Lichfield district council

Private Sector House Condition Survey 2010

FINAL REPORT
February 2011

Lichfield District Council

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Introduction

Private Sector House Condition Surveys (HCS) are conducted on a regular basis by local authorities as a means of maintaining a detailed picture of housing conditions in the private sector (owner occupied and privately rented homes). Such a picture forms a useful evidence base on which to build strategies and inform investment decisions, and feed into statistical returns and other internal reports. The information is also useful in presenting the potential obligations on an authority in relation to current housing legislation:

- Section 3 Housing Act 2004
- Regulatory Reform (Housing Assistance) (England and Wales) Order 2002 (RRO)

The survey was a sample survey with a target of 700 dwellings, covering all private sector tenures excluding registered social landlord (RSL) or housing association dwellings. A sample of 1,400 was drawn with final total of 698 full surveys being undertaken.

In order to place the findings in context, comparisons are made to the English House Condition Survey (EHCS) 2007 and the Survey of English Housing 2007-2008, both of which are published by Communities and Local Government (CLG). Some comparative data is drawn from the Family Resources Survey 2007-2008, which is published by the Department for Works and Pensions (DWP).

Due to the nature of statistical variation, as outlined above, it is not necessary to quote each individual figure to the nearest dwelling, as this implies a spurious level of accuracy. As with the English House Condition Survey (EHCS), figures in this report are either quoted to the nearest 100 dwellings or 10 dwellings, dependent upon the size of any given figure. Percentages within the report are only quoted to 1 decimal place for the same reason.

General survey characteristics

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

- A substantially lower proportion of the stock was built before 1945 than that found nationally (16.1% compared with 42.7%), with a much higher proportion of the stock built post 1944 to that found nationally (83.9% compared with 57.3%).
- The tenure profile showed some differences to the national pattern. The owner occupied stock had higher proportions than that found nationally (78% compared with 70%), with privately rented

dwellings being represented at a lowest rate (9% compared with 12%) and the social rented sector also being lower (13% compared with 18%).

- The stock had much higher proportions of detached houses and bungalows and, to a lesser extent, semi-detached houses, with lower proportions of terraced housing and flats.
- There were fewer heads of household aged between 16 and 44 years than nationally with slightly more aged between 50 and 64. There were, however, substantially more aged 65 and over than nationally (34.5% compared with 24.4%) which does have implications for private sector housing policy due to the potentially greater need for support typically associated with older households.
- The figures for length of residence, for those that had been resident for up to 5 years, showed a similar profile to that found nationally (34% compared with 35%).
- Overall average incomes are well below those reported for England as a whole at £507 per week compared with £690.
- The proportion of households with an income of less than £15,000 was 24.7% compared to 25.1% nationally with potential affordability issues for repair and improvements in the private sector dwelling stock.
- 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 (see 4.10.2). In Lichfield District the proportion of households receiving a benefit, at 16%, was just below the national average of 17%, which links in to the similar proportion of those on a low income (less than £15,000) previously mentioned.

Decent Homes Standard

It is Government policy that everyone should have the opportunity of living in a "decent home". The Decent Homes Standard contains four broad criteria that a property should:

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).

All of these criteria are described in more detail in their own individual chapters in the main report.

Overall, 7,300 (19.9% compared with 35.8% nationally) private sector dwellings failed the Decent Homes Standard in Lichfield District. A total of 12.0% (4,400) failed due to the presence of a Category 1 Hazard and 11.7% (4,310) due to thermal comfort failure.

Cost implications for repair and improvement

The cost to make dwellings decent in the private sector provides an idea of the cost of bringing dwellings up to the Decent Homes 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.

Reason	Total Cost (£ million)	Average Cost per dwelling (£)*
Category 1 Hazard	£11.6	£2,630
Repair	£1.5	£2,110
Amenities	£0.6	£18,780
Thermal comfort	£5.6	£1,300
Total	**£19.3**	**£2,640**

** Rounded to nearest £10*

Category 1 Hazards

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.

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 Lichfield District are excess cold, falling on stairs and falling on level surfaces.
- Category 1 Hazards are strongly associated with older dwellings and, with dwellings occupied by households with an income under £10,000, those aged under 25 and over 65 and dwellings with a disabled resident.
- Category 1 Hazards are strongly associated with low rise purpose built flats converted flats and the private rented sector.

Energy Efficiency

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

- Fuel poverty at 7.3% is lower than the rate found in England at 13.2%. The cost of remedial works to the 2,100 owner occupied dwellings in fuel poverty (i.e. spending more than 10% of income on heating) is just over £2.2 million.
- The mean SAP (SAP 2005 energy rating on a scale of 0 (poor) to 100 (good)) is 57 in Lichfield District, which is higher than that found nationally in private sector dwellings (48).
- The least energy efficient dwellings are older dwellings (Pre-1919); and converted flats (although these only represent 1.2% of the total private sector housing stock). The mean SAP rating for privately rented dwellings was 52 compared with 57 for owner occupied dwellings.
- Improving energy efficiency will contribute towards a range of Lichfield District's corporate priorities and indeed contribute to a wide range of issues e.g. reduced carbon emissions, tackling fuel poverty, elimination of Category 1 Hazards, improved health and well being – warmer, better homes
- The level of excess cold hazards is an issue given the numbers of older residents in Lichfield District and the potential link with cold related illnesses

What of the future?

The replacement of Best Value Performance Indicators with Public Service Agreements (PSAs), introduced flexible target setting from the list of 198 PSAs. The most relevant to the condition of private sector housing are:

- PSA17 Tackle poverty and promote greater independence and well-being in later life;
- NI 155 and PSA20 Increase long term housing supply and affordability;
- NI 186 Per Capita CO2 emissions
- NI 187 Fuel Poverty

The national housing agenda has changing priorities, and moved away from dwelling condition toward:

- provision of sufficient affordable housing for all
- the health, safety and well being of occupiers
- reduction in carbon emissions through improved energy efficiency

Key finding from the house condition survey

Characteristic	Owner occupied	Privately rented	All private sector stock	England
Dwellings	32,970	3,760	36,730	
Per cent of stock[1]	*78%*	*9%*	*87%*	*82.0%*
Non-decent	5,830	1,470	7,300	
As a % of each tenure	*17.7%*	*39.0%*	*19.9%*	*35.8%*
Vulnerable in decent homes[2]	4,130	540	4,670	
% vulnerable households in decent homes	*88.6%*	*54.0%*	*82.5%*	*61.0%*
Category 1 Hazard	3,440	960	4,400	
As a % of each tenure	*10.4%*	*25.4%*	*12.0%*	*23.5%*
In Fuel Poverty	2,100	560	2,660	
As a % of each tenure	*6.3%*	*16.8%*	*7.3%*	*13.2%*
Mean SAP[3]	57	52	57	48
Residents over 65	11,110	340	11,450	
As a % of each tenure [4]	*36.9%*	*11.1%*	*34.5%*	*24.4%*
Households in receipt of benefit	4,660	1,000	5,660	
As a % of each tenure [4]	*14.0%*	*30.0%*	*16.0%*	*17.0%*

1. *Percentages given as a proportion of total housing stock, the remaining 13% 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. *SAP is the government's Standard Assessment Procedure for rating energy efficiency on a scale of 1 (poor) to 100 (excellent)*
4. *As a percentage of occupied dwellings, not all dwellings*

1 Introduction

1.1 Purpose of the survey

1.1.1 Private Sector House Condition Surveys (HCS) are conducted on a regular basis by local authorities as a means of maintaining a detailed picture of housing conditions in the private sector. Such a picture forms a useful evidence base that can feed into statistical returns and other internal reports. The information is also useful in presenting the potential obligations on the authority in relation to current housing legislation, outlined in more detail in Appendix D.

1.1.2 In 2010 Lichfield District Council commissioned a comprehensive House Condition Survey to address this legal requirement, and also to inform the Housing and Health strategy and other housing policies. The survey work in Lichfield District was conducted in the mid part of 2010.

1.1.3 In addition to the mandatory duties outlined in Appendix D there are a number of non-mandatory powers available to the Authority under the Housing Act 2004. These include: taking the most satisfactory course of action in relation to Category 2 Hazards under the HHSRS (hazard categories are defined in chapter 5 of this report); additional licensing of HMOs that do not fall under the definition for mandatory licensing and serving of overcrowding notices. Part 3 of the Housing Act 2004, provides for selective licensing of other private rented sector accommodation subject to certain conditions being met.

1.1.4 This report will provide much of the evidence base, recommended under the ODPM guidance 05/2003, for the Authority's private sector housing strategy. In addition, information in the report is likely to prove useful as a source for a wide variety of private sector housing issues.

1.2 Nature of the survey

1.2.1 The survey was a sample survey of a nominal 700 dwellings and covered the owner occupied and privately rented tenures (RSL dwellings were excluded). The survey was based on a stratified random sample of addresses in Lichfield District, in order to gain a representative picture across the District. A sample of 1,400 was drawn with, in practice, 698 surveys being undertaken in total.

1.2.2 The sample was drawn using the Building Research Establishment (BRE) stock modelling data, with dwellings being allocated into three 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.

1.2.3 The models were 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 was used to predict dwelling condition and identify the 'hot-spots' to be over-sampled.

1.2.4 Each of the 698 surveys conducted contained information on the following areas: 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).

1.3 Central Government Guidance on house condition surveys

1.3.1 The 1993 Department of the Environment Local House Condition Survey Guidance Manual sets out a methodology that includes a detailed survey form in a modular format, and a step-by-step guide to survey implementation.

1.3.2 The 1993 guidance was updated in 2000 and under the new guidance local authorities are encouraged to make full use of the data gathered from house condition surveys in conjunction with data from other sources. Also included is guidance on the Housing Health and Safety Rating System. The 2010 Lichfield District Council HCS followed the ODPM 2000 guidance.

1.3.3 CPC's own bespoke data was used to analyse the results of the survey and to produce the outputs required from the data to write this report.

1.4 Comparative statistics

1.4.1 Comparisons to the position for all England were drawn from the 2007 English House Condition Survey (EHCS) and the Survey of English Housing 2007-2008, both published by Communities and Local Government (CLG) and available as a download document from their website. Additionally, some comparisons were made with the Family Resources Survey 2007-2008 published by the Department for Works and Pensions (DWP).

1.5 Statistical Variance and Standard Deviation

1.5.1 By definition, sample surveys are seeking to give an accurate representation of a larger number of dwellings than those surveyed. The total to be represented is referred to in statistical terms as the 'population', and in the case of this survey the population was all private sector dwellings in Lichfield District. Because any figure from a survey is based on a sample, it will be subject to some degree of

variation. This statistical variance can be expressed in terms of 'confidence limits' and 'standard deviation'.

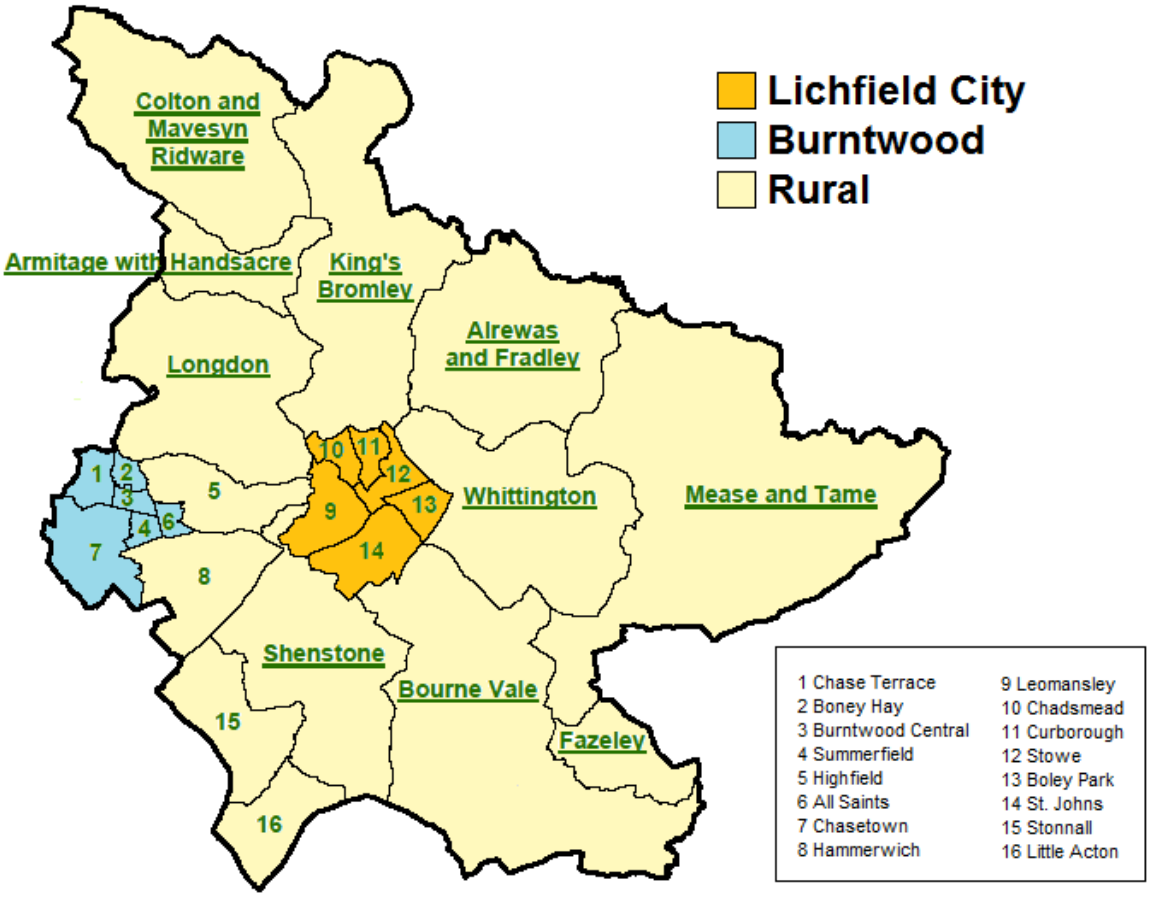
1.5.2 Standard deviation is the amount by which a given figure may be inaccurate either above or below its stated level. Confidence limits state that if the entire survey process were repeated, out of how many of these repetitions would there be confidence in staying within the variation. Traditionally, 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.

1.5.3 It should be borne in mind, therefore, that the figures in this report are estimates, and it is for this reason that figures are rounded, as described below. More detail on the calculation of standard deviation is given in the appendices.

1.6 Sub-area analysis

1.6.1 The sampling was based on a very detailed regime to give a representative picture of the stock as a whole. Although the sample was drawn at the neighbourhood level, these areas are far too small to allow for meaningful reporting due to the level of statistical variance that occurs when looking at extremely small samples. As a consequence the survey findings were grouped into three geographic areas (a number of sub-areas which still allows effective analysis of the results given the overall sample size) see Figure 1.1.

Figure 1.1 Sub areas



1.6.2 Table 1.1 shows the private sector stock totals by sub-area:

Table 1.1 Private Sector stock totals by sub-area

Areas	Dwellings	Percent
Lichfield City	11,210	30.5%
Burntwood	8,500	23.1%
Rural	17,020	46.4%
Total	**36,730**	**100%**

1.7 Presentation of figures

1.7.1 Due to the nature of statistical variation, as outlined above, it is not necessary to quote each individual figure to the nearest dwelling, as this implies a spurious level of accuracy. As with the English House Condition Survey (EHCS), figures in this report are either quoted to the nearest 100 dwellings or 10 dwellings, dependent upon the size of any given figure. Percentages within the report are only quoted to 1 decimal place for the same reason.

2 Profile of the private sector housing stock

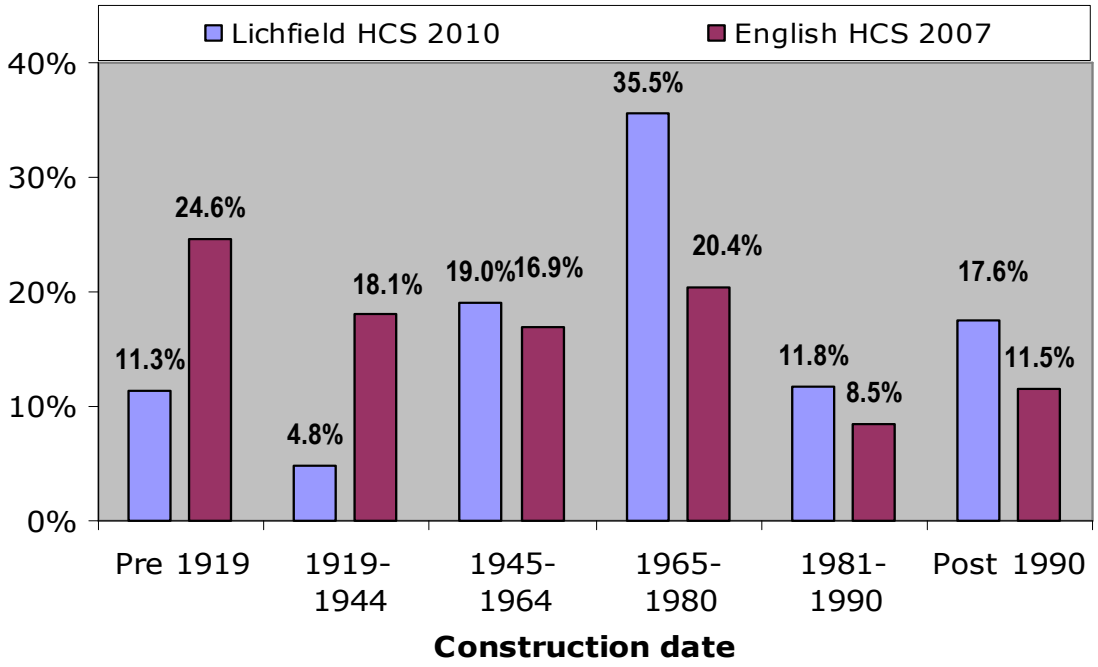
2.1 Size of the dwelling stock

2.1.1 At the time of the survey there were an estimated 36,730 private sector dwellings in Lichfield District. The 36,730 total for the stock was the estimated private sector stock total, provided by Lichfield District Council and based on Council Tax Records. Individual weights were created for each dwelling surveyed, in accordance with the stratified sampling regime, such that each survey would represent a specific number of dwellings within Lichfield District. Details of the sample stratification and weighting method are given in the Appendices.

2.2 Age of the dwelling stock

2.2.1 The age profile of the 36,730 owner occupied and privately rented stock in the District was significantly different to the national average. The proportion of dwellings built pre-1945 was substantially lower at 16.1% compared with 42.7% nationally (EHCS 2007). Conversely the proportion built post 1944 was substantially higher at 83.9% compared with 57.3%. The difference was particularly marked in the 1965 to 1980 age band at 35.5% compared with 20.4%.

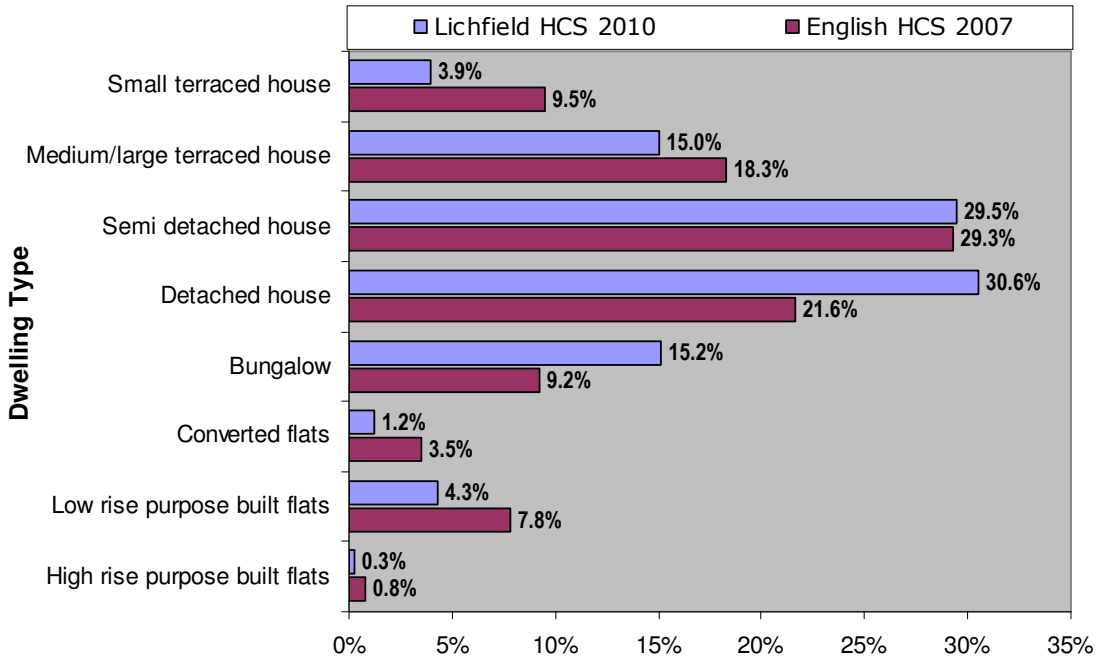
Figure 2.1 Dwelling age profile England and Lichfield District



Source: 2010 House Condition Survey & EHCS 2007

2.3 Dwelling type profile

Figure 2.2 Dwelling type profile Lichfield District and England



Source: 2010 House Condition Survey & EHCS 2007

2.3.1 The private sector building type profile in Lichfield District differed from the national pattern with higher proportions of detached houses and bungalows. Semi-detached houses were at a similar level but all other dwelling types had lower proportions, substantially so in the case of flats (5.8% compared with 12.1%).

2.4 Tenure

2.4.1 Table 2.1 draws tenure comparisons between the stock profile for Lichfield District and that for England as a whole.

Table 2.1 Tenure proportions

Tenure	Dwellings	Percent	EHCS 2007
Owner occupied	32,970	78%	70%
Privately Rented	3,760	9%	12%
Private Sector Stock	***36,730***	***87%***	***82%***
Housing Association (RSL)	5,610	13%	9%
Local Authority	0	0%	9%
Social Housing	***5,610***	***13%***	***18%***
All Tenures	**42,340**	**100%**	**100%**

Source: 2010 House Condition Survey & EHCS 2007

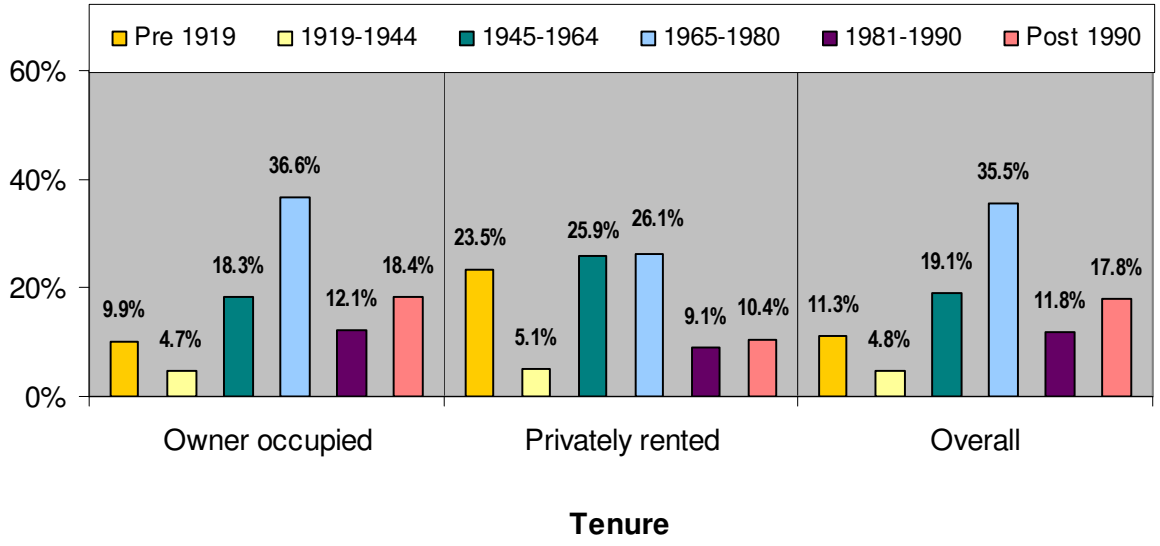
2.4.2 The survey included for owner occupied and privately rented stock only, but the breakdown given in Table 2.1 includes social housing tenure for the sake of comparative purposes with the EHCS.

2.4.3 The tenure profile again differed from the national profile with the owner occupied stock at a much higher level at 78% compared with 70%. The privately rented sector was represented at a lower rate (9% compared with 12%). The overall proportion of social housing was also lower at 13% compared with 18% nationally.

2.5 Tenure and age comparisons

2.5.1 Figure 2.3 illustrates the differing dwelling age profile between the main private tenures.

Figure 2.3 Tenure by date of construction



Source: 2010 House Condition Survey

2.5.2 As might have been expected, the owner occupied stock (at approximately 78% of all dwellings) had a similar age profile to the overall stock position, with figures of approximately 67.1% for homes built post 1964 compared with 65.1% for the overall stock. The privately rented sector had the highest proportion of Pre-1919 dwellings by a significant margin at 23.5% compared with 11.3% overall.

2.6 Dwelling Use and Houses in Multiple Occupation

2.6.1 Dwellings may be one of several different building types but these types may have different uses, for example a semi-detached house may have been converted into flats or be occupied as a House in Multiple Occupation (HMO).

Table 2.2 Dwelling use

Dwelling use	Dwellings	Percent
House	34,480	93.9%
Purpose Built Flat	1,690	4.6%
Converted Flat	440	1.2%
HMO	120	0.3%
Licensable HMO	0	0.0%
Total	**36,730**	**100%**

Source: 2010 House Condition Survey

2.6.2 The vast majority of dwellings (93.9%) were houses generally occupied as built. Of the remainder, most were purpose built or converted flats. An estimated 0.3% of dwellings were HMOs, representing 120 buildings being used to house multiple households. The national average for HMOs is approximately 2%. The authorities own estimated level of HMOs is 69, but it must be borne in mind that this is a sample survey and subject to statistical deviation (see 1.5). With such a small level of HMOs, it is likely that the actual figure will be somewhere between the two.

2.6.3 The definition of HMO is that used in the Housing Act 2004, of which only some may potentially be subject to mandatory licensing (described below). Some converted flats now come within the new HMO definition which explicitly includes converted flats where the work does not meet specified standards (generally the Building Regulations 1991) and where less than two thirds are owner occupied.

2.6.4 HMOs formed only a very small proportion of the private sector stock in Lichfield District with none being identified as potentially licensable HMOs. It should be borne in mind; however, that figures from the survey are estimates derived from the randomly selected sample of dwellings surveyed and, with such a small level of HMOs, there may well be some that were not selected for survey.

2.7 Vacant dwellings

2.7.1 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 was possible to estimate that there were 320 vacant dwellings, 0.9% of the private housing stock within Lichfield District. The national average is approximately 4.1%.

2.7.2 Based on the results taken from the stock condition survey it was estimated that only 20 (0.1%) of the private sector dwellings within Lichfield District were long-term vacant, defined as any dwelling vacant for six months or more, or subject to unauthorised occupation. However, as figures from the survey are estimates derived from the sample of dwellings inspected they may be subject to variation.

Table 2.3 All dwellings by Occupancy Status

Vacancy Status	Dwellings	Percent
Occupied	36,410	99.1%
Vacant awaiting new owner	130	0.4%
Vacant awaiting new tenant	60	0.2%
Vacant being modernised	40	0.1%
New, never occupied	20	0.1%
Other	50	0.1%
Long term vacant*	20	0.1%
Total vacant dwellings	**320**	**0.9%**
Total stock	**36,730**	**100.0%**

** Includes vacant dwellings to let where they are being modernised prior to letting or have not been let for over 6 months*
Source: 2010 House Condition Survey

2.7.3 The overall estimated proportion of long term vacant dwellings (taken from the survey results) at 0.1% was well below the average for England (approximately 1.5%). Whilst the level of long term vacant dwellings is a very small proportion of the private sector stock they still represent a wasted resource, with Empty Dwelling Management Orders (through the powers conferred under the Housing Act 2004), compulsory purchase orders and Section 215 of the Town and Country Planning Act 1990 being available to assist the authority with any action that they may wish to take.

3 Profile of Residents

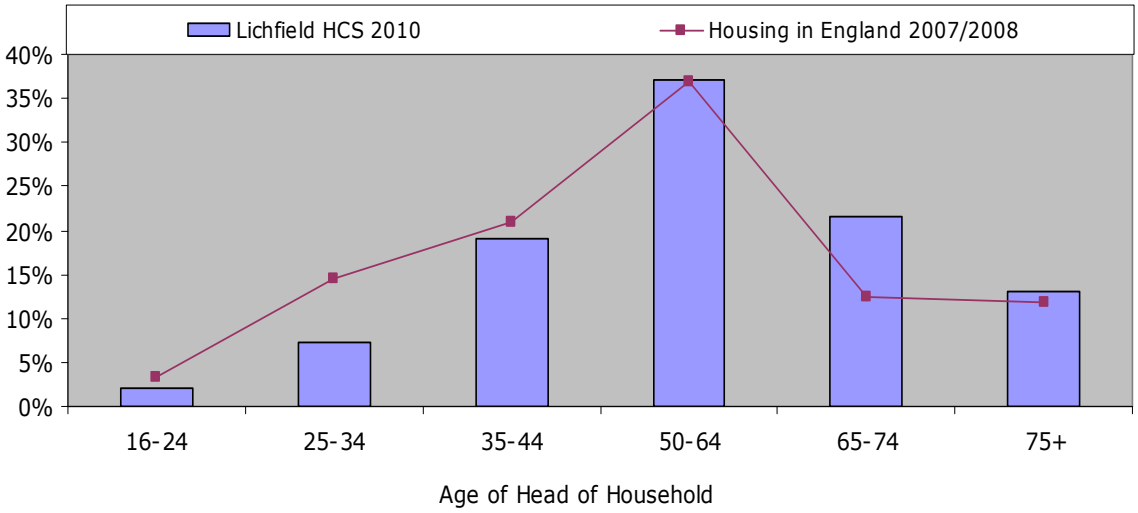
3.1 Introduction

3.1.1 This chapter will look at some of the key characteristics of households within the surveyed dwellings to determine whether links exist with dwelling condition. As the data can only be collected from occupied dwellings the results are set against a total occupied stock of 36,410.

3.2 Age Profile

3.2.1 Figure 3.1 examines the age distribution, of heads of household within the stock, both for Lichfield District and for England as a whole.

Figure 3.1 Age of head of household Lichfield District and England



Source: 2010 House Condition Survey & Housing in England 2007-2008

3.2.2 Data collected as part of the survey indicated that the age profile of heads of household in Lichfield District differed from the national position. The proportions of heads of household aged between 16 and 44 years were lower than those found nationally, with similar levels of heads of household aged between 50 and 64 years. Looking specifically at heads of household aged over 65 years the figure for Lichfield District was 34.5% compared with 24.4% nationally. This does have some implications for private sector housing policy due to the potentially greater need for support typically associated with older households, when dealing with dwelling condition issues or adaption needs, with many being on a low income (see figure 3.3). Owner occupiers may have substantial equity in their property that, if released, could help to assist with any dwelling condition issues, although for the private rented sector, negotiations with landlords and possible enforcement action may have to be considered.

3.3 Household types

3.3.1 Table 3.1 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.

Table 3.1 Household type distribution

Household type	Lichfield District 2010		England 2008
Couple no Dependent Child	18,130	49.8%	39.2%
Couple with Dependent Child	8,050	22.1%	22.9%
Lone parent with dependent child	1,220	3.4%	4.7%
One person household	7,260	19.9%	25.7%
Other multi-person household	1,750	4.8%	7.5%
Total Household Type	**36,410**	**100%**	**100%**

Source: 2010 House Condition Survey & Survey of English Housing 2007/2008

3.3.2 The main differences to the distribution of household types to that found nationally was the greater proportion of couple with no dependent children type (49.8% compared with 39.2%). All of the other types had lower proportions, particularly so in the case other multi-person households (4.8% compared with 7.5%).

3.4 Length of residence

3.4.1 The proportion of households who had been resident for up to 5 years was 34.3%, although 28.6% had lived at their present address for 20 years or more. Data taken from the Survey of English Housing 2007/2008 showed that 35.4% of residents had lived in their dwellings for between one and five years, making the Lichfield District rate very similar.

Table 3.2 Length of residence

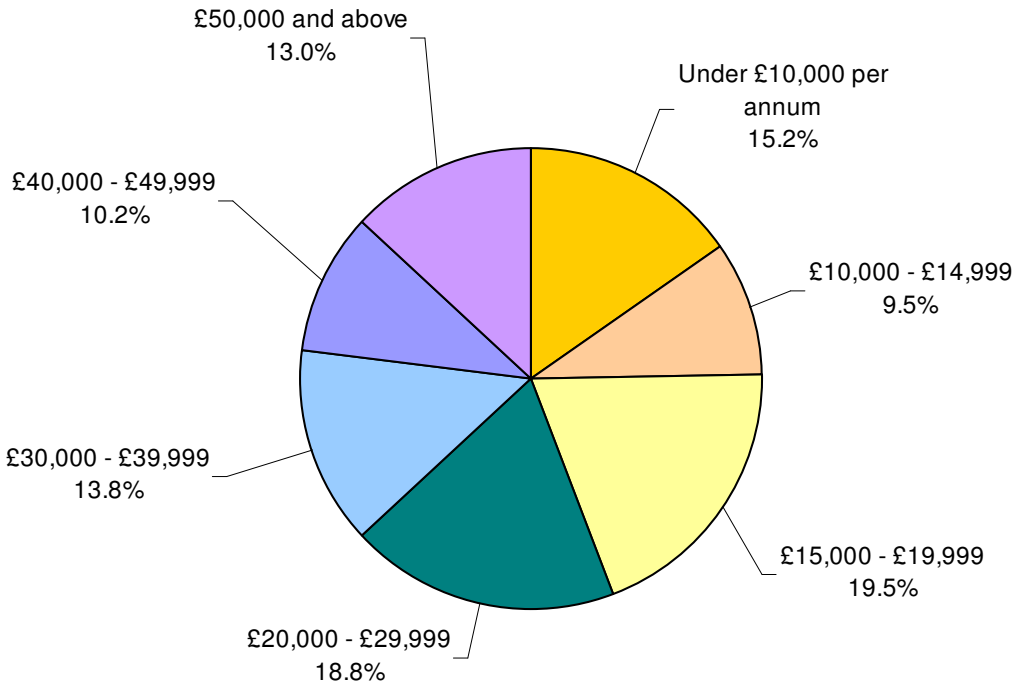
Area Name	1 to 5 years	6 to 10 years	11 to 15 years	16 to 20 years	21 to 25 years	26 to 30 years	Over 30 years
Lichfield City	38.3%	21.2%	7.0%	7.5%	9.4%	3.1%	13.5%
Burntwood	28.0%	15.3%	11.0%	7.2%	9.2%	10.7%	18.6%
Rural	34.8%	22.5%	10.8%	6.5%	5.7%	5.5%	14.2%
Lichfield District	**34.3%**	**20.5%**	**9.7%**	**6.9%**	**7.6%**	**6.0%**	**15.0%**

Source: 2010 House Condition Survey

3.5 Income

3.5.1 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 below.

Figure 3.2 Household incomes in bands



Source: 2010 House Condition Survey

Table 3.3 Number of households within each income band

Income band	No. of households Lichfield District 2010		Survey of English Housing *
Under £10,000 per annum	5,540	15.2%	13.2%
£10,000 - £14,999	3,460	9.5%	11.9%
£15,000 - £19,999	7,110	19.5%	10.4%
£20,000 - £29,999	6,850	18.8%	19.4%
£30,000 - £39,999	5,030	13.8%	15.3%
£40,000 - £49,999	3,700	10.2%	10.1%
£50,000 and above	4,720	13.0%	19.7%
Total	**36,410**	**100%**	**100%**

** Source: Survey of English Housing 2007-2008*
Source: 2010 House Condition Survey

3.5.2 The data in figure 3.2 and the Table 3.3 show that there were higher proportions than the national average of households with an income of less than £20,000 (44.2% compared with 35.5%). Above that the proportions are lower with the exception of the £40,000 and £49,999 income band where it is virtually the same. The proportion of households within Lichfield District with an income of less than £15,000 (24.7% compared with 25.1% nationally), does suggest affordability will be an issue affecting repair and improvement in the private sector dwelling stock. The proportion of households with annual income below £10,000 was just above that found nationally (15.2% compared with 13.2%).

Table 3.4 Average weekly income by tenure

Tenure	Lichfield District HCS 2010	England 2008
Owner occupied	£517	£730
Privately rented	£411	£490

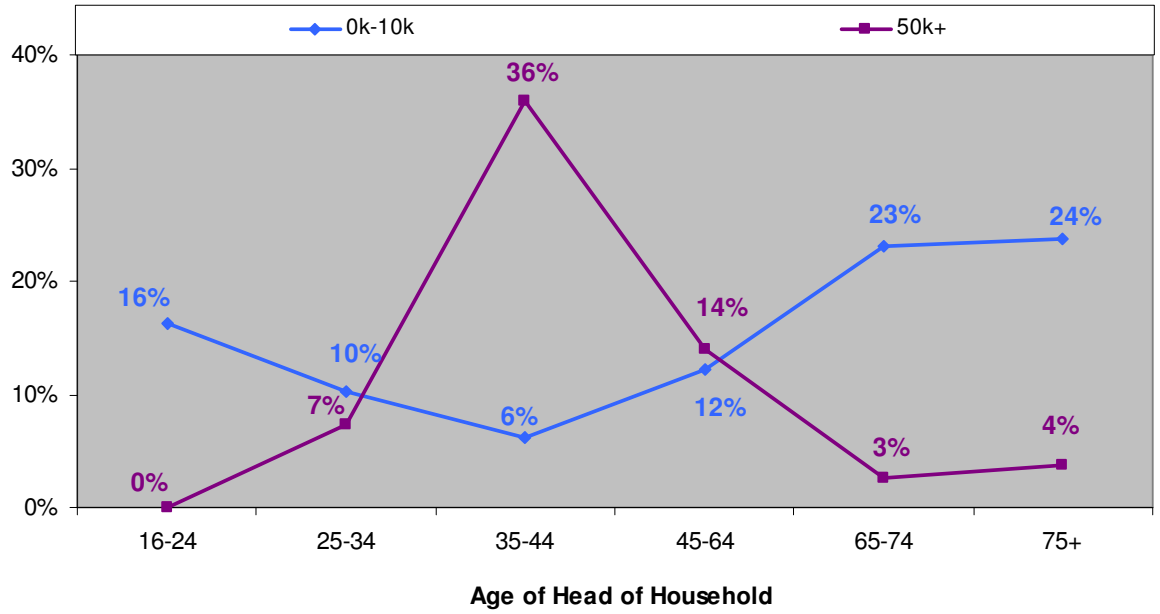
Source: 2010 House Condition Survey & Survey of English Housing 2007-2008

3.5.3 These figures demonstrate that recent average incomes for heads of household and where appropriate their partner were in Lichfield District considerably lower than the averages for England, particularly so for owner occupiers who have average incomes that are 29% lower than the national average with the privately rented tenure group being 16% lower.

3.6 Income and age of head of household

3.6.1 Variations in income level are often associated with social characteristics such as the age of head of household, household type or disability. This section looks at the data from the survey to see what links can be shown and the possible associations between those links and unsatisfactory housing conditions described later.

Figure 3.3 High and low incomes by age of head of household



Source: 2010 House Condition Survey

3.6.2 Figure 3.3 above illustrates that low income (annual household income below £10,000 per annum) was strongly associated with the younger (16 to 24) and older age groups (65 years and older). High incomes were predominantly associated with households aged between 35 to 44 years. This pattern suggests that the greatest need for assistance to vulnerable occupiers is at the younger and oldest ends of the age range.

3.7 Income and household type

3.7.1 Table 3.5 compares low and high annual household income figures by household type.

3.7.2 Table 3.5 does show that clear associations exist. One person households were most strongly associated with low incomes, followed by lone parents with dependent child and other multi-person households. Couple with dependent child households had greater proportions of higher incomes followed by couples with no dependent child.

Table 3.5 Low and high household incomes by household type

Household Type	Low income (household income less than £10,000 per annum)	Middle income (household income £10k-£30k per annum)	High income (household income above £30,000 per annum)
Couple no Dependent Child	4%	60%	36%
Couple with Dependent Child	4%	23%	73%
Lone parent with dependent child	34%	59%	7%
One person household	47%	50%	3%
Other multi-person household	28%	53%	19%

Source: 2010 House Condition Survey

3.8 Income and residents with disabilities

3.8.1 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.

3.8.2 When looking at the association between disability and income, 15% or 800 dwellings, of households with a disabled resident had a household income below £10,000 per annum, which was the same as that where there is 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.

3.9 Savings

3.9.1 Householders were asked if they had any savings and if so approximately how much based on a banded system. Table 3.6 provides the results, with the vast majority having less than £5,000.

Table 3.6 Level of any savings

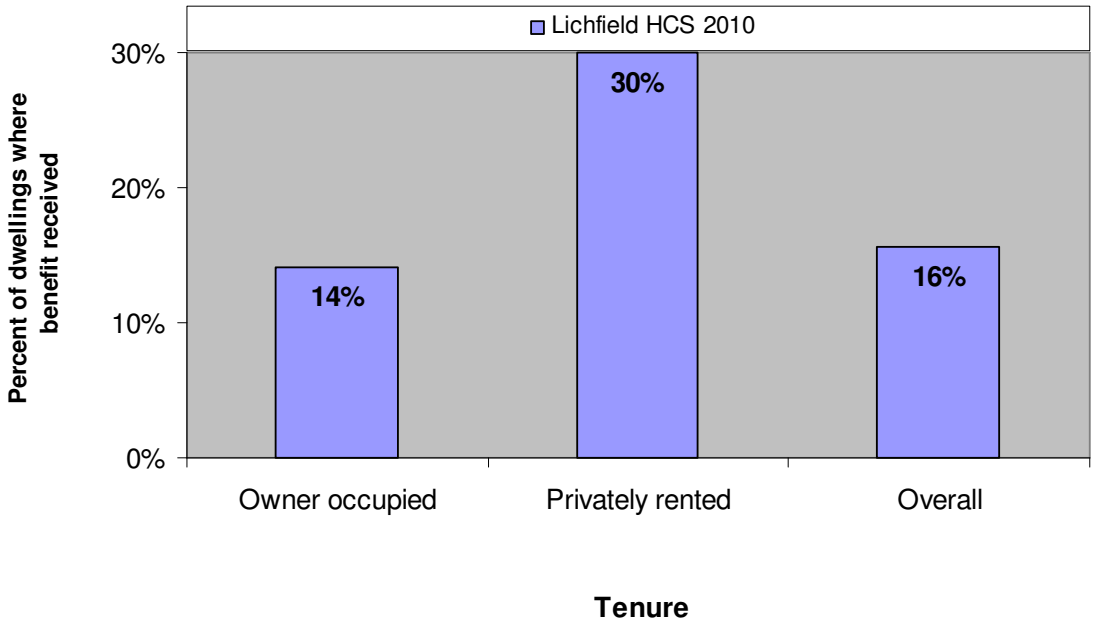
Saving Level	Percentage
None	0.0%
Less than £5,000	95.4%
More than £5,000	3.2%

Source: 2010 House Condition Survey

3.10 Benefit receipt

3.10.1 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 4.10.2). Overall 5,660 (16%) households were estimated to be in receipt of a benefit. At the national level 17% of private sector households had at least one resident in receipt of a benefit, which is just over that found within this survey. The distribution of benefit receipt by tenure showed the highest proportion, by a significant margin, for the privately rented sector at 30% compared with 14% in the owner occupied sector.

Figure 3.4 Benefit receipt by tenure



Source: 2010 House Condition Survey

3.11 Value of dwellings and equity

3.11.1 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.

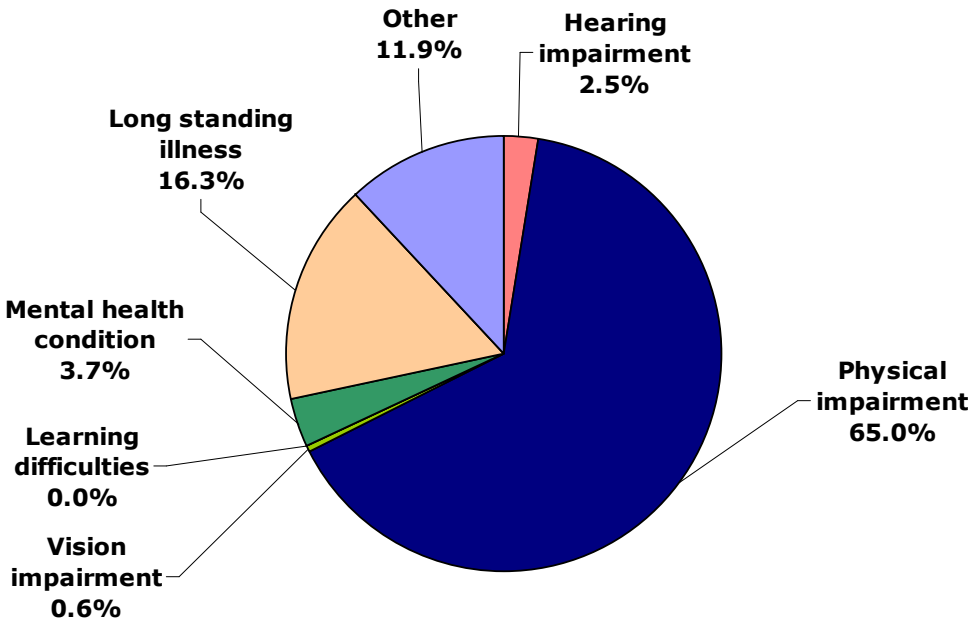
3.11.2 The average value of a dwelling in Lichfield District was £251,000. This figure was based on the average sale prices in Lichfield District compiled by the Land Registry from January to March 2010. The figure was above the average value across the UK of £234,800. The average price in Lichfield District was the highest out of all of the Staffordshire authorities.

3.11.3 The average mortgage level for owner-occupied dwellings in Lichfield District, based upon occupier responses, was £74,000 resulting in an average equity of £177,000 per dwelling using the Land Registry average value.

3.12 Residents with disabilities

3.12.1 Residents were asked if any member of the household suffers from a long term illness or disability. It was estimated from the results of this question that 2,500 (6.9%) 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 3.5 illustrates the results of this.

Figure 3.5 Residents with disabilities by type



Source: 2010 House Condition Survey

3.12.2 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.

3.13 Adaptations/Equipment

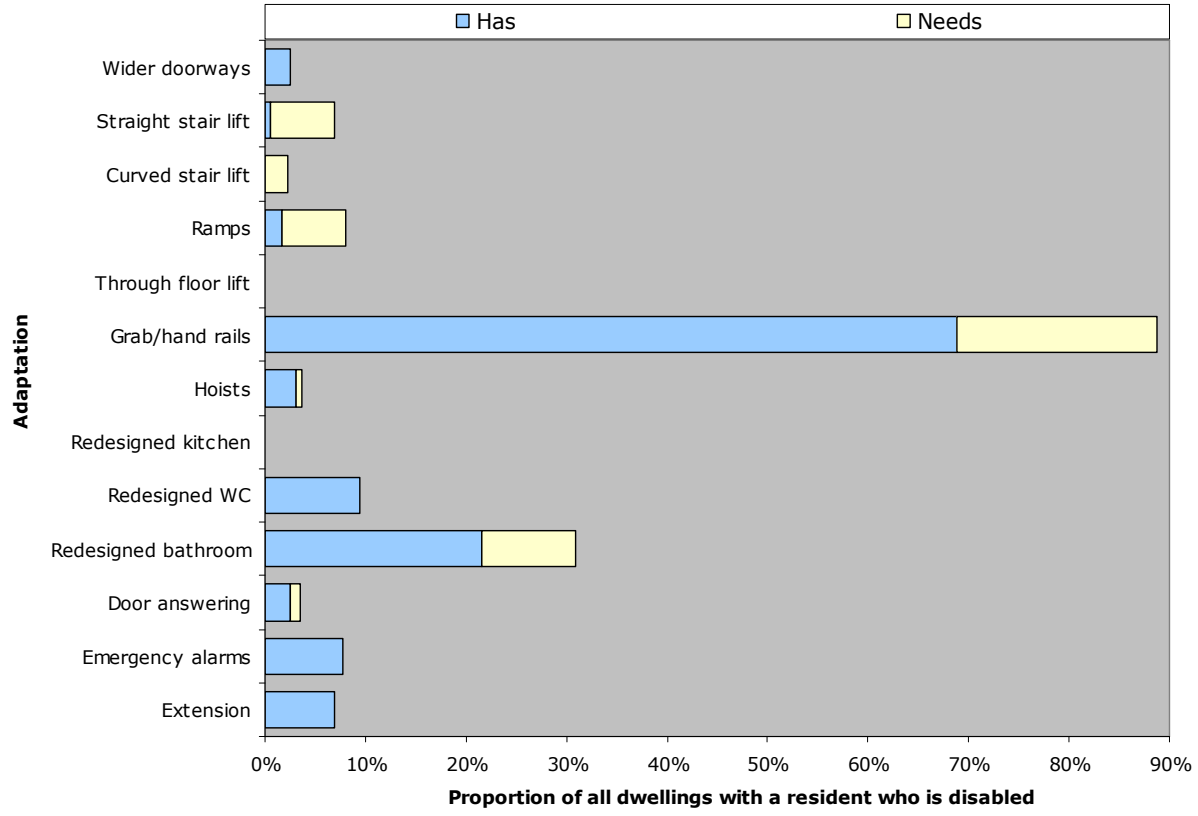
3.13.1 Where it was indicated that a member of the household suffered from a long term illness or disability, the survey form included a section

regarding the existing provision of adaptations or equipment and also whether the occupier felt there was the need for further adaptations or adaptations.

3.13.2 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.

3.13.3 Figure 3.6 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 3.6 Disabled adaptations/equipment present and required



Source: 2010 House Condition Survey

3.13.4 Figure 3.6 shows that grab/hand rails had the highest level of current provision, present in 68.8% of dwellings occupied by a resident with a disability (2,500 or 6.9%), followed by redesigned bathrooms at 21.5%. The most needed was the provision of grab/hand rails at 19.9% followed by redesigned bathroom (9.4%).

3.13.5 Table 3.7 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 below.

Table 3.7 Cost of adaptations for the disabled

Adaptations and equipment	Adaptations and equipment *	Adaptation and equipment Cost
Straight stair lift	160	£475,000
Curved stair lift	60	£558,000
Ramps	160	£396,000
Grab/hand rails	500	£248,000
Hoists	10	£28,000
Redesigned bath	230	£1,172,000
Door answer	30	£84,000
Total	**1,150**	**£2,961,000**

**Figures are for numbers of adaptations/equipment, some dwellings may need multiple provision*
Source: 2010 House Condition Survey

3.13.6 The total cost of all adaptations and equipment that could potentially be fitted to benefit residents with a disability was just under £3 million.

3.14 Owner occupiers plans to repair their property

3.14.1 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.

3.14.2 The majority of owner occupiers (32,200 or 97.3%) indicated that they were not aware of any repair issues to their property, with 2.7% or 900 indicated that they were aware of some form of defect requiring repair. The 900 owner occupiers who indicated that they were aware of defects to their property were also asked for an estimated cost to remedy the defect/s.

3.14.3 The resultant information was put into cost bands with the results shown in Table 3.8, the majority of estimated costs falling into the first band (£1 to £4,999) at 95.4%.

Table 3.8 Occupiers estimated cost of improvement works

Improvement Cost Band	Percentage
£1 to £4,999	95.4%
£5,000 to £9,999	3.2%
£10,000 to £14,999	0.0%
£15,000 to £19,999	0.0%
£20,000 to £24,999	0.0%
£25,000 +	1.6%

Source: 2010 House Condition Survey

3.14.4 The vast majority (95.4%) said that the work would cost under £5,000, with the bulk of the remainder saying the work would cost between £5,000 and £9,999 (3.2%). 1.6% estimated the cost of the work would be £25,000 or more.

3.14.5 Table 3.9 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.

Table 3.9 Owner occupied residents prepared to consider funding from the Council

Option	Yes %
Zero interest loan	0.6%
Flexible loan	1.0%
Equity share loan	0.7%

Source: 2010 House Condition Survey

3.14.6 Overall the response for any of the options was very low with a flexible loan having the highest positive return but even this was only 1%.

3.14.7 3.4% of residents said that they had received a previous Council loan/grant.

3.15 Security

3.15.1 Heads of household were asked if a range of security measures were fitted to their property, with Table 3.10 giving a breakdown of their responses.

Table 3.10 Security measures present in property

Secure Doors (Deadlock)	Door Viewers	Door Chains	Secure Windows (locks)	Alarms
32,580	17,020	6,850	32,620	12,910
88.7%	46.3%	18.6%	88.8%	35.1%

Source: 2010 House Condition Survey

3.15.2 The two highest levels of provision were door deadlocks (88.7%) and window locks (88.8%). Door chains were only fitted to 18.6% of dwellings and alarms were present to 35.1% of dwellings.

3.16 Ethnic origin, nationality and other social characteristics

3.16.1 Residents were asked to specify the majority ethnic origin type within their household and the results are given in Table 3.11:

Table 3.11 Ethnic origin

Ethnic Origin	Households	Per cent	England
White British	35,530	97.6%	87.0%
White Irish	30	0.1%	2.7%
White Other	350	1.0%	2.1%
White/Black Caribbean	0	0.0%	0.5%
White/Black African	160	0.4%	0.2%
White/Asian	<10	<0.1%	1.1%
Other mixed	60	0.2%	0.4%
Indian	220	0.6%	0.5%
Pakistani	0	0.0%	0.3%
Bangladeshi	30	0.1%	1.4%
Asian Other	<10	0.1%	0.4%
Black Caribbean	0	0.0%	0.5%
Black African	0	0.0%	1.0%
Black Other	<10	<0.1%	1.3%
Chinese	0	0.0%	0.4%
Gypsy/Romany/Irish Traveller	0	0.0%	-
Other	0	0.0%	0.2%
Total	**36,410**	**100%**	**100%**

Source: 2010 House Condition Survey

3.16.2 The majority of households described their ethnic origin as being predominantly White British (97.6%), with the proportion including White Irish and White Other increasing this to 98.7% compared with

91.8% in England as a whole. Proportionately, therefore, the other ethnic groups represent only 1.3% of private sector households. As the other ethnic groups, individually, were represented at such low levels they are not sufficiently statistically robust enough to allow meaningful comparisons to be made.

3.16.3 Households were also asked to give their nationality, and the Table 3.12 shows the results. The great majority see themselves as British, with the next largest group seeing themselves as English.

Table 3.12 Nationality

Nationality	Households	Per cent
British	27,540	75.6%
Chinese	<10	0.0%
English	7,710	21.2%
French	40	0.1%
Irish	<10	<0.1%
Latvian	<10	<0.1%
Latvian and Lithuanian	<10	<0.1%
Pilipino	<10	<0.1%
Polish	120	0.3%
Refused	490	1.3%
Slovakian	40	0.1%
South African	150	0.4%
Spanish	40	0.1%
Thailand	<10	<0.1%
Turkish	60	0.2%
Welsh	150	0.4%
Lichfield District	**36,410**	**100%**

Source: 2010 House Condition Survey

3.17 Work Issues

3.17.1 Residents were asked if they would indicate the type of occupation of the head of household and the results are shown in Table 3.13. The majority (41.5%) said they were managerial/professional followed by those who said they were skilled workers (29.2%). Just over 1% of residents said they were long term unemployed or had never worked.

Table 3.13 Occupation types

Occupation type	Per cent
Managerial and professional	41.5%
Skilled	29.2%
Semi-skilled	9.3%
Manual	16.4%
Self employed	2.5%
Never worked or long term unemployed	1.1%

Source: 2010 House Condition Survey

3.17.2 Residents were also asked about both the distance travelled to work and the mode of transport used.

Table 3.14 Distance travelled to work

Distance travelled to work	Per cent
1 mile	7.9%
2-3 miles	11.5%
4-5 miles	14.8%
5-10 miles	23.3%
10-20 miles	19.7%
20+ miles	22.9%

Source: 2010 House Condition Survey

Table 3.15 Mode of travel to work

Mode of travel to work	Per cent
Own transport	95.7%
On foot	2.7%
Public transport	1.6%

Source: 2010 House Condition Survey

3.17.3 There was a wide spread of travel distance to work with the largest proportion bring for 5 to 10 miles (23.3%) followed by over 20 miles (22.9%). The lowest rate was for up to one mile (7.9%). Overall, 65.9% of households had to travel 5 or more miles to work, 22.9% having to travel over 20 miles. The use of own transport is the most popular way of getting to work (95.7%).

3.18 Overcrowding

3.18.1 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".

3.18.2 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 Lichfield District.

3.18.3 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.

3.18.4 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.

3.18.5 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.

3.18.6 If the Housing Act overcrowding measurement is taken, the estimated level of overcrowding is shown in Table 3.16:

Table 3.16 Statutory measurement of overcrowding

	Overcrowded	Not Overcrowded
Lichfield City	0.3%	99.7%
Burntwood	0.0%	100.0%
Rural	0.4%	99.6%
Lichfield District	**0.3%**	**99.7%**

Source: 2010 House Condition Survey

3.18.7 Looking at the Survey of English Housing bedroom standard of occupation density, Table 3.17 shows the figures:

Table 3.17 Bedroom standard measurement of overcrowding

Area Name	Overcrowded	Not overcrowded
Lichfield City	1.7%	98.3%
Burntwood	0.0%	100.0%
Rural	0.4%	99.6%
Lichfield District	**0.7%**	**99.3%**

Source: 2010 House Condition Survey

3.18.8 The bedroom standard (0.7%) had a higher overall rate than the statutory standard (0.3%) which is to be expected 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. Both these systems resulted in an estimated total of between 100 and 260 overcrowded dwellings within the District. However, all the data relating to overcrowding should be treated with caution.

3.18.9 Within the sub areas the Lichfield City sub-area had the highest rate under the bedroom standard and was just below the Rural sub-area (0.4%) for the statutory measurement.

3.18.10 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.

3.18.11 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 visited during the survey were scored under this heading.

4 The Decent Homes Standard

4.1 Introduction

4.1.1 It is Government policy that everyone should have the opportunity of living in a "decent home". The Decent Homes Standard contains four broad criteria that a property should:

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).

4.1.2 If a dwelling fails any one of these criteria it is considered to be "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.

4.1.3 The revised guidance did not substantially change the criteria for the decent homes standard laid out in 2002 with the exception of thermal comfort. This changed from a calculated, energy efficiency based approach to a simpler, but more practical system which takes into account the heating systems, fuel and insulation in a dwelling to determine if it provides adequate thermal comfort.

4.1.4 Obligations under the Decent Homes Standard were originally directed solely at the social housing sector. Under "The Decent Homes Target Implementation Plan" June 2003 – as modified April 2004, the ODPM outlined its commitments under Public Service Agreement (PSA) 7. These 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.

4.1.5 Following the Comprehensive Spending Review in 2007, the Government scrapped the PSA7 target (effective from 1 April 2008).

However, the percentage of vulnerable households in decent homes in the private sector remained part of CLG's Departmental Strategic Objectives (DSO2, 2.8)

4.1.6 Due to this, the Lichfield District house condition survey collected adequate and appropriate data to allow judgement of dwellings across all tenures against the Decent Homes Standard.

4.2 Change of emphasis and the Housing Act 2004

4.2.1 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.

4.2.2 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.

4.2.3 A detailed definition of the Housing Health and Safety Rating System are given in the following chapter.

4.3 The meaning of non-decency

4.3.1 Concern has been raised by a number of local authorities over the term 'non-decent', which tends to conjure up images of dilapidated houses and serious disrepair issues. It is the case, however, that a dwelling can fail the Decent Homes Standard on a single item, such as the heating system, whilst being in a very good state of repair. The owner of such a property may well not think that there is anything wrong with their home.

4.3.2 It is possible to regard the Decent Homes Standard as an ideal standard or a level to aspire to. In practice, it is a relatively low standard and failure to meet the standard 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 of outcomes recognises that there may be instances where it is appropriate to record cases 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.

4.4 Overall level of non-decency

4.4.1 Based on the House Condition Survey data 7,300 dwellings (19.9%) were classified non-decent. In England as a whole the rate was 35.8% (owner occupied and privately rented stock) making the Lichfield District rate substantially lower than the national average. The all England figure was taken as the proportion of non-decent private sector dwellings from the EHCS 2007. 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.

4.4.2 The Decent Homes Standard contains 4 criteria. Table 4.1 gives a breakdown of the reasons for failure:

Table 4.1 Reasons for failure of dwellings as a decent home.

Reason	Dwellings	Percent (of non-decent)	Percent (of stock)	Percent (EHCS 2007)
Category 1 Hazard dwellings	4,400	60.3%	12.0%	23.5%
In need of repair	890	12.2%	2.4%	7.3%
Lacking modern facilities	50	0.7%	0.1%	2.9%
Poor degree of thermal comfort	4,310	59.0%	11.7%	15.9%

Source: 2010 House Condition Survey & EHCS 2007

4.4.3 The percentages by non-decent do not total 100%. This reflects the fact that the categories are not mutually exclusive; although any dwelling can fail on just one criterion, it may fail on two or more.

4.4.4 In Lichfield District, the hierarchy of reasons for failure follows the national profile with a higher rate of failure for Category 1 Hazards than thermal comfort. All failure rates were lower than the national comparators, notably so in the case of Category 1 Hazards.

4.4.5 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.

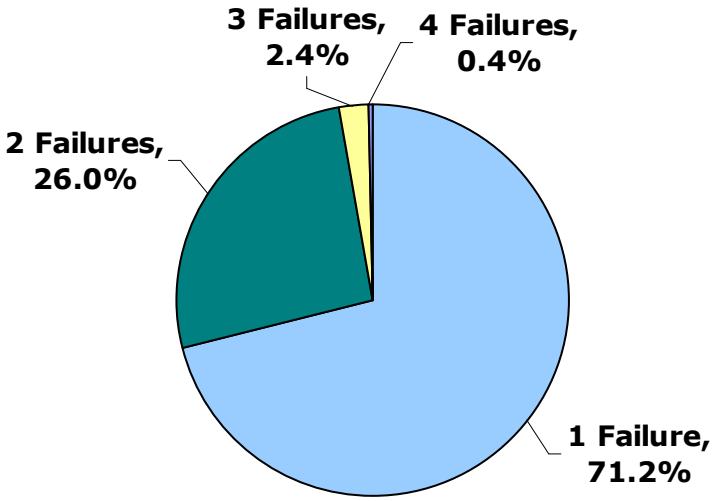
4.4.6 The predicted figures from the BRE stock modelling exercise described in Part 1 were for an overall rate of non-decency of 29.8%, failures of the repair criterion 6.1%, lacking modern amenities 2.6% and thermal comfort 24.7%. The predictions were made when the fitness standard was still the minimum legal standard and hence there is no predicted

figure for Category 1 Hazards. As the BRE predictions were provided some considerable time ago, they cannot be considered to be a reasonable comparisons to those provided in this report, especially as there has been nearly a 10% increase in the private sector stock over the BRE stock figure used, and intervention programmes taken by the authority for such things as energy efficiency schemes will also have had an impact. They do, however, show how much the predicted levels have been reduced.

4.5 Numbers of failures per dwelling

4.5.1 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 4.1 looks at the number of failures per dwelling in non-decent dwellings.

Figure 4.1 Degree of failure of the Decent Homes Standard



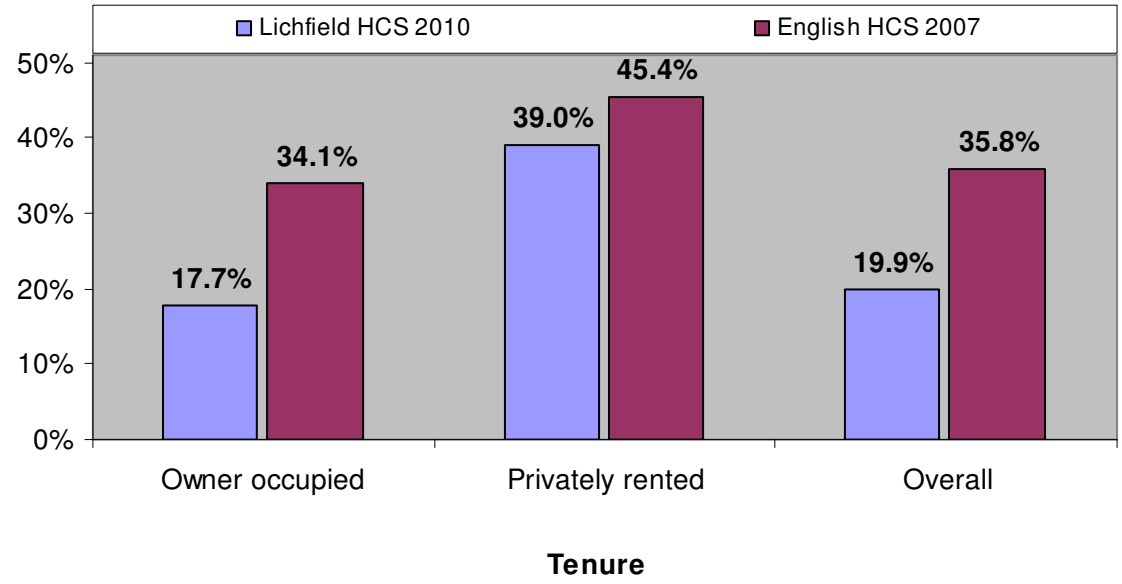
Source: 2010 House Condition Survey

4.5.2 The majority of failures were in respect of one criterion only, with the number of dwellings with two or more failures being 28.8%. 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.

4.6 Non-decency by general characteristics

4.6.1 Figure 4.2 shows the proportions of non-decent private sector dwellings by tenure, which follows that found nationally; the rate in the private rented sector (39.0%) being significantly higher than that found in the owner occupied sector (17.7%).

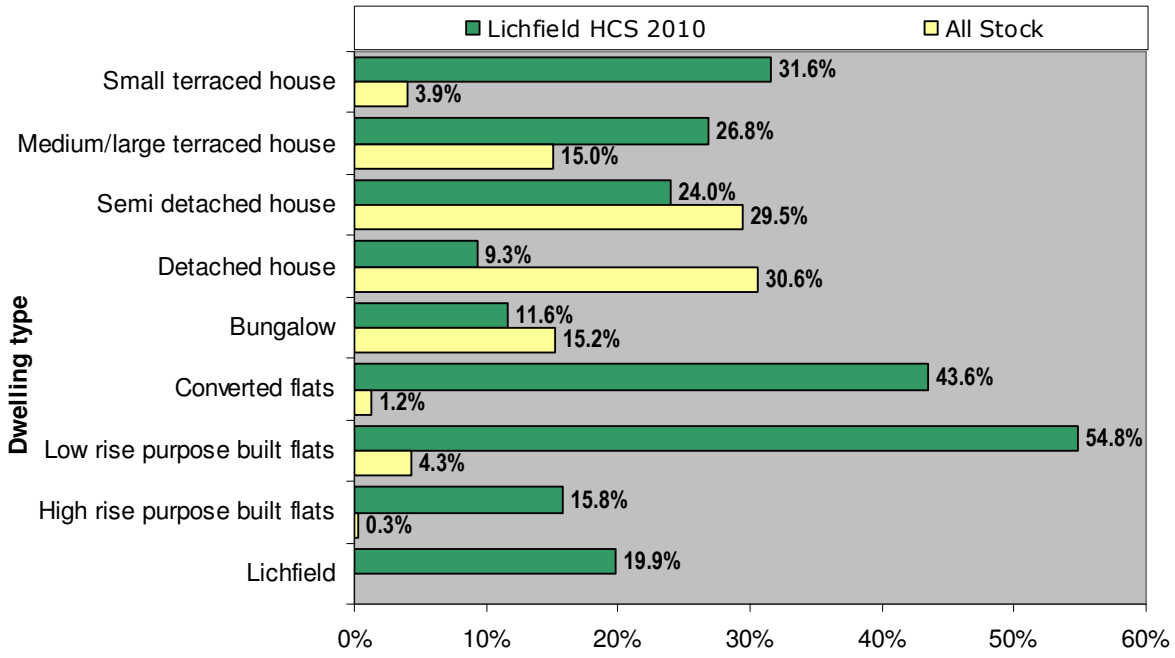
Figure 4.2 Tenure by non-decent dwellings



Source: 2010 House Condition Survey & EHCS 2007

4.6.2 Figure 4.3 examines decent homes failures by dwelling type.

Figure 4.3 Non-decent dwellings by dwelling type

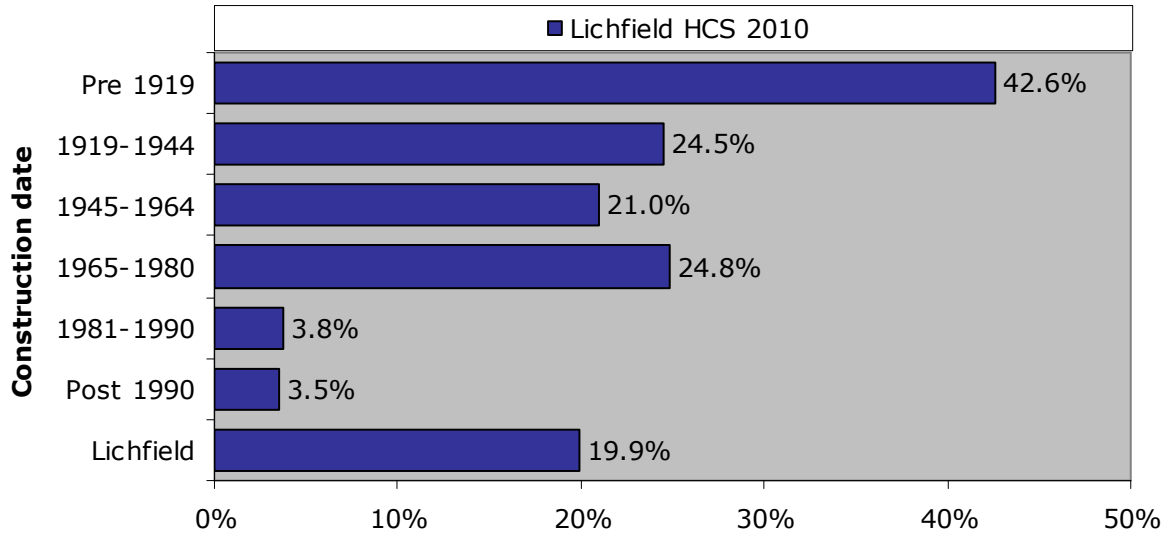


Source: 2010 House Condition Survey

4.6.3 The first three highest rates of non-decency were found in low rise purpose built flats (less than 6 storeys) at 54.8%, followed by converted flats at 43.6% and small terraced houses 31.6%. However, for converted flats they represent only 1.2% of the stock or 450 dwellings. Two issues arise as a result of this: firstly, they cannot be considered statistically significant and may be subject to considerable

survey bias due to being based on a very small number of surveys. Secondly, at such a small proportion of the dwelling stock, it cannot logically represent a priority. Medium/large terraced houses had the next highest rate (26.8%), followed by semi-detached houses at 24.0%. The lowest rate was found in detached houses at 9.3%.

Figure 4.4 Non-decent dwellings by date of construction

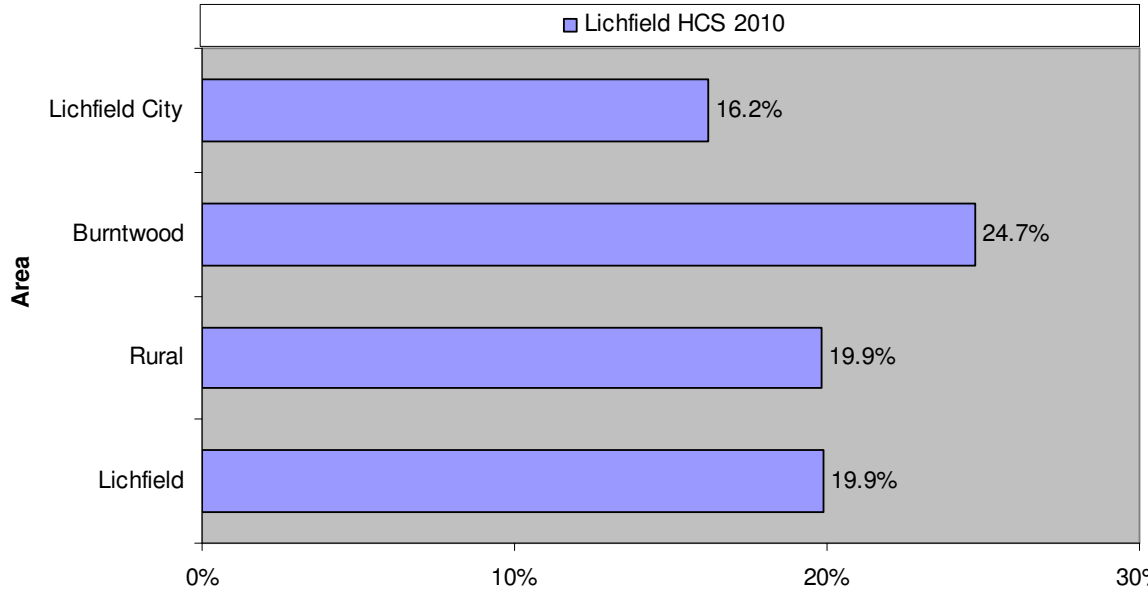


Source: 2010 House Condition Survey

4.6.4 As is commonly the case, the rate of failure of the Decent Homes Standard was highest in Pre-1919 dwellings at 42.6%. A general trend of reducing rates with dwelling age then followed with the exception of the 1965 to 1980 age band which had a higher rate than that for both the 1919-1944 and the 1945 to 1964 age bands. This was primarily due to thermal comfort issues. As is generally the case, the lowest rate was found in dwellings built Post-1990 at 3.5%.

4.6.5 The distribution by sub-area is shown in Figure 4.5. The highest rate is recorded in the Burntwood sub-area at 24.7%. With the Rural sub-area (19.9%) matching the District rate (19.9%) and the Lichfield City sub-area having a rate that was lower than the District rate at 16.2%.

Figure 4.5 Non-decent dwellings by sub-area



Source: 2010 House Condition Survey

4.7 Cost to Remedy

4.7.1 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.

4.7.2 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 Table 4.2 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.

Table 4.2 Repair cost by non-decency reason (HHSRS)

Reason	Total Cost (£ million)	Average cost per dwelling (£)*
Category 1 Hazard	£11.6	£2,630
Repair	£1.5	£2,110
Amenities	£0.6	£18,780
Thermal comfort	£5.6	£1,300
Total	**£19.3**	**£2,640**

** Rounded to nearest £10*
Source: 2010 House Condition Survey

4.8 Age of Head of Household and non-decency

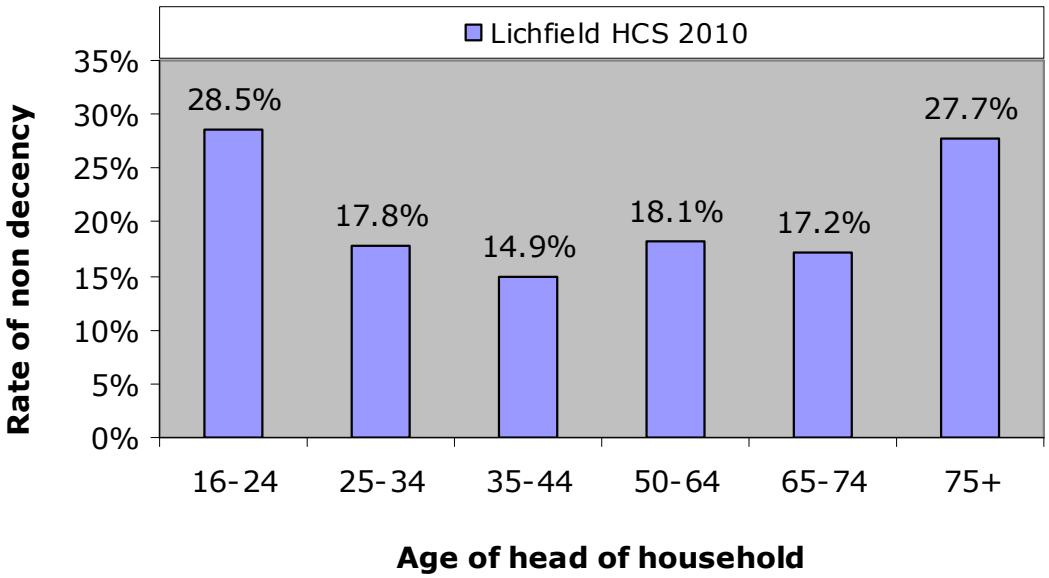
4.8.1 As part of the social survey a grid was filled in containing basic details for each of the residents in a dwelling, such as their age, working

status, sex etc. It was left to residents to determine who was considered the head of the household, and therefore what the relationship between all other residents and the head was (e.g. spouse, child, parent, lodger etc).

4.8.2 Age of head of household is a useful indicator as it generally gives an impression of the age of the household and its profile; in addition dwelling conditions often vary according to age of head of household.

4.8.3 Figure 4.6 illustrates the relationship between the age of head of household and levels of non-decency. Within age groups, the highest rate of non-decency occurred where the age of head of household was between 16 and 24 years (28.5%) followed by the over 75 years age band (27.7%). All of the other age bands had rates that were lower than the District rate (19.9%), with the lowest being in the 35 to 44 age band at 14.9%.

Figure 4.6 Non-decency by age of head of household

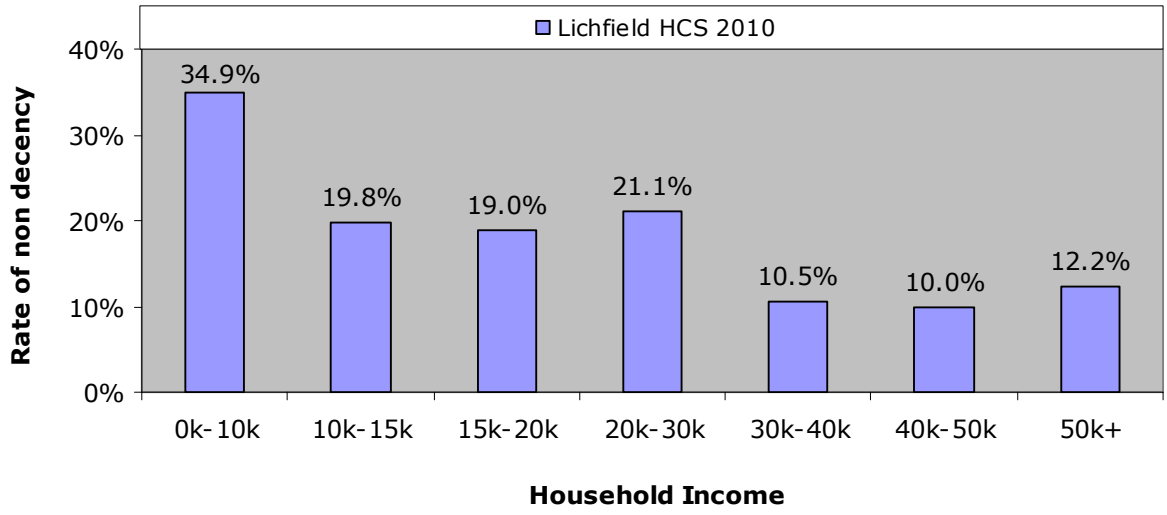


Source: 2010 House Condition Survey

4.9 Household income and non-decency

4.9.1 The relationship between income and non-decency can be analysed by combining household income figures with failures under the Decent Homes Standard. The largest proportion of dwellings found to be non-decent were occupied by households with an annual income of less than £10K at 34.9% followed by those with an income of £20k to £30k (21.1%). The overall rate for those with an income of less than £15k was 29.1%. The lowest rates were found where household income exceeded £30k.

Figure 4.7 Non-decency by annual household income band



Source: 2010 House Condition Survey

4.10 Private sector vulnerable occupier base-line

4.10.1 Up until the 1 April 2008, the government target for achieving decency standards in the private sector was that set by 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. As indicated previously, although the PSA7 target no longer exists, it is still a CLG Departmental Strategic Objective under DSO2, 2.8).

4.10.2 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]

4.10.3 In Lichfield District, there were 5,660 private sector dwellings (owner occupied and privately rented) that were occupied by residents in receipt of one of the benefits listed above. Of these an estimated 990 were classified non-decent, which represents 17.5% of dwellings occupied by a vulnerable resident. Conversely this means that 82.5% were decent. The EHCS 2007 found that 39.0% of vulnerable households were living in non-decent homes.

4.10.4 On this basis Lichfield District met both the national targets for 2006/07 of 65% of vulnerable households to be living in decent homes as well as the 70% target for 2010/11.

4.10.5 The proportion of non-decent dwellings by sub-area has already been considered earlier. Table 4.3 gives the numbers of non-decent dwellings within each sub-area with the rate of non-decency, and also lists the level of shortfall/surplus for each sub-area in terms of meeting the 70% target for vulnerable occupiers in the private sector.

4.10.6 Whilst Lichfield District had already met the 70% target for 2010/11, it may not necessarily be the case that all of the individual sub-areas would have. However, the shortfall/surplus column in Table 4.3 shows a minus figure against each of the sub-areas indicating that they had all fully met the 70% target.

Table 4.3 Non-decent dwellings with vulnerable households by sub-area

Area	Vulnerable households in non-decent dwellings	Percent vulnerable households in non decent dwellings	Percent vulnerable households in decent dwellings	Shortfall/ surplus
Lichfield City	220	17.3%	82.7%	-160
Burntwood	160	11.3%	88.7%	-270
Rural	610	20.5%	79.5%	-280
Total	**990**	**17.5%**	**82.5%**	**-710**

Source: 2010 House Condition Survey

4.10.7 The rates by tenure show a significant difference between the owner occupied sector where the rate was 88.7% (i.e. above the 70% target figure) and the private rented sector where the figure for vulnerable households in a decent home was 54.1%, leaving a shortfall of 160 dwellings to meet the 70% target figure (see Table 4.4).

Table 4.4 Non-decent dwellings with vulnerable households by tenure

Tenure	Vulnerable households in non decent dwellings	Percent vulnerable households in non decent dwellings	Percent vulnerable households in decent dwellings	Shortfall/ surplus
Owner occupied	530	11.4%	88.6%	-870
Privately rented	460	46.0%	54.0%	160
Total	**990**	**17.5%**	**82.5%**	**-710**

5 Meeting the Decent Homes Standard – The Statutory Minimum Standard for Housing (Category 1 Hazards)

5.1 Requirement to remedy poor housing

5.1.1 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.

5.1.2 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.

5.1.3 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.

5.1.4 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.

5.2 Definition of Hazards under the HHSRS and Category level

5.2.1 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.

5.2.2 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…).

5.2.3 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.

5.2.4 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.

5.2.5 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.

5.2.6 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.

5.2.7 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.

5.3 Overall dwelling conditions

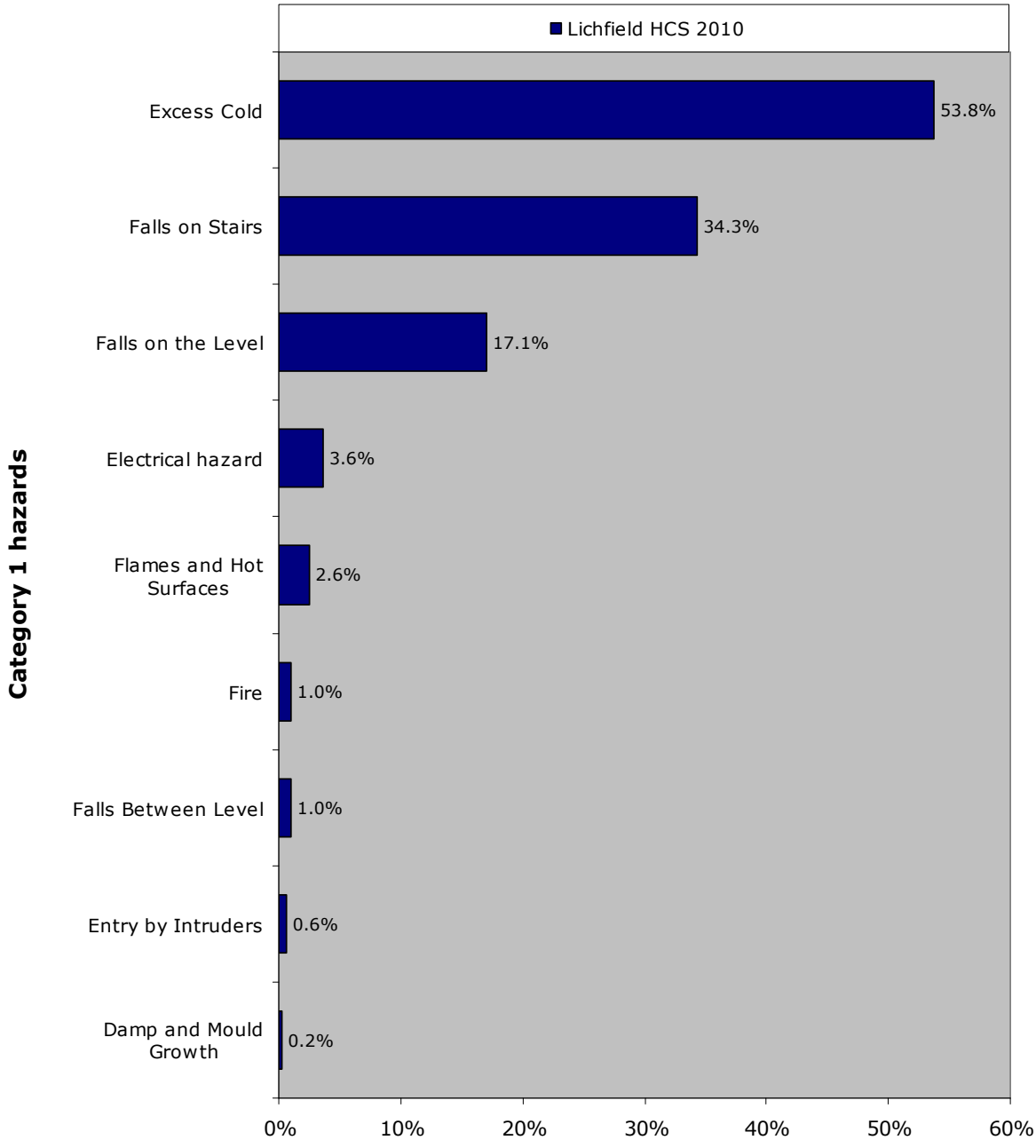
5.3.1 The overall proportion of dwellings with a Category 1 Hazard was an estimated 12.0% compared with 23.5% (owner occupied and privately rented dwellings) found in the EHCS 2007. This represented an

estimated 4,400 dwellings across Lichfield District with 3,800 being houses and 600 being flats.

5.4 Reasons for Category 1 Hazards

5.4.1 Figure 5.1 provides a breakdown of the proportions with a Category 1 Hazard by type and ranked highest to lowest. Note: the chart excludes those hazards where there was a nil return

Figure 5.1 Category 1 Hazards by reason, as % of Category 1 Hazards



Source: 2010 House Condition Survey

5.4.2 The pattern by hazard follows the national pattern with excess cold the most common hazard followed by falling on stairs and then falling on level surfaces.

5.5 Severity of Category 1 Hazards

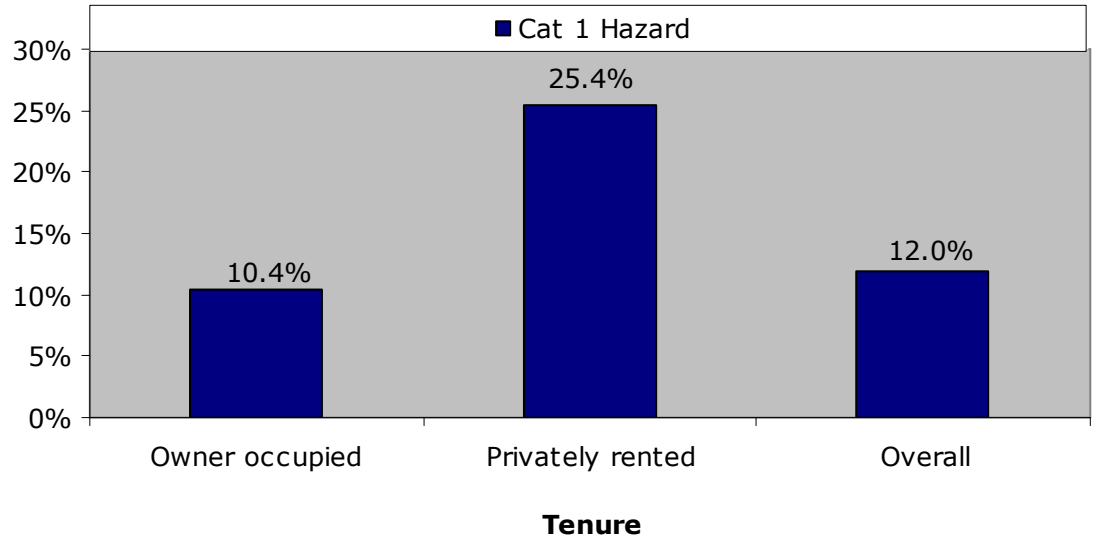
5.5.1 One indication of the severity of Category 1 Hazard failure is the number of items that a dwelling fails the standard on. Overall, only 12.6% (550 dwellings) had two or more Category 1 Hazards as a percentage of those dwellings with a Category 1 Hazard.

5.6 Category 1 Hazards by general characteristics

5.6.1 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.

5.6.2 As is usually the case the highest rate of Category 1 Hazard failure was found in the privately rented stock at 25.4% compared with 10.4% in the owner occupied stock, nearly 2½ times the rate.

Figure 5.2 Rates of Category 1 Hazards by tenure

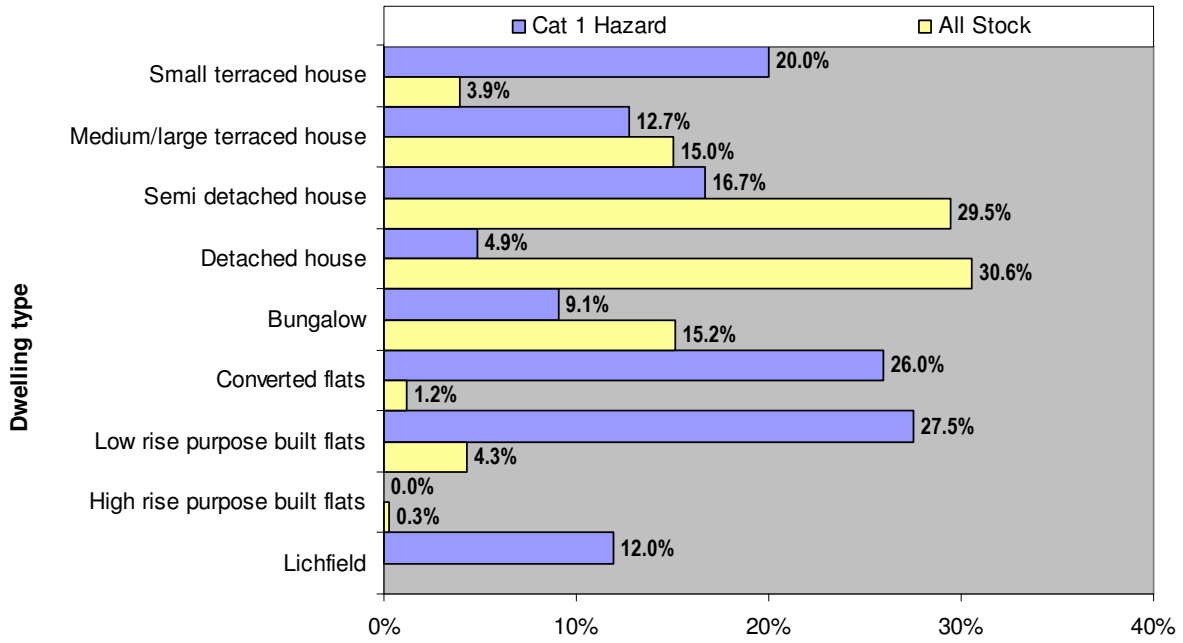


Source: 2010 House Condition Survey

5.6.3 Figure 5.3 shows the rates of Category 1 Hazards by build type. The highest rate was found in low rise purpose built flats (less than 6 storeys) at 27.5%, followed by converted flats at 26.0%; however, as indicated at paragraph 4.6.3, they constitute only a small proportion of the stock (1.2% or 450 dwellings) and therefore the data is less statistically robust. The next highest rate was found in small terraced houses at 20.0% and semi-detached houses (16.7%). There were no other property types where the rates were significantly above the District average (12.0%). No Category 1 Hazards were found in high rise purpose built flats but again see 4.6.3 regarding statistical validity

as they only represent 100 dwellings or 0.3% of the private sector stock.

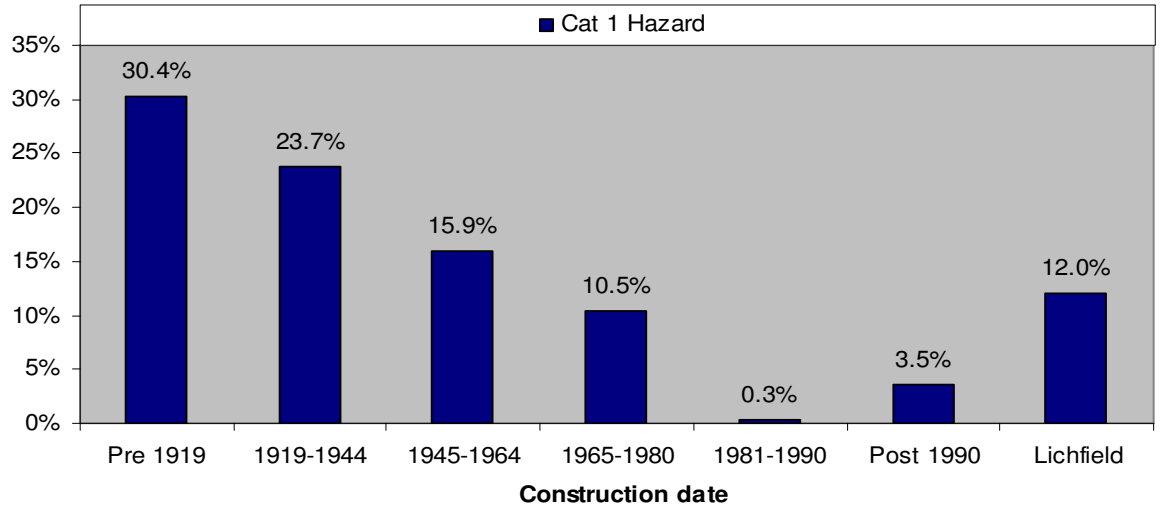
Figure 5.3 Rates of Category 1 Hazards by building type



Source: 2010 House Condition Survey

5.6.4 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. There was, nevertheless, a general trend in Lichfield District of Category 1 Hazard rates being more prevalent in older dwellings.

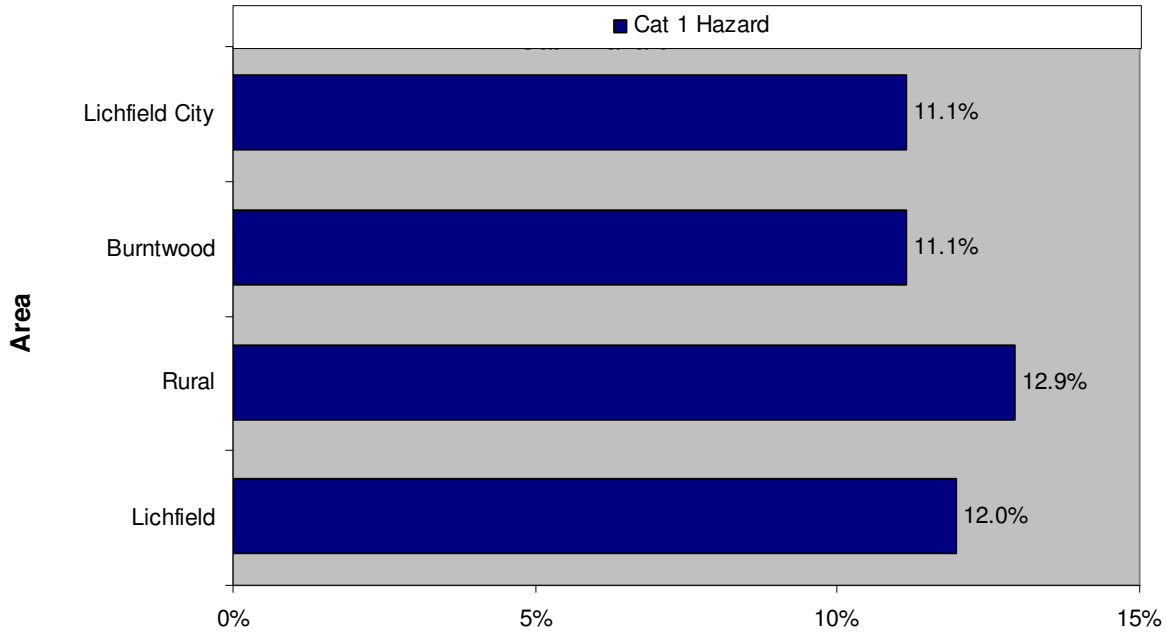
Figure 5.4 Rates of Category 1 Hazards by construction date



Source: 2010 House Condition Survey

5.6.5 The final division to be considered are Category 1 Hazard failures by sub-area. The highest rate was found in the Rural sub-area at 12.9%, with both the Lichfield City and Burntwood sub-areas having the same rate (11.1%), both below the District rate (12.0%).

Figure 5.5 Rates of Category 1 Hazards by sub-area



Source: 2010 House Condition Survey

5.7 Category 1 Hazards by social characteristics

5.7.1 This section looks at the impact that Category 1 Hazards have on a number of social variables, including age, benefit receipt and disability.

5.7.2 Table 5.1 shows that most of the variables had rates that were higher than the District average of 12.0%, substantially so in the case of those aged under 25. The only exception was for those in receipt of a benefit (9.4%).

Table 5.1 Category 1 Hazards by social characteristics

Group	Category 1 Hazard
Income under £10k	20.2%
On Benefit	9.4%
Under 25	24.5%
Over 65	16.9%
Resident with disability	20.9%
Lichfield District average	**12.0%**

Source: 2010 House Condition Survey

5.8 Cost of works to dwellings with Category 1 Hazards

5.8.1 This section seeks to present the cost not only of basic failure items, but also the comprehensive cost of repairs in Category 1 Hazard dwellings. Comprehensive repair is the level of repair and improvement needed such that no new work is required to the dwelling in the next 10 years. This level of work most closely resembles the former mandatory renovation grant regime. Table 5.2 shows the basic remedial costs, the cost for urgent works and works required within 5 years and 10 years.

5.8.2 The total cost just to rectify Category 1 Hazards was an estimated £11.6 million at an average cost per dwelling overall of £2,700. The average cost per dwelling was slightly higher in owner occupied dwellings at £2,900 compared with £2,000 in privately rented dwellings. The total level of comprehensive repair (i.e. carrying out all works reasonably foreseen as necessary over the next 10 years) in dwellings with a Category 1 Hazard in Lichfield District was an estimated £59.8 million, an average of £13,800 per dwelling, with the owner occupied stock having the highest average cost at £15,000 compared with £10,000 in the private rented sector.

Table 5.2 Repair costs in Category 1 Hazard dwellings by tenure

Tenure	Remedial	Urgent[2]	5 year[2]	Comprehensive[2]
Owner occupied (£m)[1]	**9.5**	**11.2**	**18.6**	**49.9**
Average (£s)	*2,900*	*3,400*	*5,600*	*15,000*
Privately Rented (£m)[1]	**2.0**	**2.3**	**3.1**	**9.9**
Average (£s)	*2,000*	*2,300*	*3,100*	*10,000*
All tenures (£m)[1]	**11.6**	**13.5**	**21.6**	**59.8**
Average (£s)	*2,700*	*3,100*	*5,000*	*13,800*

1. Figures given in millions of pounds sterling

2. Figures are cumulative and therefore include the previous column

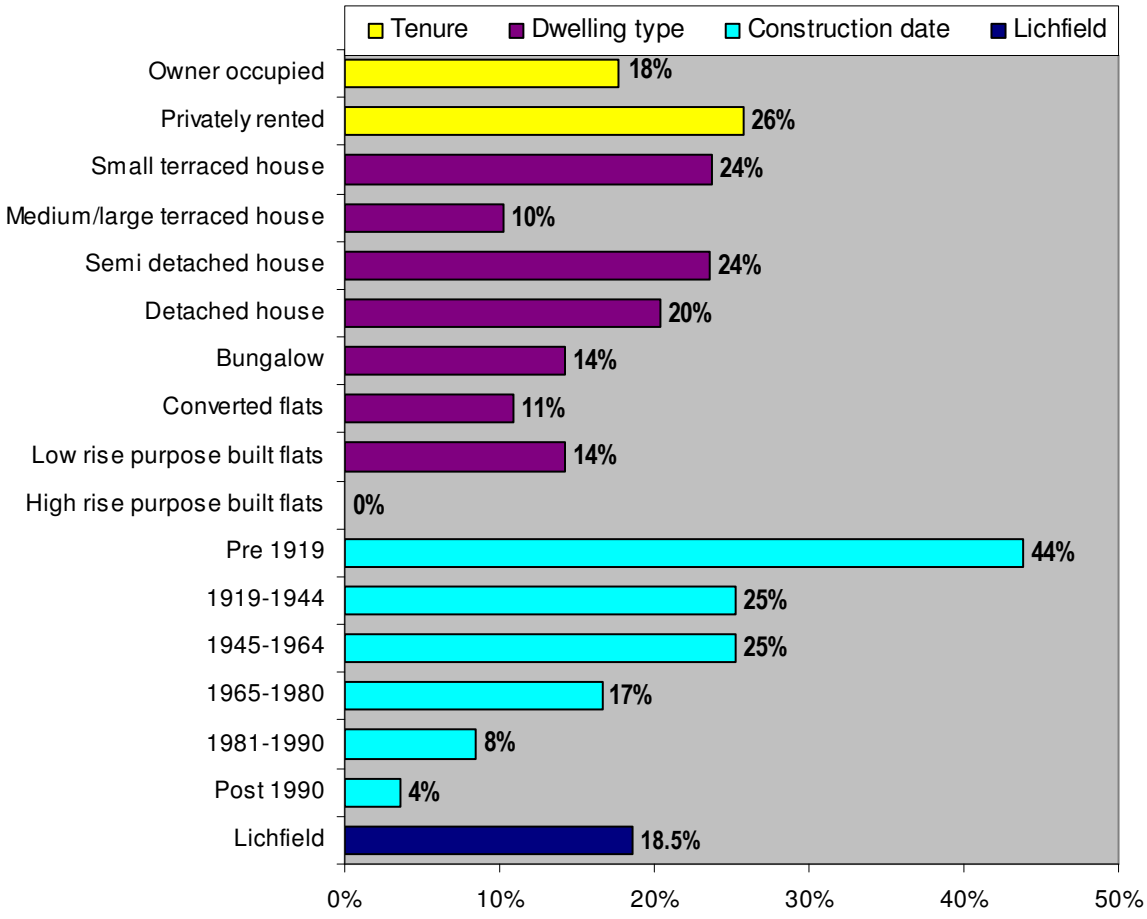
Source: 2010 House Condition Survey

5.9 Category 2 Hazards in bands D and E

5.9.1 There were an estimated 6,800 (18.5%) dwellings in Lichfield District that had at least one Category 2 Hazard (Bands D and E). Of those 5,900 (87.4%) had no corresponding Category 1 Hazard.

5.9.2 Figure 5.6 illustrates the distribution of Category 2 Hazards (Bands D and E) by tenure, building type and age.

Figure 5.6 Category 2 Hazards by general characteristics



Source: 2010 House Condition Survey

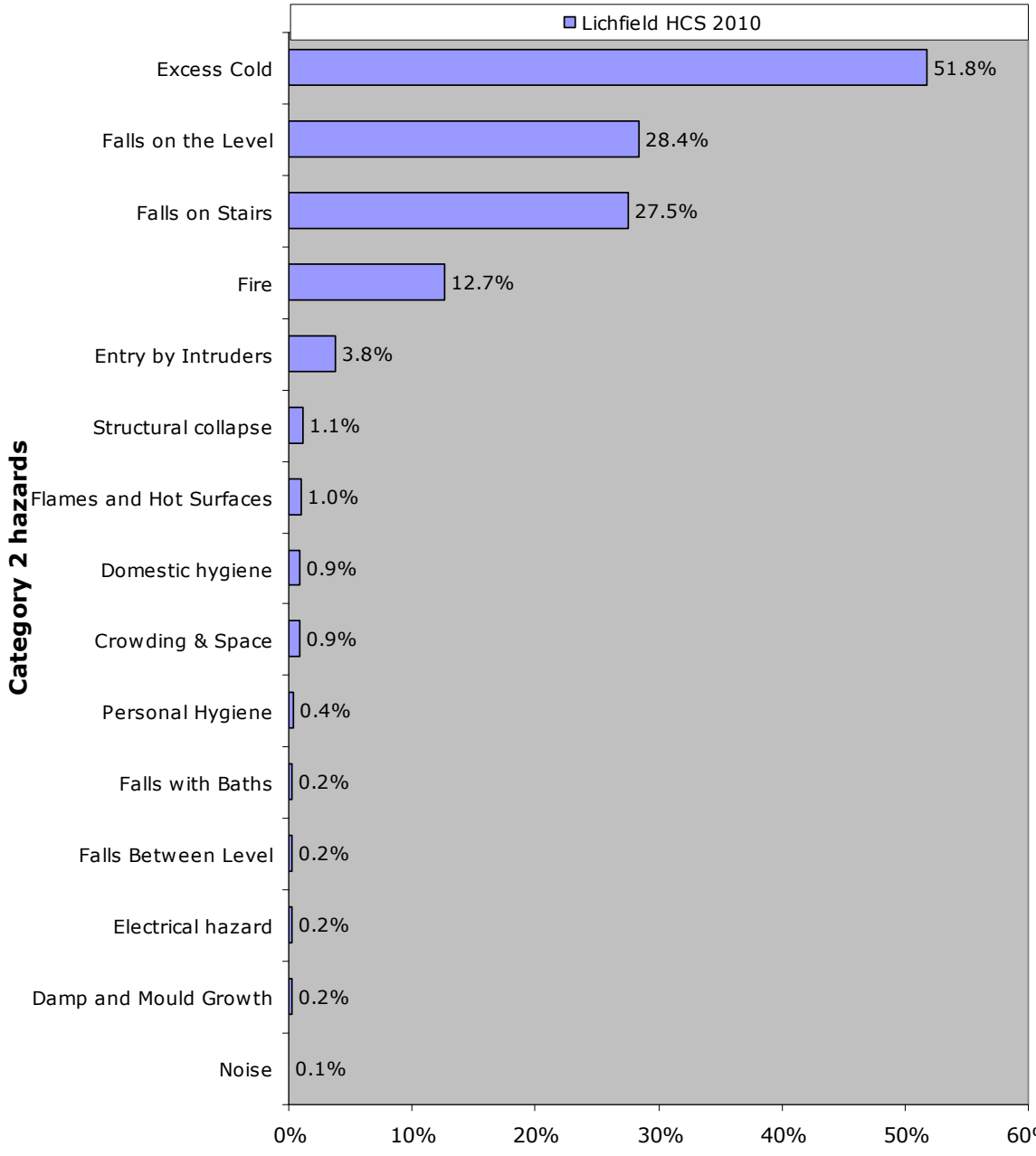
5.9.3 The rate of Category 2 Hazards (Bands D and E) in the owner occupied sector at 18% was lower than that in the privately rented sector at 26%.

5.9.4 By build type, small terraced and semi-detached houses, jointly, had the highest rate at 24% followed by detached houses at 20%. The lowest rate was found in converted flats, with no Category 2 Hazards (Bands D and E) being recorded in high rise purpose built flats (6 or more storeys).

5.9.5 The pattern of decreasing incidence with age is followed, with the highest rate being in Pre-1919 dwellings (44%) and the lowest in Post-1990 dwellings (4%).

5.9.6 Figure 5.7 illustrates the distribution of Category 2 Hazards (Bands D and E) by hazard type and ranked highest to lowest.

Figure 5.7 Category 2 Hazards by hazard type

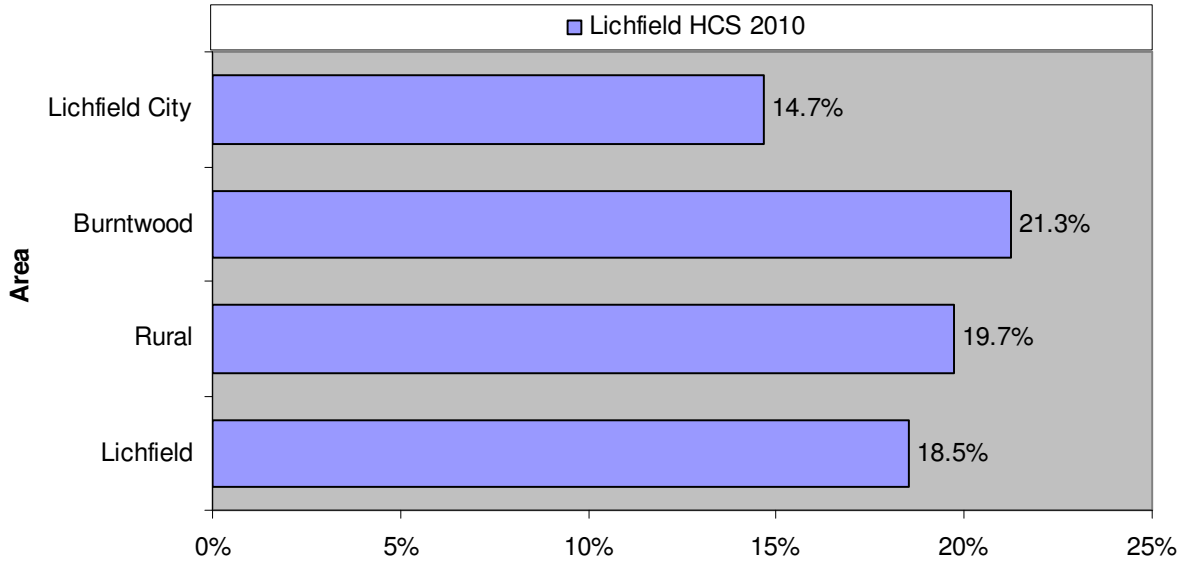


Source: 2010 House Condition Survey

5.9.7 As with Category 1 Hazards, the most common hazard was excess cold followed by falling on level surfaces and then falling on stairs. Fire also featured prominently. Again hazards with a nil return were not shown.

5.9.8 Figure 5.8 looks at the extent of Category 2 Hazards (Bands D and E) by sub-area. The highest rate was found in the Burntwood sub-area (21.3%) followed by the Rural sub-area (19.7%), both of which had rates above the District rate (18.5%).

Figure 5.8 Category 2 Hazards by sub-area



Source: 2010 House Condition Survey

6 Meeting the Decent Homes Standard – Reasonable State of Repair

6.1 Introduction

6.1.1 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.

6.1.2 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:

Table 6.1 Major building elements (disrepair failure)

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

Table 6.2 Minor building elements (disrepair failure if 2 or more fail)

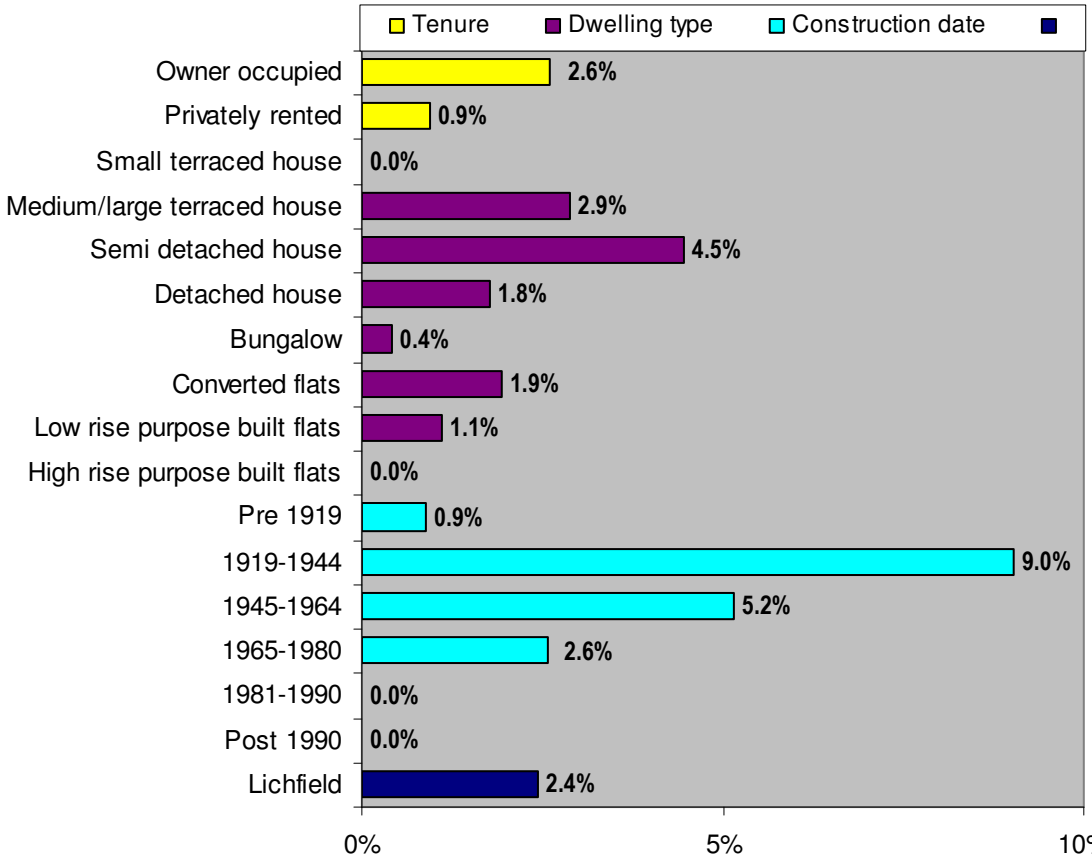
Element	Age to be considered old
Kitchen (Major repair or replace 3+ items)	30
Bathroom (Replace 2+ items)	40
Central heating distribution (Major Repair)	40
Other heating (Major Repair)	30

6.2 Disrepair and general characteristics

6.2.1 In Lichfield District 890 dwellings failed this criterion. At 2.4%, the rate of failure is well below the national rate of 7.3%.

6.2.2 The overall repair cost within Lichfield District was £1.5 million, an average of £2,110 per dwelling. (This is the cost of simply rectifying failures of the repair criterion of the Decent Homes Standard – it is not the cost of comprehensive repairs required over a 10 year period.) The following section gives a breakdown of repair failure by a number of key variables.

Figure 6.1 Disrepair by general characteristics



Source: 2010 House Condition Survey

6.2.3 The rate in the owner occupied sector at 2.6% is above that for the private rented sector at 0.9%.

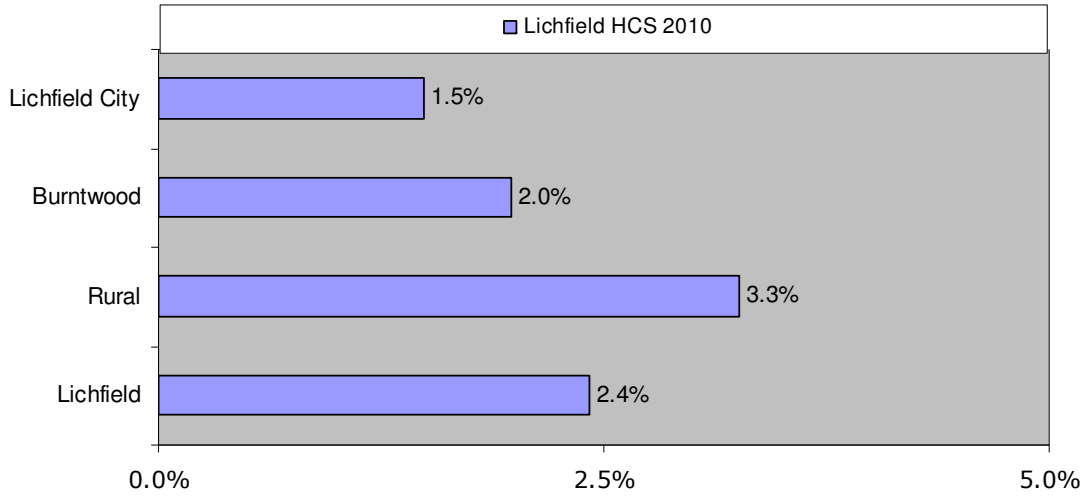
6.2.4 By dwelling type, the highest rate was found in semi-detached houses (4.5%) followed by medium/large terraced houses (2.9%). No disrepair was found in small terraced houses and high rise purpose built flats (6 or more storeys), although for high rise purpose built flats, due to the low sample size, statistical validity is an issue.

6.2.5 The proportionate rate of repair failure by construction date usually increases with property age. Here, in some respects, the results generally follow that pattern although the rate for Pre-1919 dwellings is substantially below the trend line, with no disrepair being found in dwellings constructed after 1980.

6.3 Disrepair by sub-area

6.3.1 Figure 6.2 provides a breakdown of disrepair by sub-area.

Figure 6.2 Disrepair by sub-area



Source: 2010 House Condition Survey

6.3.2 The highest repair failure rate was recorded in the Rural sub-area at 3.3%, which was the only sub-area above the District rate (2.4%).

6.4 Disrepair by social characteristics

6.4.1 The impact that disrepair has on a range of social variables, including age, benefit receipt and disability, is shown in Table 6.3.

6.4.2 Two of the variables had rates that were above the average District rate (2.4%); those in receipt of a benefit and residents with a disability (substantially above at nearly three times the rate). All of the others were below the District rate.

Table 6.3 Disrepair by social characteristics

Group	In disrepair
Income under £10k	0.8%
On Benefit	2.6%
Under 25	1.3%
Over 65	1.9%
Resident with disability	6.6%
Lichfield District average	**2.4%**

Source: 2010 House Condition Survey

7 Meeting the Decent Homes Standard – Modern Facilities

7.1 Introduction

7.1.1 So far this report has considered Criterion A of the Decent Homes Standard: Category 1 Hazards and Criterion B: dwellings failing due to disrepair issues. The third criterion of the Decent Homes Standard is that a dwelling should have adequate modern facilities, and this chapter deals with that issue.

7.1.2 At national level, only a small proportion of the private sector stock failed on this criterion (2.9%). In Lichfield District, the rate was significantly lower than the national average with 50 (0.1%) dwellings failing for this reason. The low level of failure nationally, and in Lichfield District, reflects the fact that a dwelling only fails 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

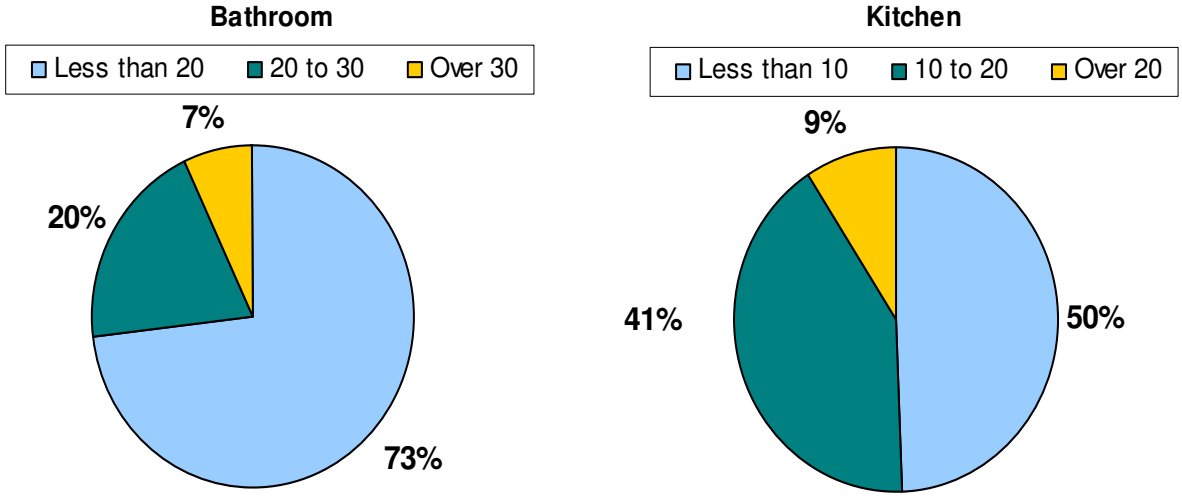
7.1.3 For example, if a dwelling had a kitchen and bathroom older than the specified date, it would not fail unless the kitchen had a poor layout or the bathroom was not properly located.

7.1.4 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. However, this chapter will examine the general provision of facilities and in particular consider the potential for a greater level of failure in the future.

7.2 Key amenities bathrooms and kitchens

7.2.1 Under the Decent Homes Standard the age of bathrooms and kitchens is of importance to the modern facilities criterion. Figure 7.1 examines the age of these two facilities in dwellings within Lichfield District.

Figure 7.1 Bathroom and Kitchen age



Source: 2010 House Condition Survey

7.2.2 It is possible to see from the two charts that potential for failure under the facilities criterion of the Decent Homes Standard is fairly low with bathrooms as the great majority (73%) were less than 20 years old but slightly greater with kitchens as 50% were either older than the age specified in the criterion or would become so in the next 10 years. For these dwellings to fail, however, it would be necessary that one of the other elements of this criterion be breached (such as inadequate noise insulation). It is unlikely therefore that failure to replace older kitchens and bathrooms would cause any significant increase in non-decency.

7.3 Gas safety checks

7.3.1 Gas installations and appliances should be subject to a gas safety check at least once every year. With rented dwellings, this is a legal requirement imposed by the Gas Safety (Installation and Use) Regulations 1998. As part of this survey, occupiers were asked when the last gas safety check was carried out (assuming that they have knowledge of this). 44% of households responded to this question. Table 7.1 shows the results by tenure.

7.3.2 The results show, as might be expected, a disparity between tenures with the compulsion in the private rented sector increasing the proportions of recent gas safety checks. In the private rented sector, 87.2% of occupiers report that a gas safety check has been carried out in 2009 or later; in the owner occupied sector this figure is 80.1%. No tenant recalled a gas safety check later than 2008; in the owner occupied sector checks as far back as 2000 were reported.

7.3.3 The results do need to be regarded with caution as householder answers are dependent on memory; furthermore, assured short hold tenancies do mean that there can be a relatively high turnover of households in some parts of the private rented sector. Nonetheless,

the results do suggest that there is not full compliance with the statutory requirement in the private rented sector and that the Council may wish to consider taking steps to encourage more owner occupiers to carry out gas safety checks.

Table 7.1 Gas safety checks by tenure

Year of check	Owner occupied	Privately rented
2010	21.4%	15.3%
2009	58.7%	71.9%
2008	11.2%	12.8%
2007	4.5%	0.0%
2006	0.8%	0.0%
2005	0.2%	0.0%
2004	0.2%	0.0%
2002	1.0%	0.0%
2000	2.0%	0.0%
Total	**100%**	**100%**

Source: 2010 House Condition Survey

8 Meeting the Decent Homes Standard – Thermal Comfort

8.1 Thermal comfort failures

8.1.1 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. In Lichfield District 4,310 dwellings (11.7%) failed the thermal comfort criterion, which was below the national average of 15.9%.

8.1.2 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).

8.2 Thermal comfort failures by general characteristics

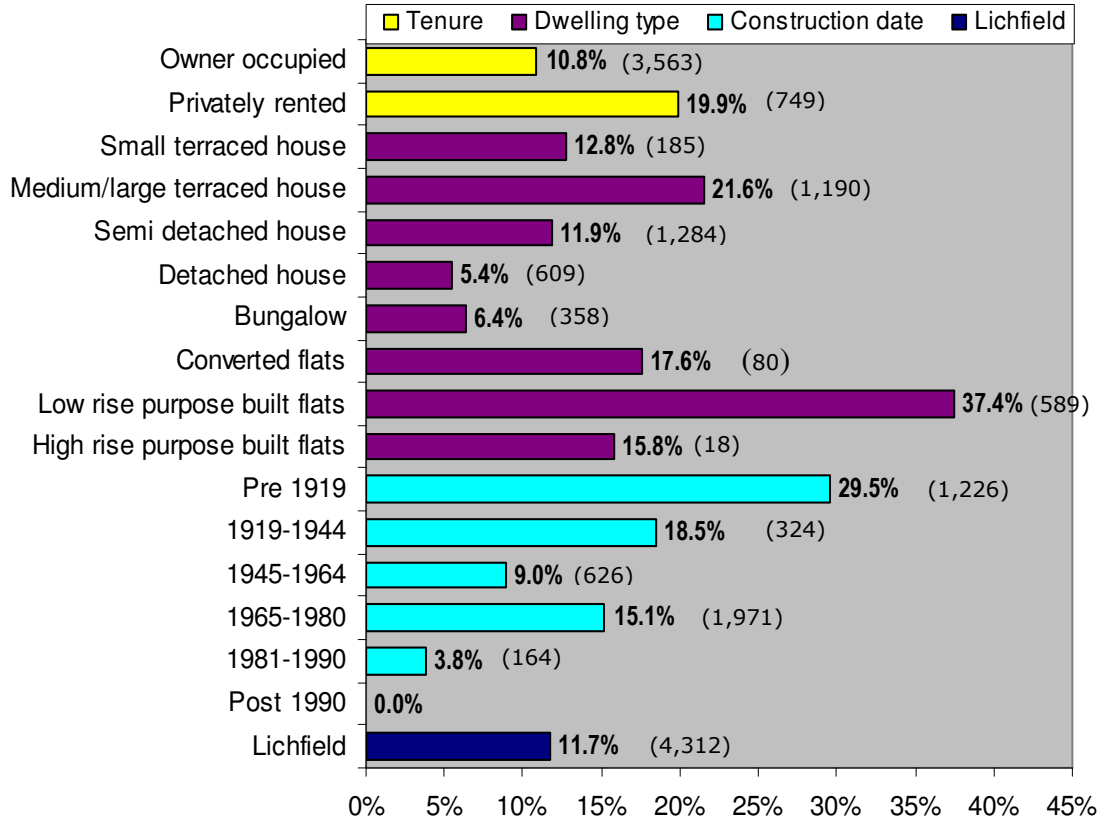
8.2.1 Figure 8.1 below shows the distribution of thermal comfort failure by tenure, building type and age. The figures in brackets represent weighted absolute number of dwellings by general characteristic failing the thermal comfort criterion.

8.2.2 The rate of failure in the private rented sector at 19.8% was substantially above the rate of 10.8% in the owner occupied sector.

8.2.3 Low rise purpose built flats (less than 6 storeys) had the highest proportionate rate (37.4%) followed by medium/large terraced houses (21.6%). The lowest rate was found in detached houses (5.4%).

8.2.4 Thermal comfort failure rates usually increase with dwelling age, and whilst this was generally true in Lichfield District, the 1965 to 1980 age band was above the trend line, due to insufficient insulation for those with central heating systems and storage heaters and 2.6% failing due to having room heaters as their only means of heating. No thermal comfort failure was found in Post-1990 dwellings.

Figure 8.1 Thermal comfort failure by general characteristics

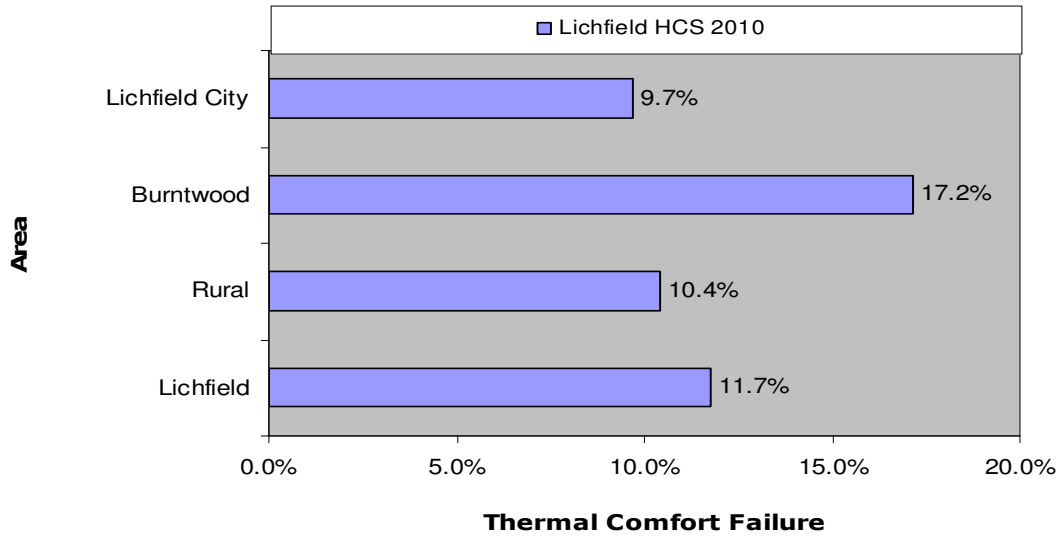


Source: 2010 House Condition Survey

8.3 Thermal comfort failure by sub-area

8.3.1 Figure 8.2 provides a breakdown by sub-area.

Figure 8.2 Average thermal comfort failure by sub-area



Source: 2010 House Condition Survey

8.3.2 The highest rate was found in the Burntwood sub-area at 17.2%, which was the only one above the District rate (11.7%). Both the Rural sub-area (10.4%) and the Lichfield City sub-area (9.7%) had rates that were lower.

9 Energy Performance

9.1 Energy performance and SAP ratings

9.1.1 The Standard Assessment Procedure or SAP is a government rating for energy efficiency. It is used in this report in conjunction with annual CO_2 emissions figures, calculated on fuel consumption, and the measure of that fuel consumption in kilo Watt hours (kWh), to examine energy efficiency.

9.1.2 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.

9.1.3 The software used to calculate SAP ratings for this report used SAP2005.

9.2 Distribution of SAP ratings

9.2.1 The average SAP rating in Lichfield District for private sector dwellings was 57, compared to an average SAP rating of 48 nationally (for private sector dwellings only), based on the findings of the EHCS 2007, which also used SAP2005.

9.2.2 Table 9.1 shows the energy performance distribution by tenure incorporating the same banding system used by the EHCS 2007. The majority for each tenure group were contained within the 39 to 68 bandings, being 76.9% for owner occupied dwellings and 72.4% for the privately rented stock. The overall stock rate was 76.4% within those bands, which was above the national rate (73.2%).

Table 9.1 Energy performance SAP banded

EPC SAP Range Banded	Owner occupied	Privately rented	Whole Stock	EHCS 2007
Band A (92-100)	0.0%	0.0%	0.0%	0.0%
Band B (81-91)	0.2%	0.0%	0.2%	0.1%
Band C (69-80)	15.5%	13.8%	15.3%	5.0%
Band D (55-68)	49.7%	29.8%	47.6%	30.4%
Band E (39-54)	27.2%	42.6%	28.8%	42.8%
Band F (21-38)	6.8%	9.4%	7.1%	17.3%
Band G (1-20)	0.6%	4.4%	1.0%	4.4%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: 2010 House Condition Survey & EHCS 2007

9.3 SAP by general characteristics

9.3.1 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.

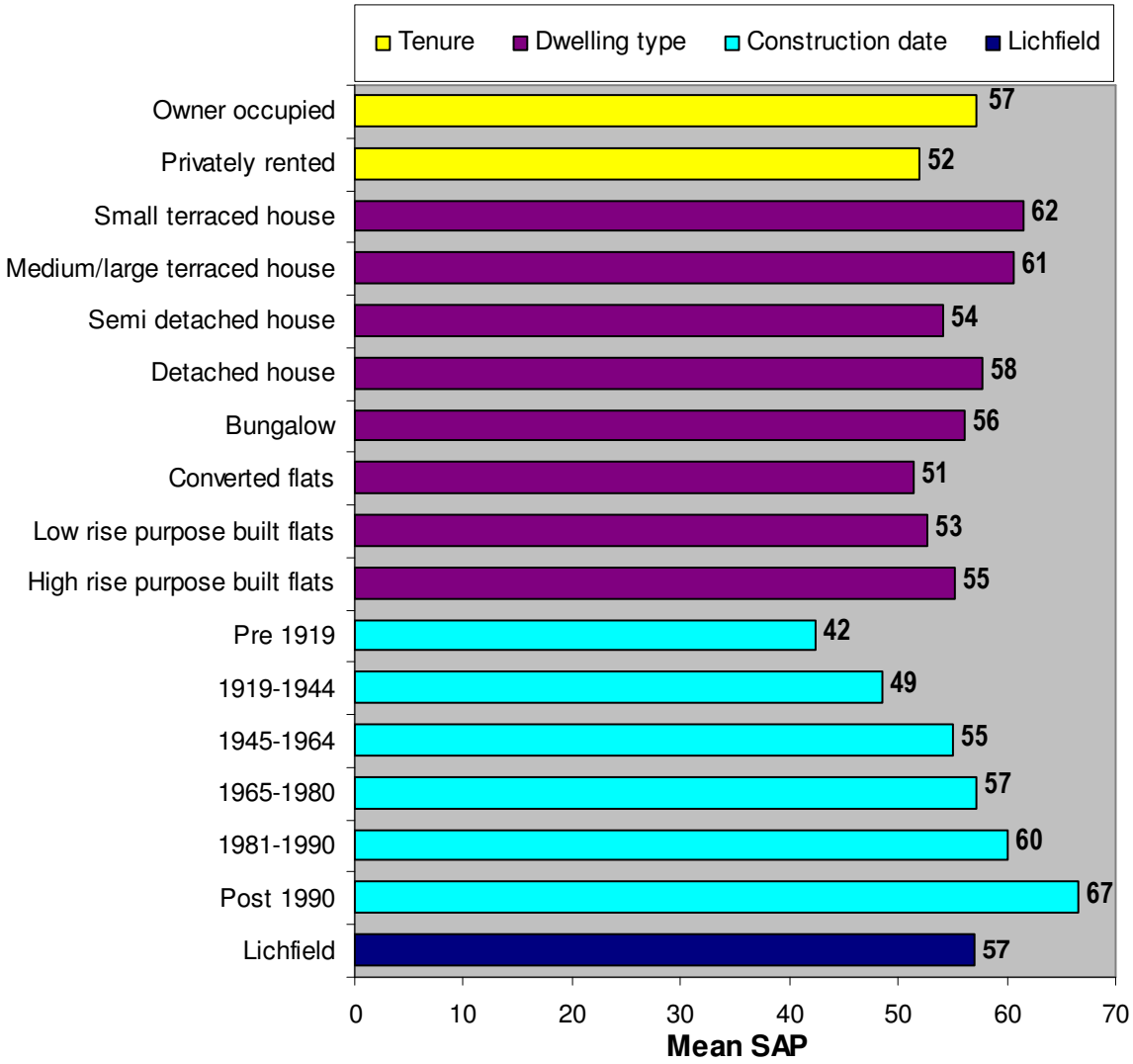
9.3.2 Figure 9.1 gives a breakdown of average SAP ratings by tenure, building type and construction date.

9.3.3 The average SAP rating for owner occupied dwellings was 57 and for the private rented sector it was 52.

9.3.4 When examining SAP ratings by built form, converted flats had the lowest SAP rating at 51 (again the comments regarding small sample size at paragraph 4.6.3 should be borne in mind), followed by low rise purpose built flats (less than 6 storeys)at 53 and semi-detached houses (54). Small and medium/large terraced houses had the highest mean SAP rating (62 and 61 respectively). The remaining dwellings types had SAP ratings close to the District average (57).

9.3.5 Increases in SAP tend to be associated with a reduction in dwelling age; the most modern stock having the highest SAP. This pattern was followed in Lichfield District; the lowest mean SAP was for Pre-1919 dwellings at 42 and the highest in Post-1990 dwellings at 67.

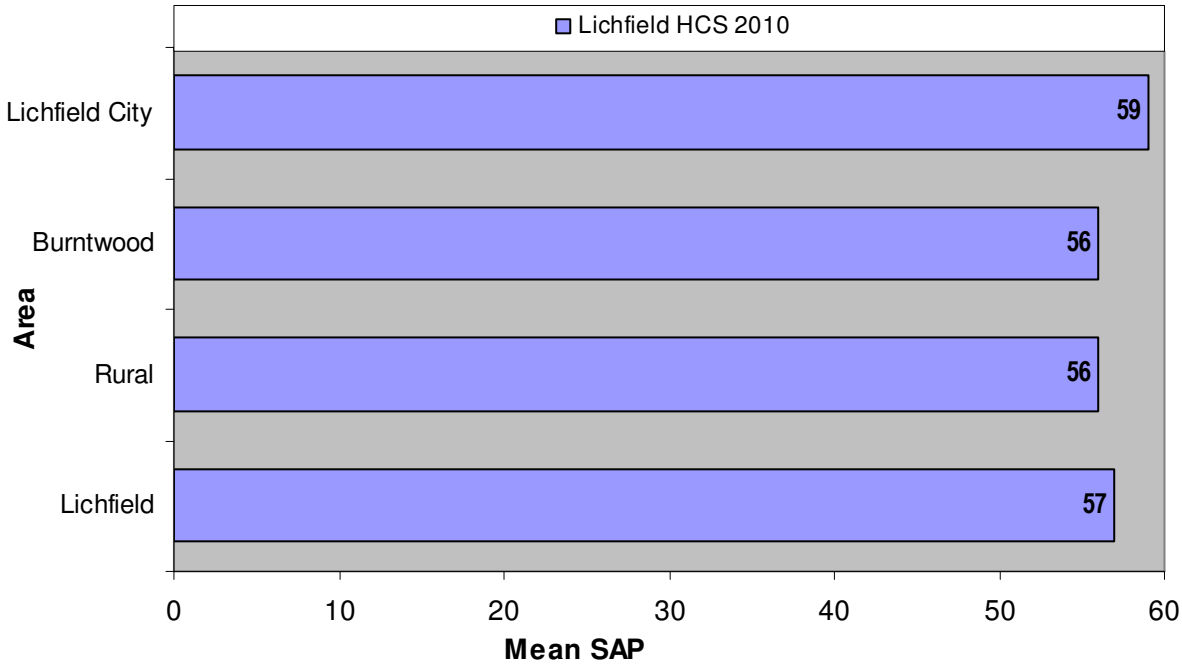
Figure 9.1 SAP by general characteristics



Source: 2010 House Condition Survey

9.3.6 Figure 9.2 shows the distribution of mean SAP ratings by sub-area.

Figure 9.2 Mean SAP by sub-area



Source: 2010 House Condition Survey

9.3.7 The Lichfield City sub-area (59) had a mean SAP rating that was higher than the District rate (57), with both the Burntwood and Rural sub-areas having the same mean SAP rating of 56 which was just below the District rate.

9.4 Carbon Dioxide emissions

9.4.1 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 (CO_2) emissions in the Local Authority area and the tackling of fuel poverty.

9.4.2 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 CO_2 emissions of at least 26% by 2020, against a 1990 baseline.

9.4.3 The previous 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.

9.4.4 The overall aim of the consultation was to reduce annual emissions by up to 44 million tonnes of CO_2 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.

9.4.5 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 CO_2 emissions, and the government wanted to help the development of heating networks within communities where it made sense to do so.

9.4.6 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.

9.4.7 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.

9.4.8 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

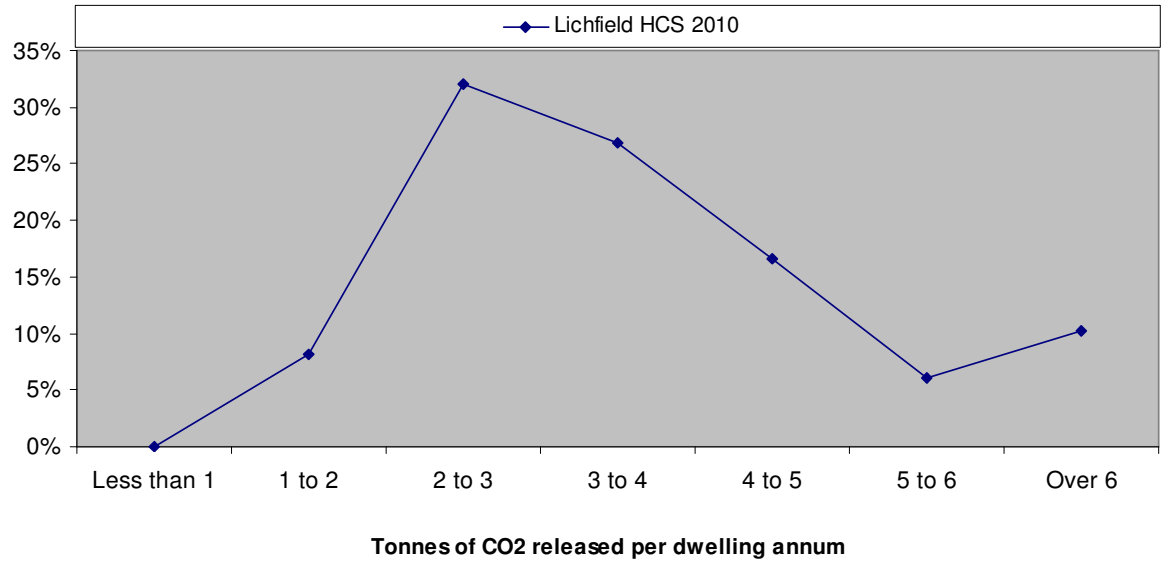
to cover the needs of the whole house. This more coordinated approach is piloted under a new Community Energy Savings Programme (CESP), launched in September 2010.

9.4.9 Lichfield District has no Lower Super Output areas contained within the list of areas of low income that the Government proposes qualify for the Community Energy Saving Programme.

9.4.10 The CO_2 data provided as part of this survey indicated that emissions within the private sector stock of Lichfield District were 141,900 tonnes per annum an average of 3.9 tonnes per annum per property or 1.8 tonnes per capita. The EHCS 2007 reported total CO_2 emissions of 130 million tonnes per annum or 7.1 tonnes per dwelling (owner occupied and privately rented)

9.4.11 Figure 9.3 shows the range of dwelling CO_2 emissions released per annum. The majority of dwellings (75.5%) had emissions of between 2 and 5 tonnes per annum, with 16.2% having annual emissions above this. 10.2% of dwellings had emissions above 6 tonnes per annum.

Figure 9.3 Annual dwelling CO_2 emissions



Source: 2010 House Condition Survey

9.4.12 Emissions per main fuel type are given in Table 9.2; smokeless fuel had the highest average at 7.2 tonnes followed by coal/wood at 6.1 tonnes.

Table 9.2 Main fuel CO_2 emissions

Fuel main	CO_2 (tonnes)	Average CO_2 per property
Mains Gas	113,201	3.5
LPG/Bottled Gas	2,776	0.0
Oil	18,548	0.0
Coal/Wood	1,901	6.1
Anthracite	87	0.0
Smokeless Fuel	100	7.2
On Peak Electricity	683	4.3
Off Peak Electricity	4,584	3.7

Source: 2010 House Condition Survey

9.4.13 Table 9.3 examines the total CO_2 emissions by each of the survey sub-areas as well as the average CO_2 emissions per dwelling within each area.

Table 9.3 Areas CO_2 emissions

Area	CO_2 (tonnes)	Average CO_2 per property
Lichfield City	38,600	3.4
Burntwood	29,400	3.5
Rural	73,900	4.3
Lichfield District	141,900	3.9

Source: 2010 House Condition Survey

9.4.14 The Rural sub-area had the highest average emissions (4.3 tonnes) with both the Lichfield City (3.4) and Burntwood (3.5) sub-areas having average emissions that were below the District rate (3.9 tonnes).

9.5 SAP and National Indicator 187

9.5.1 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 9.9). It is anticipated that Councils will measure progress using an annual postal survey. Please note that it was announced by the Audit Commission at the beginning of January 2011 that NI 187 would be deleted and that it was no longer a mandatory requirement for local authorities to report against it. However, it is a tool which provides useful data for comparison with previous surveys. Therefore, it has been included in this report.

9.5.2 Table 9.4 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 slightly 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.

Table 9.4 SAP bands and NI187

Lichfield District HCS 2010			
	Dwellings total	**Households with an income benefit recipient**	**Rate**
SAP less than 35	2,280	200	8.8%
	6.2%	**6.5%**	
SAP 35 to 64	24,510	2,200	9.0%
	66.7%	71.0%	
SAP 65 and over	9,940	700	7.0%
	27.1%	**22.6%**	
	36,730	**3,100**	**8.4%**

Source: 2010 House Condition Survey

9.5.3 The figures given in red are those required under NI187. They illustrate that 6.5% of households in receipt of an income related benefit lived in a dwelling with a SAP rating below 35 and that 22.6% lived in a dwelling with a SAP of 65 and over.

9.5.4 It should be noted that, because of the very small sample size, the above figures are subject to a statistical variance of nearly 3%.

9.6 Energy efficiency improvement

9.6.1 The great majority of dwellings (90.1%) had mains gas. The survey found that 94.7% of dwellings had a central heating system, above the 90.0% found in the EHCS 2007.

9.6.2 Table 9.5 shows the heating type found by dwelling type. High and low rise purpose built flats had the lowest rates of central heating provision, with the majority; 100% for high rise purpose built flats and 41.7% for low rise purpose built flats having storage heating or room heaters. The highest rates of gas central heating provision were found in detached houses (99.1%), semi-detached houses (96.9%) and bungalows (96.8%).

Table 9.5 Heating type by dwelling type

Heating Type	Small terraced house	Medium /large terraced house	Detached house	Semi detached house	Bungalow	Converted flats	Low rise purpose built flats	High rise purpose built flats
Gas Central Heating	87.5%	87.3%	91.4%	90.6%	81.2%	74.1%	58.3%	0.0%
Oil Central Heating	0.0%	5.5%	7.7%	3.6%	15.6%	0.0%	0.0%	0.0%
Electric Central Heating	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Solid Fuel Central Heating	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%
Communal Heating	0.0%	0.2%	0.0%	0.0%	0.0%	20.1%	0.0%	0.0%
Storage Heaters	11.3%	0.3%	0.9%	1.7%	2.1%	3.9%	31.0%	100.0%
Room Heaters	1.2%	6.2%	0.0%	1.4%	1.1%	1.9%	10.7%	0.0%

Source: 2010 House Condition Survey

9.6.3 Table 9.6 shows the extent of insulation by dwelling type:

Table 9.6 Level of insulation by dwelling type

Dwelling Type	No Loft Insulat-ion	Less than 50mm	50mm to 100mm	100mm to 150mm	150mm to 200mm	200mm or more	No Loft
Small terraced house	0.0%	1.0%	7.5%	8.6%	20.1%	62.2%	0.6%
Medium/large terraced house	0.0%	7.5%	6.5%	9.7%	13.1%	59.9%	3.3%
Semi detached house	2.6%	3.3%	5.7%	11.8%	17.8%	57.5%	1.3%
Detached house	2.4%	0.0%	5.7%	9.9%	12.7%	68.0%	1.3%
Bungalow	0.0%	2.7%	3.7%	1.7%	14.9%	75.7%	1.3%
Converted flats	0.0%	1.9%	13.7%	1.9%	23.3%	12.8%	46.4%
Low rise purpose built flats	0.0%	0.0%	0.0%	1.1%	17.8%	12.1%	69.0%
High rise purpose built flats	0.0%	0.0%	0.0%	0.0%	0.0%	7.9%	92.1%
Lichfield District	**1.5%**	**2.6%**	**5.4%**	**8.6%**	**15.2%**	**61.4%**	**5.3%**
EHCS 2007	**3.7%**	**2.9%**	**21.4%**	**33.9%**	**13.1%**	**17.9%**	**7.1%**

Source: 2010 House Condition Survey

9.6.4 Table 9.6 shows the breakdown of loft insulation provision within each dwelling type, including where there was no loft to insulate. Within Lichfield District, 66.7% of dwellings have either no loft to insulate or have loft insulation of 200mm or more, compared with 25% of dwellings found in the EHCS 2007. The dwelling type with the highest rate of lofts with less than 200mm of insulation was found in semi-detached houses (41.2%) followed by converted flats (40.8%).

9.6.5 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.

9.6.6 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.

9.7 The cost and extent of improvement

9.7.1 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 270mm
- Cylinder insulation to 70mm Jacket (unless foam already)
- Double Glazing to all windows (not funded under Warm Front)
- Cavity wall insulation
- Installation of a modern high efficiency gas boiler where none is present
- Full central heating where none is present

9.7.2 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.

9.8 Future improvement

9.8.1 If all combinations of improvements listed above were carried out to all dwellings, the total cost would be just under £38.6 million, an average of £1,370 per dwelling, where improvements were required.

9.8.2 The total cost of improvements given above is distributed among 28,200 dwellings, 76.8% 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.

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

Table 9.7 All energy efficiency measures that could be carried out

Measure	Dwellings	Percent of stock
With loft insulation	11,700	31.8%
With no loft insulation	600	1.5%
Wall insulation	8,000	21.7%
Double glazing	3,000	8.2%
Cylinder insulation	19,100	51.9%
New boiler	7,300	19.8%
New central heating	600	1.6%
Any measures	**28,200**	**76.8%**

Source: 2010 House Condition Survey

9.8.4 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. However, as CERT (see 9.4.8) is mainly aimed at virgin lofts it may be more difficult tackle this especially as only 1.5% of dwellings have no current loft insulation provision (see Table 9.6). 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.

9.9 Tackling fuel poverty

9.9.1 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.

9.9.2 There are an estimated 2,660 (7.3%) dwellings in fuel poverty in Lichfield District compared to approximately 13.2% based on the findings of the EHCS 2007, as reported in the Annual Report on Fuel Poverty Statistics 2010, published by the Department of Energy & Climate Change (DECC).

9.9.3 A lower proportion than the national average, the 2,660 dwellings still 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 private rented sector at 16.8% (560 households) compared with 6.3% (2,100 households) in the owner occupied sector.

9.9.4 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.

9.9.5 By the very nature of fuel poverty, it is almost always associated with those residents on the lowest incomes. 1,760 households (66% of the households in fuel poverty) were households with incomes below £10,000 per annum, with the remaining 900 (34%) having incomes above £10,000 per annum. This means that the rate of fuel poverty in the 1,760 households with an income below £10,000 was 31.8%.

9.9.6 Fuel poverty is usually associated with dwellings where one or more residents are in receipt of a means tested benefit (5,660 see 3.10) as such benefits are indicative of low income. In Lichfield District fuel poverty was found in 910 households (34% of households in fuel poverty) where a benefit was received, compared with 1,750 households (66% of households in fuel poverty) where occupiers did not receive benefit. This means that 16.1% of households in receipt of benefit were in fuel poverty.

9.9.7 For owner-occupiers, assistance in the form of advice can be given, as well as grants and other partnership schemes with energy efficiency companies and other organisations, including the West Midlands Kick Start scheme, which assists vulnerable homeowners to undertake essential repairs and modernisation. The total cost of energy efficiency improvements to dwellings in fuel poverty in the owner-occupied sector, was just over £2.2 million. This expenditure requirement is distributed between the 2,100 owner-occupied dwellings in fuel poverty where works were possible at an average cost per dwelling of £1,100. Within the private rented sector, the cost of energy efficiency improvements to dwellings in fuel poverty was just over £0.8 million an average of £1,400 in 560 privately rented dwellings in fuel poverty.

Table 9.8 Energy efficiency measures for owner occupied fuel poor households

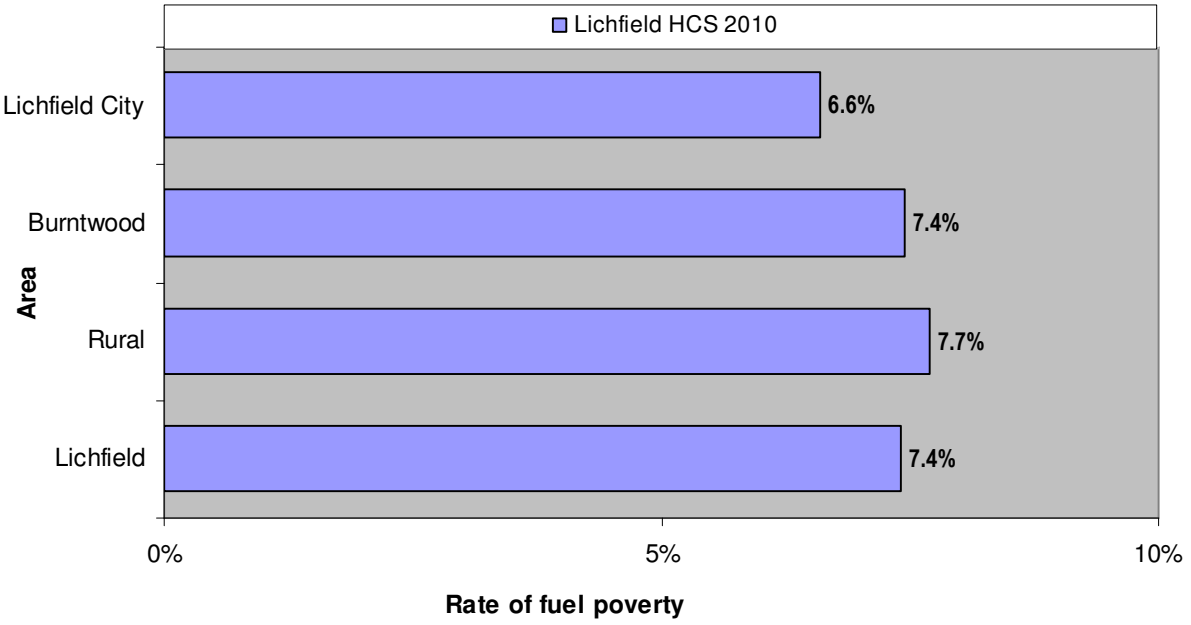
Measure	Cost	Dwellings	Average per dwelling
Loft insulation	£393,900	820	£480
Wall insulation	£447,800	690	£650
Double glazing	£918,000	100	£9,180
Cylinder insulation	£15,000	310	£50
New boiler	£378,500	420	£900
New central heating	£83,700	30	£2,790
Any measures	**£2,236,900**	**1,070**	**£2,090**

Source: 2010 House Condition Survey

9.10 Area focus on fuel poverty

9.10.1 Figure 9.4 shows the rate of fuel poverty by sub-area. The highest rate was found in the Rural sub-area (7.7%), above the District rate (7.4%). The Burntwood sub-area was the same as the District rate with the Lichfield City sub-area being lower.

Figure 9.4 Fuel poverty by sub-area



Source: 2010 House Condition Survey

9.11 Energy efficiency works to all other dwellings

9.11.1 The cost of carrying out all works to all dwellings where the residents were not in fuel poverty but where potentially improvements could be made is just over £35.5 million. This represents an average expenditure of approximately £1,100 per dwelling in 33,750 dwellings.

9.11.2 Due to the high proportion of dwellings where potential improvements could be undertaken, the numbers are widespread and targeting, is therefore, not specifically concentrated in any particular area or property type. Perhaps the best targets are those most in need of improvement, in particular those dwellings that are the least energy efficient at present.

9.11.3 There were 1,400 dwellings where the household was not in fuel poverty but where the mean SAP is less than 35. To carry out all improvement works required for these dwellings would cost just under £5.8 million, with almost all of this cost being required for the owner-occupied stock. The mean cost per dwelling in the owner-occupied stock is £4,100. The reason the average cost of improvements is higher is that many of these dwellings would require the installation of full central heating, insulation and other measures to bring their SAP above 35.

9.11.4 Part of the survey considered whether a range of energy measures had been installed within dwellings, including low energy light bulbs, photo voltaic cells, solar water heating and other renewable energy sources. Table 9.9 provides a breakdown of the proportion of rooms that had low energy light bulbs fitted, with the results showing a broad spread of current provision. The proportions due however, show that just over 50% of dwellings have more than a half of rooms fitted with low energy light bulbs, with just over 20% of dwellings having 75% or more of their rooms fitted with low energy light bulbs.

Table 9.9 Low energy light bulb provision

Range of rooms with low energy light bulbs	Proportion within range
1% to 24%	12.5%
25% to 49%	32.8%
50% to 74%	28.2%
75% to 100%	21.7%
None	4.7%

Source: 2010 House Condition Survey
For notes on statistical variance & small sample sizes see appendix C

9.11.5 As far as other provision is concerned, Table 9.10 shows the level of photo voltaic cells, solar water heating and other renewable energy sources. It is clear that very little provision was found.

Table 9.10 Other energy measures

Photo Voltaic Cells	Solar Water Heating	Other Renewables
2.3%	0.6%	0.0%

Source: 2010 House Condition Survey
For notes on statistical variance & small sample sizes see appendix C

Appendix A - Index of tables and figures

A.1 The following is a list of tables throughout the main report which are referenced to the relevant chapter number by the first digit of the table number.

The following is a list of figures throughout the report which are referenced to the relevant chapter number by the first digit of the table number.

Appendix B - Methodology

B.1 The survey used a stratified random sample of 1,400 dwellings from an address file supplied by Lichfield District Council of 36,720 dwellings. The sample was a stratified random sample to give representative findings across the authority, with the objective of gaining as many surveys as possible. In practice 698 full internal and external surveys were undertaken in total.

B.2 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 each sub area.

B.3 The survey incorporates the entire private sector stock, excluding registered social landlords (Housing Associations).

B.4 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.

B.5 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.

B.6 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).

B.7 The data was weighted using the CLASSIC Reports software. Two approaches to weighting the data have been used.

B.8 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.

B.9 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.

B.10 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 x 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.

B.11 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 (698) was present in similar proportions to those where access was not achieved (644) suggesting no serious bias will have been introduced.

B.12 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 698 such surveys were produced.

B.13 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.

Appendix C - Survey Sampling

Sample Design

C.1 The sample was drawn from the Lichfield address file derived from Council Tax records (36,720 dwellings), using the Building Research Establishment (BRE) stock modelling data. This allocated dwellings into three 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.

C.2 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

C.3 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.

C.4 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 698 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 36,730 private sector dwellings reported. Sampling error is discussed later in this section. Table C.1 shows the response rates to the survey.

Weighting the data

C.5 The original sample was drawn from Lichfield 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

C.6 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.

C.7 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.

C.8 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.

C.9 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.

C.10 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.

C.11 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

C.12 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.

C.13 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.

C.14 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 :

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

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.

C.15 This formula can be used to calculate the confidence limits for the results of any attribute such as category one hazards. Table C.1 gives a number of sample sizes and the confidence limits for a range of different possible results.

C.16 For this survey the estimate of dwellings with a Category 1 Hazard is 12.0%. 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 – 2.39%. In other words one can say that 95% of all samples chosen in this way would give a result in the range between 9.61% and 14.39%.

C.17 The standard deviation figure of + or – 2.39%, however, would only stand true if this were a simple random sample. In other words, it would only be true if the 700 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.

C.18 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 – 3.19%. 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 8.81% and 15.19%.

C.19 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:

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

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

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.

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

	Sample size									
Expected result as per cent	**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

C.20 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.

C.21 In the case of the 2010 Lichfield HCS, the average weight is approximately 53 (36,730 private sector dwellings divided by 700 surveys). As a consequence, if there are fewer than 100 dwellings of a certain type within the District, 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 53, 106 or 159 could be given, which if, in reality, there are 50 dwellings with a certain characteristic, is fairly inaccurate.

C.22 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 D – Legislative Requirements

D.1 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.

D.2 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.

D.3 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.

D.4 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.

D.5 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.

D.6 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 E - Definition of a Non-decent Home

Measure of a decent home

E.1 A dwelling is defined as non-decent if it fails any one of the following 4 criteria:

Table E.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*

E.2 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

E.3 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.

E.4 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:

E.5 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:

E.6 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:

Table E.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

Table E.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:

E.7 Criterion C requires the dwelling to have reasonably modern facilities. These are classified as the following:

Table E.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

E.8 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:

E.9 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.

E.10 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.

E.11 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:

E.12 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).

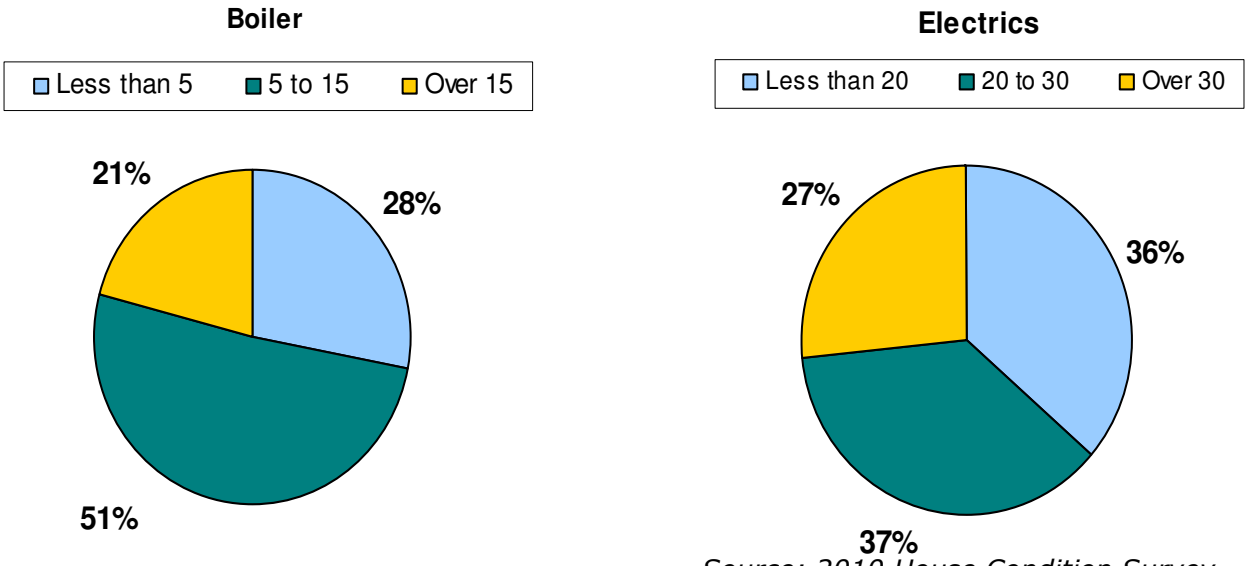
E.13 For the purposes of this study the above definition will be used in calculating the proportion of dwellings that are considered non-decent.

Appendix F - Additional amenities

F.1 The following charts examine the position for electrical systems and boilers. Electrical systems over 30 years of age are considered as reaching a point where regular inspection and testing is advisable to ensure that they are not likely to present a hazard. Many boilers over the age of 15 will still be working satisfactorily but they will be reaching the end of their economic life and their energy efficiency is likely to be declining. Boilers installed now have much higher levels of efficiency in order to meet current Building Regulations.

F.2 73% of boilers and 64% of electrical systems are either older than the age specified in the criterion or will become so in the next 10 years.

Figure F.1 Electrics and boiler age



Source: 2010 House Condition Survey

F.3 The age bands used in these charts and those used in chapter 7 differ, dependent upon the design life of the amenity in question. The second band in each chart represents where the amenity will become older than its design life during the next ten years.