**Table 2.1: Central Heating by Fuel Type, 2001, 2004, 2006, 2009, 2011 & 2016**

**Table 2.2: Standard Assessment Procedure (SAP2012 – version 9.93) for 2016**

**Data Quality**

*Relevance*

Tables 2.1 and 2.2 provide House Condition Survey (HCS) time series data for central heating by fuel type and 2016 mean SAP figures. This survey of housing stock across all tenures and house types is carried out by the Northern Ireland Housing Executive. It is the most comprehensive source of information on the housing stock in Northern Ireland. In 2016 a HCS User Engagement Group was set up to ensure that the survey and analysis meets users’ needs.

Users of this table are those with an interest in the housing sector; including government officials, the voluntary sector, charities, the private sector and others.

*Accessibility and Clarity*

The 2016 NI House Condition Survey was assessed for compliance with the ***Code of Practice for Statistics*** between 2016 and 2018 and was awarded National Statistic status from the UK Statistics Authority on the 29 May 2018. The HCS methodology, survey process, report and tabular analysis, were included in the assessment.

The main HCS report and Appendix tables for 2016 were published on the Housing Executive’s website on the 31 May 2018.

The Annual Housing Statistics, published by the DfC, includes HCS findings as tables and are available in pdf, Excel and Word format. Requests for the information in different formats can be made by contacting the Department for Communities.

The *House Condition Survey 2016* report and accompanying statistical annex are available to download as pdf documents from the Housing Executive web site:

(<http://www.nihe.gov.uk/index/corporate/housing_research/house_condition_survey.htm>).

The report is available in ‘accessible’ format. Tables are available in excel. Hardcopies are also available by contacting the Housing Executive’s Research Unit.

*Accuracy*

The Northern Ireland House Condition Survey (HCS) is a survey based on a stratified random disproportionate sample of 3,000 dwellings. The House Condition Survey Steering Group provides guidance in relation to sample size and design while working within the constraints of the budget. The published data provide estimates for the Northern Ireland housing stock based on this sample. The sampling was completed in two stages.

* The first stage involved including all the full surveys completed as part of the 2011 HCS (resample: 1,434 surveys).
* The second stage was a fresh random sample of 1,566 properties selected by council area to ensure that each total (fresh and resample) added to approximately 200. However, in Belfast 635 households were selected. In addition, the Causeway Coast Council area was divided into two areas to allow for more detailed information on holiday homes in Northern Ireland. The fresh sample frame, in 2016, was Pointer which contained a subset of the computerised records for domestic residential property maintained by Land & Property Services.

Weighting and grossing translates the information gathered in a sample survey and translates it into figures that reflect the real world. The weighting and grossing process reflects the separate stages of sampling and the survey process.

The gross response rate, for the 2016 Survey, was 67%. Where comparisons are made, particularly between current and previous years, potential sample error is calculated to determine whether there are real differences. This helps to ensure statistics are robust.

Quality assurance (QA) checks were carried out by the producers/suppliers of the administrative data which is used to select the sample for the HCS. QA checks were also carried out at various stages of the survey by the Housing Executive’s HCS team, the Building Research Establishment (BRE) and by HCS surveyors and supervisors. The Housing Executive has produced a document which sets out the quality assurance processes carried out at each stage of the survey. It has also produced a background quality report which shows the degree to which the NIHCS statistics meet the European Statistical System’s five dimensions of quality. Both documents are available on the Housing Executive’s website:

<http://www.nihe.gov.uk/index/corporate/housing_research/house_condition_survey/corporate-quality-information.htm>

<https://www.nihe.gov.uk/house_condition_survey_main_report_2016.pdf>

*Timeliness*

Field work for the 2016 House Condition Survey was carried out between May and November (2016). Preliminary key findings were first published on the Housing Executive web site in May 2017 and updated in October 2017. The main HCS report for 2016 was published to the Housing Executive’s website on the 31 May 2018. There are a series of checks and processes in place to ensure the timeliness and punctuality of NIHCS statistics.

This is in line with producers of other national House Condition Surveys in England and Scotland.

*Coherence and Comparability*

The Northern Ireland House Condition Survey is produced with the assistance of the Building Research Establishment in London (BRE). This ensures comparability (as far as possible) of survey questions, methodology and key findings with other House Condition Surveys conducted in England, Wales and Scotland.

The NIHCS surveyors receive the same training as the English surveyors, this reduces surveyor variability.

Table 2.1

The House Condition Survey-based data on central heating published in *Housing Statistics* were changed following the 2009 Survey, to reflect the minimal number of non centrally-heated homes, and associated difficulties with disaggregation by tenure and house dwelling type. The figures now reported in table 2.1 are fully comparable across each successive survey.

Table 2.2

The Energy Efficiency Rating for 2016 NIHCS data has been derived from SAP 2012. RdSAP was updated in November 2017 to version 9.93 and this is the version used for the 2016 figures. Further information about SAP 2012 is available in Appendix H of the main 2016 HCS report.

<https://www.nihe.gov.uk/house_condition_survey_main_report_2016.pdf>

The changes in the SAP methodology mean that a SAP rating using the SAP 2012 version 9.93 is not directly comparable to one calculated using an earlier version of SAP. Therefore it is not possible to make comparisons with the 2011 NIHCS, and caution should be used when quoting the previously published 2011 SAP ratings. A consistent SAP time series using SAP 2012 version 9.93 will be published separately on the NIHCS website in the autumn of 2018.

Table 2.2 will be updated to include the latest SAP time series and figures as soon as possible. Please note that figures published in versions of the Northern Ireland Housing Statistics report prior to 2017/18 are therefore not directly comparable with those contained in this edition of Table 2.2.

SAP is updated periodically to reflect developments in the understanding of dwelling thermal heat transfers and to incorporate emerging technologies. The SAP ratings give a measure of the annual unit energy cost and water heating and lighting for the dwelling under a heating regime, assuming specific heating patterns and room temperatures. The fuel prices used are averaged over the previous three years across the regions in the UK. The SAP takes into account a range of factors that contribute to energy efficiency including: thermal insulation of the building fabric; the shape and exposed surfaces of the dwelling; materials used for construction; the efficiency and control of heating systems; fuel used for space and water heating, ventilation and lighting; ventilation and solar gain characteristics of the dwelling and renewable energy technologies. SAP is not affected by the individual characteristics of the household occupying the dwelling or by the geographical location.

The SAP 2012 version included: extended climatic data using regional weather; an allowance for height above sea level was incorporated into external temperature data; revised Co2 emission factors and extended heat losses from primary pipework. Version 9.93 updated the U-values for solid brick, stone and cavity walls to more accurately reflect their thermal performance and improved the modelling for concrete walls as evidence showed that it was necessary to model concrete and solid walls separately.

The SAP rating itself is on a logarithmic scale and provides a comparative measure of the energy efficiency of dwellings. The lower the score the lower the energy efficiency and the higher the score the higher the efficiency; a SAP rating of 100 represents zero energy cost. The rating can be over 100 for dwellings that are net exporters of energy. More detail on the SAP 2012 rating can be found at the following links: <https://www.bre.co.uk/sap2012>

 and <https://www.nihe.gov.uk/house_condition_survey_main_report_2016.pdf>

**Table 2.3 Warm Homes Scheme Grants Processed 2009-10 to 2014-15**

**Data Quality**

*Relevance*

Table 2.3 reports on Warm Homes Scheme activity. The Warm Homes Scheme ended on 31 March 2015 and has been replaced by the Affordable Warmth Scheme.

Data from 2009/10 onwards were provided by the scheme managers appointed in 2009: Bryson Charitable Group and H&A Mechanical Services. Users of the tables are those with an interest in the housing sector; including government officials, the voluntary sector, charities, the private sector and others.

*Accessibility and Clarity*

This table is published in the DfC’s annual Housing Statistics, where it is available in pdf, Excel and Word format. Requests for the information in different formats can be made by contacting the Department for Communities.

*Accuracy*

The two Warm Homes Scheme managing organisations were contractually responsible for provision of performance reports, which were submitted to the Housing Executive on a monthly basis. The performance reports included information on works completed and expenditure against targets agreed at the commencement of the financial year. Performance was also measured through a range of key performance indicators and verified by ongoing checks and completion of quality assurance audits at year end. The figures in the table relate only to the cost of installing energy efficiency measures in eligible homes, and do not include management fees.

*Timeliness*

Statistics on expenditure associated with the Warm Homes Scheme are published on an annual basis.

*Coherence and Comparability*

The time series of data in the table is coherent and directly comparable over time. The only change in the method of data collection during the time period covered by the table is that data have been collected from two scheme managers, rather than one, since 2009.

Note that in 2009-10 in addition to the 391 heating installations in owner occupied properties, and 185 in the private rented sector, a further 198 heating measures installed between 1 April and 30 June 2009 (under the previous scheme manager) cannot be attributed by tenure and are not included in the overall ‘All Sectors’ total.

**Table 2.4: Boiler Replacements Processed 2012-13 to 2017-18**

**Data Quality**

*Relevance*

Table 2.4 reports on the Boiler Replacement Scheme activity. The scheme was introduced in September 2012 and is aimed at replacing old, inefficient boilers in owner occupied homes. Owner occupiers earning less than £40,000 who have a boiler at least 15 years old can apply to have it replaced. Up to £1,000 can be granted towards the replacement. Users of the table are those with an interest in the housing sector; including government officials, the voluntary sector, charities, the private sector and others.

*Accessibility and Clarity*

This table is published in the DfC’s annual Housing Statistics, where it is available in pdf, Excel and Word format. Requests for the information in different formats can be made by contacting the Department for Communities.

*Accuracy*

Information on all cases on the Boiler Replacement Scheme are downloaded and validated to ensure that the data are reliable and robust. Data on the Boiler Replacement Scheme are generally downloaded on a monthly basis. The Housing Executive checks all data that are published carefully to provide a high level of quality assurance.

*Timeliness*

Statistics on expenditure associated with the Boiler Replacement Scheme are published on an annual basis.

*Coherence and Comparability*

The time series of data is coherent and directly comparable over time, as the methods of calculating data have not changed.

**Table 2.5: Affordable Warmth Scheme 2014-15 to 2017-18**

**Data Quality**

*Relevance*

Table 2.5 reports on the Affordable Warmth Scheme activity. The scheme was introduced in September 2014 to replace the Warm Homes Scheme. The Scheme is aimed at fuel poor households in the private sector who earn less than £20,000. The Scheme offers a range of energy efficiency measures including loft/cavity insulation; solid wall insulation; draught proofing; heating; repairs/upgrade to windows. Users of the table are those with an interest in the housing sector; including government officials, the voluntary sector, charities, the private sector and others.

*Accessibility and Clarity*

This table is published in the DfC’s annual Housing Statistics, where it is available in pdf, Excel and Word format. Requests for the information in different formats can be made by contacting the Department for Communities.

*Accuracy*

Information on all cases on the Affordable Warmth Scheme are downloaded and validated to ensure that the data are reliable and robust. Data on the Affordable Warmth Scheme are generally downloaded on a monthly basis. The Housing Executive checks all data that are published carefully to provide a high level of quality assurance.

*Timeliness*

Statistics on expenditure associated with the Affordable Warmth Scheme are published on an annual basis.

*Coherence and Comparability*

The time series of data is coherent and directly comparable over time, as the methods of calculating data have not changed.