

Applying the Scottish tolerable standard in Northern Ireland: modelled using data from the Northern Ireland House Condition Survey 2016



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This report was produced by the Building Research Establishment (BRE) on behalf of the Northern Ireland Housing Executive. It is based on data collected through the Northern Ireland House Condition Survey (NIHCS) 2016 and applies the Scottish tolerable standard in order to assess Northern Ireland's stock under this housing quality standard. The main report for the NIHCS is published on the Housing Executive's website:

[Click here to view the House Condition Survey 2016 report](#)

Please note: It is not the intention of the Housing Executive to implement the findings of this report. The purpose is to contribute to and inform wider discussions around housing quality standards in Northern Ireland.

For further information about 'Applying the Scottish tolerable standard in Northern Ireland', or the Northern Ireland House Condition Survey contact:

The Research Unit  
Northern Ireland Housing Executive  
2 Adelaide Street Belfast  
BT2 8PB

Jahnet Brown  
Email: [jahnet.brown@nihe.gov.uk](mailto:jahnet.brown@nihe.gov.uk)

Tel: 0782 3536 949



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## Introduction & Key Findings

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This report was produced by the [Building Research Establishment \(BRE\)](#) on behalf of the Northern Ireland Housing Executive, using data from the Northern Ireland House Condition Survey (NIHCS) 2016. [The tolerable standard](#) is the **minimum level of repair that a house must meet to be acceptable as living accommodation in Scotland**. It does not apply in Northern Ireland, which uses the [fitness standard](#). The aim of this report is to provide a comparison with one of the principal housing quality standards used in Scotland in order to contribute to the wider review of the fitness standard in Northern Ireland. In 2016 two per cent of the Northern Ireland housing stock failed the fitness standard. Approximately half of all unfit dwellings were vacant (52%) and approximately one-third (35%) were owner occupied.

The three most common reasons for a property being classified as unfit in 2016 were:

- Dampness (9,300 dwellings);
- Serious disrepair (9,100 dwellings);
- Unsatisfactory facilities for the preparation and cooking of food (8,800 dwellings).

For further information on the fitness standard in Northern Ireland please see chapter 5 (page 46) of the main 2016 NIHCS report. This report can be found on the Housing Executive's website.

[Click here to view the Northern Ireland House Condition Survey 2016 report](#)

In Scotland, housing quality is measured by two standards; the Scottish Housing Quality Standard (SHQS), introduced in 2004, and the tolerable standard which is a condemnatory standard (in other words, a minimum standard for habitability) and has been used since its introduction in the 1969 Housing (Scotland) Act which was subsequently revised in 1987, 2001 and 2006. This is the first report on the tolerable standard application in Northern Ireland using data from the Northern Ireland House Condition Survey.

The tolerable standard is broadly similar to the fitness standard in Northern Ireland but contains additional provisions relating to electrical safety, thermal insulation and access to the external areas associated with a dwelling. The 12 criteria are listed on page 4.

To measure the prevalence of the 12 criteria of the tolerable standard<sup>1</sup>, data from the 2016 Northern Ireland House Condition Survey (NIHCS) physical survey form has been modelled using the assumptions outlined in appendices in Table A5 (see page 11).

In Northern Ireland around 89,000 dwellings, some 12% of the total stock failed to meet the tolerable standard. This compares with 39,000 dwellings or 2% of all dwellings falling below the tolerable standard in Scotland in 2016.

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<sup>1</sup> See sections 85 - 87 of the Housing (Scotland) Act, 1987. Also see updates in subsequent Housing Acts in 2001 and 2006.



When vacant homes in Northern Ireland were excluded from the analysis, 10% of dwellings failed the tolerable standard.

Failure on any one of the criteria leads to a failure overall. Some 9% of homes in Northern Ireland failed on one criterion.

Dwellings, in Northern Ireland, most commonly failed the tolerable standard due to unsuitable bath/shower and wash hand basin amenities (4.5%) or due to rising/penetrating damp (4.4%). In Scotland, dwellings most commonly failed due to rising/penetrating damp and unsatisfactory insulation.



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## The Tolerable Standard in Northern Ireland - method

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The SHCS form (and surveyor training) is designed to assess the tolerable standard according to Scottish Government's needs. The NIHCS form has not been adapted for the tolerable standard therefore there are some areas of the standard that cannot be measured as comprehensively or in precisely the same way as is done in Scotland. The information collected on the NIHCS form has been mapped to the equivalent data items on the Scottish form that are used for the derivation of the tolerable standard. The measures covered by the tolerable standard are listed below and Appendix 2 User Guide describes how the NIHCS dataset has been used to model incidence.

A dwelling meets the tolerable standard if it:

- is structurally stable;
- is substantially free from rising or penetrating damp;
- has satisfactory provision for lighting, ventilation and heating;
- has an adequate piped supply of wholesome water available within the house;
- has a sink provided with a satisfactory supply of both hot and cold water within the house;
- has a water closet or waterless closet available for the exclusive use of the occupants of the house and suitably located within the house;
- has a fixed bath or shower and a wash-hand basin, each provided with a satisfactory supply of both hot and cold water and suitably located within the house;
- has an effective system for the drainage and disposal of foul and surface water;
- has satisfactory facilities for the cooking of food within the house;
- has satisfactory access to all external doors and outbuildings;
- has electrical installations that are adequate and safe to use. The "electrical installation" is the electrical wiring and associated components and fittings, but excludes equipment and appliances;
- has satisfactory thermal insulation.



## The Tolerable Standard in Northern Ireland - results

The total number and percentage of dwellings which failed each of the 12 criteria, together with the overall level of failure for the whole stock is shown in Table 1 below. Failure on any one of the criteria leads to a failure overall. Some dwellings will fail on more than one criterion.

**Table 1: Dwellings that failed to meet the tolerable standard in NI, 2016**

Tolerable standard criterion	Frequency (rounded to nearest 500 households)	Percentage (rounded to 1 d.p.)
Structurally unstable	x	0.1
Rising or penetrating damp	34,000	4.4
Unsatisfactory provision for natural and artificial lighting, for ventilation and for heating	x	1.0
Unsatisfactory thermal insulation;	19,500	2.5
Lacks adequate piped supply of wholesome water	x	0.6
Lacks sink with a satisfactory supply of both hot and cold water	7,000	0.9
Lacks WC available for the exclusive use of the occupants of the house/unsuitably located	17,500	2.2
Lacks fixed bath or shower and a wash-hand basin, with a satisfactory supply of both hot and cold water/ unsuitably located	35,000	4.5
Ineffective system for the drainage and disposal of foul and surface water	x	0.3
Lacks suitable supply of electricity	x	0.3
Unsatisfactory facilities for the cooking of food	10,000	1.3
Unsatisfactory access to all external doors and outbuildings.	0	0.0
Overall fail	89,000	11.5

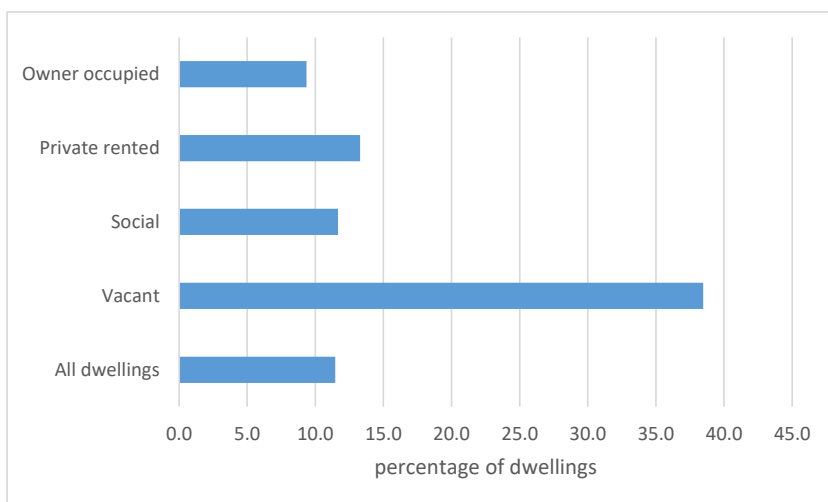


**Base: All dwellings. Note that cells in italics are based on case counts of less than 20**

**Tolerable standard and tenure**

The proportion of dwellings that failed to meet the tolerable standard is fairly similar among private rented (13%) and social rented (12%) homes. Not surprisingly, vacant homes had the highest proportion of dwellings that did not comply with the tolerable standard (38%) (Figure 1).

**Figure 1: Proportion of dwellings that failed to meet the tolerable standard in NI by tenure, 2016**



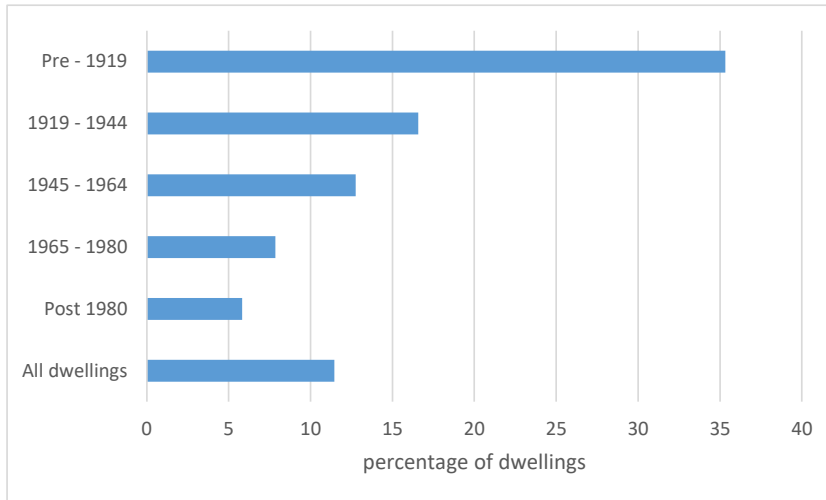
**Base: All dwellings**

**Tolerable standard and dwelling age**

There is a general relationship between dwelling age and compliance with the standard. More than one-third (35%) of the oldest homes failed to meet the standard compared with 6% of dwellings built after 1980 (Figure 2). The proportion of pre-1919 dwellings failing the standard falls to 31% if vacant dwellings are excluded.



**Figure 2: Proportion of dwellings that failed to meet the tolerable standard in NI by dwelling age, 2016**

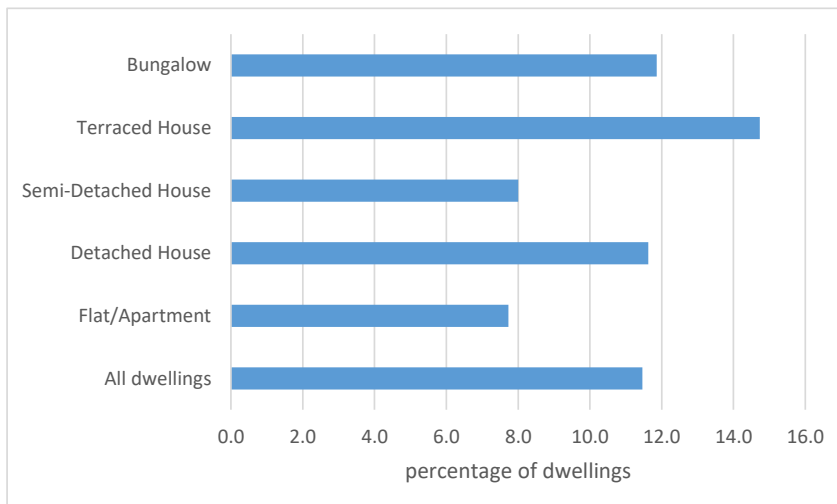


**Base: All dwellings**

[Tolerable standard and dwelling type](#)

The prevalence of non-compliance was highest among terraced houses (15%) (Figure 3).

**Figure 3: Proportion of dwellings that failed to meet the tolerable standard in NI by dwelling type, 2016**



**Base: All dwellings**





## Key findings for Scotland based on the Scottish House Condition Survey 2016

The Scottish House Condition Survey findings (2016) indicated that in Scotland, 2% (approximately 39,000 dwellings) failed to meet the tolerable standard. The rate was similar for the private rented sector (2%) and slightly higher for those built before 1919 (4%).

Dwellings in Scotland most commonly fell below the tolerable standard due to:

- Rising/penetrating damp
- Lack of satisfactory insulation;
- Not being structurally stable;
- Lack of satisfactory provision for lighting, ventilation or heating;



## Appendix 1: Confidence Intervals for the Tolerable Standard

**Note:** The confidence intervals in Tables A1 to A4 are based on the assumption that the sample is a simple random sample. The confidence intervals do not account for all potential sources of error, e.g. surveyor variability.

**Table A1: NI dwellings below the tolerable standard with standard errors, 2016 (all dwellings)**

	TS criterion (%)	Unweighted base	Standard Error	95% confidence interval	
				lower	upper
Structurally unstable	0.1	2,023	0.06	-0.05	0.17
Rising or penetrating damp	4.4	2,023	0.46	3.51	5.30
Unsatisfactory provision for natural and artificial lighting, for ventilation and for heating	1.0	2,023	0.22	0.53	1.38
Unsatisfactory thermal insulation;	2.5	2,023	0.35	1.82	3.19
Lacks adequate piped supply of wholesome water	0.6	2,023	0.17	0.27	0.95
Lacks sink with a satisfactory supply of both hot and cold water	0.9	2,023	0.21	0.46	1.27
Lacks WC available for the exclusive use of the occupants of the house/unsuitably located	2.2	2,023	0.33	1.59	2.88
Lacks fixed bath or shower and a wash-hand basin, with a satisfactory supply of both hot and cold water/unsuitably located	4.5	2,023	0.46	3.61	5.42
Ineffective system for the drainage and disposal of foul and surface water	0.3	2,023	0.12	0.04	0.50
Lacks suitable supply of electricity	0.3	2,023	0.11	0.04	0.48
Unsatisfactory facilities for the cooking of food	1.3	2,023	0.25	0.79	1.76
Unsatisfactory access to all external doors and outbuildings.	0.0	2,023	0.00	0.00	0.00
Overall fail	11.5	2,023	0.71	10.07	12.85

**Table A2: NI dwellings below the tolerable standard by tenure with standard errors, 2016**

	Fails tolerable standard (%)	Unweighted base	Standard Error	95% confidence interval	
				lower	upper
Owner Occupied	9.4	1,196	0.84	7.70	11.01
Private Rented	13.3	336	1.85	9.65	16.91
Social Rented	11.7	410	1.59	8.56	14.78
Vacant	38.5	81	5.41	27.87	49.06

**Base: All dwellings****Table A3: NI dwellings below the tolerable standard by dwelling age with standard errors, 2016**

	Fails tolerable standard (%)	Unweighted base	Standard Error	95% confidence interval	
				lower	upper
Pre 1919	35.3	204	3.35	28.78	41.90
1919-1944	16.6	172	2.84	11.02	22.14
1945-1964	12.8	349	1.79	9.25	16.25
1965-1980	7.9	520	1.18	5.55	10.17
Post 1980	5.8	778	0.84	4.18	7.47

**Base: All dwellings**

**Table A4: NI dwellings below the tolerable standard by dwelling type with standard errors, 2016**

	Fails tolerable standard (%)	Unweighted base	Standard Error	95% confidence interval	
				lower	upper
bungalow	11.9	448	1.53	8.87	14.85
terraced	14.7	608	1.44	11.91	17.55
semi detached	8.0	446	1.28	5.49	10.52
detached	11.6	382	1.64	8.41	14.84
flats	7.7	139	2.27	3.29	12.17

**Base: All dwellings**



## Appendix 2: User guide

### Method

The following table sets out for each measure the modelling assumptions and any additional comments to note.

**Table A5 – Modelling assumptions**

Measures	Modelling assumptions	Additional comments
structurally stable	Whether the dwelling has a Category 1 HHSRS structure collapse hazard. Cross checks against unfitness - structural stability. These are the same dwellings.	
substantially free from rising or penetrating damp	Data from defects section (interior) for these two types of damp. If either rising damp or penetrating damp is evident in any room, assume the home falls below tolerable standard	
has satisfactory provision for natural and artificial lighting, for ventilation and for heating	Data from defects section (interior) for (i) natural and artificial light (ii) room and appliance ventilation. Satisfactory provision for heating - dwelling must have primary/other heating present but must not be reliant on portable bottled gas heating. A fixed electrical installation capable of servicing a plug-in electrical heater is sufficient.	For cross validation - analysis on fitness standard for lighting, ventilation and heating & Category 1 lighting hazard to ensure all appropriate cases are captured.
has satisfactory thermal insulation	Whether houses and top floor flats have any loft insulation (as per Scottish Housing Survey) - the energy model has a derived loft insulation variable	
has an adequate piped supply of wholesome water available within the house	From the amenities section - whether a dwelling has a drinking supply before and after stopcock. We cannot measure 'wholesome' but investigated Category 1 housing health and safety rating system (HHSRS) water supply hazard or homes failing the fitness standard for this criterion. Analysis indicated most of these HHSRS/unfit cases are where the dwelling has no mains supply, but others have water found to be very discoloured	



	or taken from an old external water tank. These types of serious issues would act as a proxy to 'wholesome'!	
has a sink provided with a satisfactory supply of both hot and cold water within the house	Fails standard where sink does not exist and needs installing or needs replacing. Examined homes with major repairs to ensure we are capturing relevant cases. Also double checked with cold/hot water & hot water system present.	
has a water closet or waterless closet available for the exclusive use of the occupants of the house and suitably located within the house	Data from amenities file (main and any secondary would have to fail) - fails standard if WC 1. External to dwelling 2 not present and needs installing or needs replacement or 3/ not close to whb. Cross reference against fitness assessment /HHSRS extreme risk to ensure all appropriate cases are captured.	
has a fixed bath or shower and a wash-hand basin, each provided with a satisfactory supply of both hot and cold water and suitably located within the house	Data from amenities file (both main and any secondary would need to fail) - fails standard if amenities 1 not present and/or needs installing or needs replacement or 2 badly located or 3 lack means to heat water. Cross reference against fitness assessment /HHSRS extreme risk to ensure all appropriate cases are captured.	Insufficient info on why some dwellings have poorly located amenities so unable to assess in details as to whether pass/fail. Checks - dwellings with amenities present and not badly located still failed in serious problems with location 'finbdflo'.
has an effective system for the drainage and disposal of foul and surface water	From the around.sav file - whether the dwelling poses an extreme risk on the HHSRS personal hygiene assessment. Checks against unfitness standard assessment to ensure all appropriate homes have been captured.	
in the case of a house having a supply of electricity, complies with the relevant requirements in relation to the electrical installations for the purposes of that supply;	Use HHSRS Category 1 electrical hazard as a proxy which uses findings from the primary services data	



<p>"the electrical installation" is the electrical wiring and associated components and fittings, but excludes equipment and appliances;</p> <p>"the relevant requirements" are that the electrical installation is adequate and safe to use</p>		
<p>has satisfactory facilities for the cooking of food within the house</p>	<p>Data from amenities section - cooking provision=N would fail the standard. Data from defects section (interior) for the kitchen for whether adequate appliance/room ventilation in kitchen from introoms.sav. Crosstabs against Cat 1 food safety/unfitness for food preparation.</p>	<p>There were 3 raw cases where homes initially passed the criterion but failed unfitness/HHSRS due to inability to prepare and cook food safely e.g. no worktops. These were included in the no. of homes failing.</p>
<p>has satisfactory access to all external doors and outbuildings</p>	<p>For the Scottish Housing Survey - this relates to common areas. Proxy-significantly worse than average risks associated with falls in common area ('commac.sav')</p>	

### Quality information

The quality assurance of this modelling work focused on ensuring that the translation of data inputs to produce the tolerable standard for Northern Ireland was carried out robustly and appropriately. The process of development, quality assurance and creation of results followed an internal procedure so the work undertaken could be reviewed and assessed by project managers.

Examples of the quality assurance undertaken to validate the tolerable standard in Northern Ireland included:

- Adapting the methodology using the latest assumptions for this area of work;
- Checking of transformations undertaken and mathematical formulae;
- Internal checks of data inputs to assure translation was completed correctly;
- Checks of correct units for calculations;



- Check correct and latest external data sources were used;
- Sense check of results;
- Internal review of results and reporting.

Surveyors working on the 2016 NIHCS received training and support to ensure all collection of data items was consistent and robust. A re-fresher training session in 2016 explained how the form should be completed as well as conducting practical exercises with feedback sessions. While these measures ensure a good level of consistency in judgements, some surveyor variability is to be expected.

## Strengths and weaknesses

### Strengths

- The ‘tolerable standard for Northern Ireland’ uses data from the Northern Ireland House Condition Survey which has a number of processes in place to ensure the quality of the data. Quality assurance checks are carried out at various stages of data collection by surveyors, supervisors, staff in the Research Unit and BRE. Also, quality assurance checks are conducted by the producers/suppliers of the administrative data which is used within the HCS.
- A document setting out the quality assurance processes and how the survey meets the European Statistical System’s five dimensions of quality are available on the Housing Executive’s website:  
[Click here to view the House Condition Survey's quality information.](#)
- The model used was the most up to date model available.
- The size of the sample for the NI House Condition Survey 2016 was 3,000 addresses. A weighting and grossing process translated the information gathered into figures that reflected the real world.<sup>2</sup> This provided robust data at Northern Ireland level.

### Weaknesses

- All surveys have limitations which can be caused by a number of factors such as budget. The NIHCS sample size of 3,000 provides robust data at Northern Ireland level. However, where numbers are small care needs to be taken and notes of caution will be included in the report.
- The NIHCS form has not been adapted for the tolerable standard therefore there are some areas of the standard that cannot be measured as comprehensively or in precisely the same way as is done in Scotland. This is highlighted in the report.

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<sup>2</sup> Further information on the sampling, and weighting and grossing processes for the Northern Ireland House Condition Survey 2016 is available in the [report](#)