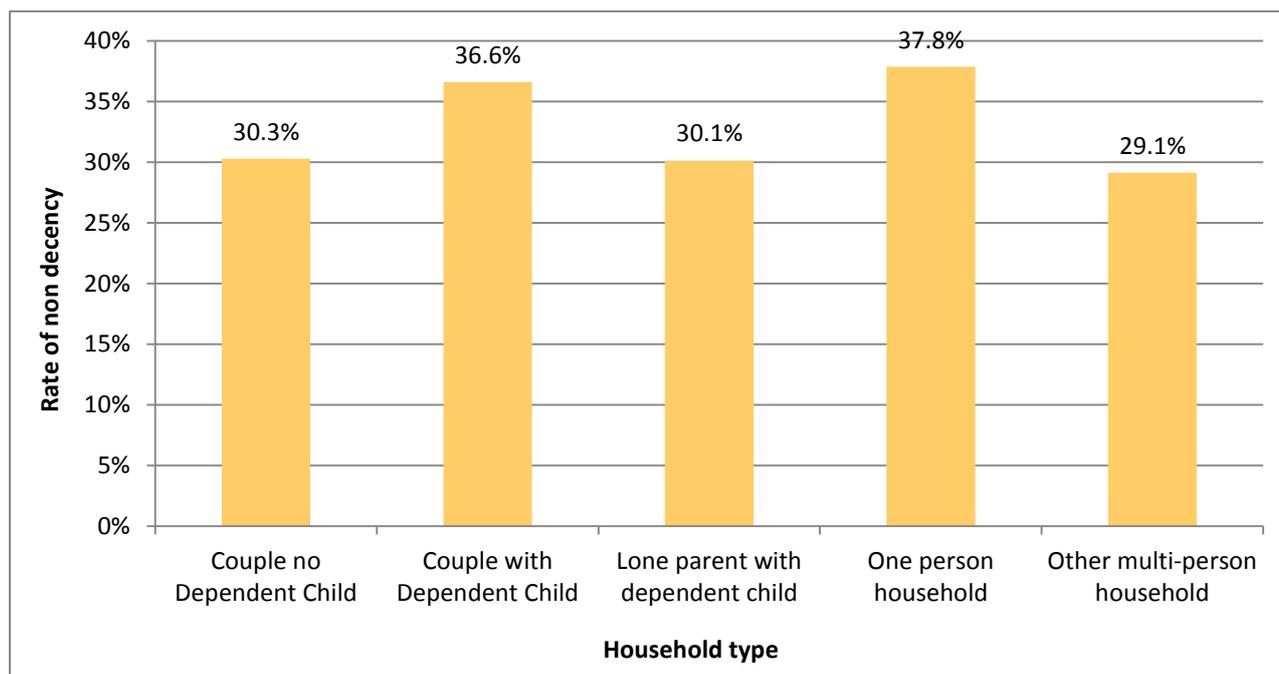
Figure 4.8 Non-decency by age of head of household (Source: House Condition Survey 2010)



4.32 The rate of non-decency starts around average in the youngest age whereas non-decency is usually above average for this age group. This reflects the earlier finding that only the most affluent 16-24 year olds are able to be heads of household. As age increases, generally, so does income, which leads to higher rates of owner occupation and better housing choice. Beyond retirement age however, housing conditions worsen as income to afford repairs and improvements diminishes along with the ability of home-owners to physically carry out the work themselves.

4.33 The next chart, Figure 4.9, looks at the relationship between dwelling decency and household type.

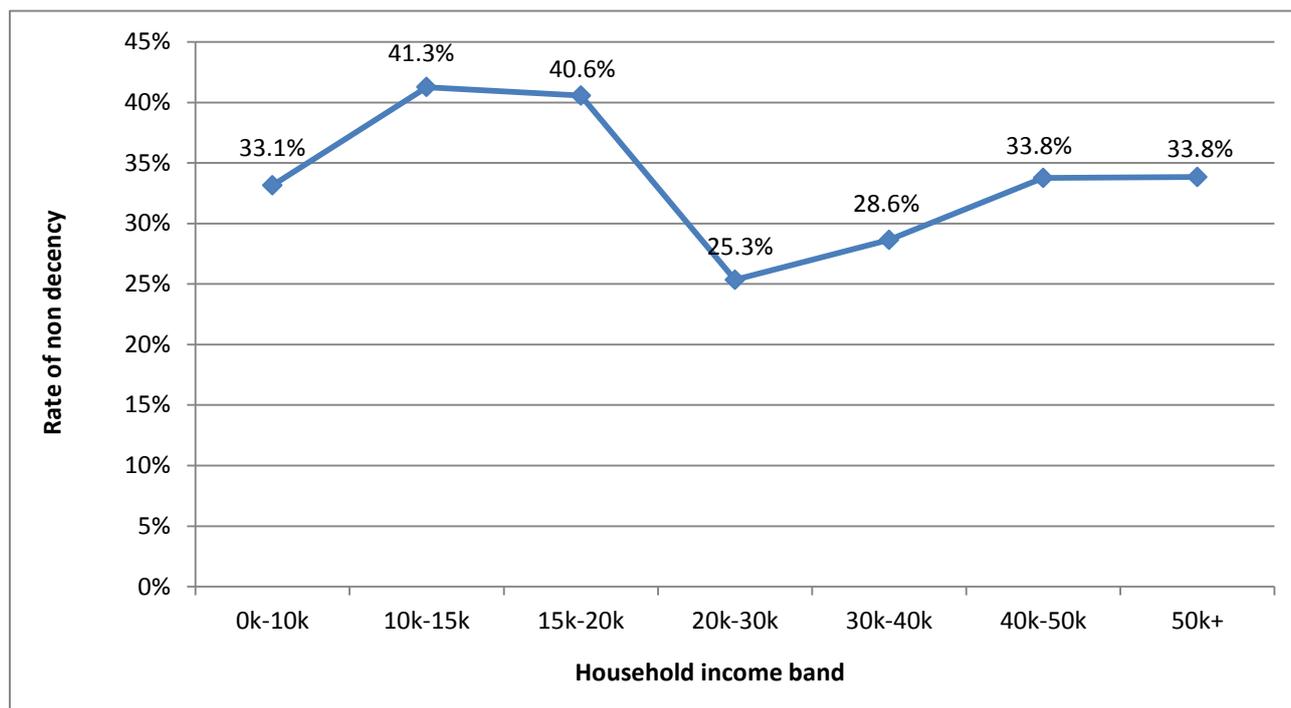
Figure 4.9 Non-decency by household type (Source: House Condition Survey 2011)



4.34 One person households include many older residents (65+ years of age) and are most likely to live in non-decent homes. Multi-person households are usually associated with non-decent dwellings at an above average rate, but this is not the case in Waltham Forest.

4.35 The relationship between income and non-decency can be analysed by combining household income figures with failures under the Decent Homes Standard.

4.36 The usual pattern of the highest rate of non-decency associated with the lowest household incomes is not as prevalent in Waltham Forest. The highest rates of non-decency are found where household income is between £10,000 per annum and £20,000 per annum. Non decency is approximately average for the two highest income groups; however, it should be considered that non-decency can relate to items not linked directly to the physical condition of the fabric of a dwelling.

Figure 4.10 Non-decency by annual household income band (Source: House Condition Survey 2011)

Decent homes for vulnerable people in the private sector

4.37 Currently the condition of private sector dwellings is measured under CLG Departmental Strategic Objective DSO2, 2.8. This objective is an adoption of the targets under the former PSA7, which set a target of 65% of all dwellings occupied by vulnerable residents being made decent by 2006/07, with the baseline figure being measured against the results of the EHCS 2006-07. In practice, the most challenging target was the 70% to be met by 2010/11.

4.38 Vulnerable households are defined as those in receipt of the benefits listed below, certain of which are means tested:

- » Income support
- » Housing benefit
- » Council tax benefit
- » Income based job seekers allowance
- » Attendance allowance
- » Disabled living allowance
- » Industrial injuries disablement benefit
- » War disablement pension
- » Pension credit
- » Working tax credit (with a disability element) [total income < £16,190]
- » Child tax credit [total income < £16,190]

- 4.39 Vulnerable residents make up 22% of private sector households in Waltham Forest, equating to 16,930 households, which is lower than total benefit recipient households as vulnerability is a more restricted definition. Of these households 7,100 are living in non-decent homes, which is 41.9% of all vulnerable households. The remaining 9,830 (approximately 58.1%) households with vulnerable residents are therefore living in decent homes. This represents a shortfall against both the 2006/07 target and the higher 2010/11 target. The EHCS 2007 found that 61.0% of vulnerable households were living in decent homes and thus Waltham Forest performs slightly worse than the national average.
- 4.40 Figure 4.11 gives the proportion of dwellings occupied by vulnerable people that are decent, by tenure, and also lists the level of shortfall in terms of meeting the 65%, 70% and 75% targets for vulnerable occupiers in the private sector.

Figure 4.11 Non-decent dwellings with vulnerable households (Source: House Condition Survey 2011 and EHS 2009)

Tenure	Per cent vulnerable households in decent dwellings	Shortfall against 65% target*	Shortfall against 70% target	Shortfall against 75% target
Owner occupied	67.0%	-135	210	555
Privately rented	51.9%	1,310	1,811	2,310

*Negative value indicates a surplus. Note: shortfall figures are not cumulative for increasing targets

- 4.41 There were never any specific requirements to meet PSA7 targets for each tenure, however, Figure 4.11 does help to illustrate that there is variability between tenures with regard to vulnerable occupiers and decent homes.

5. Statutory minimum standard

The Housing Health and Safety Rating System (HHSRS)

Obligation to tackle housing health and safety hazards

- 5.1 Formerly, under Part XI of the Housing Act 1985, local authorities had a statutory duty to take: 'The most satisfactory course of action', with regard to unfit dwellings and the Act was supported by relevant statutory guidance. A range of enforcement measures were available including service of statutory notices to make dwellings fit. Closure or demolition was only appropriate in the most extreme cases.
- 5.2 With owner occupied dwellings in particular, many local authorities looked to offer financial assistance, especially where owners were on low incomes. In the private rented sector enforcement action was much more likely in respect of unfit homes.
- 5.3 From April 2006 Part XI of the Housing Act 1985 was replaced by Part 1 of the Housing Act 2004, which repealed the former housing fitness standard and through statutory instruments and statutory guidance replaced it with the Housing Health and Safety Rating System.
- 5.4 As described in Appendix D, the Act differentiates between Category 1 and Category 2 Hazards. Local authorities have a duty to take 'the most appropriate course of action' in respect of any hazard scored under the HHSRS as Category 1. Authorities have discretionary power to take action with Category 2 Hazards (which do not score past the threshold for Category 1). Further information on the HHSRS is given in Appendix D and below.

Definition of Hazards under the HHSRS and Category level

- 5.5 The Housing Health and Safety Rating System (HHSRS) replaced the former fitness standard and is a prescribed method of assessing individual hazards, rather than a conventional standard to give a judgment of fit or unfit. The HHSRS is evidence based – national statistics on the health impacts of hazards encountered in the home are used as a basis for assessing individual hazards.
- 5.6 The HHSRS system deals with a much broader range of issues than the previous fitness standard. It covers a total of 29 hazards in four main groups:
 - » *Physiological Requirements* (e.g. damp & mould growth, excess cold, asbestos, carbon monoxide, radon, etc.)
 - » *Psychological Requirements* (crowding and space, entry by intruders, lighting, noise)
 - » *Protection Against Infection* (domestic hygiene, food safety, personal hygiene, water supply)
 - » *Protection Against Accidents* (e.g. falls on the level, on stairs & steps & between levels, electrics, fire, collision...).

- 5.7 The HHSRS scoring system combines two elements: firstly, the probability that deficiency (i.e. a fault in a dwelling whether due to disrepair or a design fault) will lead to a harmful occurrence (e.g. an accident or illness) and the spread of likely outcomes (i.e. the nature of the injury or illness). If an accident is very likely to occur and the outcome is likely to be extreme or severe (e.g. death or a major or fatal injury) then the score will be very high.
- 5.8 All dwellings contain certain aspects that can be perceived as potentially hazardous, such as staircases and steps, heating appliances, electrical installation, glass, combustible materials, etc. It is when disrepair or inherent defective design makes an element of a dwelling significantly more likely to cause a harmful occurrence that it is scored under the HHSRS.
- 5.9 Surveyors were required to score all hazards under the HHSRS and the survey form allowed for this. Excess Cold was modelled from survey data, at the individual dwelling level, in order to provide a more accurate picture for this hazard type. The modelling of excess cold hazards by use of SAP (energy efficiency) information was outlined in CLG guidance in June 2006 and has been used by the BRE as part of the housing stock projections for excess cold hazards. It is also the methodology adopted by the English Housing Survey.
- 5.10 The modelling of excess cold hazards is based on the use of the individual SAP rating for each dwelling, which is scaled to give a hazard score. Where a dwelling has a SAP rating of less than 35, this produces a Category 1 Hazard score.
- 5.11 The exact scores generated under the HHSRS can be banded into one of ten bands from A to J, with bands A to C being further defined as Category 1 Hazards and those in bands D to J as Category 2. The threshold score for a Category 1 Hazard is 1,000. As stated earlier, a Local Authority has a duty to deal with any Category 1 Hazards found and a discretionary power to deal with Category 2 Hazards. This survey focuses particularly on Category 1 Hazards, but describes all hazards, including Category 2, for comparative purposes.

Presence of category one hazards in private sector housing

- 5.12 The overall proportion of dwellings with a Category 1 Hazard was 17.8% compared with 22.0% (owner occupied and privately rented dwellings) found in the EHS 2009. This represented 13,670 private sector dwellings across Waltham Forest having a category 1 hazard.

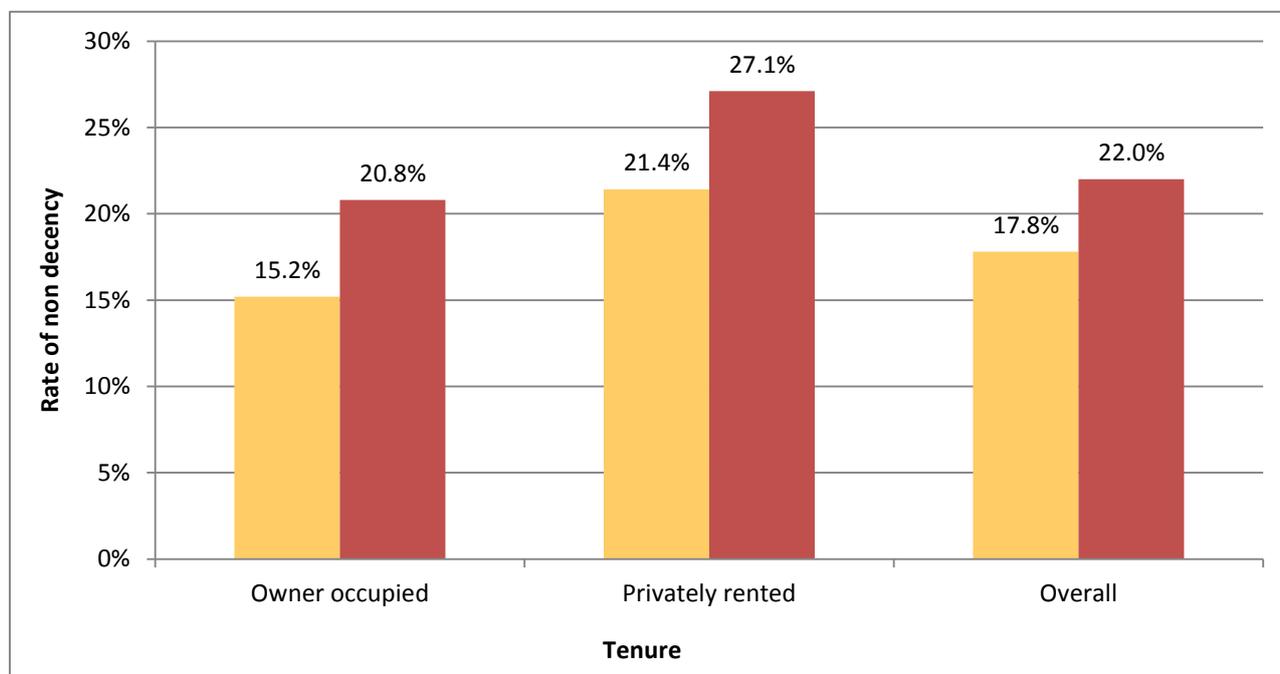
Changes in the level of category one hazards

- 5.13 As outlined in chapter four, there has been a reduction in the proportion of private sector dwellings that have a category one hazard over the past seven years. It is not possible, however, to use the base figure from the 2004 HCS, or the breakdown of reasons for failure of the standard. In 2004 the HHSRS system was still in its infancy and still on version one of the calculation system (the current version is version two). As a consequence, many hazards were under-scored by current standards. In addition, the system was relatively new to surveyors and many of them were not used to identifying and scoring hazards.
- 5.14 For the past three to four years results from house condition surveys have been far more consistent and far more in line with expectations given the results from the EHS and the BRE's housing stock models. As a consequence, it is possible to be far more comfortable about the level of category one hazards present and that this is a genuine reduction in hazards when compared to previous years.

Category one hazards and dwelling stock characteristics

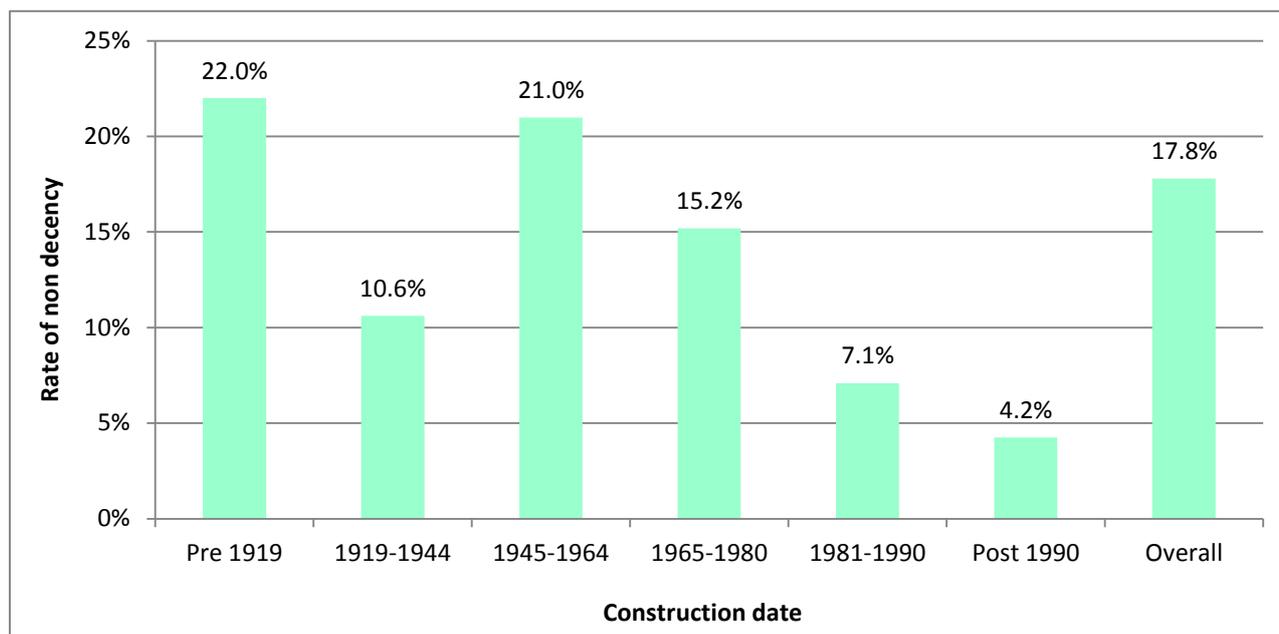
- 5.15 This section examines the relationship between those general stock characteristics set out in chapter two, with the level of Category 1 Hazards. The following charts and commentary examine the rates of Category 1 Hazards by tenure, dwelling type and construction date.
- 5.16 Private rented dwellings, as is the case nationally, have the highest proportion of category one hazards. To some extent this reflects the fact that more private rented dwellings are older and are converted flats. Both these factors tend to make a dwelling more like to have a category 1 hazard. Unlike non-decency, category one hazards more closely follow the national trend with category 1 hazards lower than the national average by a similar amount for both privately rented and owner occupied dwellings, approximately 6% lower in each case.

Figure 5.1 Rates of Category 1 Hazards by tenure (Source: House Condition Survey 2011 and EHS 2009)



- 5.17 Category 1 Hazards are generally much less closely linked with the deterioration of building elements than the former fitness standard, as the HHSRS system is concerned primarily with the effect of deficiencies, which may be due to design faults, as well as disrepair. Despite this fact, HHSRS hazards are often associated with other factors relating to older properties (e.g. no built in insulation provision, solid walls, narrower and steeper staircases etc.). The profile of category one hazards by age of dwelling reflects this.

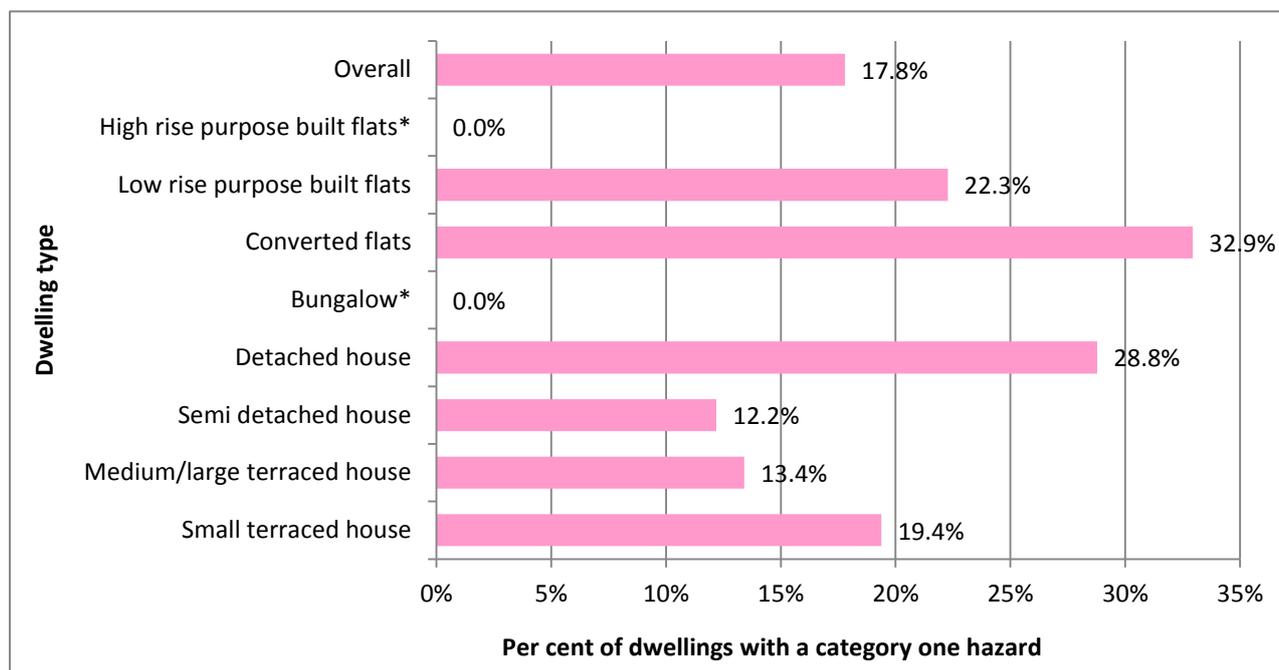
Figure 5.2 Rates of Category 1 Hazards by construction date (Source: House Condition Survey 2011)



5.18 Overall there is a downward trend with the highest proportion of category one hazards in the oldest (pre 1919) stock and the lowest proportion in the most modern (post 1990) stock. The interwar stock (1919 – 1944) is unusual in having a significantly below average proportion of category one hazards. This is largely due to a strong association with owner occupation and houses rather than converted flats.

5.19 Figure 5.3 gives the rate of category one hazards by dwelling type for the private sector housing stock of Waltham Forest. The highest rate of category one hazards was found in converted flats, the same type as for non-decent dwellings. Whilst the rate of category one hazards for converted flats is high, at 40%, it should be remembered that converted flats make up only 2% of the stock. Terraced houses, of all sizes, have above average rates of category one hazards and represent a much large proportion of the stock, making them a significant source of the overall level of category one hazards.

Figure 5.3 Rates of Category 1 Hazards by building type (Source: House Condition Survey 2010 and EHS 2008)



**It is important to note that it is unlikely these dwelling types have no examples with a category one hazard, but rather, the very small number in the sample and the stock mean that no category one hazards were identified in these dwellings during the survey. Whilst the true figures for these will be above 0%, they are still likely to be well below average.*

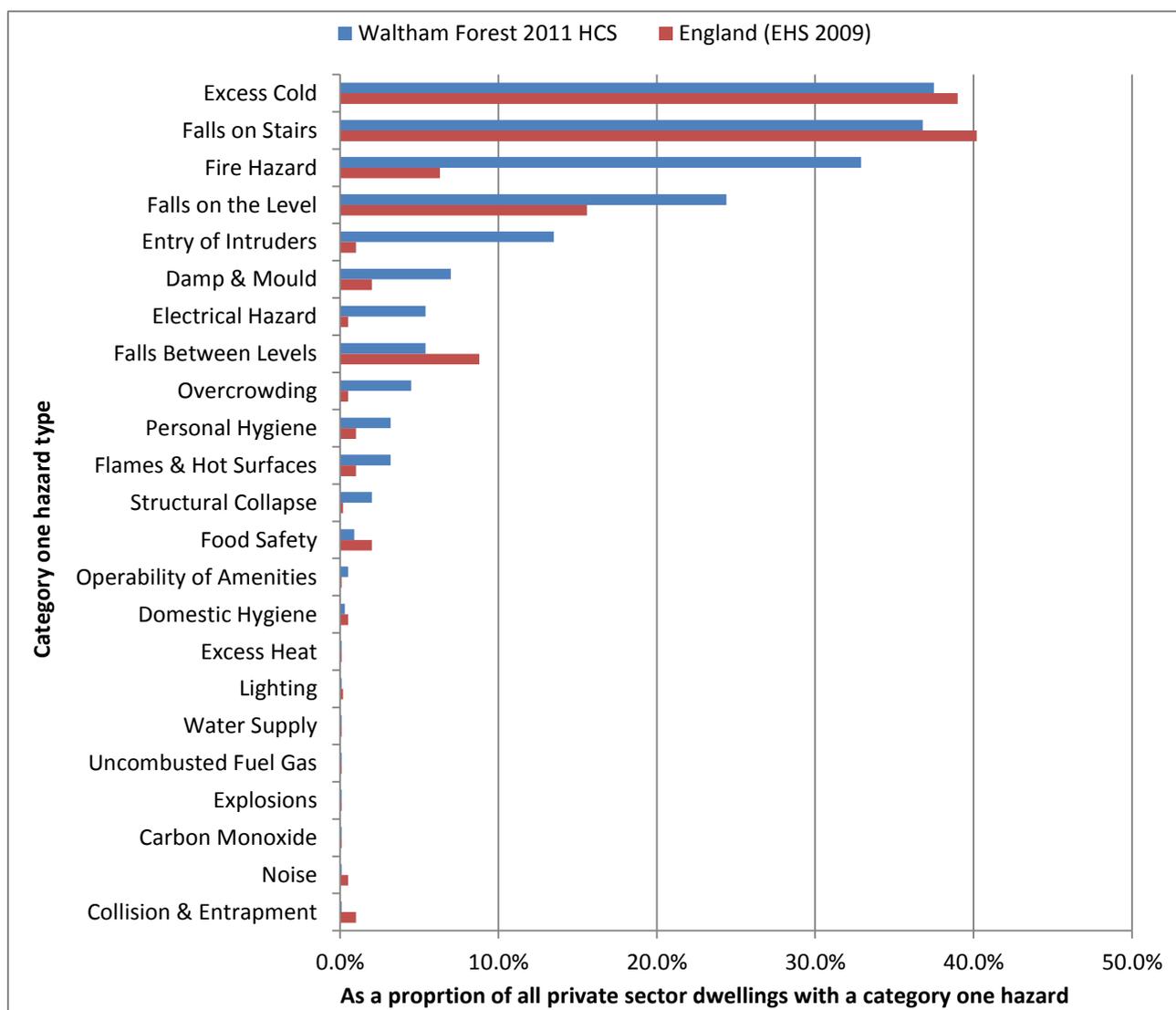
Severity of Category 1 Hazards

- 5.20 A dwelling may contain more than one category one hazard, for example, a falls on stairs hazard and an excess cold hazard. One measure of how severe the risk to health is in a given dwelling is the proportion of dwellings with multiple category one hazards. Of the 13,670 private sector dwellings in Waltham Forest with a category one hazard, 10,920 have only one category one hazard, representing 80% of all dwellings with a category one hazard. This leaves 2,750 (20%) dwellings with a category one hazard actually having multiple category one hazards.

Types of Category 1 Hazard present

- 5.21 Figure 5.4 provides a breakdown of category one hazards by hazard type. The figures are as a percentage of all category one hazards, not all dwellings. Note: the chart excludes those hazards where there was a nil return.

Figure 5.4 Category one hazards by reason, as % of Category 1 Hazards (Source: House Condition Survey 2011 and EHS 2009)



- 5.22 The occurrence of category one hazards generally follows the national trends, with some explicable variations. Excess cold represents a higher proportion of category one hazards in Waltham Forest due to the age of stock and its rural nature. Falls on the stairs are slightly less common due to a much lower proportion of flats, and hence staircases, and the very flat terrain of Waltham Forest. Fire hazards also occur at a lower rate due to the small proportion of HMOs and private rented dwellings as well as a high proportion of owner occupied dwellings with good fire safety measures. Damp and mould growth hazards are more common in Waltham Forest, again due to the rural nature of much of the stock, leading to exposure and problems with older building types.

Remedying category one hazards

- 5.23 As part of the survey process surveyors were required to record remedial action wherever a hazard was identified under the HHSRS. During the analysis it is possible to collate these remedial works specifically for dwellings where the hazard score indicated a category one hazard. For each remedial action a cost can be assigned and these costs can be cumulated to determine the cost to remedy each category one hazard and then further to give the overall cost of remedying category one hazards. Figure 5.5 gives a breakdown of category one hazard remedial costs by tenure.

Figure 5.5 Category one hazard remedial costs by tenure (Source: House Condition Survey 2011)

Tenure	Total Cost (£ million)	*Cost per dwelling (£)
Owner Occupied	19.3	2,160
Privately Rented	22.7	2,910
Overall	42.0	2,510

* Rounded to nearest £10

- 5.24 Whilst it is useful to understand the overall cost for remedial works, the average cost per dwelling can mask wide variations in the cost of works required. For this reason Figure 5.6 gives a breakdown of category one hazard remedial costs by hazard type.
- 5.25 Figure 5.6 it is immediately clear that the majority of remedial costs for category one hazards are as a result of excess cold failures. This is due to a combination of the average remedial cost for excess cold being only a little below the average for all remedial costs, couple with the fact that Excess Cold is the most common category one hazard. This pattern also follows for fire hazards and falls on the stairs category one hazards. For damp and mould growth the average cost is substantially higher, putting it close behind falls on stairs, despite having fewer than one fifth as many category one hazards. Structural collapse and electrical hazards show similar issues due to high average costs.
- 5.26 Even within each hazard there will be large variations in remedial costs and thus the figures here are only indicative of the overall scale of remedial works that are possible.

Figure 5.6 Category one hazard remedial costs by hazard (Source: House Condition Survey 2011)

Tenure	Total Cost (£000s)	*Cost per dwelling (£)
Excess Cold	9,063	1,770
Fire Hazard	7,130	1,590
Falls on Stairs	6,063	1,200
Damp & Mould	4,577	4,810
Entry of Intruders	3,817	2,080
Structural Collapse	3,278	12,000
Electrical Hazard	2,584	3,500
Overcrowding	1,850	3,030
Falls on the Level	1,759	530
Personal Hygiene	711	1,600
Flames & Hot Surfaces	368	850
Food Safety	218	1,800
Falls Between Levels	186	250
Domestic Hygiene	84	2,200
Operability of Amenities	63	900
Explosions	57	3,000
Water Supply	53	2,800
Collision & Entrapment	29	1,500
Noise	25	1,300
Excess Heat	23	1,200
Uncombusted Fuel Gas	12	650
Lighting	8	400
Carbon Monoxide	7	350
Overall	£42,000	£2,510

* Rounded to nearest £10

People living in dwellings with category one hazards

- 5.27 The socio-economic circumstances of home owners and private tenants will often show a relationship with dwelling conditions. This was observed to be the case in the previous chapter on non-decent dwellings. This section will look at a similar analysis but focussing on dwellings with a category one hazard.
- 5.28 Figure 5.7 gives a breakdown of the number of dwellings with a category one hazard for certain socio-economic groups and also provides the rate at which category one hazards occur for that group.

Figure 5.7 Category one hazard by socio-economic factors (Source: House Condition Survey 2011)

Group	Dwellings	Dwellings with a category one hazard	Per cent of dwellings with a category one hazard
Household income under £10k	12,460	1,320	15.7%
Household income £10k - £50k	47,000	8,920	19.0%
Household income over £50k	16,470	1,990	17.8%
In receipt of benefit	25,400	4,800	18.2%
Not in receipt of benefit	50,140	8,680	17.7%
Age under 25	2,730	710	25.9%
Aged 25-74	68,050	11,370	17.4%
Age 75 or over	7,880	1,450	18.4%
Resident with disability	12,080	2,200	18.2%
No residents with a disability	63,850	11,330	17.7%
Overall	75,930	*13,540	17.8%

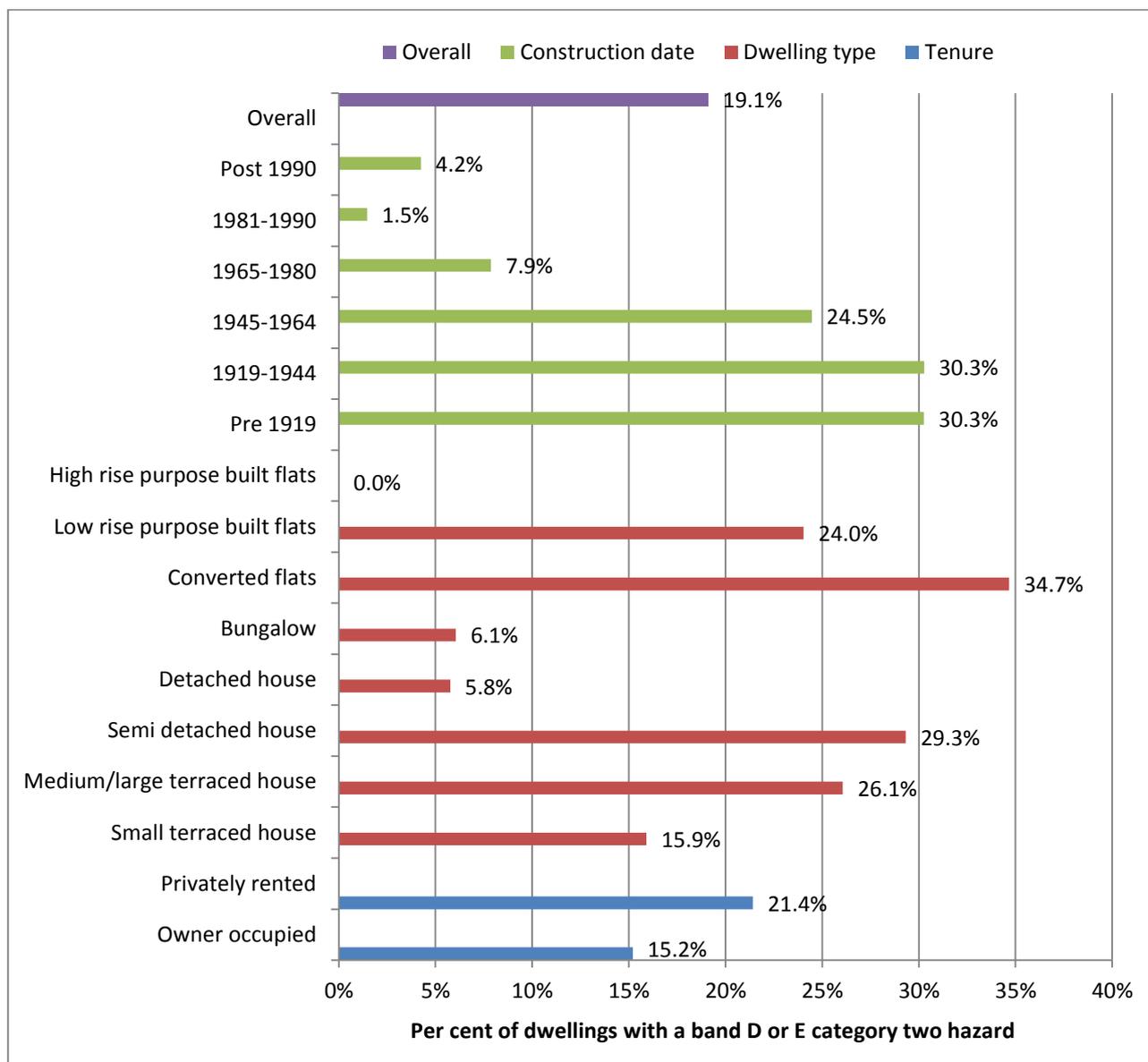
* Lower than total for all category 1 hazards, excludes vacant dwellings with category 1 hazards

- 5.29 Figure 5.7 illustrates that differences in socio-economic characteristics of occupiers have relatively little effect on whether a household lives in a dwelling with a category 1 hazard. This is due to the fact that unlike dwelling disrepair or the former Fitness Standard, category one hazards can affect dwellings that are otherwise in a good state of repair. This includes owner occupied dwellings and more expensive dwellings in more affluent areas of the borough.

Category 2 Hazards in bands D and E

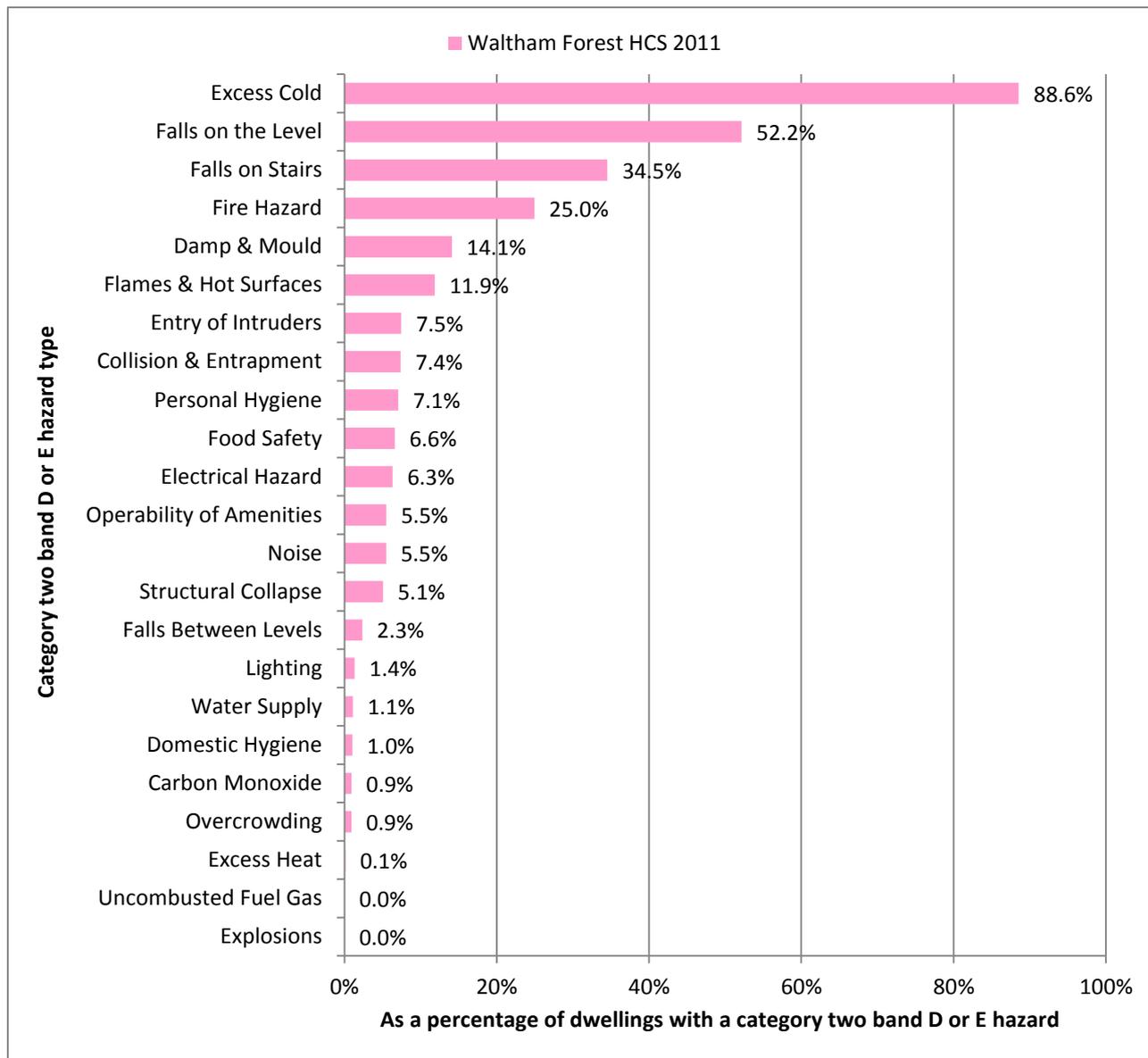
- 5.30 Local authorities have a statutory obligation to take action where a category one hazard is identified. Local authorities also have powers to choose to take action where a category two hazard is deemed sufficiently severe. By definition, all dwellings have a category two hazard for most hazard types as an average hazard generates a default score. In the vast majority of cases the risk and the hazard are so minimal as to be inconsequential. It is therefore reasonable to consider only the higher scoring category two hazards in bands D and E (bands A to C being category one hazards).
- 5.31 There are estimated to be 14,700 dwellings, just under 19% of the private sector housing stock, that have a band D or E category two hazard. Category one and category two band D and E hazards are not mutually exclusive. In other words, a dwelling may be category one on a particular hazard and may be band D or E on an entirely different hazard.
- 5.32 Figure 5.8 illustrates the distribution of Category 2 Hazards (Bands D and E) by tenure, building type and age.

Figure 5.8 Category two hazards by dwelling characteristics (Source: House Condition Survey 2011)



- 5.33 As with category one hazards, band D and E hazards are more common in privately rented dwellings than they are in owner occupied homes.
- 5.34 The presence of high category two hazards by dwelling type is also similar to the pattern for category one hazards. High category two hazards are even more pronounced in converted flats than was the case for category one hazards.
- 5.35 Category two hazards, band D and E, become less common the more modern a dwelling is, as was the case for category one hazards. It is interesting to note, however, that despite this trend, just over one-in-twenty five dwellings built since 1990 has a high scoring category two hazard.
- 5.36 Figure 5.9 illustrates the distribution of Category 2 Hazards (Bands D and E) by hazard type and ranked highest to lowest.

Figure 5.9 Category two hazards by reason, as % of Category 1 Hazards (Source: House Condition Survey 2011)



5.37 Category two band D and E hazards generally follow the pattern for category one hazards for the top three hazards. Beyond this there is some variation in how common hazards are when compared to category one hazards. It is also the case that more types of hazard were identified as having a band D or E score than was the case for category one hazards.

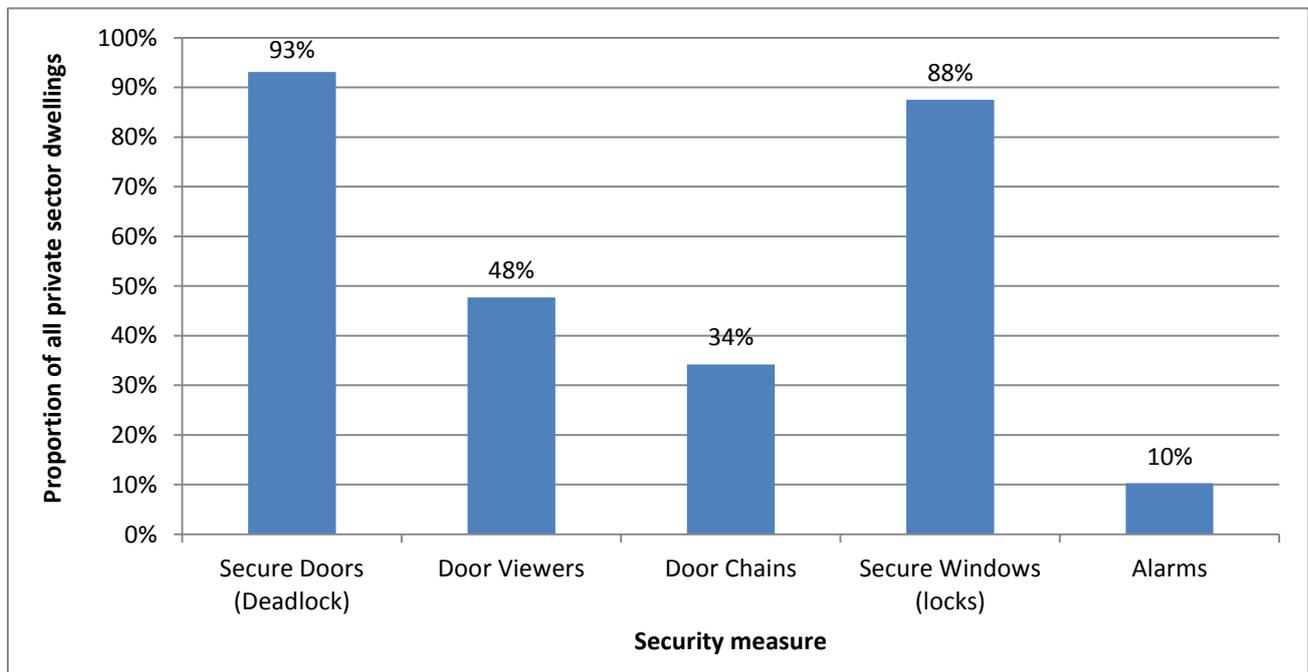
Entry by Intruders (Security)

5.38 Entry by intruders was identified as a significant hazard both for category one and category two hazards.

5.39 Residents were asked if a range of security measures were present in their property. Figure 5.10 gives a breakdown of residents' responses to these questions.

- 5.40 The two highest levels of provision were secure doors and window locks. Door viewers were found in approximately half of all dwellings and door chains in only around one third of dwellings. Alarms were the least common being present in only one-in-ten dwellings.

Figure 5.10 Presence of security measures (Source: House Condition Survey 2010)



Overcrowding

- 5.41 As with entry by intruders, the crowding and space hazard is one that produces a significantly above average level of category one hazards in Waltham Forest. This can be examined further by reference to both the statutory minimum standard and bedroom standard for overcrowding.
- 5.42 In the ODPM report *Overcrowding in England: the national and regional picture* it stated that “Households that are statutorily overcrowded are so rare that a reliable estimate of numbers cannot be produced at a national (England) level even using data from the Survey of English Housing and the 2001 English House Condition Survey, which are relatively large surveys. It follows that estimates for individual regions cannot be produced using these sources”.
- 5.43 As with the above comments, this survey, which is considerably smaller than both of those mentioned, cannot produce any results that would be of any statistical relevance. Given that and issues revolving around the sample size, this section attempts to provide some basic information on the level of estimated overcrowding within Waltham Forest.
- 5.44 The existing statutory overcrowding standards were set in 1935 and restated in Part 10 of the Housing Act 1985, and include both a room standard and a space standard.
- 5.45 In the Court of Appeal case *Elrify v. City of Westminster Council* (2007) it was established that both of the Housing Act measurements must be calculated to establish if a statutory overcrowding situation existed.
- 5.46 The Survey of English Housing uses a Bedroom standard as an indicator of occupation density, allocating a number of bedrooms to each household according to the age, sex and marital status composition coupled with the relationship of the members to one another.

- 5.47 If the Housing Act overcrowding measurement is taken, the estimated level of overcrowding is shown in Figure 5.11:

Figure 5.11 Levels of overcrowding, statutory and bedroom standard (Source: House Condition Survey 2011)

Overcrowding measure	Households	Per cent
Statutory measure	1,740	2.4%
Bedroom standard	1,670	2.2%
Either measure	2,310	3.0%

- 5.48 The bedroom standard (2.2%) has a slightly lower rate overall rate than the statutory standard (2.4%) which is unusual as the bedroom standard uses a more limited room indicator of occupation density. It must, however, be taken in the context described by the ODPM report mentioned above that a reliable estimate of numbers cannot be produced. Only 610 dwellings were rated a category one hazard for overcrowding, but this is largely due to extremely infrequent severe negative outcomes for such a hazard.
- 5.49 Sections 139 to 144 of the Housing Act 2004 relate to the service of an overcrowding notice. It applies to an HMO if it has no interim or final management order in force and it is not required to be licensed under Part 2 of the Act. No HMOs were found to be overcrowded.
- 5.50 Under the Housing Health and Safety Rating Scheme, one of the elements to be considered is that of Crowding and Space, which takes into account a number of matters that are deemed likely to affect the likelihood and harm outcomes. This also indicates that the average likelihood of an illness or injury occurring is 1 in 8,000, showing the low average potential for harm. No dwellings during the survey were scored under this heading.

6. Dwelling state of repair

Disrepair to major building elements and amenities

Introduction

- 6.1 Criterion B of the Decent Homes Standard looks at the issue of the state of general repair of a dwelling which will fail if it meets one or more of the following:
- » One or more key building components are old (which are specifically defined in the criteria) and, because of their condition need replacing or major repair or:
 - » Two or more other building components are old and, because of their condition need replacing or major repair.
- 6.2 A building that has component failure before the components expected lifespan does not fail the decent homes standard. A dwelling will be considered to be in disrepair if it fails on one or more major element or two or more minor elements. Major and minor element failures are listed below:

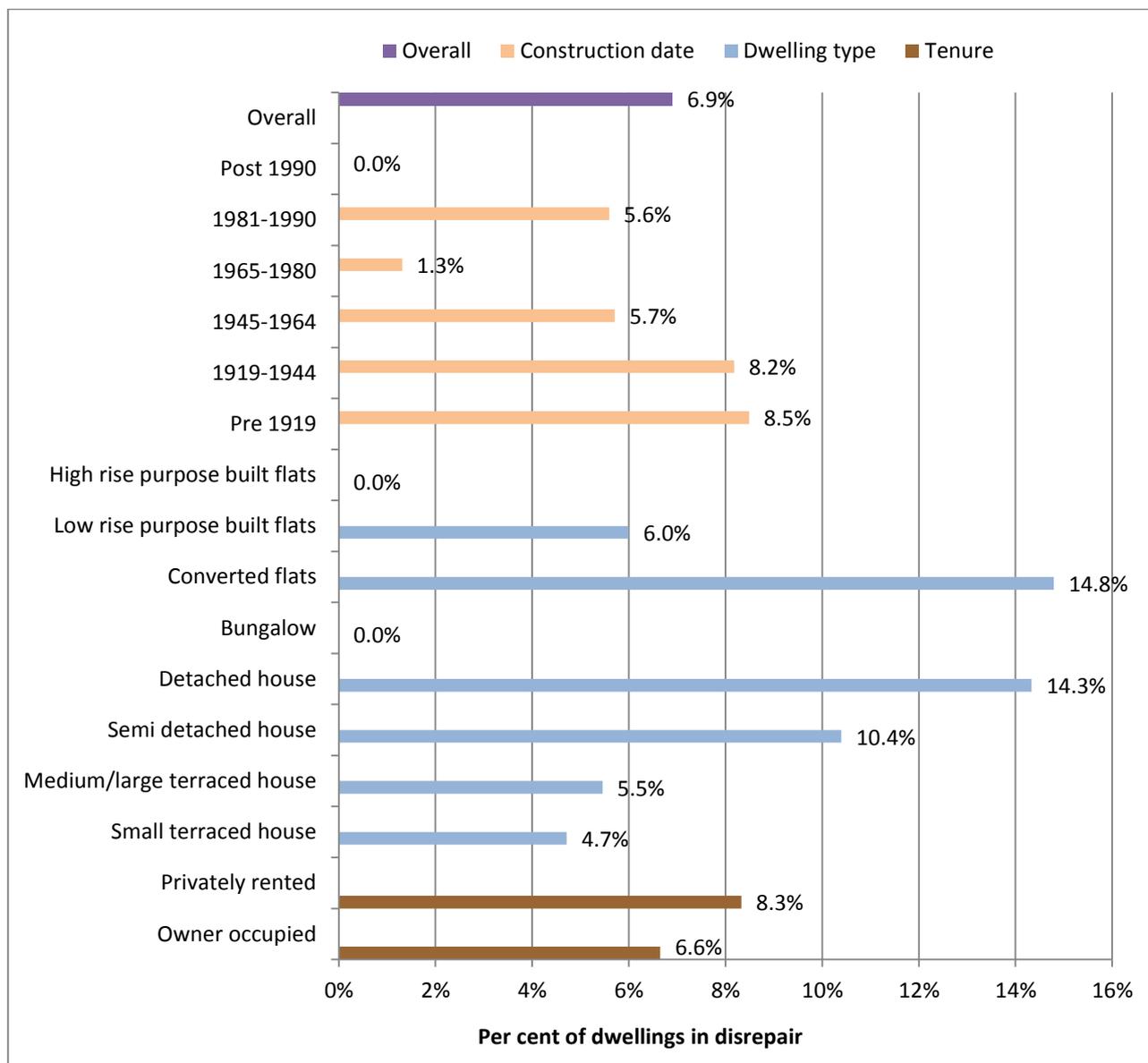
Figure 6.1 Major building element anticipated life-span (Source: A decent home – guidance for implementation 2006)

Element	Age to be considered old
Major Walls (Repair/Replace >10%)	80
Lintels	60
Brickwork (spalling)	30
Roof structure (Replace 50% or more)	50 for houses 30 for flats
Roof cover (Replace 50% or more)	50 for houses 30 for flats
Chimney (1 or more needing partial rebuild)	50
Windows (Replace 2 or more windows)	40 for houses 30 for flats
Doors (Replace 1 or more doors)	40 for houses 30 for flats
Kitchens	30
Bathrooms	40
Gas Boiler (Major Repair)	15
Central heating distribution	40
Gas Fire (Major Repair)	10
Electrics (Major Repair)	30

Disrepair and dwelling stock characteristics

- 6.3 Dwelling disrepair affects 6,050 private sector properties in Waltham Forest, which equates to 6.9% of all private sector dwellings within the borough. The following chart, Figure 6.2, shows the distribution of disrepair failures by tenure, dwelling type and age of property.

Figure 6.2 Disrepair by dwelling characteristics (Source: House Condition Survey 2011)



- 6.4 As with non-decency and category one hazards, privately rented dwellings are most likely to have the greatest level of disrepair. Converted flats, which are strongly associated with the private rented sector, also show a high rate of disrepair, in fact significantly more so than for non-decency and category one hazards. The usual trend of decreasing dwelling condition with age of property exists for the dwelling disrepair measure. It should be noted, that the figure for 1965 to 1980 is a statistical anomaly due to the very small size of this portion of the stock and this result should not, therefore, be considered significant.

Remedying dwellings in disrepair

- 6.5 As with category one hazards, it is possible to provide costs to remedy disrepair failures under the Decent Homes Standard. Surveyors were required to indicate works required to building elements and amenities and these were converted to costs. Chapter four of this report indicated that the sum total of these remedial costs is £27.4 million, an average of £4,520 per dwelling in 6,050 dwellings.
- 6.6 Figure 6.3 gives a breakdown of remedial costs for elements failing the disrepair criterion of the Decent Homes Standard. On average, each dwelling failing the disrepair criterion has approximately one-and-a-half reasons for failure. As a consequence, the total number of disrepair elements is 9,010 compared to the 6,050 dwellings listed as failing. The average cost of remedying disrepair is also, therefore, well above the average cost of remedying any single disrepair item.

Figure 6.3 Major building element remedial repair costs (Source: House Condition Survey 2011)

Element	Disrepair failures	Total cost £millions	Average cost per dwelling £s
Major Walls (Repair/Replace >10%)	170	£3.8	£22,200
Lintels	0	£0.0	£0
Brickwork (spalling)	1,160	£4.1	£3,600
Roof structure (Replace 50% or more)	270	£1.3	£4,900
Roof cover (Replace 50% or more)	1,010	£6.4	£6,400
Chimney (1 or more needing partial rebuild)	1,400	£0.8	£600
Windows (Replace 2 or more windows)	800	£0.5	£600
Doors (Replace 1 or more doors)	0	£0.0	£0
Kitchens	1,530	£4.2	£2,800
Bathrooms	390	£0.4	£1,000
Gas Boiler (Major Repair)	420	£0.7	£1,800
Central heating distribution	360	£1.4	£3,900
Gas Fire (Major Repair)	290	£0.1	£500
Electrics (Major Repair)	1,210	£3.5	£2,900
Total*	9,010	£27.4	£4,520

**Note: dwellings may have more than one failure, thus all disrepair failures total more than the number of dwellings with disrepair failures. Because of multiple failures, the average cost for dwelling disrepair is higher than the averages for remedying individual failures.*

- 6.7 The element most commonly requiring refurbishment is kitchens. Given a roughly average cost to remedy this also means that kitchen refurbishment also accounts for the largest part of all total repair costs. Replacement roof cover represents the largest cost, combining a higher average cost and a significant number of dwellings. Whilst no costs are given for lintels or doors, it is unlikely that no such repairs exist, simply that they were at too low a level to be picked up by the survey.

People living in dwellings in disrepair

6.8 As with other condition indicators, there can be relationships between dwelling disrepair and socio-economic characteristics of residents. Figure 6.4 explores these relationships.

Figure 6.4 Dwellings in disrepair by socio-economic factors (Source: House Condition Survey 2010)

Group	Dwellings	Dwellings in disrepair	Per cent of dwellings in disrepair
Household income under £10k	12,460	1,110	8.9%
Household income £10k - £50k	47,000	3,290	7.0%
Household income over £50k	16,470	1,190	7.2%
In receipt of benefit	25,400	1,910	7.5%
Not in receipt of benefit	50,140	3,680	7.3%
Age under 25	2,730	180	6.8%
Aged 25-74	68,050	4,600	7.0%
Age 75 or over	7,880	810	10.3%
Resident with disability	12,080	640	4.1%
No residents with a disability	63,850	5,420	7.5%
Overall	75,930	*5,590	7.3%

** Lower than total for all disrepair dwellings, excludes vacant dwellings in disrepair*

6.9 There are some slightly clearer patterns than were evident with category one hazards. Dwelling disrepair is strongly associated with households with low income and households where the head of households is aged over 75 years of age. Residents with a disability and residents in receipt of a benefit are less likely to be in dwellings that suffer disrepair. At first the findings for income and benefit receipt may seem at odds, but this can be explained with reference to age of head of household. Low income households who receive benefits due to their low income or making up their low income are less likely to live in dwellings in disrepair. Low income households where the low income is pension based and not benefit based are far more likely, than average, to be in a state of disrepair.

6.10 Such findings illustrate that it is the oldest heads of households, particularly owner occupiers, who struggle most with disrepair problems to their dwelling.

7. Lacking modern facilities

Provision of kitchens, bathrooms and other features

Introduction

- 7.1 The third criterion of the Decent Homes Standard is that a dwelling should have adequate modern facilities. A dwelling fails the modern facilities test only if it lacks *three* or more of the following:
- » A kitchen which is 20 years old or less
 - » A kitchen with adequate space and layout
 - » A bathroom that is 30 years old or less
 - » An appropriately located bathroom and WC
 - » Adequate noise insulation
 - » Adequate size and layout of common parts of flats
- 7.2 For example, if a dwelling had a kitchen and bathroom older than the specified date, it would not fail unless the kitchen had a poor layout or the bathroom was not properly located.
- 7.3 As a result of the relatively small number of dwellings failing the Decent Homes Standard on this criterion, it was not possible to further subdivide those failures to examine their tenure distribution or other characteristics.

Remedial costs for non-modern facilities

- 7.4 Figure 7.1 examines the cost to remedy failures under the non-modern facilities criterion of the Decent Homes Standard.

Figure 7.1 Remedial costs for dwellings lacking modern facilities (Source: House Condition Survey 2011)

Element	Modern facilities failures	Total cost £millions	Average cost per dwelling £s
Modernise kitchen	760	£3.6	£3,690
Extend to accommodate kitchen	520	£13.0	£13,220
Modernise bathroom	860	£2.8	£2,810
Add WC/bathroom	250	£0.3	£290
Add secondary glazing other noise insulation	450	£1.3	£1,330
Alter common parts layout	270	£0.9	£880
Total*	990	£21.9	£22,220

*Note: by definition dwellings will have more than one failure, thus all failures total more than the number of dwellings with failures. Because of multiple failures, the average cost is higher than the averages for remedying individual items.

- ^{7.5} The total number of modernisations required is 3,110, which is only just over three times the number of dwellings failing the modern facilities criterion. This means that whilst it takes three or more items to fail the Decent Homes Standard on this criterion, the vast majority of failures are for exactly three reasons. The need to modernise kitchens and bathrooms were the most common failures. In most HCS it is typical to find that it is the need to modernise both the kitchen and bathroom, coupled with one other element that causes failure for non-modern facilities.

8. Thermal comfort failures

Provision of heating systems and insulation

Introduction

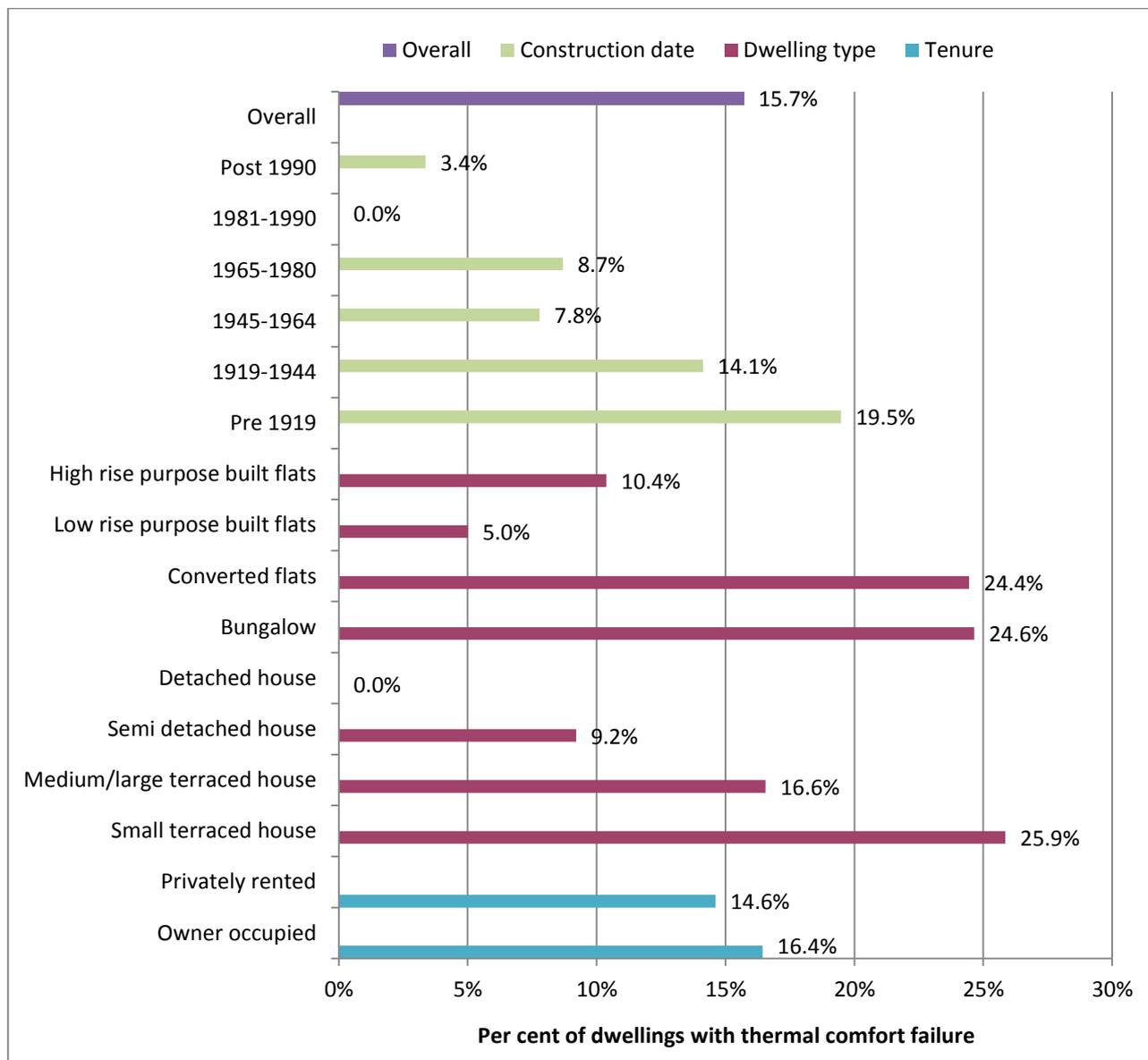
- 8.1 Failure of the thermal comfort criterion, and consequently the work required to remedy that failure, is based on the combination of heating system type and insulation present within a dwelling. The following are the three requirements under the thermal comfort criterion of the Decent Homes Standard:
- » For dwellings with gas/oil programmable heating, cavity wall insulation (if there are walls that can be insulated effectively) or at least 50mm loft insulation (if there is a loft space) is an effective package of insulation.
 - » For dwellings heated by electric storage heaters/ LPG/ programmable solid fuel central heating a higher specification of insulation is required: at least 200mm of loft insulation (if there is a loft) and cavity wall insulation (if there are walls that can be insulated effectively).
 - » All other heating systems fail (i.e. all room heater systems are considered to fail the thermal comfort standard).

Thermal comfort failures and dwelling characteristics

- 8.2 A total of 12,060 private sector dwellings fail to meet the Thermal Comfort Standard, representing 15.7% of the private sector housing stock of the borough, compared to 10.9% nationally.
- 8.3 Figure 8.1 overleaf shows the distribution of thermal comfort failure by tenure, building type and age.
- 8.4 Because of the large scale of the privately rented sector there is a much wider distribution of dwelling ages and types within this tenure than is usually the case. There is also a very high level of mains gas provision in the borough due to its urban nature. This reduces the number of privately rented dwellings using traditional heating, such as electric fires, in favour of more energy efficient central heating. For these reasons, thermal comfort failures are actually slightly less common in privately rented dwellings than they are in owner occupied ones.
- 8.5 Thermal comfort failure by dwelling type tends to follow other failure reasons, although there are some differences. Converted flats have one of the highest thermal comfort failure rates, which relates to the age of such dwellings, with solid walls and no insulation as built, meaning insulation has to have been retro-fitted. Small terraced houses have the same issues and not surprisingly fail at a similar rate. Bungalows also have a similar failure rate, on total contrast to detached houses where no failures were found. This last finding should be treated with caution and put into context; i.e. there are so few bungalows and detached houses in the borough that the result is not significant.
- 8.6 Thermal Comfort failures by dwelling type follow the expected trend of increasing failure as dwellings get older, reflecting their construction materials and requirement for all insulation and efficient heating to have

been retrofitted. The 1981 to 1990 figure shows a zero return, but again this comes back to the issue of the age distribution of the stock; with so few dwellings built during this period the finding cannot be considered an accurate reflection. The true figure for 1981 to 1990 dwellings is likely to be somewhere between the 8.7% of the preceding band and the 3.4% of the succeeding band.

Figure 8.1 Thermal comfort failure by dwelling characteristics (Source: House Condition Survey 2011)



Remedial costs for Thermal Comfort failures

8.7 As with the other criteria of the Decent Homes Standard it is possible to quantify remedial costs to remove Thermal Comfort failures. The following table,

8.8

8.9 Figure 8.2, gives a breakdown of the number of dwellings needing heating systems, boilers, controls, loft insulation or cavity wall insulation in order to meet the Thermal Comfort standard. The average cost for each remedy is given along with total costs. As with disrepair and non-modern facilities it is possible for a

dwelling to need more than one piece of work and thus the total number of remedial works is greater than the total number of dwellings failing.

Figure 8.2 Remedial costs for dwellings with thermal comfort failures (Source: House Condition Survey 2010)

Energy efficiency measure	Thermal comfort failures	Total cost £millions	Average cost per dwelling £s
Install central heating	2,340	£13.4	£5,700
Install new boiler	1,950	£3.5	£1,800
Install loft insulation	10,670	£5.9	£550
Install cavity wall insulation	630	£0.4	£650
Add heating controls	3,200	£1.3	£420
Total*	12,060	£24.5	£2,030

**Note: by definition dwellings will have more than one failure, thus all failures total more than the number of dwellings with failures. Because of multiple failures, the average cost is higher than the averages for remedying individual items.*

- 8.10 The greatest amount of work required is for loft insulation reflecting the fact that the majority of dwellings have an adequate heating system to meet the standard. Cavity wall insulation is at a considerably lower level of requirement than would typically be the case due to the high proportion of dwellings with solid walls. By cost, central heating represents the largest share at just over one half of all costs, but this largely due to its higher unit price. Nearly 2,000 dwellings need a new boiler; new boils can be 20% more efficient than a model 20+ years old, thus changing a boiler can have a substantial impact on thermal comfort.
- 8.11 The total number of measures needed is nearly 18,800, but as with dwellings lacking modern facilities, some dwellings require multiple interventions.

9. Energy Performance

Energy ratings, CO₂ and energy costs

Energy performance and SAP ratings

- 9.1 The Standard Assessment Procedure or SAP is a government rating for energy efficiency. It is used in this report in conjunction with annual CO₂ emissions figures, calculated on fuel consumption, and the measure of that fuel consumption in kilo Watt hours (kWh), to examine energy efficiency.
- 9.2 The SAP rating in this report was the energy rating for a dwelling and was based on the calculated annual energy cost for space and water heating. The calculation assumes a standard occupancy pattern, derived from the measured floor area so that the size of the dwelling did not strongly affect the result. It is expressed on a 0-100 scale. The higher the number the better the energy rating for that dwelling.

Changes in the SAP standard

- 9.3 The Government's SAP rating has been changed a number of times over the years and these changes can have an important effect on comparing SAP ratings. The most significant changes came in 2001 and 2005, which involved a shift to a 1 to 120 scale in 2001 and then a reversion to a 1 to 100 scale in 2005. By using a 1 to 120 scale SAP ratings were effectively 'stretched' meaning that average SAP ratings cannot be compared like-for-like between now and the previous survey in 2004. For example, the Mean SAP from the 2004 survey is given as 52, but on a scale from 1 to 120, but it is impossible to give an exact figure for what this rating would be without taking the raw data and re-processing it. It is possible to give an estimate of the mean SAP rating, based on a 1 to 100 scale and doing this results in a mean SAP rating of approximately 44 in 2004.
- 9.4 The software used to calculate SAP ratings for this report uses SAP2005.

Distribution of SAP ratings

- 9.5 The average SAP rating in Waltham Forest for private sector dwellings is 52, compared to an average SAP rating of 51 nationally (for private sector dwellings only), based on the findings of the EHCS 2009, which also used SAP2005. As described above, the mean SAP rating from the 2004 HCS, based on an extrapolation to SAP2005 is 44, which indicates a significant improvement in energy efficiency over the past seven years.
- 9.6 SAP ratings are affected by the age of dwellings, their heating types, fuel, insulation and exposure levels. Whilst the age profile of Waltham Forest's private sector housing stock is substantially older than average, the whole borough is urban with almost total (99.9% coverage and 93% use for main heating fuel). The national average includes main rural dwellings that are of the mains gas supply which must, therefore, use

other fuels and less efficient heating systems. This two factors balance each other out to give Waltham Forest an average private sector domestic energy efficiency rating slightly above the national average.

- 9.7 Figure 9.1 shows the energy performance distribution by tenure incorporating the same banding system used since the EHCS 2007. The majority for each tenure group were contained within the 39 to 68 bandings, being 83.2% for owner occupied dwellings and 78.6% for the privately rented stock. The overall stock rate was 81.3% within those bands, which was above the national rate (73.2%).

Figure 9.1 Energy Performance SAP banded (Source: House Condition Survey 2011 and EHS 2009)

EPC SAP Range Banded	Owner occupied	Privately rented	Whole Stock	EHCS 2009
Band A (92-100)	0.0%	0.0%	0.0%	0.0%
Band B (81-91)	0.1%	0.8%	0.4%	0.1%
Band C (69-80)	3.1%	11.2%	6.5%	5.0%
Band D (55-68)	33.7%	43.9%	37.9%	30.4%
Band E (39-54)	49.5%	34.7%	43.4%	42.8%
Band F (21-38)	12.6%	8.0%	10.7%	17.3%
Band G (1-20)	0.9%	1.4%	1.1%	4.4%
Total	100.0%	100.0%	100.0%	100.0%

Changes in SAP ratings

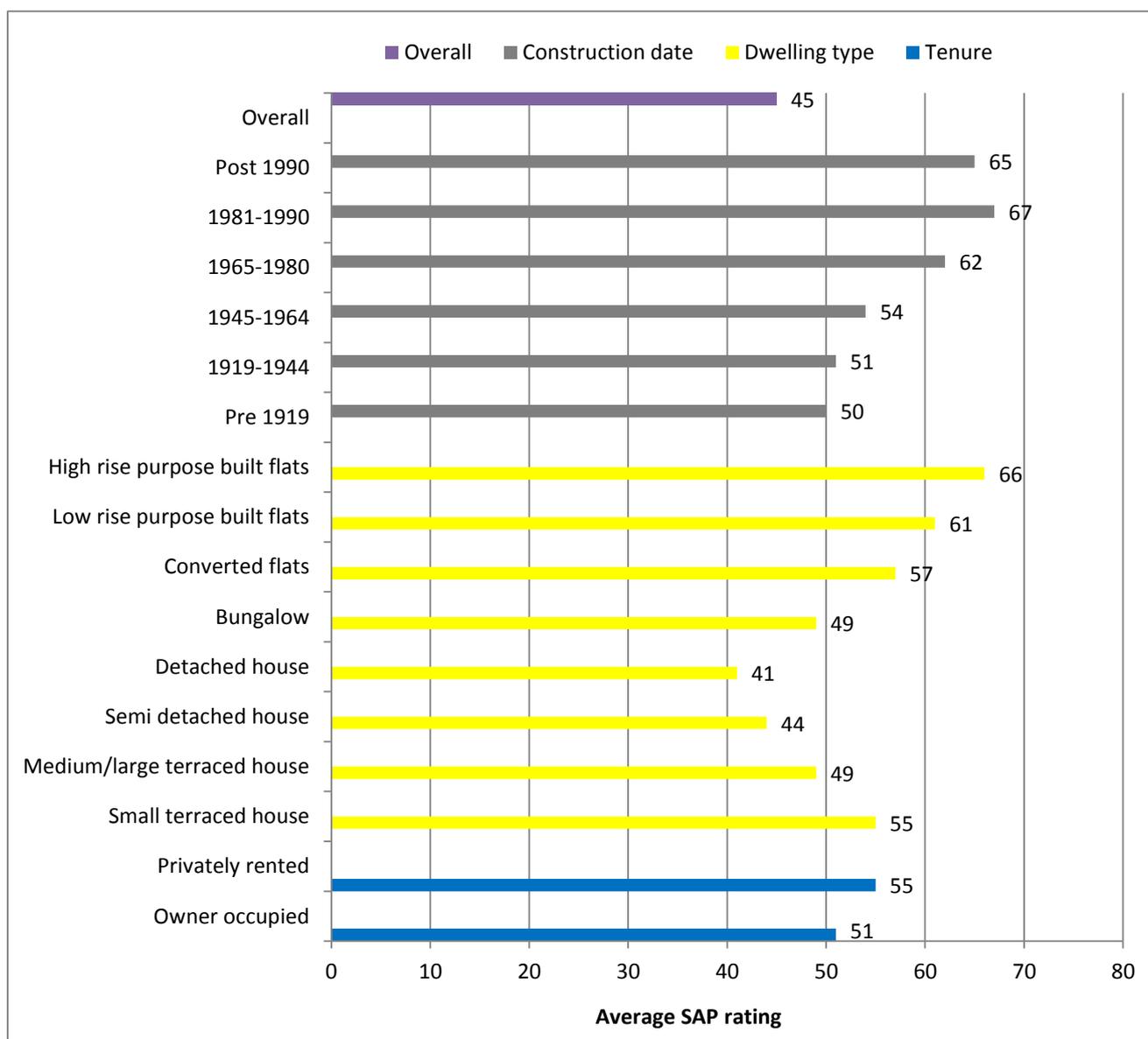
- 9.8 For the reasons outlined in the introduction to this chapter it is not possible to accurately compare a detailed breakdown of SAP ratings to the previous HCS from 2004. It is possible, however, to look at one key energy efficiency characteristic from the BRE Housing Stock Models based on 2006 data. These models give a result for dwellings with a SAP rating less than 35 in the private sector in Waltham Forest. The figures indicate that in 2006 there were approximately 5,930 dwellings with a SAP below 35 and this has reduced to approximately 5,120 in 2011, a reduction of around 15% (810 dwellings).
- 9.9 The greatest rate of improvement has been in the South and West of the Borough, which indicates a significant impact from the Council's intervention and assistance in trying to improve energy efficiency in the area. Bringing dwellings from a SAP rating below 35 to one above 35 only tells part of the story however. A SAP rating of 35 is very low, which means it is still well possible to add improvements to a dwelling with a SAP rating of between 35 and 50, which will then have an improved SAP rating. It is not possible to determine the extent of this from the HCS, but the majority of energy efficiency improvements are likely to have occurred to dwellings in this SAP range.

Energy efficiency and dwelling characteristics

- 9.10 The physical characteristics of dwellings have a major effect on the efficiency of a dwelling. The number of exposed external walls and the construction materials and methods all affect the overall heat loss and therefore the energy efficiency. Different types and ages of dwellings will have different energy characteristics.
- 9.11 Figure 9.2 gives a breakdown of average SAP ratings by tenure, building type and construction date.

- 9.12 The average SAP rating for owner occupied dwellings is 51 and for the private rented sector it is 55. This reflects the all England position from the EHS where mean SAP for owner occupied dwellings is 51 and for privately rented dwellings 52.
- 9.13 When examining SAP ratings by built form, semi-detached and detached houses had the lowest SAP ratings which reflects their older age profile and above average external exposure. Converted flats have lower SAP ratings than purpose built ones, which is due to less efficient heating systems and fewer insulation upgrades. High rise purpose built flats have the highest average energy efficiency rating and this is as a result of generally being far more modern.
- 9.14 Increases in SAP tend to be associated with a reduction in dwelling age; the most modern stock tends to have the highest SAP. This pattern is followed in Waltham Forest with the exception of post-1990 dwellings. As with variables in previous chapters it should be remembered that Waltham Forest has a particularly small post war stock and thus this figure should not be considered significant as it is likely to be the result of a sampling anomaly.

Figure 9.2 SAP by general characteristics (Source: House Condition Survey 2011)



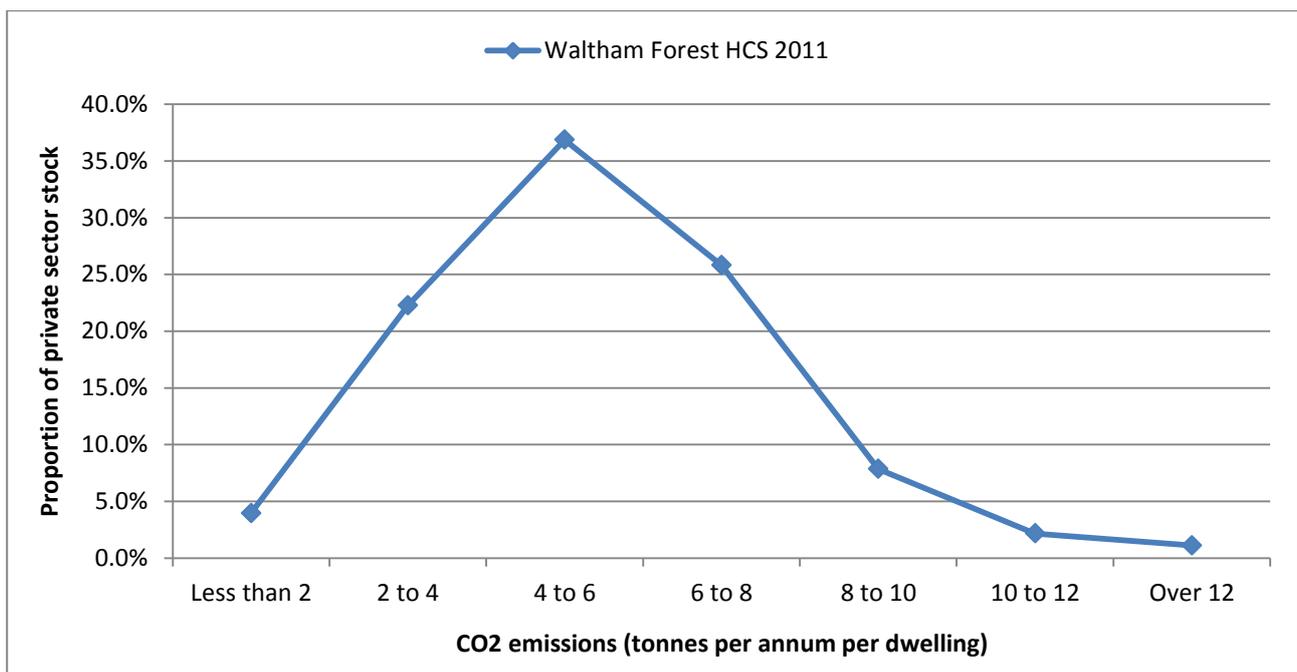
Carbon Dioxide emissions

- 9.15 As part of the 2007 Comprehensive Spending Review the Government announced a single set of indicators which would underpin the performance framework as set out in the Local Government White Paper "Strong and Prosperous Communities". To provide a more powerful and consistent incentive to local authorities, to develop and effectively implement carbon reduction and fuel poverty strategies, included within the set of indicators were a per capita reduction in Carbon Dioxide (CO₂) emissions in the Local Authority area and the tackling of fuel poverty.
- 9.16 PSA Delivery Agreement 27 (Lead the global effort to avoid dangerous climate change) stated that "The overall framework for the Government's domestic action is set out in the Climate Change Bill for which Parliamentary approval will be sought". This was subsequently passed into legislation on 26 November 2008, through the Climate Change Act 2008, which included legally binding targets to achieve greenhouse gas emission reductions through action in the UK and abroad of at least 80% by 2050, and reductions in CO₂ emissions of at least 26% by 2020, against a 1990 baseline.
- 9.17 The former Labour government launched a consultation document entitled "Heat and energy saving strategy consultation" in February 2010. However, since the general election in May 2010, the new coalition government has set out its broad energy strategy through an Annual Energy Statement in June 2010. The following information may therefore, be subject to change.
- 9.18 The overall aim of the consultation was to reduce annual emissions by up to 44 million tonnes of CO₂ in 2020, the equivalent of a 30% reduction in emissions from households compared to 2006, making a significant contribution to meeting the government's carbon budgets.
- 9.19 One key aspect of the government's approach was to consider the energy needs of the 'whole house', putting together a more comprehensive programme of work for the whole house rather than the installation of individual measures one at a time. It was considered that modern heating offered the potential to cut energy bills and reduce CO₂ emissions, and the government wanted to help the development of heating networks within communities where it made sense to do so.
- 9.20 The Government's strategy for saving energy and decarbonising heating both now and into the future, has four main objectives:
- » to help more people, especially in the current difficult economic climate, as well as over the longer term, to achieve a reduction in their energy bills by using less energy;
 - » to reduce the UK's emissions and increase the use of renewable energy in line with the demands of the government's carbon budgets, their renewables target and the ultimate objective of reducing greenhouse gas emissions by 80% by 2050;
 - » to help maintain secure and diverse energy supplies; and
 - » to take advantage of the economic opportunities presented by the shift to a low carbon economy in the UK and in the rest of the world. This to help during the current economic downturn and over the longer term.
- 9.21 By 2015, it is the government's aim to have insulated all the lofts and cavity walls where it is practicable to do so. Although it is considered that this will not be enough to achieve the ambitions for the 2050 target of cutting emissions by 80%. Once these options have been exhausted, more substantial changes are being

considered, such as small-scale energy generation and solid wall insulation, with the aim of helping up to seven million homes by 2020.

- 9.22 It is proposed to retain the current Carbon Emissions Reduction Target (CERT) until 2012, when it is thought that a more coordinated, community-based approach, working door-to-door and street-to-street to cover the needs of the whole house. This more coordinated approach is piloted under a new Community Energy Savings Programme (CESP), launched in September 2010.
- 9.23 Waltham Forest has 9 Lower Super Output areas contained within the list of areas of low income that the Government proposes qualify for the Community Energy Saving Programme.
- 9.24 The CO₂ data provided as part of this survey indicated that emissions within the private sector stock of Waltham Forest are 419,000 tonnes per annum an average of 5.4 tonnes per annum per property or 2.0 tonnes per capita. The EHCS 2009 reported total CO₂ emissions of 130 million tonnes per annum or 7.1 tonnes per dwelling (owner occupied and privately rented).
- 9.25 Figure 9.3 shows the range of dwelling CO₂ emissions released per annum. The majority of dwellings (85%) had emissions of between 2 and 8 tonnes per annum, with 11.1% having annual emissions above this. 36.9% of dwellings had emissions above 6 tonnes per annum.

Figure 9.3 Annual dwelling CO₂ emissions (Source: House Condition Survey 2011)



- 9.26 Emissions per main fuel type are given in Figure 9.4. On peak electricity has the highest average emissions level. In the case of on-peak electricity all the CO₂ is produced at source, i.e. during power generation. The loss of energy during transmission means that more electricity needs to be produced than is actually used to heat the dwelling, a process that is inherently inefficient. Oil is the most efficient heating fuel, followed by mains then bottled gas.

Figure 9.4 Main fuel CO₂ emissions (Source: House Condition Survey 2011)

Fuel main	CO ₂ (tonnes)	Average CO ₂ per property
Mains Gas	390,600	5,460
Smokeless Fuel	500	9,440
On Peak Electricity	6,900	4,730
Off Peak Electricity	21,300	5,530

SAP and National Indicator 187

- ^{9.27} Following the 2007 comprehensive spending review guidance was issued on a change in measuring local authority performance through a revised set of indicators. There are 188 indicators covering every aspect of a Councils' responsibilities, but of primary interest here is National Indicator 187. NI187 requires local authorities to measure the proportion of households on an income related benefit living in dwellings with SAP ratings below 35 and 65 and above; the intention being to decrease the former and increase the latter. The indicator refers to 'fuel poverty' but the measure is actually a surrogate for fuel poverty (see 0). It is anticipated that Councils will measure progress using an annual postal survey.
- ^{9.28} Figure 9.5 gives a breakdown of dwellings with SAP ratings below 35 and 65 and over, as well as combining this with information on income related benefit receipt. **Note that since this is income related benefits the total is lower than that for all benefit receipt as described in Chapter three.** This information can be used as a baseline for NI187 against which future progress can be measured.

Figure 9.5 SAP bands and NI187 (Source: House Condition Survey 2011)

Waltham Forest HCS 2011			
	Dwellings total	Households with an income benefit recipient	Rate
SAP less than 35	5,120	1,350	20.9%
	6.7%	8.0%	
SAP 35 to 64	61,410	13,020	17.5%
	79.9%	76.9%	
SAP 65 and over	10,360	2,550	19.8%
	13.5%	15.1%	
	76,900	16,900	22.0%

- 9.29 The figures given in red are those required under NI187. They illustrate that 8.0% of households in receipt of an income related benefit live in a dwelling with a SAP rating below 35 and that 15.1% live in a dwelling with a SAP of 65 or over.

Energy efficiency improvement

- 9.30 The great majority of dwellings, just over two thirds, use mains gas central heating. The survey found that almost 90% of dwellings had a central heating system, roughly the same as the 90% found in the EHS 2009. The main reason it is not higher, despite the mains gas coverage, is the above average proportion of purpose built flats, which often use electric storage heating.

- 9.31 Figure 9.6 shows the heating type found by dwelling type.

Figure 9.6 Heating type by dwelling type (Source: House Condition Survey 2011)

	Central heating	Room heaters	Storage heating	Communal heating
Small terraced house	85.3%	4.7%	9.9%	0.0%
Medium/Large terraced house	95.1%	2.8%	2.2%	0.0%
Semi-detached house	98.6%	0.4%	1.0%	0.0%
Detached house	100.0%	0.0%	0.0%	0.0%
Bungalow	95.6%	0.0%	4.4%	0.0%
Converted flat	91.6%	6.3%	2.1%	0.0%
Low rise purpose built flat	70.5%	1.4%	23.6%	4.4%
High rise purpose built flat	0.0%	10.4%	14.9%	74.7%
All dwellings	89.8%	3.0%	5.5%	1.6%

- 9.32 High rise purpose built flats have the lowest rates of central heating provision, followed by low rise flats. This is common in purpose built flats which often rely on electric storage. High rise and converted flats have the highest proportions of room heaters, which again, is a common finding. Detached houses show a rate of 100% using central heating, but to some extent this relates to the small number of such dwellings as a handful are likely to have other heating systems, but too few to be picked up by the survey.

- 9.33 Level of insulation provision is also an important factor in energy efficiency:

Figure 9.7 Loft insulation by dwelling type (Source: House Condition Survey 2011)

Dwelling Type	No insulation	Less than 100mm	100mm	150mm	200+mm	*No loft
Small terraced house	0%	6%	16%	9%	68%	0%
Medium/Large terraced house	3%	22%	23%	21%	30%	0%
Semi-detached house	1%	17%	24%	32%	27%	0%
Detached house	0%	31%	16%	42%	10%	0%
Bungalow	0%	9%	17%	22%	50%	2%
Converted flat	10%	10%	16%	10%	12%	42%
Low rise purpose built flat	2%	7%	13%	11%	11%	56%
High rise purpose built flat	0%	0%	0%	0%	0%	100%
All dwellings	4%	17%	20%	18%	24%	17%

** Note: this is a dwelling based survey, thus any flat not directly under a pitched roof counts as having no loft*

- 9.34 Despite a considerable amount of retro-fitting of loft insulation, there are still just over 3,000 dwellings that have a loft but do not have loft insulation. A further 13,000 (17%) have less than 100mm, much of this retrofitted, but newer standards expect 250mm+ as a good level of insulation. There is, therefore, significant scope to improve loft insulation in private sector dwellings in the borough.
- 9.35 The provision of different heating systems and insulation within the dwelling stock does allow scope for some dwellings to have additional insulation, improved heating, draught proofing etc. Such improvements can lead to a reduction in energy consumption with consequent reduction in the emission of gases such as carbon dioxide implicated in climate change.
- 9.36 However, it should be noted that improving energy efficiency does not necessarily equate to a reduction in energy consumption. In the majority of cases there will be a reduction, but, for example, where a household is in fuel poverty and improvements are made, energy consumption may well go up. In such dwellings the occupiers may well have been heating the dwelling to an inadequate level using expensive fuel. Use of cheaper fuels can create affordable warmth, but also lead to increased energy consumption.

The cost and extent of improvement

- 9.37 The following figures are based on modelling changes in energy efficiency, brought about by installing combinations of items listed below. These are based on measures that have been provided by many local authorities and are loosely based on the Warm Front scheme.
- » Loft insulation to 300mm
 - » Cavity wall insulation
 - » Cylinder insulation to 70mm Jacket (unless foam already)
 - » Full central heating where none is present
 - » Installation of a modern high efficiency gas boiler where none is present

» Double Glazing to all windows

9.38 The computer model entered whatever combination of these measures is appropriate for a particular dwelling taking into account the provision of heating and insulation shown by the survey.

Future improvement

9.39 If all combinations of improvements listed above were carried out to all dwellings, the total cost would be just under £99 million, an average of £2,090 per dwelling, where improvements were required.

9.40 The total cost of improvements given above is distributed among 47,240 dwellings, 61% of the stock where improvements were required. The majority of these dwellings will have complied with Building Regulations current at the time they were built and realistically most of them will currently provide an adequate level of thermal efficiency. In most cases, however, there is still scope for improvement even if only minor.

9.41 The following analysis looks at how many dwellings could have each type of measure applied.

Figure 9.8 All energy efficiency measures that could be carried out (Source: House Condition Survey 2011)

Measure	Dwellings	Per cent of private sector	Total cost £millions	Average cost per dwelling £s
Loft insulation	16,090	21%	£8.8	£550
Wall insulation	8,590	11%	£5.6	£650
Double glazing	18,570	24%	£1.8	£95
Cylinder insulation	4,160	5%	£23.7	£5,700
New boiler	9,150	12%	£16.5	£1,800
New central heating	16,050	21%	£42.2	£2,629
Any measures*	47,240	61%	£98.6	£2,090

* The total for 'any measure' is less than the sum of measures as some dwellings can have more than one measure

9.42 The wide range of measures indicates that, in most cases, two or more improvements could be carried out. Generally loft insulation would be an improvement on existing insulation, rather than an installation where none exists. With cylinder insulation, most improvements would be the replacement of old cylinders with jackets, for new integral foam insulated cylinders. Installation of new central heating is only indicated where the dwelling currently relied solely on room heaters as the primary heating source.

Tackling fuel poverty

9.43 A key issue in reducing energy consumption is tackling fuel poverty. The occupiers of a dwelling are considered to be in fuel poverty if more than 10% of their net household income would need to be spent on heating and hot water to give an adequate provision of warmth and hot water. Not only do dwellings where fuel poverty exists represent dwellings with poor energy efficiency, they are, by definition, occupied by residents with low incomes least likely to be able to afford improvements. In "Fuel Poverty in England: The Government's Plan for Action" published in 2004, the government set a target for the total eradication of fuel poverty by November 2016.

- 9.44 There are an estimated 11,270 (14.8%) of occupied, private sector, dwellings in fuel poverty in Waltham Forest compared to approximately 13.2% based on the findings of the EHS 2009, as reported in the Annual Report on Fuel Poverty Statistics 2010, published by the Department of Energy & Climate Change (DECC).
- 9.45 A higher proportion than the national average, the 11,270 dwellings represent a significant number of households that are in fuel poverty and will present issues in terms of both energy efficiency and occupier health. The highest proportionate rate of fuel poverty was found in the owner occupied sector at 15.6% (6,980 households) compared with 13.7% (4,280 households) in the private rented sector. This is largely due to the much younger age profile in the private rented sector and often total household income where multiple adults live.
- 9.46 Intervention programmes such as Warm Front have been set up to tackle fuel poverty among vulnerable households in the private rented and owner occupied sectors, and provide grant packages to undertake energy efficiency measures for those eligible.
- 9.47 By the very nature of fuel poverty, it is almost always associated with those residents on the lowest incomes. 8,600 households (75% of the households in fuel poverty) were households with incomes below £10,000 per annum, with the remaining 2,550 (23%) having household incomes between £10,000 and £20,000 per annum. The remaining 2% are households where household income is between £20,000 and £30,000 per annum, with no fuel poverty where household incomes are above this level.
- 9.48 Fuel poverty is usually associated with dwellings where one or more residents are in receipt of a means tested benefit as such benefits are indicative of low income. In Waltham Forest fuel poverty was found in 7,170 households where a benefit was received, compared with 2,000 households where occupiers did not receive benefit. This means that 26.3% of households in receipt of benefit were in fuel poverty, compared to just 8.3% in households not in fuel poverty.

10. Housing Association Dwellings

The social housing perspective

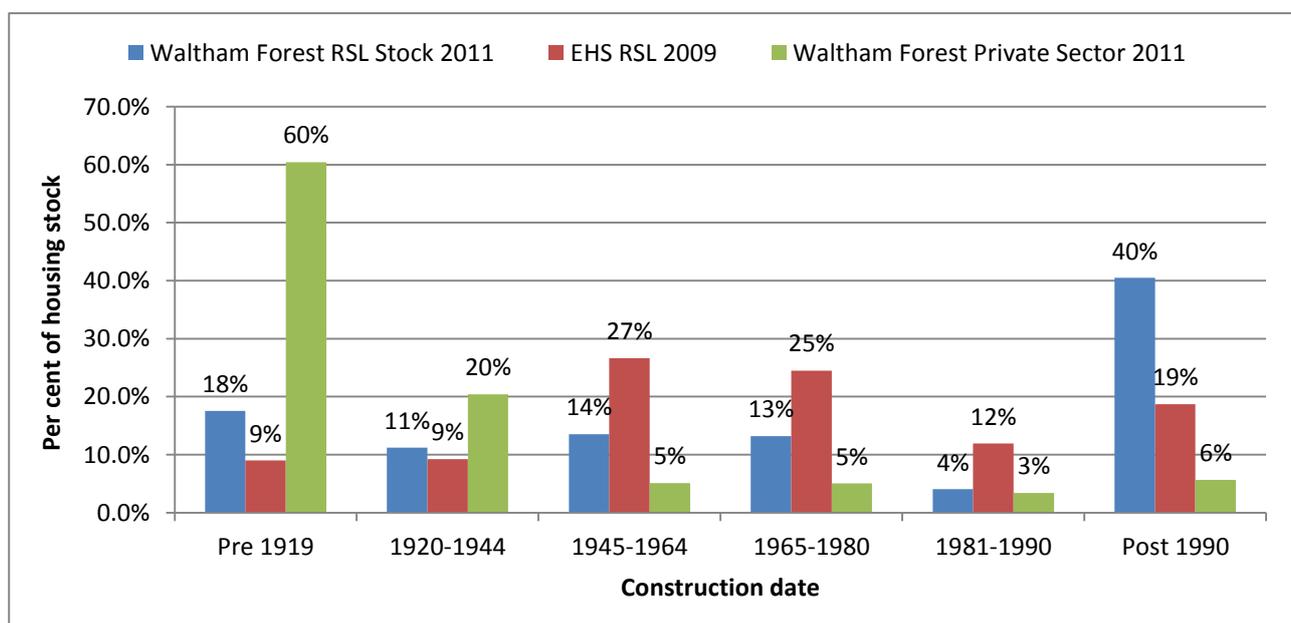
Introduction

- 10.1 Housing Associations fall under the umbrella of Registered Social Landlords (RSL) and are often referred to collectively in this way. They are dwellings owned by organisations for the purposes of being rented out to tenants. Typically the landlord is a not-for-profit organisation and many are registered charities, foundations or trusts. In this respect they differ from the other provider of social housing, local authorities (including stock managed through arms-length management organisations).
- 10.2 Housing Association accommodation is considered social housing as its remit is typically directed at providing much of its housing for vulnerable or disadvantaged groups, such as those in receipt of benefit, on low incomes and the elderly and disabled.
- 10.3 This report separates housing association stock from private sector housing as there are a number of indicators that relate only to private sector housing as well as their being specific obligations on RSL landlords. Comparisons will be drawn with the private sector housing stock of the borough to illustrate some of these differences.

General character of the stock

- 10.4 The housing association stock is considerably more modern than is the case for the private sector housing stock, but differs from the national age profile for this tenure.

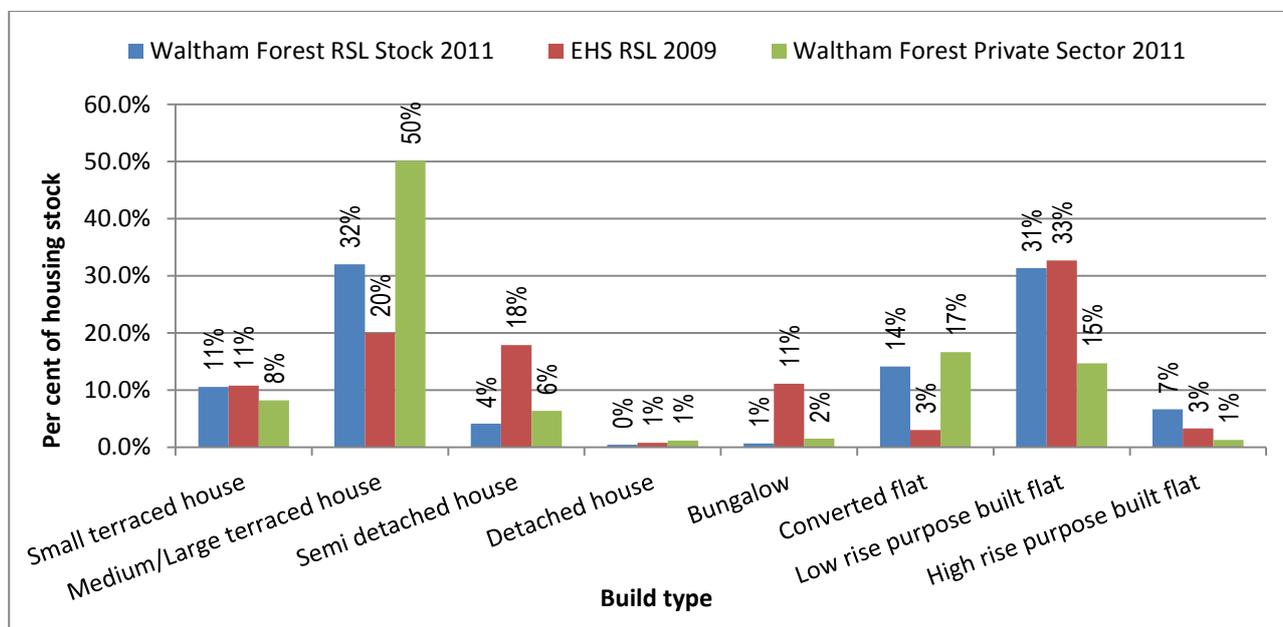
Figure 10.1 Age distribution of RSL stock compared to private sector & England (Source: EHS 2009 House Condition Survey 2011)



10.5 Waltham Forest's housing association stock shows a more bi-polar distribution than the national position, which means more dwellings in the oldest and newest age bands when compared to the EHS. In particular, the post 1990 age band stands out with one-in-four RSL dwellings built after this date.

10.6 The following Figure 9.8 applies the same comparison but to the building type distribution of the stock.

Figure 10.2 Building types of RSL stock compared to private sector & England (Source: EHS 2009 House Condition Survey 2011)



10.7 The stock available to RSLs comes from a combination of the existing housing stock within the borough and any new dwellings they are able to build. For this reason, whilst the profile is significantly different from the private sector, it also differs from the national position. The most notable differences are the far smaller proportions of semi-detached houses and bungalows, when compared to England as a whole and the far larger numbers of medium/large terraced houses and converted flats.

Socio-economic characteristics

10.8 By their very nature, RSL dwellings are more commonly associated with older occupiers; residents on low income and households in receipt of benefit. This is due to the role social housing is intended to play.

Figure 10.3 Age of head of household RSL and private sector (Source: House Condition Survey 2011)

Age of head of household	Housing Association	Private Sector
16-24	10%	5%
25-34	15%	21%
35-44	20%	22%
45-64	34%	31%
65-74	10%	11%
75+	11%	10%
Total	100%	100%

- 10.9 The age profile of heads of household shows more heads in the youngest and oldest age bands and fewer in the middle age groups. This is also reflected in the household type make-up with 9% of households being lone parent households, compared to 6% in the private sector and 36% being single person households, compared to 22% in the private sector.
- 10.10 The proportion of households with one or more residents with a disability living in them, in the housing association stock, is 31% compared to just under 16% in the private sector housing stock.
- 10.11 The following table looks at the household income distribution of households in RSL dwellings compared to those in private sector dwellings.

Figure 10.4 Age of head of household RSL and private sector (Source: House Condition Survey 2011)

Income bands	Housing Association	Private Sector
Under £10k	28.6%	16.4%
£10k-£15k	24.8%	20.1%
£15k-£20k	16.2%	8.8%
£20k-£30k	22.6%	20.6%
£30k-£40k	0.8%	7.7%
£40k-£50k	1.3%	4.7%
Over £50k	5.7%	21.7%
Total	100%	100%

- 10.12 Average incomes in RSL dwellings are substantially lower than those in the private sector, as would be expected. In particular, only 7.8% of households have an annual household income above £30,000 per annum in housing association dwellings, compared to 34.1% in the private sector.
- 10.13 The proportion of households in receipt of benefit in RSL dwellings is 73% compared to 36% in the private sector.

The Decent Homes Standard

- 10.14 The Decent Homes Standard was originally introduced for application to the social rented housing sector. The original aim was to make all social rented dwellings decent by the end of 2010. This objective is unlikely to have been met according to figures from the 2009 EHS, which indicated that 23.2% of social housing was non-decent (27.1% local authority and 19.7% RSL).
- 10.15 In Waltham Forest the survey indicates that 17.7% of RSL dwellings are non-decent compared to the 19.7% national figure. Given the age and building type profile of RSL dwellings in the borough this indicate that RSLs have come further in reducing non-decency than RSLs across England as a whole.
- 10.16 Figure 10.5 gives a breakdown of reasons for failure of the Decent Homes Standard, comparing these with failures in the private sector stock.

Figure 10.5 Reasons for non-decency RSL and private sector (Source: House Condition Survey 2011)

Failure reason	RSL Dwellings	RSL % of stock	Private sector % of stock
HHSRS failure	1,008	9.3%	17.8%
Disrepair failure	406	3.7%	7.3%
Modern facilities inadequate	0	0.0%	1.3%
Thermal Comfort inadequate	822	7.6%	15.7%
Total	1,919	17.7%	33.5%

^{10.17} Failures are distributed in almost the same relative proportions at the private sector stock with failures for each reason being roughly half that found in the private sector. The only exception is for lack of modern facilities where no failures were found in the RSL stock.

Energy Efficiency

^{10.18} The average (mean) SAP (energy efficiency) rating of RSL dwellings is 63, on a scale of 1 to 100. This compares to an average of 52 for the private sector.

Figure 10.6 Energy Performance SAP banded (Source: House Condition Survey 2011 and EHS 2009)

EPC SAP Range Banded	RSL Stock	Private Sector	EHCS 2009
Band A (92-100)	0.0%	0.0%	0.0%
Band B (81-91)	0.0%	0.4%	0.1%
Band C (69-80)	34.8%	6.5%	5.0%
Band D (55-68)	44.3%	37.9%	30.4%
Band E (39-54)	17.7%	43.4%	42.8%
Band F (21-38)	2.7%	10.7%	17.3%
Band G (1-20)	0.5%	1.1%	4.4%
Total	100.0%	100.0%	100.0%

^{10.19} The major differences by SAP band are the far lower proportion of dwellings in the E and F bands and the far higher proportions of dwellings in the C and D bands.

11. Summary & Recommendations

Addressing findings in future strategies and policies

Introduction

- 11.1 This chapter draws together the key findings of the private sector housing stock condition survey. It sets these findings in the context of the national position and highlights areas of substantial difference. It then seeks to identify the policy implications of these findings in the context of current legislation and obligations on the Local Authority. The key pieces of legislation driving private sector housing policy are:
- » Regulatory Reform (Housing Assistance) (England and Wales) Order 2002 (RRO)
 - » Section 3 Housing Act 2004
- 11.2 In particular, the specific items arising from these are:
- » The requirement to have and up-to-date Private Sector Housing Strategy that is evidence based
 - » The requirement to license high risk Houses in Multiple Occupation (HMO)
 - » The option to apply for additional licensing of other types of HMO
 - » The obligation to take action wherever a category one health and safety hazard is identified
 - » The option to take action where an atypical category two health and safety hazard is identified
 - » The requirement to update statutory overcrowding provisions
 - » The requirement to provide Disabled Facilities Grants for those who are eligible
 - » The requirement to bring long-term empty properties back into use
 - » The power to use Empty Dwelling Management Orders
- 11.3 Additional requirements were placed on local authorities in relation to Public Service Agreement (PSA) 7: to monitor the proportion of vulnerable residents living in Decent Homes; and National Indicator 187: to monitor the proportion of households in income benefit living in dwellings with a SAP (energy efficiency) rating below 35 or above 65 (with a view to reducing the former and increasing the latter). Both of these obligations have now been abolished, but many Councils, and even Communities and Local Government (CLG) continue to monitor these.
- 11.4 For the purposes of this summary, results for private sector dwellings only will be provided unless otherwise stated. Obligation for Housing Association (RSL) dwellings does not fall upon the Local Authority, but certainly legislation will. In addition, Waltham Forest Council will wish to continue to maintain its strong relationship with these organisations.

General survey characteristics

11.5 The following list gives some of the key features of Waltham Forest's housing stock and population compared with national averages:

- » The age profile showed much higher proportions of older dwellings, pre 1919 and 1919-1945 than found nationally. Pre 1919 dwellings represent 60% of the stock, compared to 25% nationally and 1919-1945 dwellings represent 20% of the stock, compared to 17% nationally.
- » Private renting is far more common than nationally, with 32% of the whole housing stock being privately rented compared to 15% across England. Privately rented dwellings have increased massively since 2001 when they represented only 17% of all housing in the Borough.
- » The massive increase in the private rented sector is also associated with an increase in flat conversions with these now representing 17% of the private sector stock, compared to just 4% in England. Low rise purpose built flats and medium/large terraced house make up the bulk of the remainder of the private sector housing stock.
- » There are an estimated 3,910 Houses in Multiple Occupation (HMOs) in Waltham Forest, which represents just over 5% of dwellings, far more than the 2.5% found nationally. There are an estimated 440 licensable HMOs in the borough; these are three or more storey HMOs with five or more residents and are considered high risk HMOs.
- » There are estimated to be 1,990 private sector vacant dwellings in Waltham Forest, with 1,270 having been vacant for over 6 months, representing 1.7% of the private sector housing stock. The Council's own figures show a slightly higher number, but it is important to realise that changes in vacant dwelling numbers occur relatively quickly, so all numbers are subject to some variance in relation to the true picture.
- » The age profile of residents in Waltham Forest is younger than the national average, particularly for the 25-34 year old age range. There are far more multi-adult households in Waltham Forest than for England as a whole. These are where three or more adults and no children are living as a household and are strongly associated with HMOs.
- » Overall average incomes are slightly below those reported for England as a whole. Distribution is somewhat different however, with more households in the highest income bracket (household income over £50,000 per annum) and correspondingly, more households in the lowest income bracket (household incomes below £10,000 per annum).
- » Receipt of a range of benefits is used to define vulnerability, which are mainly income related with the exception of some disability benefits, and are closely associated with the qualifying criteria used under the Warm Front scheme. In Waltham Forest the proportion of households receiving a benefit, at 33.6%, is well above the national average of 17%, which links in to the higher proportion of those on a low income (less than £15,000) previously mentioned.

Dwelling and condition summary by tenure

11.6 The following table (Figure 11.1) gives a breakdown of key dwelling condition characteristics and compares these to the national average.

Figure 11.1 Summary of Key Statistics (Source: House Condition Survey 2011 and EHS 2009)

Statistic	Owner Occupied		Privately Rented		All Private Sector		EHCS 2009
	Count	Percentage	Count	Percentage	Count	Percentage	
Dwellings¹	45,085	46%	31,810	32%	76,900	78%	82%
Benefit receipt^{2,3}	13,140	30%	12,260	39%	25,400	34%	17%
Household with resident over 65 years of age³	13,140	30%	2,930	9%	16,070	21%	24%
Non Decent	13,230	29%	13,110	41%	26,340	34%	32%
Vulnerable households in Decent Homes	4,620	67%	5,210	52%	9,830	58%	61%
Category 1 hazards	6,860	15%	6,810	21%	13,670	18%	22%
Disrepair	3,000	7%	2,600	8%	5,600	7%	6%
Thermal Comfort Failure	7,410	16%	4,650	15%	12,060	16%	11%
Mean SAP⁴	51		55		52		51
Fuel Poverty	6,930	15.6%	4,270	13.7%	11,200	14.8%	13.2%

1. Percentages given as a proportion of total housing stock, the remaining 16% is all social housing, which was not surveyed as part of this study
2. Refers to households in receipt of an income or disability benefit, as defined under former Public Service Agreement 7 objectives
3. As a total and percentage of occupied dwellings
4. SAP is the government's Standard Assessment Procedure for rating energy efficiency on a scale of 1 (poor) to 100 (excellent)

11.7 In general, despite the age of the dwelling stock, conditions are similar to the national average. This is in large part due to the urban nature of the stock, with high provision of mains gas and better energy efficiency. It is also supported by high housing demand and house prices. Balanced against this is the high level of private renting along with the age of stock.

11.8 One notable feature is that category one health and safety hazards are below average whilst thermal comfort failures are above average. Nationally, Excess Cold hazards form a substantial part of category one hazards, however, in Waltham Forest this is less so due to the energy efficiency of the stock. Thermal Comfort, however, is a more simplistic standard based solely on levels of loft and wall insulation as well as heating system types. The presence of a high proportion of dwellings with solid walls and the large

numbers of flats make it easier to fail this standard, whilst at the same time, better heating standards result in higher energy efficiency. This does more to highlight the inadequacies of the thermal comfort standard rather than any issue with the private sector housing stock.

Cost implications for repair and improvement

- 11.9 The cost to make dwellings decent in the private sector provides an idea of the cost of bringing dwellings up to a good standard. The costs are the total sum that would be needed for remedial and improvement work, regardless of the source of funding. They take no account of longer term maintenance, which would be in addition to these costs.

Figure 11.2 Cost to remedy dwelling condition issues (Source: House Condition Survey 2011)

Failure reason	Dwellings failing	Total Cost	Average Cost
HHSRS failure	13,670	£42.0	£3,070
Disrepair failure	5,650	£24.5	£2,030
Modern facilities inadequate	990	£21.0	£21,330
Thermal Comfort inadequate	12,060	£27.4	£4,520
Total	25,800	£114.8	£4,450

- 11.10 A significant amount of the costs outlined will be met by owners and landlords as a part of maintenance and improvement. This will not, however, account for all costs as many owners will not be able to afford to carry out these works themselves, particularly older residents who are equity rich, but cash poor.

Category 1 hazards

- 11.11 One of the most significant changes under the Housing Act 2004 was a change in the minimum standard for housing. The fitness standard was removed and replaced by the Housing Health and Safety Rating System (HHSRS). The Housing Health and Safety Rating System (HHSRS) is a prescribed method of assessing individual hazards, rather than a general standard to give a judgment of fit or unfit. The HHSRS is evidence based – national statistics on the health impacts of hazards encountered in the home are used as a basis for assessing individual hazards.
- 11.12 The HHSRS system deals with a much broader range of issues than the previous fitness standard. It covers a total of 29 hazards in four main groups described in more detail in the main report. Primary hazard failures in Waltham Forest are excess cold, falling on stairs, fire, falling on level surfaces and entry by intruders. Whilst the falls hazard and excess cold failure rates (as a proportion of all failures) are similar to the national figures, fire and entry by intruders hazards are much higher.
- 11.13 Fire hazards are strongly associated with privately rented dwellings, particularly converted flats and HMOs, especially where these are in dwellings of three or more storeys. The high level of entry by intruders hazards relates to the higher property crime rates experienced in London Boroughs than nationally, which lead to a greater need for security. Private rented dwellings tend to have poorer security on the whole, and the large number of such dwellings in the Borough contributes to this problem.

Energy Efficiency

11.14 Energy efficiency is a key consideration in private sector housing and the following illustrates some of the issues:

- » The mean SAP (SAP 2005 energy rating on a scale of 0 (poor) to 100 (good)) is 52 in Waltham Forest, which is fractionally higher than that found nationally in private sector properties (51).
- » The least energy efficient dwellings are older dwellings (pre 1919); and detached houses (although these only represent 1% of the total private sector housing stock). Privately rented properties had the higher mean SAP rating at 55 compared with 51 in owner occupied properties.
- » Fuel poverty at 14.8% is higher than the rate found in England at 13.2%. The rapid increase in fuel prices, however, means that the national average is likely to now be higher than that in Waltham Forest in 2011.

Impact on housing policy

11.15 The Regulatory Reform Order 2002 and the Housing Act 2004 significantly reduced the number of compulsory obligations on local authorities. At the same time, new indicators such as the HHSRS replacing the Fitness Standard and the changes in HMO definition, including HMO licensing, affect more dwellings than the standards they replaced.

11.16 The reduction in budgets for local authorities seen in the last eighteen months lead to a serious question mark over what obligations and demands can be prioritised as most local authorities; Waltham Forest included, and only have a fraction of the budget needed to tackle housing condition issues.

11.17 In order to prioritise, it is logical to draw out the key factors likely to affect the private sector housing team in Waltham Forest:

- » A massive increase in the size of the private rented sector
- » An above average number of HMOs and more licensable HMOs than have currently been identified
- » A well above average number of households in receipt of benefit and on low incomes
- » High housing demand and house prices leading to affordability issues and lack of incentive to improve housing for private sector landlords
- » Well above average proportions of dwellings with Fire and Entry by Intruders hazards

11.18 Due to budgetary constraints there are certain key issues that have not been listed above. Since Public Service Agreement (PSA) 7 has been abandoned in favour of a Departmental Strategic Objective, it is not recommended that any policy to specifically address non-decent housing in the private sector be adopted. The HHSRS is the only mandatory part of the Decent Homes Standard and it is recommended that from a housing condition perspective, this become the key focus.

The Private Rented Sector

11.19 Private rented dwelling policy will largely be driven by the issue of HMOs, as these represent such a substantial amount of the private rented sector that a policy to thoroughly tackle the whole private rented

sector is likely to be unsustainable. In general, the private rented sector is in only slightly poorer condition than is the case nationally. The gap between it and the owner occupied sector is certainly less than is found nationally. Whilst it will remain necessary to be responsive to issues arising the general private rented stock, it is recommended that resources be focused primarily on HMOs as they represent the greatest risk to occupier health and safety.

- 11.20 The Council may wish to consider selective additional licensing of HMOs as part of its strategy. One study was already underway at the time of this report and further investigation and consultation may be necessary. Whilst a number of local authorities have had additional licensing schemes approved, it is not always the case that having a significantly above average proportion of HMOs leads to additional licensing. Factors such as HMO density, type, condition and the views of tenants and landlords all need to be considered. Additional licensing would bring in additional revenue, but the purpose of this revenue is for running the scheme, which in itself is intended to reduce health and safety hazards and improve conditions for tenants.
- 11.21 The Council will need to continue to work closely with the fire and rescue service to improve fire safety, particularly in private rented dwellings and especially in HMOs. There is considerable scope for fire safety improvements in HMOs. Only 47% of HMOs have mains wired smoke detectors, although over 95% have some form of smoke detector (battery smoke detectors are not considered adequate for this type of accommodation). Fire doors, fire blankets and fire extinguishers are all present at even lower rates than mains wired smoke detectors.

Owner Occupiers

- 11.22 The Council will need to continue to work closely with the Metropolitan Police in crime prevention in order to reduce the number of dwellings at risk of Entry by Intruders. Category one hazards for Entry by Intruders are more than ten times as common as the figure for all England. Highlighting the issues of burglary to owners and encouraging them to fit better security measures will help to reduce this. In the most severe cases in the privately rented sector, i.e. where category one hazards exist, enforcement action by the Council is an option. Working with landlords may be the preferred option however, as remedial security works are relatively in-expensive.
- 11.23 Only Disabled Facilities Grants (DFG) remains mandatory and it is extremely unlikely that the Council will be able to afford to implement any type of repairs grant scheme for the foreseeable future.
- 11.24 Over 6,000 owner occupiers identified that repair works were needed to their dwelling. Of these nearly a quarter (1,350) said that they would be interested in a flexible loan with one-in-ten preferring an equity share loan option. On this basis, a flexible loan scheme may be the best option for helping owners who are unable to afford to carry out works from their own funds. Loan schemes require an initial capital pot from the Council, but once they have been running for a number of years tend to become self-funding with repayments from the initial loans forming the capital of new loans.
- 11.25 Whilst a significant number of home owners indicate an interest in a flexible loan scheme to carry out repairs to their dwelling, take up of such a scheme may be an issue. A flexible loan may initially be appealing to an occupier, but when the terms of the loan are seen and the level of paperwork involved fewer may actually be willing to take up such a scheme. This is not to say that terms or paperwork need necessarily be onerous, but rather that this is to be avoided. Figures from the Houseproud scheme for Waltham Forest show that nearly 640 enquiries have been received, but only on 40 occasions were plans

taken forward and on only 10 occasions did those plans come to fruition with the use of assisted funding. This illustrates the difficulty in converting interest in a scheme into actual work.

- ^{11.26} Given that approximately 30% of owner occupied households are in receipt of one or more benefits affordability for repair and improvements is likely to remain an issue until such time as the economic situation improves.

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Appendix B

Survey sampling, fieldwork and weighting the data

The survey used a stratified random sample of 2,400 dwellings from an address file supplied by Waltham Forest Council. The sample was a stratified random sample to give representative findings across the authority, with the objective of gaining as many surveys as possible.

All addresses on the original address list were assigned an ID number and a random number generating computer algorithm was used to select the number of addresses specified within the area.

The survey incorporates the entire private sector stock and including registered social landlords (Housing Associations).

Each dwelling selected for survey was visited a minimum of three times where access failed and basic dwelling information was gathered including a simple assessment of condition if no survey was ultimately possible. To ensure the sample was not subject to a non-response bias, the condition of the dwellings where access was not achieved was systematically compared with those where the surveyors were successful. Where access was achieved, a full internal inspection was carried out including a detailed energy efficiency survey. In addition to this, where occupied, an interview survey was undertaken.

The basic unit of survey was the 'single self-contained dwelling'. This could comprise a single self-contained house or a self-contained flat. Where more than one flat was present the external part of the building, encompassing the flat and any access-ways serving the flat were also inspected.

The house condition survey form is based on the survey schedule published by the ODPM in the 2000 guidelines (Local House Condition Surveys 2000 HMSO ISBN 0 11 752830 7).

The data was weighted using ORS reporting software. Two approaches to weighting the data have been used.

The first method is used for data such as building age, which has been gathered for all dwellings visited. In this case the weight applied to the individual dwellings is very simple to calculate, as it is the reciprocal of the sample fraction. Thus if 1 in 10 dwellings were selected the sample fraction is 1/10 and the weight applied to each is 10/1.

Where information on individual data items is not always present, i.e. when access fails, then a second approach to weighting the data is taken. This approach is described in detail in the following appendix, but a short description is offered here.

The simplest approach to weighting the data to take account of access failures is to increase the weight given to the dwellings where access is achieved by a proportion corresponding to the access failures. Thus if the sample fraction were 1/10 and 10 dwellings were in a sample the weight applied to any dwelling would be 10/1 which would give a stock total of 100. However, if access were only achieved in 5 dwellings

the weight applied is the original 10/1 multiplied by the compensating factor, 10/5. Therefore $10/1 \times 10/5 = 20$. As there are only 5 dwellings with information the weight, when applied to five dwellings, still yields the same stock total of 100. The five dwellings with no data are ignored.

With an access rate above 50% there may be concern that the results will not be truly representative and that weighting the data in this manner might produce unreliable results. There is no evidence to suggest that the access rate has introduced any bias. When externally gathered information (which is present for all dwellings) is examined the stock that was inspected internally is present in similar proportions to those where access was not achieved suggesting no serious bias will have been introduced.

Only those dwellings where a full survey of internal and external elements, energy efficiency, housing health and safety and social questions were used in the production of data for this report. A total of 1,200 such surveys were produced.

The use of a sample survey to draw conclusions about the stock within the area as a whole introduces some uncertainty. Each figure produced is subject to sampling error, which means the true result will lie between two values, e.g. 5% and 6%. For ease of use, the data are presented as single figures rather than as ranges. A full explanation of these confidence limits is included in the following appendix.

Sample Design

The sample was drawn from the Waltham Forest address file derived from Council Tax records, using the Building Research Establishment (BRE) stock modelling data. This allocated dwellings into four bands (strata), based on the projection of vulnerably occupied non-decent dwellings. This form of stratification concentrates the surveys in areas with the poorest housing conditions and allows more detailed analysis. This procedure does not introduce any bias to the survey as results are weighted proportionally to take account of the over-sampling.

The models are based on information drawn from the Office of National Statistics Census data, the Land Registry, the English House Condition Survey and other sources. It is this data that is used to predict dwelling condition and identify the 'hot-spots' to be over-sampled.

Stock total

The stock total is based initially on the address list; this constitutes the sample frame from which a proportion (the sample) is selected for survey. Any non-dwellings found by the surveyors are marked as such in the sample; these will then be weighted to represent all the non-dwellings that are likely to be in the sample frame. The remaining dwellings surveyed are purely dwellings eligible for survey. These remaining dwellings are then re-weighted according to the original sample fractions and produce a stock total.

In producing the stock total the amount by which the total is adjusted to compensate for non-dwellings is estimated, based on how many surveyors found. With a sample as large as the final achieved data-set of 1,200 dwellings however, the sampling error is likely to be very small and the true stock total is likely, therefore, to be very close to the 87,760 private sector and RSL dwellings reported. Sampling error is discussed later in this section.

Weighting the data

The original sample was drawn from Waltham Forest Address file. The sample fractions used to create the sample from this list can be converted into weights. If applied to the basic sample these weights would produce a total equal to the original address list. However, before the weights are applied the system takes into account all non-residential and demolished dwellings. This revised sample total is then weighted to produce a total for the whole stock, which will be slightly lower than the original total from which the sample was drawn.

Dealing with non-response

Where access fails at a dwelling selected for survey the easiest strategy for a surveyor to adopt is to seek access at a neighbouring property. Unfortunately this approach results in large numbers of dwellings originally selected subsequently being excluded from the survey. These are the dwellings whose occupiers tend to be out all day, i.e. mainly the employed population. The converse of this is that larger numbers of dwellings are selected where the occupiers are at home most of the day, i.e. older persons, the unemployed and families with young children. This tends to bias the results of such surveys as these groups are often on the lowest incomes and where they are owner-occupiers they are not so able to invest in maintaining the fabric of their property.

The methods used in this survey were designed to minimise the effect of access failures. The essential features of this method are; the reduction of access failures to a minimum by repeated calls to dwellings and the use of first impression surveys to adjust the final weights to take account of variations in access rate.

Surveyors were instructed to call on at least three occasions and in many cases they called more often than this. At least one of these calls was to be outside of normal working hours, thus increasing the chance of finding someone at home.

Where access failed this normally resulted in a brief external assessment of the premises. Among the information gathered was the surveyor's first impression of condition. This is an appraisal of the likely condition of the dwelling based on the first impression the surveyor receives of the dwelling on arrival. It is not subsequently changed after this, whatever conditions are actually discovered.

Where access fails no data is collected on the internal condition of the premises. During data analysis weights are assigned to each dwelling according to the size of sample fraction used to select the individual dwelling.

The final weights given to each dwelling are adjusted slightly to take into account any bias in the type of dwellings accessed. Adjustments to the weights (and only the weights) are made on the basis of the tenure, age and first impression scores from the front-sheet only surveys.

Sampling error

Results of sample surveys are, for convenience, usually reported as numbers or percentages when in fact the figure reported is at the middle of a range in which the true figure for the population will lie. This is due to the fact that a sample will be subject to error since one dwelling is representing more than one dwelling in the results. The larger the sample, the smaller the error range of the survey and if the sample were the same size as the population the error range would be zero. Note: population is a statistical term referring to the whole; in this case the population is the total number of private sector dwellings.

The error range of the survey can be expressed in terms of the amount above or below a given figure that the true result is expected to lie. For example, in what range does the true figure for the proportion of dwellings with a category one hazard lie. This error range is also affected by how confident we want to be about the results. It is usual to report these as the 95% confidence limits, i.e. the range either side of the reported figure within which one can be 95% confident that the true figure for the population will lie. In other words, if we re-ran the whole survey 100 times, we would expect that 95 times out of 100 the result would fall within a given range either side of the reported figure. This range is referred to as the standard deviation.

The calculation for standard deviation, within 95% confidence limits, is the standard error multiplied by 1.96. The following is the formula for calculating standard error:

$$s.e.(p_{srs}) = \sqrt{\left(1 - \frac{n}{N}\right) \frac{p(1-p)}{n}}$$

Where $s.e.(p_{srs})$ is the notation to describe the general formula for the standard error for a simple random sample.

N = the number of dwellings in the population.

n = the number of dwellings in the sample.

p = the proportion of dwellings in the sample with a particular attribute such as category one hazards.

This formula can be used to calculate the confidence limits for the results of any attribute such as category one hazards. Figure B.1 gives a number of sample sizes and the confidence limits for a range of different possible results.

For this survey the estimate of dwellings with a Category 1 Hazard was 17.8%. Calculating the standard deviation for this figure, and using the 95% confidence limits, we find that the true figure lies in a range of + or – 2.2%. In other words one can say that 95% of all samples chosen in this way would give a result in the range between 15.6% and 20.0%.

The standard deviation figure of + or – 2.2%, however, would only stand true if this were a simple random sample. In other words, it would only be true if the 1,200 surveys had been selected totally at random from the whole private sector housing stock. This was not the case for this survey as stratified random sampling was used in order to concentrate on non-decent dwellings occupied by vulnerable residents.

Because the survey was a stratified random sample, an altered version of the standard deviation calculation needs to be used. This more complex formula takes into account the results for each individual stratum within the survey. When this formula is applied the standard deviation for the survey increases to + or – 2.4%. In other words, we can be 95% confident that the level of category one hazards present in the private sector housing stock will fall somewhere between 15.4% and 20.2%.

The following formula is that used to calculate the standard error of a stratified random sample. Multiplying the result by 1.96 then gives the standard deviation within 95% confidence limits:

Where $s.e.(p_{st})$ is the notation to describe the general formula for the standard error for a stratified random sample.

$$s.e.(p_{st}) = \sqrt{\frac{1}{N^2} \sum \frac{N_i^2 p_i (1 - p_i)}{n_i - 1}}$$

N = the number of dwellings in the population.

N_i = the population of dwellings in an individual stratum of the sample.

n_i = the number of dwellings in an individual stratum of the sample.

p_i = the proportion of dwellings in the sample with a particular attribute such as category one hazards.

Figure B.1 95% per cent confidence limits for a range of possible results and sample sizes

Expected result as per cent	Sample size									
	100	200	300	400	500	600	700	800	900	1,000
10	5.9	4.2	3.4	2.9	2.6	2.4	2.2	2.1	2	1.9
20	7.8	5.5	4.5	3.9	3.5	3.2	3	2.8	2.6	2.5
30	9	6.4	5.2	4.5	4	3.7	3.4	3.2	3	2.8
40	9.6	6.8	5.5	4.8	4.3	3.9	3.6	3.4	3.2	3
50	9.8	6.9	5.7	4.9	4.4	4	3.7	3.5	3.3	3.1
60	9.6	6.8	5.5	4.8	4.3	3.9	3.6	3.4	3.2	3
70	9	6.4	5.2	4.5	4	3.7	3.4	3.2	3	2.8
80	7.8	5.5	4.5	3.9	3.5	3.2	3	2.8	2.6	2.5
90	5.9	4.2	3.4	2.9	2.6	2.4	2.2	2.1	2	1.9

Very small samples and zero results

When sub-dividing the results of a sample survey by multiple variables, it is possible to produce a result where no survey carried out matches these criteria. In such a case the result given will be zero, however, this can give a false impression that no such dwellings exist. In reality, it may well be possible that a very small number of dwellings, with the given characteristics, are present, but that in numbers that are too low to have been randomly picked by the sample.

In the case of the 2010 Waltham Forest HCS, the average weight is approximately 73 (87,800 private sector and RSL dwellings divided by 1,200 surveys). As a consequence, if there are fewer than 100 dwellings of a certain type within the Council, the result from the survey will tend to be a very crude measure. This is

because, based on the average weight, only a result of 33, 66 or 99 could be given, which if, in reality, there are 50 dwellings with a certain characteristic, is fairly inaccurate.

Because of the points outlined above, the reader is encouraged to view extremely small or zero results with caution. It should be considered that these represent a small but indeterminate total, rather than none at all.

Appendix C

Housing Legislation and Requirements

Section 605 of the Housing Act 1985 (as amended) placed a duty on Local Authorities to consider the condition of the stock within their area, in terms of their statutory responsibilities to deal with unfit housing, and to provide assistance with housing renewal. Section 3 of the Housing Act 2004 replaced this with a similar duty to keep housing conditions under review.

The Regulatory Reform (Housing Assistance) (England and Wales) Order 2002 came into effect on the 19 July 2003 and led to major change in the way Local Authorities can give financial help for people to repair or improve private sector homes. Before the Order, the Government set clear rules which controlled the way financial help could be given and specified the types of grant which could be offered. The Order set aside most of these rules (apart from the requirement to give mandatory Disabled Facility Grants). It now allows Local Authorities to adopt a flexible approach, using discretion to set up their own framework for giving financial assistance to reflect local circumstances, needs and resources.

The Office of the Deputy Prime Minister (ODPM), published guidance under Circular 05/2003. In order to use the new freedom, a Local Authority must prepare and publish a Private Sector Renewal Policy. The policy must show that the new framework for financial assistance is consistent with national, regional and local policies. In particular, it has to show that the local priorities the strategy is seeking to address have been identified from evidence of local housing conditions including stock condition.

The Housing Act 2004 received Royal Assent in November 2004. The Act makes a number of important changes to the statutory framework for private sector housing, which came into effect in April 2006:

The previous fitness standard and the enforcement system have been replaced by the new Housing Health and Safety Rating System (HHSRS).

The compulsory licensing of higher risk houses in multiple occupation (HMO) (three or more storeys, five or more tenants and two or more households).

New discretionary powers including the option for selective licensing of private landlords, empty dwelling management orders and tenancy deposit protection.

Operating Guidance was published on the Housing Health and Safety Rating System in February 2006. This guidance describes the new system and the methods for measurement of hazards, as well as the division of category 1 and 2 hazards. Guidance has been issued by the ODPM on the licensing provisions for HMOs, which describes the high risk HMOs that require mandatory licensing and those that fall under additional, voluntary licensing.

As the Rating System has now replaced the fitness standard, this report will deal with findings based on statutory hazards, not unfitness.

Mandatory Duties

Unfit houses (Housing Act 1985) - to take the most satisfactory course of action – works to make property fit, closure/demolition or clearance declaration.

With effect from April 2006 replaced by:

Category 1 Hazards, Housing Health and Safety Rating System (HHSRS) (Housing Act 2004) – to take the most satisfactory course of action – improvement notices, prohibition orders, hazard awareness notices, emergency remedial action, emergency prohibition orders, demolition orders or slum clearance declaration.

Houses in Multiple Occupation (Housing Act 1985) - to inspect certain HMOs, to keep a register of notices served, to require registration where a registration scheme is in force.

With effect from April 2006 replaced by:

HMO Licensing by the Authority (Housing Act 2004) of all HMOs of three or more storeys, with five or more residents and two or more households. Certain exceptions apply and are defined under sections 254 to 259 of the Housing Act 2004.

Overcrowding - (Housing Act 1985) - to inspect and report on overcrowding

Now In Addition

Overcrowding – (Housing Act 2004) – to inspect and report on overcrowding as defined under sections 139 to 144 of the Housing Act 2004 along with statutory duty to deal with any category 1 overcrowding hazards found under the HHSRS.

The provision of adaptations and facilities to meet the needs of people with disabilities (Housing Grants, Construction and Regeneration Act 1996) - to approve applications for Disabled Facilities Grants for facilities and/or access

Energy Conservation (Home Energy Conservation Act 1995) - to have in place a strategy for the promotion and adoption of energy efficiency measures and to work towards specified Government targets to reduce fossil fuel use.

Appendix D

The Decent Homes Standard

Measure of a decent home

A dwelling is defined as non-decent if it fails any one of the following 4 criteria:

Figure D.1 Categories for dwelling decency

A	It meets the current statutory minimum standard for housing – at present that it should not have a Category 1 Hazard under the HHSRS
B	It is in a reasonable state of repair – has to have no old and defective major elements*
C	It has reasonably modern facilities and services – Adequate bathroom, kitchen, common areas of flats and is not subject to undue noise
D	Provides a reasonable degree of thermal comfort

** Described in more detail below*

Each of these criteria has a sub-set of criteria, which are used to define such things as ‘providing a reasonable degree of thermal comfort’. The exact details of these requirements are covered in the aforementioned ODPM guidance (see 4.1.2).

Applying the standard

The standard is specifically designed in order to be compatible with the kind of information collected as standard during a House Condition Survey (HCS). All of the variables required to calculate the standard are contained within a complete data set.

The four criteria used to determine the decent homes standard have specific parameters. The variables from the survey used for the criteria are described below:

Criterion A:

Criterion A is simply determined as whether or not a dwelling fails the current minimum standard for housing. This is now the Housing Health and Safety Rating System (HHSRS) – specifically Category 1 Hazards. All dwellings surveyed were marked on the basis of the HHSRS and if any one or more Category 1 Hazards was identified the dwelling was deemed to fail under criterion A of the Decent Homes Standard.

Criterion B:

Criterion B falls into 2 parts: firstly, if any one of a number of key major building elements is both in need of replacement and old, then the dwelling is automatically non-decent. Secondly, if any two of a number of key minor building elements are in need of replacement and old, then the dwelling is automatically non-decent. The elements in question are as follows:

Figure D.2 Major Elements (1 or more)

Element	Age to be considered old
Major Walls (Repair/Replace >10%)	80
Roofs (Replace 50% or more)	50 for houses 30 for flats
Chimney (1 or more needing partial rebuild)	50
Windows (Replace 2 or more windows)	40 for houses 30 for flats
Doors (Replace 1 or more doors)	40 for houses 30 for flats
Gas Boiler (Major Repair)	15
Gas Fire (Major Repair)	10
Electrics (Major Repair)	30

Figure D.3 Minor Elements (2 or more)

Element	Age to be considered old
Kitchen (Major repair or replace 3+ items)	30
Bathroom (Replace 2+ items)	40
Central heating distribution (Major Repair)	40
Other heating (Major Repair)	30

Criterion C:

Criterion C requires the dwelling to have reasonably modern facilities. These are classified as the following:

Figure D.4 Age categories for amenities

Amenity	Defined as
Reasonably modern kitchen	Less than 20 yrs
Kitchen with adequate space and layout	If too small or missing facilities
Reasonably modern bathroom	Less than 30 yrs
An appropriately located bathroom and W.C.	If unsuitably located etc.
Adequate noise insulation	Where external noise a problem
Adequate size and layout of common parts	Flats

You may notice that the age definition for kitchens and bathrooms differs from criterion B. This is because it was determined that a decent kitchen, for example, should generally be less than 20 years old but may have the odd item older than this. The same idea applies for bathrooms.

Criterion D:

The dwelling should provide an adequate degree of thermal comfort. It is currently taken that a dwelling, which is in fuel poverty, is considered to be non-decent. A dwelling is in fuel poverty if the occupiers spend more than 10% of their net income (after Tax, N.I and housing cost e.g. mortgage or rent) on heating and hot water.

A number of Local Authorities criticized this approach, as it requires a fully calculated SAP for each dwelling that is being examined. Whilst this is fine for a general statistical approach, such as this study, it does cause problems at the individual dwelling level for determining course of action.

The alternative, laid out in the new guidance, is to examine a dwelling's heating systems and insulation types. The following is an extract from the new guidance:

The revised definition requires a dwelling to have both:

- » Efficient heating; and
- » Effective insulation
- » Efficient heating is defined as any gas or oil programmable central heating or electric storage heaters or programmable LPG/solid fuel central heating or similarly efficient heating systems, which are developed in the future. Heating sources, which provide less efficient options, fail the decent homes standard.

Because of the differences in efficiency between gas/oil heating systems and other heating systems listed, the level of insulation that is appropriate also differs:

For dwellings with gas/oil programmable heating, cavity wall insulation (if there are cavity walls that can be insulated effectively) or at least 50mm loft insulation (if there is loft space) is an effective package of insulation;

For dwellings heated by electric storage radiators/LPG/programmable solid fuel central heating a higher specification of insulation is required: at least 200mm of loft insulation (if there is a loft) and cavity wall insulation (if there are cavities that can be insulated effectively).

For the purposes of this study the above definition will be used in calculating the proportion of dwellings that are considered non-decent.