

# Housing in the UK

National comparisons in typology, condition and cost of poor housing

Justine Piddington, Helen Garrett and Tad Nowak





# Housing in the UK

National comparisons in typology,  
condition and cost of poor housing

Justine Piddington, Helen Garrett and Tad Nowak

The research and writing for this publication has been funded by BRE Trust, the largest UK charity dedicated specifically to research and education in the built environment. BRE Trust uses the profits made by its trading companies to fund new research and education programmes that advance knowledge, innovation and communication for public benefit.

BRE Trust is a company limited by guarantee, registered in England and Wales (no. 3282856) and registered as a charity in England (no. 1092193) and in Scotland (no. SC039320).

Registered office: Bucknalls Lane, Garston, Watford, Herts WD25 9XX  
Tel: +44 (0) 1923 664743  
Email: [secretary@bretrust.co.uk](mailto:secretary@bretrust.co.uk)  
[www.bretrust.org.uk](http://www.bretrust.org.uk)

IHS (NYSE: IHS) is the leading source of information, insight and analytics in critical areas that shape today's business landscape. Businesses and governments in more than 165 countries around the globe rely on the comprehensive content, expert independent analysis and flexible delivery methods of IHS to make high-impact decisions and develop strategies with speed and confidence. IHS is the exclusive publisher of BRE Trust publications.

IHS Global Ltd is a private limited company registered in England and Wales (no. 00788737).

Registered office: Willoughby Road, Bracknell, Berkshire RG12 8FB.  
[www.ihs.com](http://www.ihs.com)

BRE Trust publications are available from  
[www.brebookshop.com](http://www.brebookshop.com)

or  
IHS BRE Press  
Willoughby Road  
Bracknell  
Berkshire RG12 8FB  
Tel: +44 (0) 1344 328038  
Fax: +44 (0) 1344 328005  
Email: [brepress@ihs.com](mailto:brepress@ihs.com)

© IHS 2013. No part of this publication may be reproduced or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or be stored in any retrieval system of any nature, without prior written permission of IHS. Requests to copy any part of this publication should be made to:

The Publisher  
IHS BRE Press  
Garston  
Watford  
Herts WD25 9XX  
Tel: +44 (0) 1923 664761  
Email: [brepress@ihs.com](mailto:brepress@ihs.com)

Printed using FSC or PEFC material from sustainable forests.

FB 62

First published 2013

ISBN 978-1-84806-330-3

All URLs accessed May 2013. Any third-party URLs are given for information and reference purposes only and BRE Trust and IHS do not control or warrant the accuracy, relevance, availability, timeliness or completeness of the information contained on any third-party website. Inclusion of any third-party details or website is not intended to reflect their importance, nor is it intended to endorse any views expressed, products or services offered, nor the companies or organisations in question.

Any views expressed in this publication are not necessarily those of BRE Trust or IHS. BRE Trust and IHS have made every effort to ensure that the information and guidance in this publication were accurate when published, but can take no responsibility for the subsequent use of this information, nor for any errors or omissions it may contain. To the extent permitted by law, BRE Trust and IHS shall not be liable for any loss, damage or expense incurred by reliance on the information or any statement contained herein.

# Contents

Acknowledgements	iv
Executive summary	v
<b>1 Introduction</b>	<b>1</b>
<b>1.1</b> The national housing surveys	1
<b>1.2</b> Reference date for the report	2
<b>1.3</b> Vacant dwellings	2
<b>1.4</b> International comparisons with the housing stock of the UK	3
<b>1.5</b> Typology of housing in the UK	3
<b>2 Profile of the UK housing stock</b>	<b>5</b>
<b>2.1</b> Distribution of occupied housing in the UK	5
<b>2.2</b> Tenure profile of housing in the UK	5
<b>2.3</b> Other key dwelling descriptors	7
<b>2.4</b> Amenities and mains services	9
<b>2.5</b> Number of habitable rooms	10
<b>2.6</b> Attics and basements	11
<b>2.7</b> Porches and conservatories	12
<b>2.8</b> Construction type and materials used	12
<b>2.9</b> Space and water heating systems	14
<b>2.10</b> Insulation	16
<b>3 Dwelling conditions in the UK</b>	<b>17</b>
<b>3.1</b> Damp	17
<b>3.2</b> Age of kitchen and bathroom amenities	17
<b>3.3</b> Electrical systems	18
<b>3.4</b> Age of windows	20
<b>3.5</b> Age of roof cover	21
<b>3.6</b> Structural defects	21
<b>3.7</b> Secure windows and doors	22
<b>3.8</b> Burglar alarms	23
<b>3.9</b> Problems in the local area	24
<b>3.10</b> Energy efficiency (SAP) rating	24
<b>3.11</b> Fuel poverty	25
<b>3.12</b> Housing Health and Safety Rating System	26
<b>3.13</b> Disrepair	28
<b>4 Cost of poor housing in the UK</b>	<b>29</b>
<b>4.1</b> Defining poor housing	29
<b>4.2</b> What costs should be included?	29
<b>4.3</b> The total cost of poor housing in the UK	31
<b>5 Conclusions and recommendations</b>	<b>32</b>
<b>6 References</b>	<b>33</b>
Appendix: Supporting data	34

# Acknowledgements

The preparation of this report was funded by BRE Trust. BRE would like to thank the Scottish Government, the Northern Ireland Housing Executive, the Welsh Government and the Local Government Data Unit in Wales for their guidance and advice on using their data.

The support of our colleagues at BRE is gratefully acknowledged:

- Kevin White for estimates of poor housing for Scotland
- Claire Summers for data on fuel poverty
- Louise Jamal for technical support.

# Executive summary

This report brings together key information from England, Wales, Scotland and Northern Ireland on their housing stock profile and condition. For consistency purposes, most results are confined to occupied dwellings only, and the reference year is 2008 (the latest common reference year to date). The exceptions relate to poor housing, where figures are extracted from individual BRE reports (see sections 4.1 and 4.3 for more detail), and fuel poverty, where figures relate to households.

The results show that Wales has the greatest proportion of owner-occupied dwellings (73%) and Scotland has the smallest (63%). The typology of occupied dwellings is very different across the four nations in that Wales has the oldest stock and Northern Ireland has the newest.

There is some variation in the use of central heating and fuel type nationally, but this is likely to be linked to the number of purpose-built flats (which generally use electricity for cooking and heating, rather than gas).

Homes with cavity walls were more likely to be insulated in Northern Ireland than in the other UK nations, whereas dwellings with lofts were more likely to have thicker roof insulation in Wales. Average SAP ratings were higher in Northern Ireland and Scotland than in England and Wales, but this is due mainly to the age and typology profile of their stock.

In terms of health and safety (HHSRS), Wales has a notably higher incidence of dwellings with Category 1 hazards than England and Northern Ireland, including a higher incidence of falls and cold homes. Scotland does not collect this information.

The combined general repair bill for occupied dwellings in England, Wales and Northern Ireland is £34.4 billion. This figure would be much higher if Scotland, and vacant dwellings, were included.

The general repair bill includes disrepair that does not have a direct impact on the health and safety of occupants. An alternative measure is the total cost of poor housing (defined as a home that has one or more Category 1 HHSRS hazards), and this work is estimated to be £21.1 billion for the UK as a whole. This has been calculated as costing the National Health Service (NHS) just under £760 million per year, if the homes are left unimproved. Using this information, the direct payback period for fixing all hazards in the UK is calculated at 27.8 years, if the repairs or improvements were all done immediately. However, the direct cost to the NHS accounts, at most, for only 40% of the total cost to society (which includes things such as lost future earnings and increased spending on benefits). Therefore, the total cost to society is approximately £1.9 billion per year, and the payback period for repairing all hazards at the outset would be reduced from 27.8 years to 11.1 years.



# 1 Introduction

There is a regular call for UK housing statistics, usually to compare them with statistics for other European or world nations, but each time they have to be compiled from the four separate and different housing stock surveys run by the governments of England, Scotland, Wales and Northern Ireland. Therefore, to have a summary document containing the key information in an accessible format was thought to be useful. Better still, would be to combine the data sets at a given time with a set of weights enabling analyses to be undertaken once, rather than four times. Unfortunately, this is not that simple.

The four surveys use four different methodologies. They are undertaken over different timescales, with different sampling criteria. Even questions that appear similar are often subtly different. Scotland and Wales do not inspect vacant dwellings, whereas England and Northern Ireland do. England has an additional form for houses in multiple occupation. Although some information is truly comparable across nations, the most interesting information – energy efficiency, repair costs, health and safety, space standards – is more problematic, and more difficult to compare.

Nevertheless, there is plenty of information that can be reliably compared. All the surveys have a common heritage, but each has taken a different course to meet its own national agenda. The physical inspection parts of the English Housing Survey and Northern Ireland House Condition Survey and large parts of the Living in Wales survey form are identical, and all three use the same consistent briefing provided by BRE. The Scottish House Condition Survey (SHCS) methodology is a development of that used in England before 1986.

This report first puts together a set of the most commonly asked questions about UK data in a tabular form, and compares them with published data from similar nations: Germany, France and the US.

It then undertakes a country-by-country comparison to explain the sometimes surprising differences between the housing stocks of the UK nations, and quantifies the total repair bill and cost of poor housing to the UK.

It does not provide a combined data set; this is a possible next step. Nor does it look at detailed household comparisons, which, if there is demand, might be the subject of an additional report, illustrating housing similarities and inequalities between the people of the UK nations.

## 1.1 The national housing surveys

Each of the four UK nations undertakes its own survey to assess its housing stock. These are as follows.

### English House Condition Survey and English Housing Survey

The English House Condition Survey (EHCS) was carried out every five years until 2001, after which it became a regular annual survey. The survey is analysed using two or three years of data to give a larger sample size. In 2008, the EHCS was integrated with the Survey of English Housing to form the new English Housing Survey (EHS). The EHCS/EHS has three component surveys:

- a household survey (with a sample of around 17,000 households)
- a subsequent physical survey involving around 8000 occupied and vacant properties
- a desk-based market value survey of a subsample of these dwellings (this component was discontinued in 2010).

The survey is commissioned by the Department for Communities and Local Government, and more details are available on the Department's website<sup>[1]</sup>.

### Northern Ireland House Condition Survey

The Northern Ireland House Condition Survey (NIHCS), commissioned by the Northern Ireland Housing Executive, is not a continuous survey, but does occur every few years. It comprises a physical survey and a social survey (householder interview), undertaken by the same dwelling surveyor. For the 2009 NIHCS, 3000 dwellings were selected for the house condition survey, and 2174 were surveyed<sup>[2]</sup>, 1901 of which were occupied. Further details and information on the most recent (2011) survey can be found on the Northern Ireland Housing Executive website<sup>[3]</sup>.

### Scottish House Condition Survey

Since 2003, the Scottish House Condition Survey (SHCS) has been an annual continuous survey gathering information on both the physical condition of dwellings and the experiences of households. Commissioned by the Scottish Government, it is the single largest housing research project in Scotland. From the 3800 or so households interviewed, around 3000 physical surveys are undertaken annually. Unoccupied dwellings are not fully surveyed. Although key statistics are published using annual data, detailed analysis is based on a three-year sample because of sample size. In 2012 the SHCS was combined with the Scottish Household Survey, and is now referred to as the SHS. Further information is available on this and previous surveys on the Scottish Government website<sup>[4]</sup>.

## 2 Profile of the UK housing stock

### 2.1 Distribution of occupied housing in the UK

In 2008, there were 25.5 million occupied dwellings in the UK. The distribution of these dwellings across the four nations making up the UK (England, Northern Ireland, Scotland and Wales) was unequal, as shown in Figure 2.1. Some 21.2 million occupied dwellings were in England, accounting for 83% of the UK stock, and therefore the profile of the UK stock was, and still is, heavily influenced by the English stock. Scotland had the second largest number of dwellings, at 2.3 million (9%). The 1.3 million dwellings in Wales accounted for 5% of the UK stock, and the 0.7 million in Northern Ireland represented 3%.

Data to support all of the Figures in this report are provided in the Appendix.

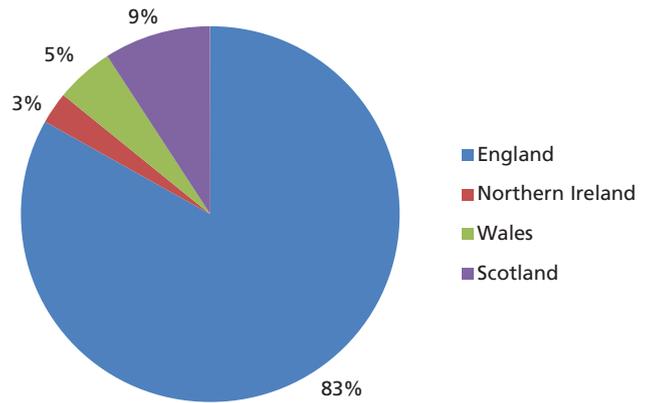


Figure 2.1: Distribution of the UK housing stock

### 2.2 Tenure profile of housing in the UK

More than two-thirds (68%) of occupied dwellings in the UK were owner-occupied in 2008. The remaining UK dwellings were rented: 19% in the social sector (split roughly equally between local authority/Housing Executive and housing association landlords), and 13% in the private sector. This is shown in Figure 2.2.

In the UK, Wales had the greatest proportion of owner-occupied dwellings (73%), and Scotland had the smallest (63%). Renting was also common, with Northern Ireland having the largest share of private rented dwellings (18%) and Scotland having the largest share of social rented dwellings (28%). Figure 2.3 shows the breakdown by tenure for each nation.

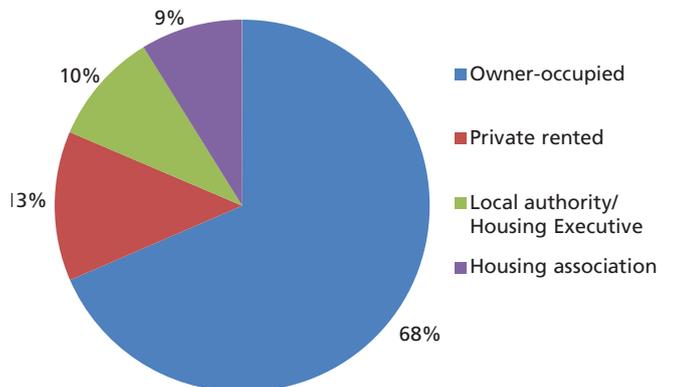


Figure 2.2: Tenure profile of the UK housing stock

# Other reports from BRE Trust

Modern methods of house construction: a surveyor's guide. **FB 11**

Crime opportunity profiling of streets (COPS): a quick crime analysis– rapid implementation approach. **FB 12**

Subsidence damage to domestic buildings: a guide to good technical practice. **FB 13**

Sustainable refurbishment of Victorian housing: guidance, assessment method and case studies. **FB 14**

Putting a price on sustainable schools. **FB 15**

Knock it down or do it up? **FB 16**

Micro-wind turbines in urban environments: an assessment. **FB 17**

Siting micro-wind turbines on house roofs. **FB 18**

Automatic fire sprinkler systems: a guide to good practice. **FB 19**

Complying with the Code for Sustainable Homes: lessons learnt on the BRE Innovation Park. **FB 20**

The move to low-carbon design: are designers taking the needs of building users into account? **FB 21**

Building-mounted micro-wind turbines on high-rise and commercial buildings. **FB 22**

The real cost of poor housing. **FB 23**

A guide to the Simplified Building Energy Model (SBEM): what it does and how it works. **FB 24**

Vacant dwellings in England: the challenges and costs of bringing them back into use. **FB 25**

Energy efficiency in new and existing buildings: comparative costs and CO<sub>2</sub> savings. **FB 26**

Health and productivity benefits of sustainable schools: a review. **FB 27**

Integrating BREEAM throughout the design process: a guide to achieving higher BREEAM and Code for Sustainable Homes ratings through incorporation with the RIBA Outline Plan of Work and other procurement routes. **FB 28**

Design fires for use in fire safety engineering. **FB 29**

Ventilation for healthy buildings: reducing the impact of urban pollution. **FB 30**

Financing UK carbon reduction projects. **FB 31**

The cost of poor housing in Wales. **FB 32**

Dynamic comfort criteria for structures: a review of UK standards, codes and advisory documents. **FB 33**

Water mist fire protection in offices: experimental testing and development of a test protocol. **FB 34**

Airtightness in commercial and public buildings. 3rd edn. **FB 35**

Biomass energy. **FB 36**

Environmental impact of insulation. **FB 37**

Environmental impact of vertical cladding. **FB 38**

Environmental impact of floor finishes: incorporating The Green Guide ratings for floor finishes. **FB 39**

LED lighting. **FB 40**

Radon in the workplace. 2nd edn. **FB 41**

U-value conventions in practice. **FB 42**

Lessons learned from community-based microgeneration projects: the impact of renewable energy capital grant schemes. **FB 43**

Energy management in the built environment: a review of best practice. **FB 44**

The cost of poor housing in Northern Ireland. **FB 45**

Ninety years of housing, 1921–2011. **FB 46**

BREEAM and the Code for Sustainable Homes on the London 2012 Olympic Park. **FB 47**

Saving money, resources and carbon through SMARTWaste. **FB 48**

Concrete usage in the London 2012 Olympic Park and the Olympic and Paralympic Village and its embodied carbon content. **FB 49**

A guide to the use of urban timber. **FB 50**

Low flow water fittings: will people accept them? **FB 51**

Evacuating vulnerable and dependent people from buildings in an emergency. **FB 52**

Refurbishing stairs in dwellings to reduce the risk of falls and injuries. **FB 53**

Dealing with difficult demolition wastes: a guide. **FB 54**

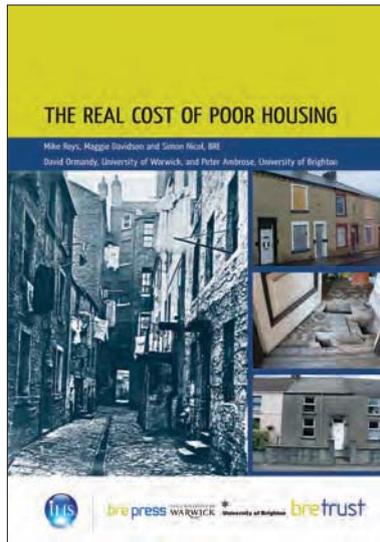
Security glazing: is it all that it's cracked up to be? **FB 55**

The essential guide to retail lighting. **FB 56**

Environmental impact of metals. **FB 57**

Environmental impact of brick, stone and concrete. **FB 58**

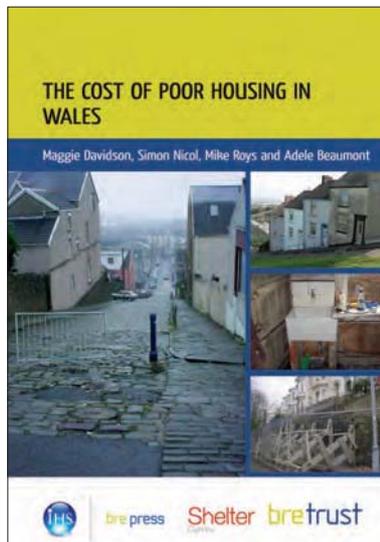
Design of low-temperature domestic heating systems. **FB 59**



### The real cost of poor housing

Poor housing in England is costing society around £1.5 billion a year. This best-selling report will help you to understand the weaknesses in existing housing stock models. It shows the link between housing and health using a cost-benefit model for analysing costs of unsafe and unhealthy housing and proposes a new model for more accurate analysis.

*Ref. FB 23*

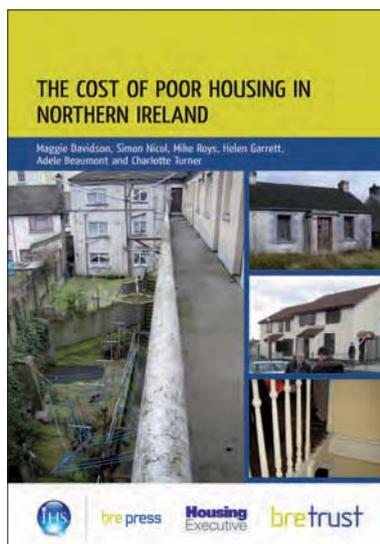


### The cost of poor housing in Wales

Find out how improving housing conditions in Wales could save the NHS millions of pounds a year by reducing physical and mental illness caused by poor living conditions.

This report summarises the results of a research project which applied a methodology to calculate the cost of poor housing in England, to the Welsh housing stock. It provides a valuable resource for housing and health professionals and policy makers.

*Ref. FB 32*



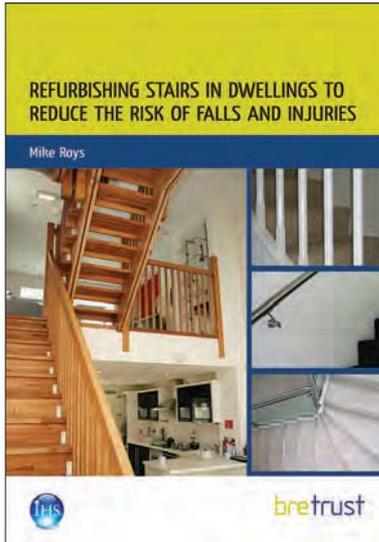
### The cost of poor housing in Northern Ireland

What is the condition of the housing stock in Northern Ireland, and what impact does poor housing have on health costs? This report, commissioned by the Northern Ireland Housing Executive and BRE Trust, shows how the NHS could save £33 million per year.

*Ref. FB 45*

All titles are available in print and pdf format.

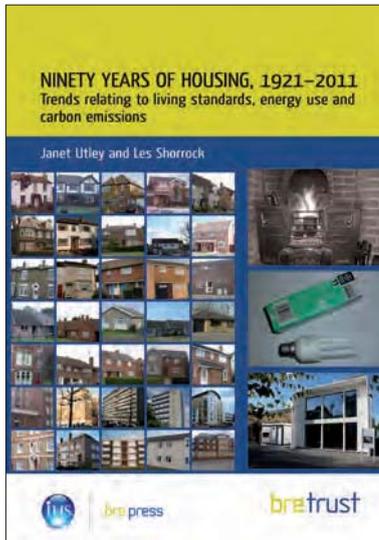
Order now @ [www.brebookshop.com](http://www.brebookshop.com) or phone the IHS Sales Team on +44 (0) 1344 328038.



### **Refurbishing stairs in dwellings to reduce the risk of falls and injuries**

Learn how to reduce the risks associated with falls on domestic stairs and steps. This report considers the aspects of poor stair design that can be repaired or replaced in order to mitigate most of these risks.

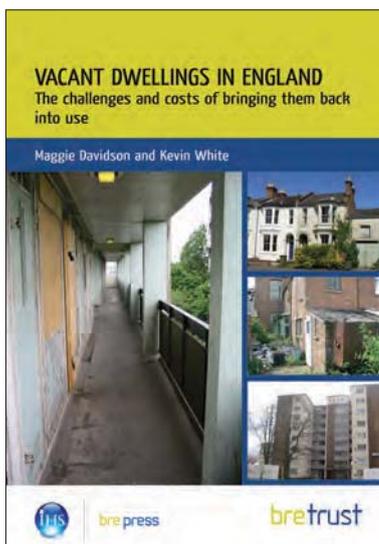
*Ref. FB 53*



### **Ninety years of housing, 1921–2011: Trends relating to living standards, energy use and carbon emissions**

Learn about key changes to the UK's housing stock since 1921. This report focuses on trends relating to living standards, energy use and carbon emissions. It also looks forward to 2050 to consider the further changes necessary to meet carbon emission reduction targets.

*Ref. FB 46*



### **Vacant dwellings in England: The challenges and costs of bringing them back into use**

Get insight into which types of dwelling remain vacant and why. Using data from the English House Condition Survey this report explores the condition of vacant homes, including how far they comply with national standards, and quantifies the costs of compliance.

*Ref. FB 25*

All titles are available in print and pdf format.

Order now @ [www.brebookshop.com](http://www.brebookshop.com) or phone the IHS Sales Team on +44 (0) 1344 328038.

## Housing in the UK

There is a regular call for UK housing statistics, to compare them with other countries. However, statistics in the UK are compiled from the four separate and different housing stock surveys in Scotland, Northern Ireland, Wales and England, and are difficult to combine as a unified whole.

This report undertakes a UK comparison to explain the, sometimes surprising, differences between the housing stocks, and quantifies the total repair bill and cost of poor housing to the UK. Using the results of the English Housing Survey, Northern Ireland House Condition Survey, Living in Wales Survey and Scottish House Condition Survey, the report provides key information on the housing stock profile and condition.



## Related titles from IHS BRE Press

### [The real cost of poor housing](#)

FB 23

### [The cost of poor housing in Wales](#)

FB 32

### [The cost of poor housing in Northern Ireland](#)

FB 45

### [Refurbishing stairs in dwellings to reduce the risk of falls and injuries](#)

FB 53

### [Ninety years of housing, 1921–2011: Trends relating to living standards, energy use and carbon emissions](#)

FB 46

### [Vacant dwellings in England: The challenges and costs of bringing them back into use](#)

FB 25



IHS BRE Press, Willoughby Road  
Bracknell, Berkshire RG12 8FB  
[www.brebookshop.com](http://www.brebookshop.com)  
**FB 62**

ISBN 978-1-84806-330-3

