

Domestic energy fact file (2007): England, Scotland, Wales and Northern Ireland

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bre



 Department of Energy
and Climate Change

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Summary

- This publication updates the previous country based fact file providing information on trends in energy use and energy efficiency for homes in the four countries of the United Kingdom. An overview of all four countries is followed by a section on the trends in each individual country. Where available, data is provided on an annual basis from 1970 to 2005.
- The households of the United Kingdom divide approximately as 84% in England, 9% in Scotland, 5% in Wales and 2% in Northern Ireland.
- The composition of the stock varies by type, age and tenure across the four countries.
- Northern Ireland has the highest percentage of bungalows and the lowest percentage of flats. Wales has the highest percentage of terraced houses and Scotland has the highest percentage of flats.
- Northern Ireland has the newest stock with 61% of the stock built since 1959, whereas, Wales has the oldest with 61% built before 1960.
- In each country the majority of households are owner occupiers. Scotland and Wales have the highest percentage of homes owned by registered social landlords (13-14%), while Northern Ireland has only 3%.
- Insulation ownership has increased in all countries, but at a faster rate in Northern Ireland.
- The percentage of households with any loft insulation appears to be reaching saturation point at about 90% in all countries, although, the depth of loft insulation is increasing. In Northern Ireland 74% of lofts had 100mm or more of loft insulation in 2004. In England it was 57% and in Scotland and Wales it was even lower at 47% and 38%.
- The percentage of cavity walls insulated is increasing in all countries. However, less than 50% of cavity walls are insulated in all countries except Northern Ireland where 78% were insulated in 2004.
- Around 83% of homes in each country have some double glazing. Northern Ireland has a higher percentage of homes which are fully double glazed, 62%, compared with 32-44% in the other countries.
- 90-95% of hot water tanks are insulated either with loose jackets or factory sprayed foam in all of the countries.
- Central heating has become more common and at least 90% of homes in each country are now centrally heated.
- Northern Ireland has the highest percentage of households using oil for heating and the lowest percentage using gas. Scotland has the highest percentage using electricity. Gas is the main fuel in England, Scotland and Wales.
- Energy consumption per household has remained at about 80GJ although there are slight variations between countries related more strongly to stock mix rather than temperature. Northern Ireland consumption per household has decreased so that it is now similar to the other countries.

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GENERAL INTRODUCTION

This report provides information on trends relating to energy use and energy efficiency in homes in the UK from the mid 1970s to 2005. It is broken down by the different countries of the UK. Information on Northern Ireland is more limited and figures for each individual year are not available. The tables, graphs and charts are equivalent to those in the [Domestic energy fact file 2003](#) (1) which covers Great Britain (GB) i.e. England, Scotland and Wales. This report updates the previous country based fact file (2).

As far as possible information is consistent with that in the main Domestic energy fact file (2003). However in some cases the numbers for the individual countries in GB do not add up to totals for GB. This may be due to rounding of figures. Any tables for which scaling of numbers is involved can also lead to small differences. Scaling at individual country level and adding up the numbers does not necessarily give the same result as scaling at the entire stock level. Household numbers have been revised in line with the latest government numbers some of which were revised following the 2001 census. This means there may be changes to some of the figures previously published. Also revisions to the delivered energy figures in the later years of the previous fact file will give small changes in energy consumption.

A comparison of all countries is followed by sections on each individual country. Tables are presented for 1970 – 2005 where possible. In some cases the data is not available as far back as 1970 and in the case of Northern Ireland it is only available at roughly five year intervals rather than on an annual basis.

This report deals with the differences between countries. Additional information is available on the GB stock in the main Domestic energy fact file 2003 (1). Where tables that are in the main fact file have not been included it is because information is not available at the country level, is common to all countries, or it does not make sense to attempt to present the information at the individual country level. For example there is insufficient information available on carbon emission factors for individual countries to give carbon emission figures for the individual countries.

The tables for England, Scotland and Wales for insulation measures and heating systems are based on GfK Home Audit data. Data for Scotland and Wales comes from smaller sample sizes and should be treated with caution in individual years although trends should not be affected by small statistical variations.

Data for Northern Ireland is taken from the Northern Ireland House Condition Surveys and is therefore less extensive than the data for the other countries. Due to the smaller number of households, again for some categories, it is the trends that should be considered rather than the absolute numbers. Certain topics have been omitted in Northern Ireland due to the lack of data.

Other data is taken from the Digest of United Kingdom Energy Statistics and the Expenditure and Food Survey.

OVERVIEW

This overview compares information from all the countries of the United Kingdom – England, Scotland, Wales and Northern Ireland. The tables on which it is based are in the sections devoted to the individual countries. For each country the tables appear at the end of the section. The source of the data is listed below the table and full references to the publications are given at the end of the report.

In some cases the relevant publications appear on an annual basis and relate only to a single year. In these cases the publications for each individual year have been consulted in preparing this fact file.

In publications where data for previous years is revised, such as the Digest of United Kingdom Energy Statistics, the values used will be those available at the time this work was started. In general, this means that the publication used was that in which 2005 data was being presented for the first time.

Web sites quoted were accessed at the beginning of 2007 so any more recent updates have not been included.

Introduction

England, Scotland, Wales and Northern Ireland represent approximately 84%, 9%, 5% and 2% of the households in the United Kingdom respectively.

In this overview the stock, insulation measures and fuel consumption have been looked at separately for each country. Where figures are available for each year from the mid-1970s they have been used while others start from the mid -1980s.

Figures for Northern Ireland are not available for every year and they are sourced differently from those for Great Britain. Nonetheless, there is sufficient information for Northern Ireland to allow meaningful comparisons with the other countries to be drawn. As the following will illustrate, these comparisons tend to show that, although there are some important differences, England, Scotland and Wales are reasonably similar to one another in terms of energy use and energy efficiency characteristics, but Northern Ireland often stands out as being different.

Basic housing stock characteristics

The housing stock in the individual United Kingdom countries is different in composition by both type and age of stock. The comparisons are based on 2005 for England, Scotland and Wales and 2004 for Northern Ireland. These are the most recent years available for each country. Changes in percentage of total stock are slow so the differences for Northern Ireland between 2004 and 2005 will be negligible.

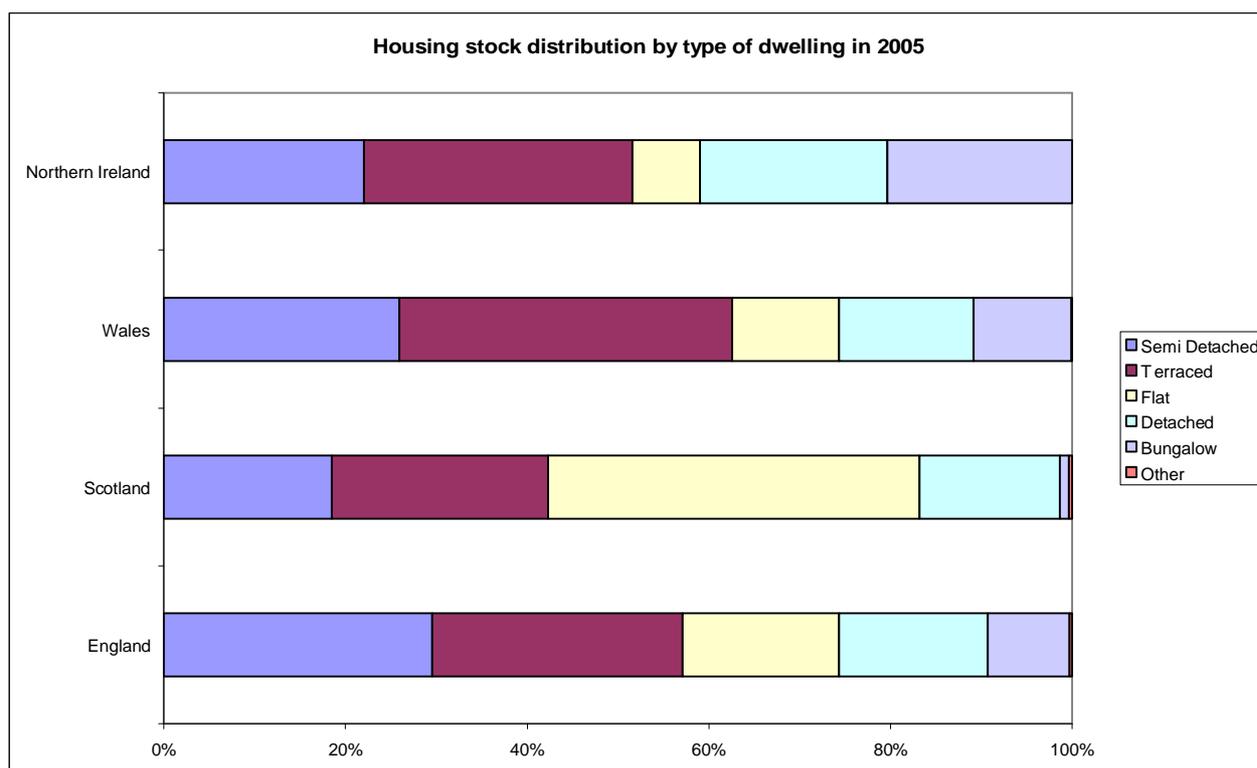


Figure A

Figure A shows the composition of the stock by type of house in the most recent year for which data is available for each of the countries. It is easy to see that Scotland has a higher percentage of flats, Wales a higher percentage of terraced houses and Northern Ireland a higher percentage of bungalows than any of the other countries. However there are some differences due to the way in which people in the different countries perceive their dwellings so some of the bungalows in Northern Ireland may have been recorded as detached if they had been in England. In general data collected for England, Scotland and Wales relies on the householder's response whereas Northern Ireland data comes from a surveyor assessed survey.

In Scotland flats make up 41% of the stock. England has the next highest percentage but this is only 17%.

Wales has 37% of its stock as terraced housing whereas Northern Ireland, which is the next highest, has 30%.

Northern Ireland has 20% of its stock as bungalows whereas Wales, which is the next highest has 11% and Scotland, which is the lowest, has only 1%. Northern Ireland also has the highest percentage of detached houses.

For a given level of insulation the dwelling type with the lowest heat loss is the flat. Detached houses and bungalows, on the other hand, will have larger heat losses because of the greater surface to volume ratio. Thus, figure A would suggest that the average dwelling energy use in Scotland could be slightly lower than that in the other countries (but the colder winters in Scotland might be enough to offset this). Similarly, the average dwelling energy use in Northern Ireland could be higher, particularly since dwellings in Northern Ireland are also known to be larger (in 1996 the average dwelling floor area in England was 85m², whilst in Northern Ireland it was 96m². More recent data from the English House Condition Survey and the Northern Ireland House Condition Survey gives 86.7 m² for England and 101.5m² for Northern Ireland).

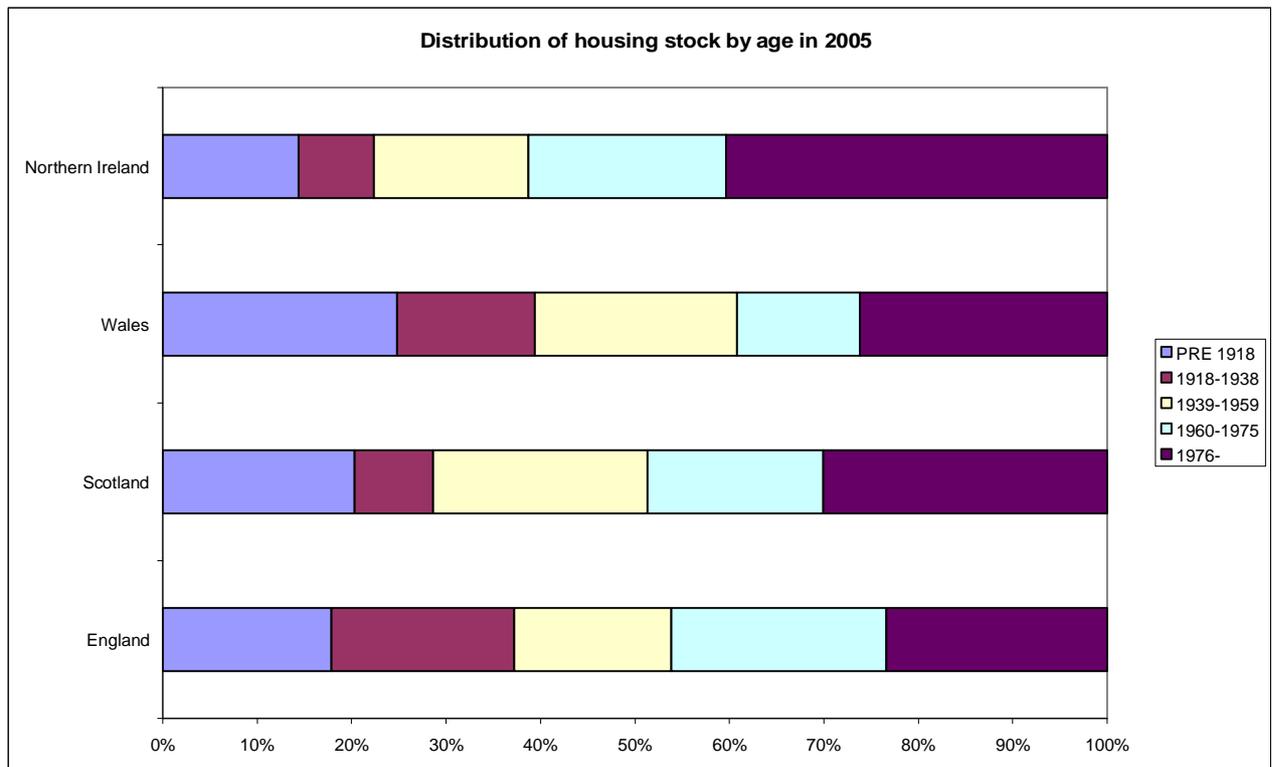


Figure B

Figure B shows the comparison of the age of the stock in different countries. As the Northern Ireland age bands in the source survey are different to those in the GB data it has to be assumed that the distribution of properties is uniform across each age band in order to produce comparable figures for Northern Ireland.

Northern Ireland has the newest stock and Wales the oldest. In Northern Ireland 61% of the stock was built since 1959 whereas in Wales 61% of the stock was built before 1960. In Scotland 30% of the stock has been built since 1975.

Newer dwellings are constructed to better standards of energy efficiency than their older counterparts so this suggests that homes in Wales might use more energy than average and homes in Northern Ireland might not have the higher energy use indicated by the dwelling type data shown in figure A. On the other

hand, it has to be remembered that there has been considerable activity on improving the insulation standards in existing homes, as will be discussed later, so the differences between the age categories are not as marked as might be supposed. Thus, the dwelling age distribution is actually only fairly loosely related to the likely energy use. Probably just as important is the tenure distribution which, in all countries, has been steadily evolving towards greater owner occupation.

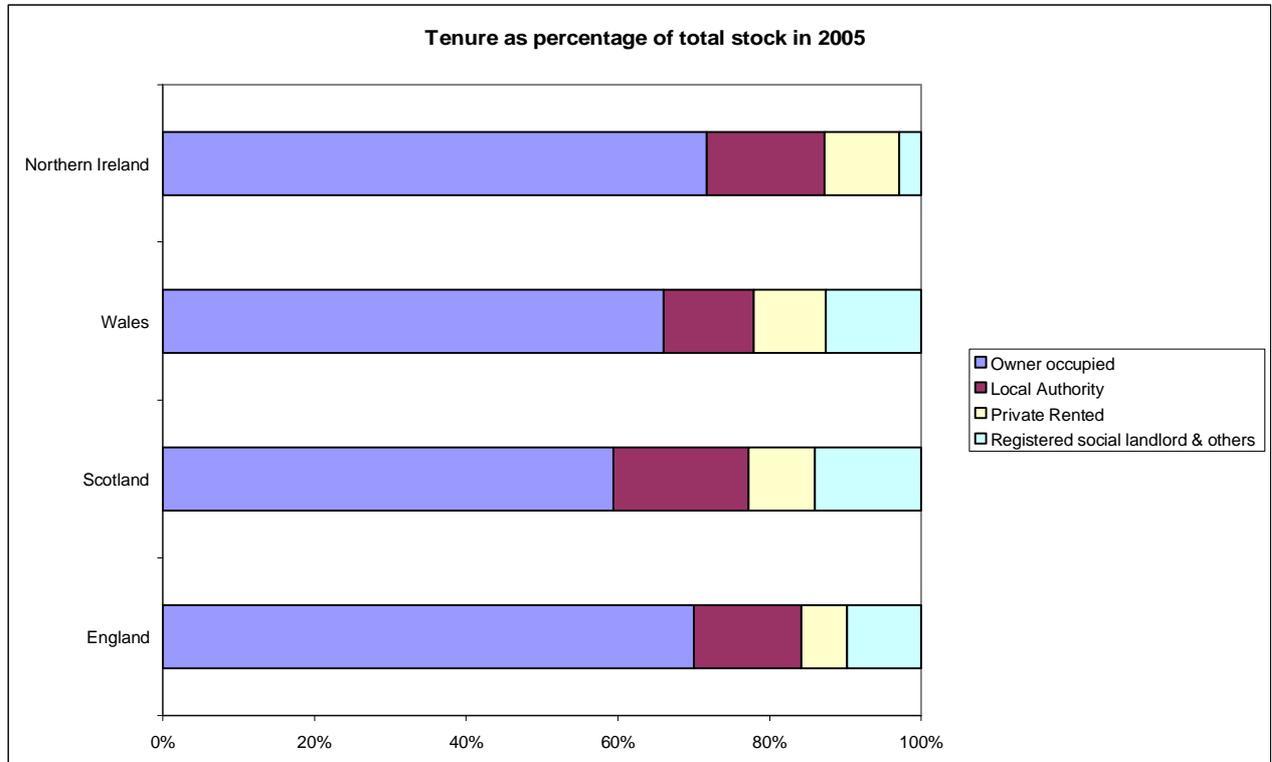


Figure C

Figure C shows that for all countries the majority of homes are owner occupied. In England and Northern Ireland 70%-72% of homes are owner occupied. Scotland has the lowest percentage of owner occupation with only 59% in that category whilst Wales has 66%. Scotland and Wales have the highest percentage of properties owned by registered social landlords (13 or 14%) while Northern Ireland has the lowest at 3%. England has the lowest level of private rented properties at 6% whilst Wales has the lowest percentage of local authority properties (12%). In these categories the differences between the countries is small.

For Great Britain the average energy consumption in owner occupied homes in 2005 was 90.2GJ, much higher than those owned by registered social landlords which had an average energy consumption of 50.4 GJ. As such Scotland with the lowest percentage of owner occupied homes and the highest percentage of homes owned by registered social landlords might be expected to have a lower energy consumption than other countries.

Insulation measures

1.1 Loft insulation

Loft insulation ownership has increased in all countries. In 1979 there were only 41% of lofts with any insulation in Northern Ireland, whilst in the other three countries it was between 59% and 68%. By 2004 this had risen to 96% in Northern Ireland which is higher than any of the other three countries.

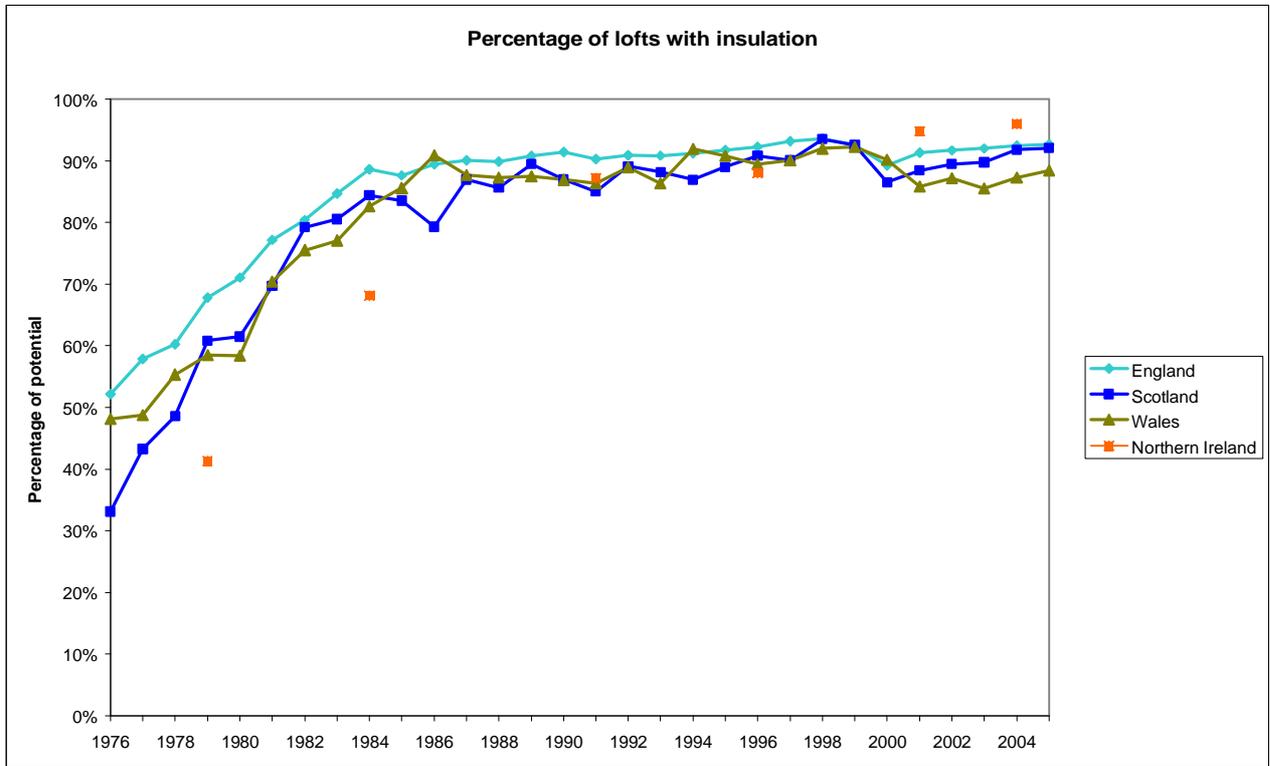


Figure D

Figure D shows that only Wales has less than 90% of lofts insulated and that 88.4% were insulated in 2005.

73.6% of lofts in Northern Ireland had 100mm or more of insulation in 2004. In England this was only 57.1% of lofts in 2004. In Scotland and Wales it was even lower at 47.1% and 38.3%.

Northern Ireland therefore has both a higher percentage of lofts insulated and to a higher standard than any of the other countries in the UK.

1.2 Cavity wall insulation

Figure E shows the ownership of cavity wall insulation in each of the countries.

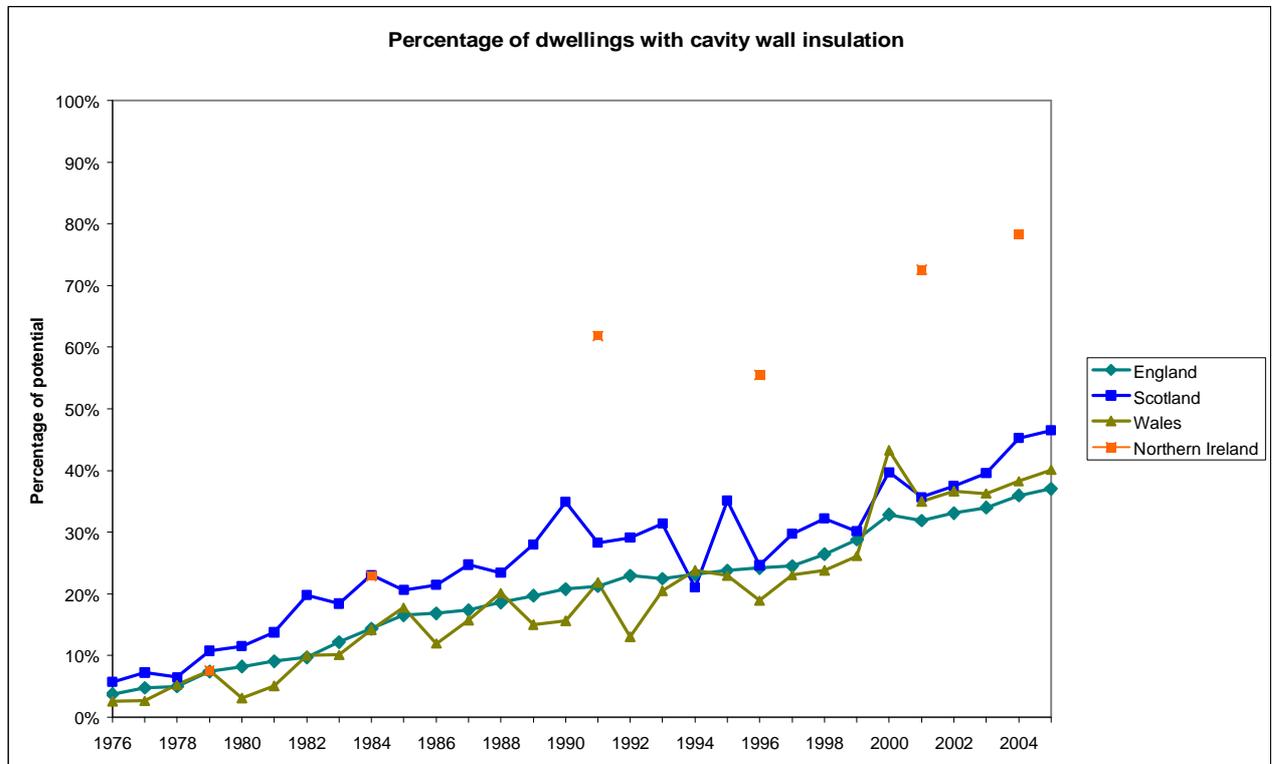


Figure E

The percentage of cavity wall homes with insulation in Northern Ireland has risen from 7.6% in 1979 to 78.3% in 2004. In the same period in England the percentage with cavity wall insulation has increased from 7.4% to 36%. As the source of data is different in Northern Ireland the two figures are not exactly comparable. The data for England excludes a number of people who do not know if they have cavity wall insulation so should be treated as a minimum. However the English House Condition Survey records 39.6% of cavities insulated in 2005 as compared with 37% used for the data in this report. Similarly for Scotland and Wales where in 2004 45% and 38% respectively had cavity wall insulation.

The general trends are evident from figure E, indicating the highest ownership in Northern Ireland, followed by Scotland, Wales and England. The pattern of cavity wall insulation will be influenced by the age of the stock. Cavity walls were uncommon before 1935 and solid walls became less common after 1950. However cavity walls were not generally built with insulation until the early 1990s. Therefore a country with a newer housing stock is likely to have a greater percentage of cavity walls insulated while a country with older stock and a higher percentage of solid walls has less scope for installing retrofitted cavity wall insulation

1.3 Double glazing

Figure F shows the ownership of double glazing.

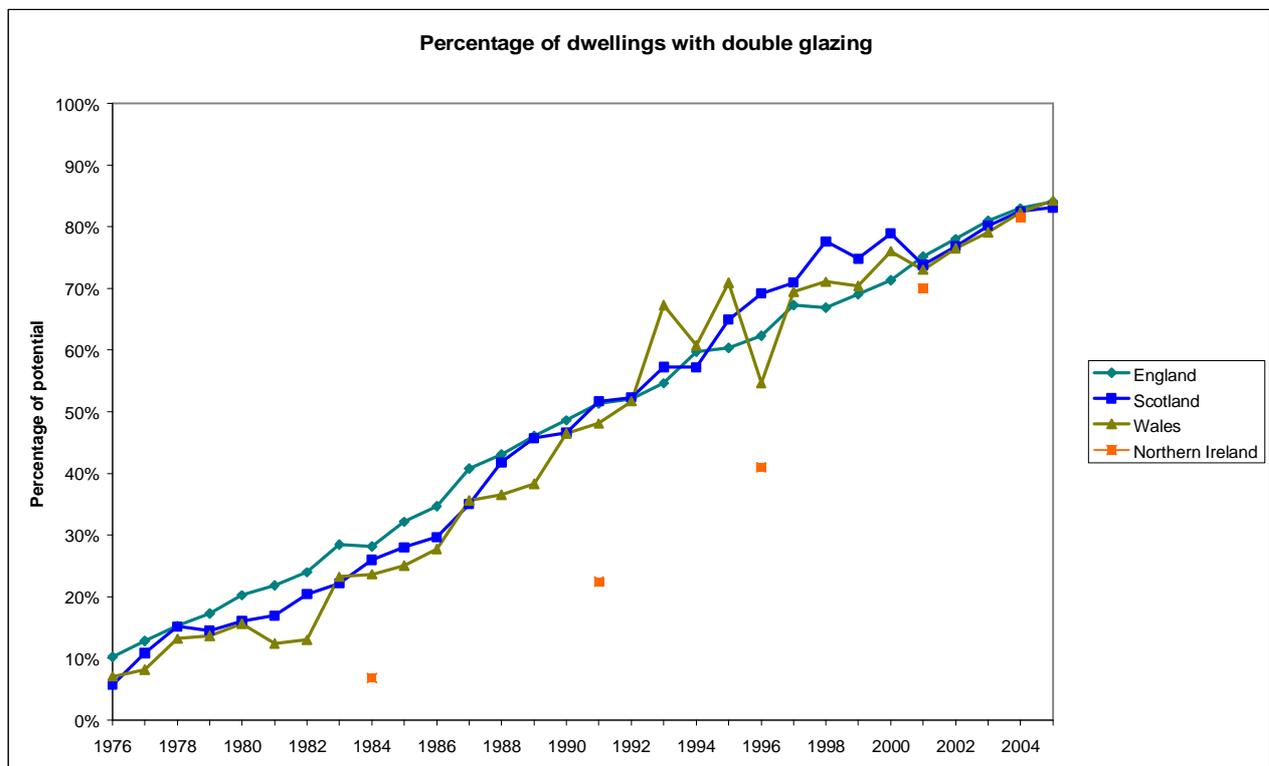


Figure F

In all countries the percentage of dwellings with some double glazing is similar at around 83%. In Northern Ireland 62.3% of homes were fully double glazed in 2004 whereas for England it was only 43.3% and for Scotland and Wales 44.2% and 31.7% respectively.

Information on draught proofing is contained in the individual country sections of this report. The general definition for draught proofing counts dwellings as draught proofed if they have been draught proofed or have double glazing, as good quality double glazing includes draught seals. As the number of dwellings with double glazing increases, those that have draught stripping only, become a smaller percentage of the total draught proofed.

1.4 Hot water tank insulation

Figure G shows the ownership of hot water tank insulation in each country.

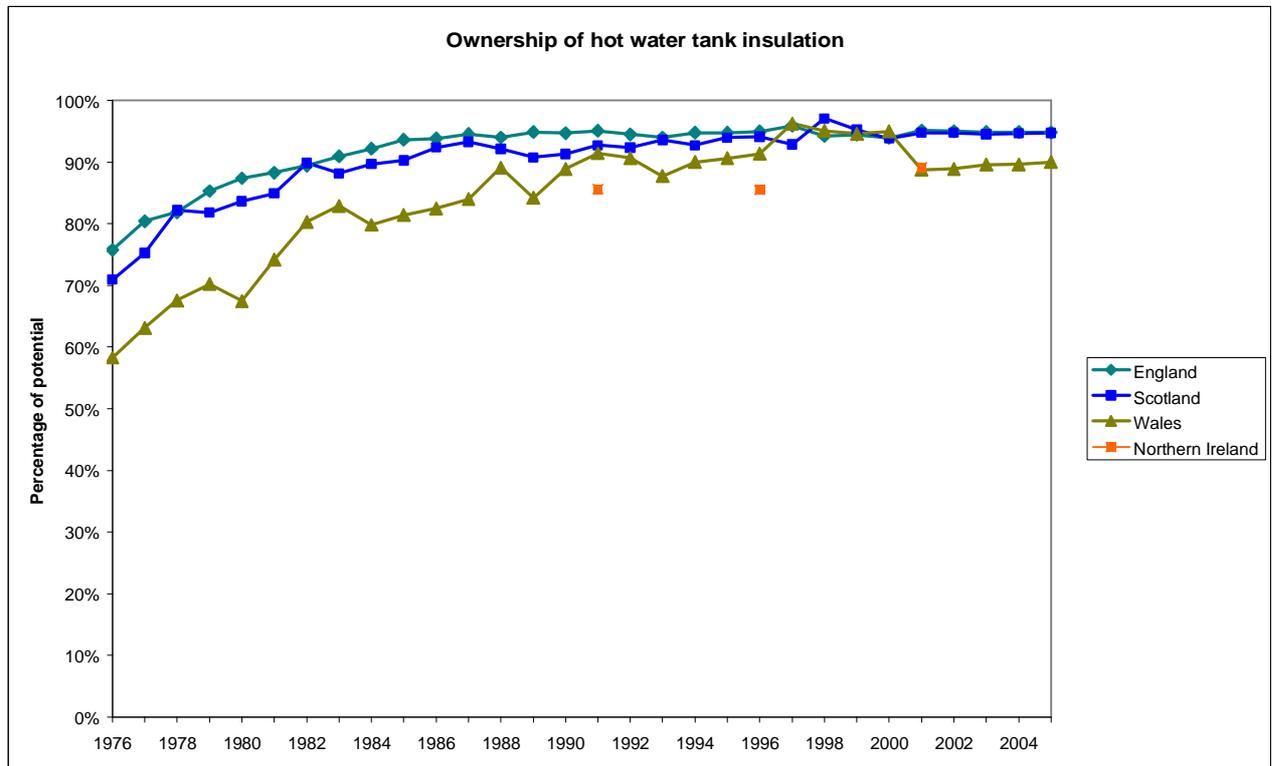


Figure G

In all countries ownership of hot water tank insulation has been increasing. In Wales and Northern Ireland it is close to 90% while in England and Scotland it is more like 95%. This includes both jacket and factory sprayed foam insulation. The foam insulation is increasingly common on new and replacement tanks.

In recent years the percentage of homes with hot water tanks has been falling due to the increased use of combination boilers.

1.5 Insulation summary

Table A summarises the insulation ownership figures, as percentages of the relevant potentials, for 2004 in all countries. It will be clear from the earlier charts that figures for an individual year can be difficult to compare because of statistical fluctuations that occur from one year to the next. The figures in table A need to be viewed with this in mind.

	England	Scotland	Wales	Northern Ireland
Any loft insulation	92.4%	91.8%	87.2%	96.0%
100mm or more loft insulation	57.1%	47.1%	38.3%	73.6%
Cavity wall insulation	36.0%	45.3%	38.3%	78.3%
Any double glazing	83.0%	82.5%	82.3%	81.5%
Full double glazing	43.3%	44.2%	31.7%	62.3%
Any draught proofing	86.3%	89.0%	84.5%	81.5%
Full draught proofing	44.0%	46.0%	32.0%	62.3%
Hot water tank insulation	94.9%	94.7%	89.6%	Not available

Table A

Figures for draught proofing for Northern Ireland are given as the same as double glazing figures due to the lack of information for Northern Ireland in 2004.

Considering the insulation figures for 2004, Wales appears to have the lowest standards and Northern Ireland the highest. This is in contrast to the previous country fact file where Northern Ireland had generally lower standards but was raising them at a faster rate than the rest of the UK.

Central heating

Another factor that strongly influences the energy use is the ownership of central heating. Figure H shows the ownership of central heating in the four countries.

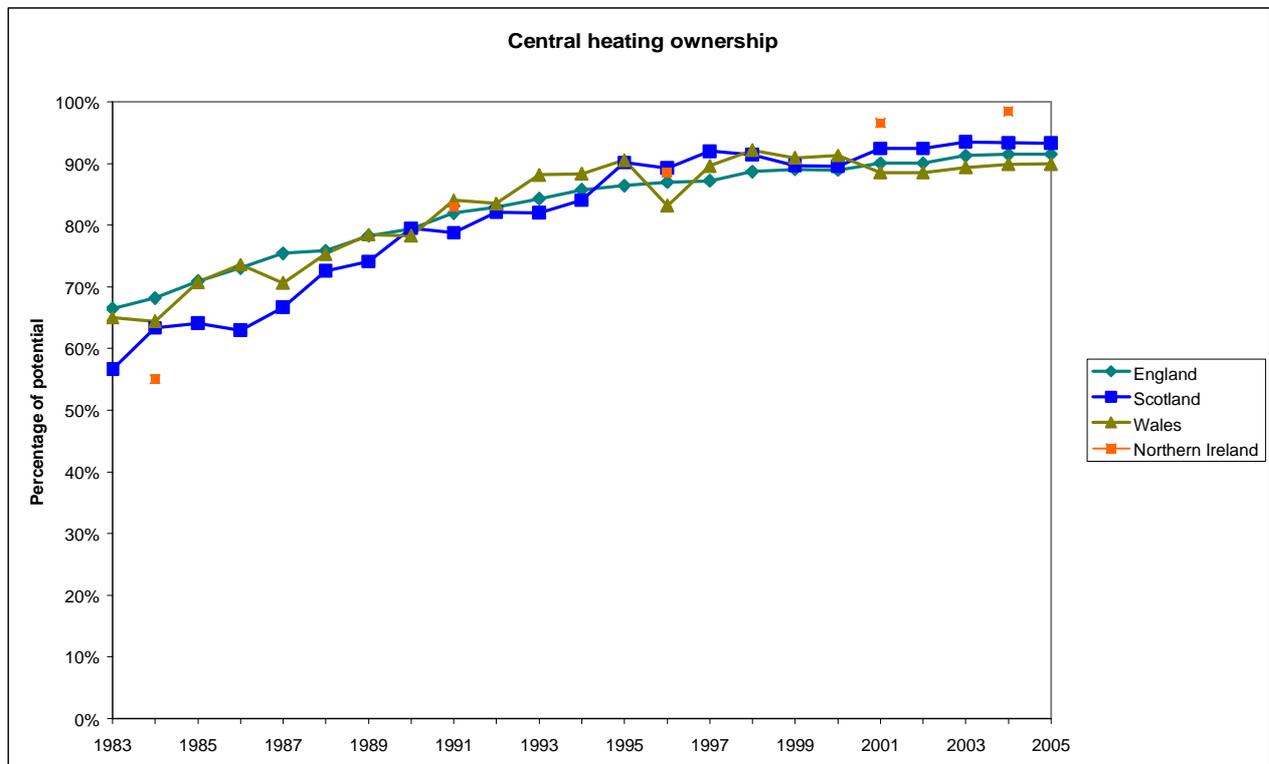


Figure H

Central heating ownership has increased more rapidly in Northern Ireland and in 2004 98.4% of homes had central heating. In England in 2004 91.5% of homes had central heating and in Scotland and Wales it was 93.3% and 89.9% respectively. Centrally heated dwellings tend to use more energy than non-centrally heated dwellings because of the ability to heat the whole dwelling instead of just a few rooms. On the other hand, central heating systems are generally more efficient than the individual appliances they replace.

Energy consumption

Figure I shows the energy consumption per dwelling for each of the four countries. These are actual consumptions and are not adjusted for external temperature.

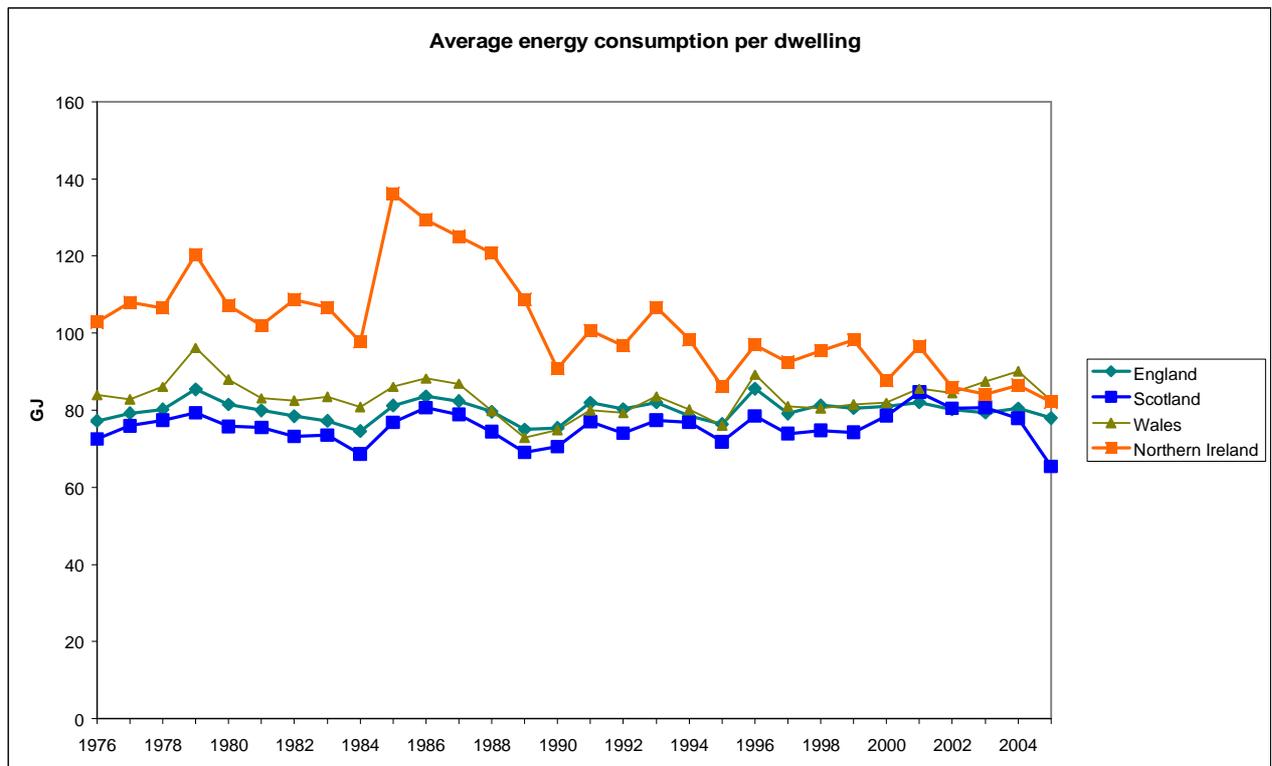


Figure I

As the preceding discussions have suggested, homes in Northern Ireland were using significantly more energy than homes in the other countries before 2000. However, in recent years it has fallen to a similar level to the other countries. The sharp increase in energy use in Northern Ireland in 1985 is partly related to being the second coldest year in the period shown. Probably more importantly, however, it immediately follows the coal industry strike of 1984. It also roughly coincides with a very sharp fall in the price of oil. These two factors have had a far bigger impact in Northern Ireland than in the rest of the UK because of the prevalence of solid fuel and oil heating in Northern Ireland, which are much less common in the other countries.

Also as suggested previously, it can be seen that homes in Scotland use slightly less energy than those in England, despite the colder winters. Similarly homes in Wales use slightly more energy than homes in England, despite the warmer winters. In 2005 the average energy consumption per household in England was 78.0 GJ compared with 65.4GJ in Scotland, 82.5 GJ in Wales and 82.1 GJ in Northern Ireland.

It can also be seen in Figure I that the average dwelling energy use has not increased with improved standards of living and improved comfort levels that result from the uptake of central heating systems.

Fuel type

Figure J shows the energy consumption by fuel type in each country.

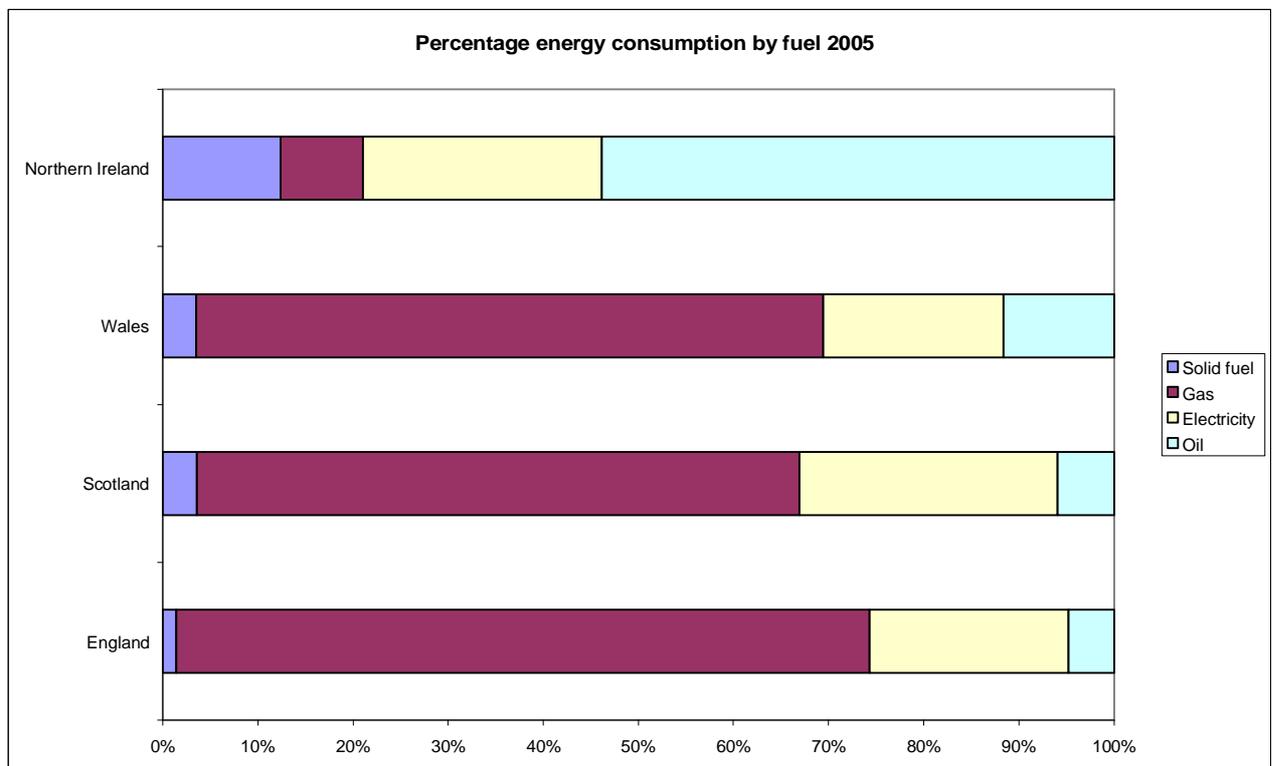


Figure J

The mix of fuels is different in each country, as illustrated in Figure J for the year 2005. The predominant fuel in England, Scotland and Wales is gas, representing 72.9%, 63.3%, and 65.9% respectively. The use of gas is increasing in Northern Ireland and now represents 8.7% of domestic energy consumption. The predominant fuel in Northern Ireland is oil which represents 53.9% of consumption. Northern Ireland also uses a higher percentage of solid fuel (12.4%) compared with 3.5% in Wales and 3.6% in Scotland. England uses the lowest percentage of solid fuel at only 1.4%.

Scotland uses the highest percentage of electricity (27.2%) which might be expected as it also has the highest percentage of flats which tend to use electric heating.

Expenditure

Figure K shows the percentage of total household expenditure spent on fuel, light and power for each of the four countries.

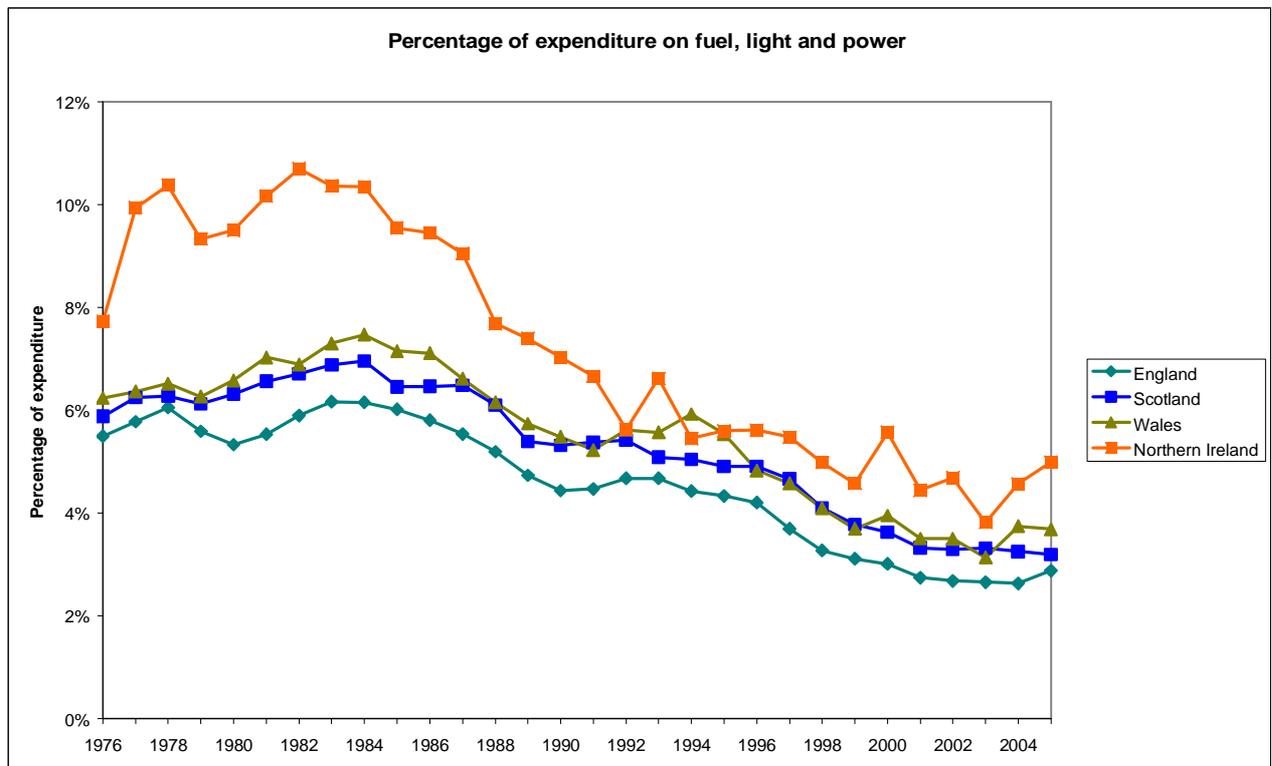


Figure K

Expenditure on fuel, light and power per week in 2005 in England, Scotland and Wales is about £14-£15. In Northern Ireland it is higher at about £22. Figure K also shows that the percentage spent on fuel, light and power is higher than in the other countries, this is despite the higher insulation standards in Northern Ireland. This is partly because of the lower consumption of gas which is a comparatively cheaper fuel.

It can also be seen that in the late 1970s and early 1980s there were likely to have been considerable problems with fuel poverty in Northern Ireland. An expenditure on energy of more than 10% of income is generally accepted as an indication of fuel poverty.

Conclusion

The composition of the housing stock varies by type, age and tenure between the four countries of the United Kingdom. In all countries levels of insulation are increasing but particularly in Northern Ireland which now has better levels of insulation than the other three countries. Hot water tank and loft insulation ownership are reaching saturation point in all countries at about 90-95% but cavity wall insulation is present in less than 50% of dwellings with cavities, except in Northern Ireland where it had reached 78.3% by 2004.

The mix of fuels is changing with the use of solid fuel decreasing in all countries. The use of both gas and oil has increased in Northern Ireland, although gas still represents a fairly small proportion of the fuel consumed.

The energy consumption per household has not increased despite the increasing use of household appliances and the increase in use of central heating systems. In Northern Ireland the trend is to lower consumption per household bringing it more in line with consumption levels in England, Scotland and Wales.

Expenditure on fuel, light and power as a percentage of total expenditure has decreased in all countries, although, this does not reflect recent price increases.

The detailed figures for individual countries are presented in the following four sections of the report.

ENGLAND

The information on England is divided into a number of sections which are listed in the main contents table. It starts by looking at household expenditure and the money spent on fuel, light and power . This is followed by charts that relate to the number of households and the houses they live in. Sections on the different types of insulation in the fabric of the house follow. Hot water tank insulation is considered before an overall assessment of insulation is made. Energy consumption is compared to changes in external temperature and heat losses for the average household are calculated. The following sections relate to heating systems. Finally the energy consumption is split into different end uses and different fuels. Charts illustrating the information appear within the text but the tables on which they are based appear at the end of the section on pages 44 to 63.

Household expenditure on fuel, light and power – England

The percentage of expenditure spent on fuel, light and power is decreasing as shown in figure 1E.

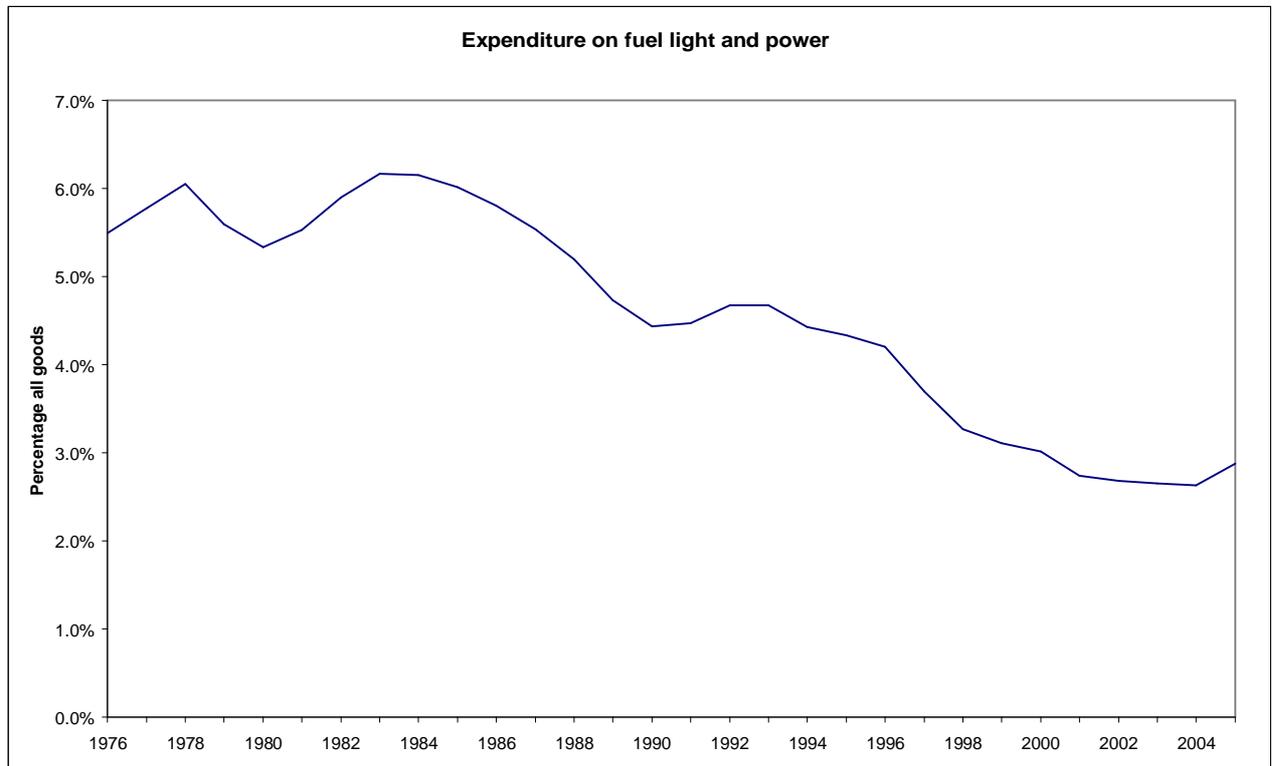


Figure 1E

It has decreased from 5.5% in 1976 to 2.9% in 2005.

Figure 2E shows how expenditure on all goods has risen compared to that on fuel, light and power.

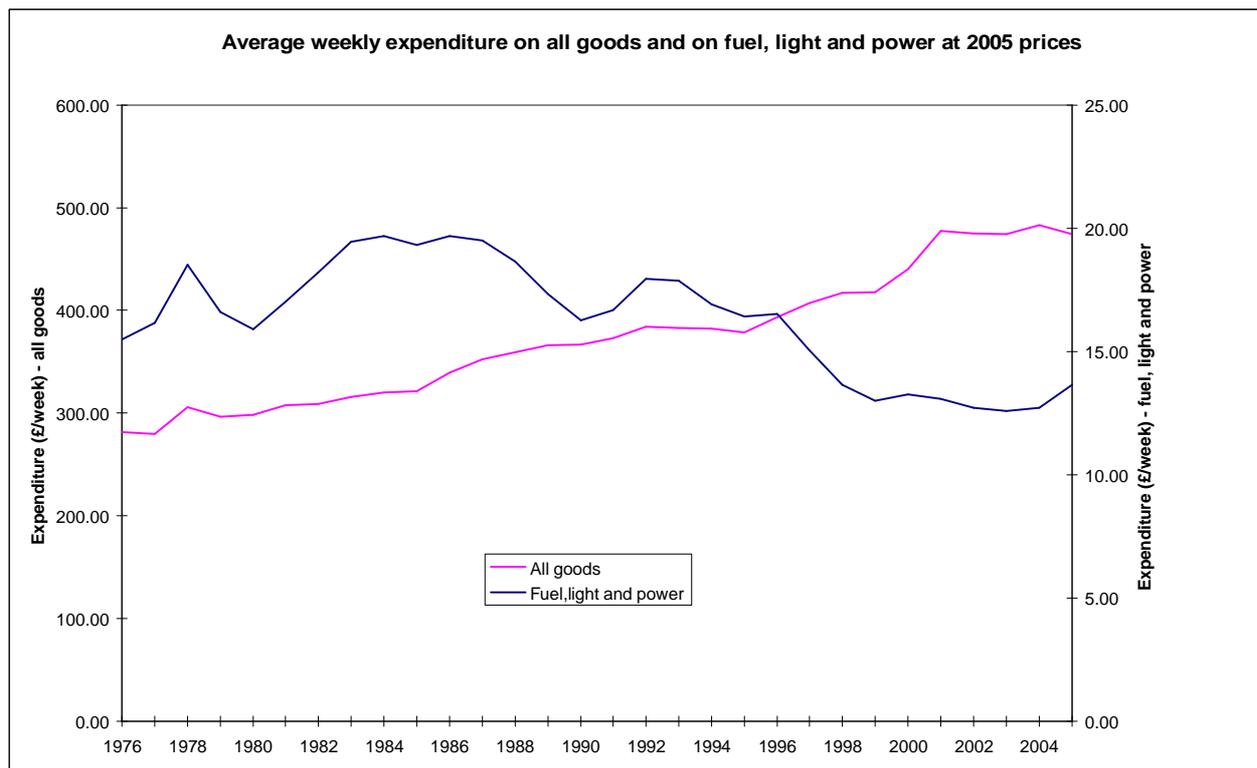


Figure 2E

Table 1E on page 44 shows the average weekly expenditure on all goods and on fuel, light and power both in contemporary prices and adjusted to 2005 prices by using the retail price index.

Population and household numbers – England

The number of households continues to increase while the number of people per household falls. Figure 3E shows the household and population numbers for England.

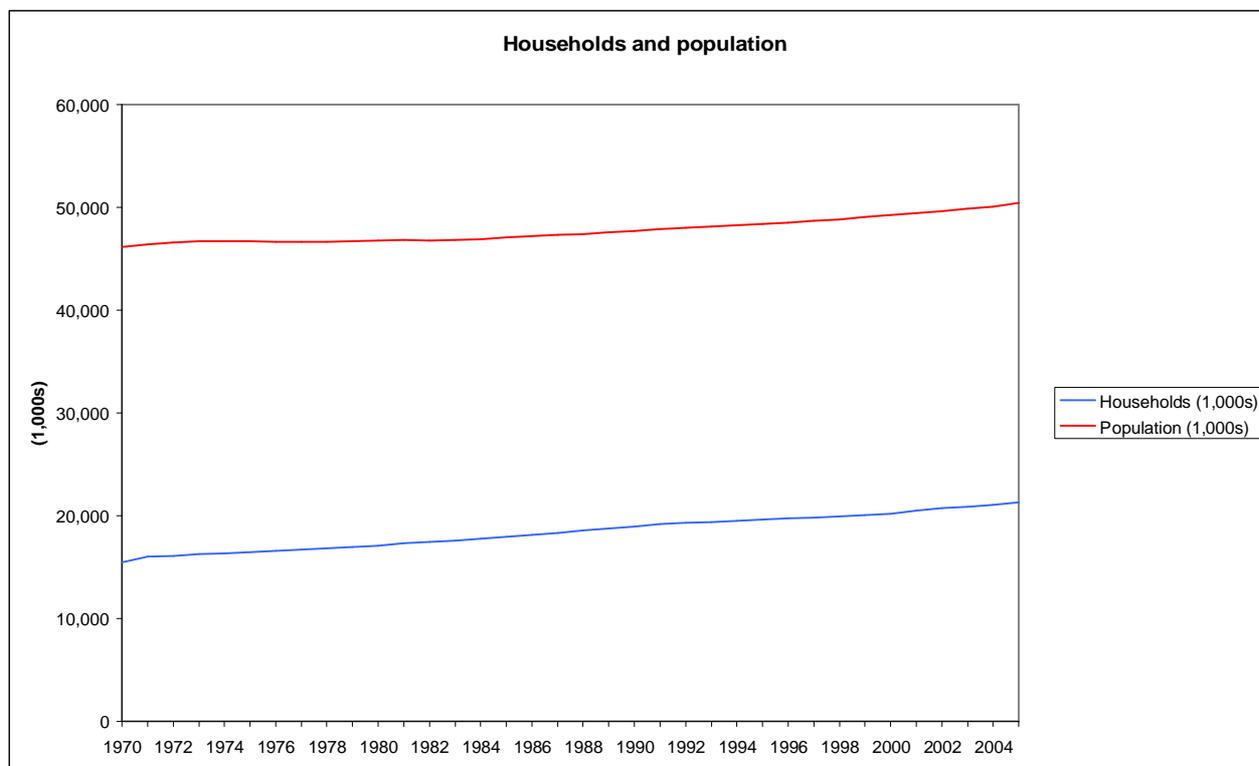


Figure 3E

The average household size has decreased from 2.98 to 2.37 between 1970 and 2005.

Since the previous Country fact file was published some government figures, for population and households in the years included in it, have been revised as a result of the 2001 census. This means there may be small differences in tables produced for this fact file from those in the earlier publication.

Table 2E shows the population, number of households and average household size, for England, for the years 1970 – 2005.

Age of the housing stock - England

Figure 4E shows the age distribution within the housing stock.

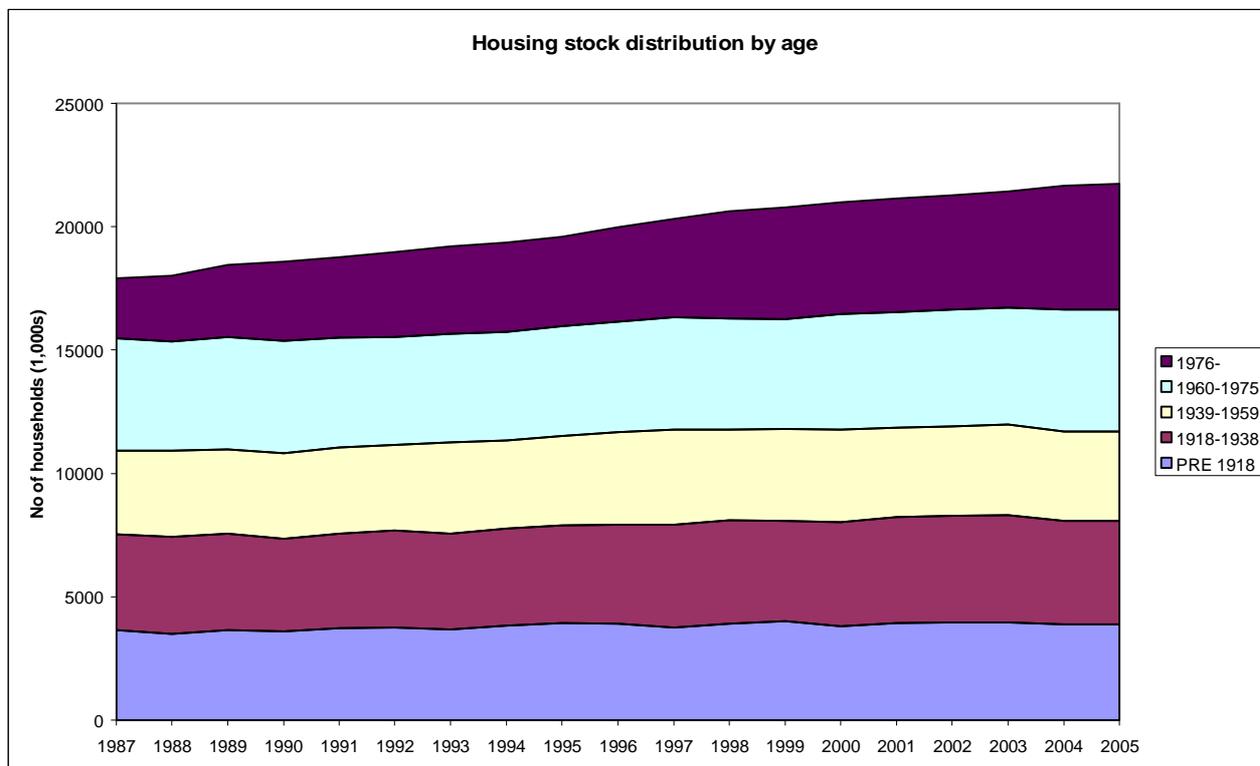


Figure 4E

Although some older dwellings are demolished there is very little decrease in the number of older dwellings since some are also converted into multiple dwellings.

The number of new dwellings built each year is increasing the post 1976 category.

Table 3E shows the number of dwellings in each age category from 1987 to 2005.

Housing stock distribution by tenure – England

Figure 5E shows the tenure distribution of the housing stock.

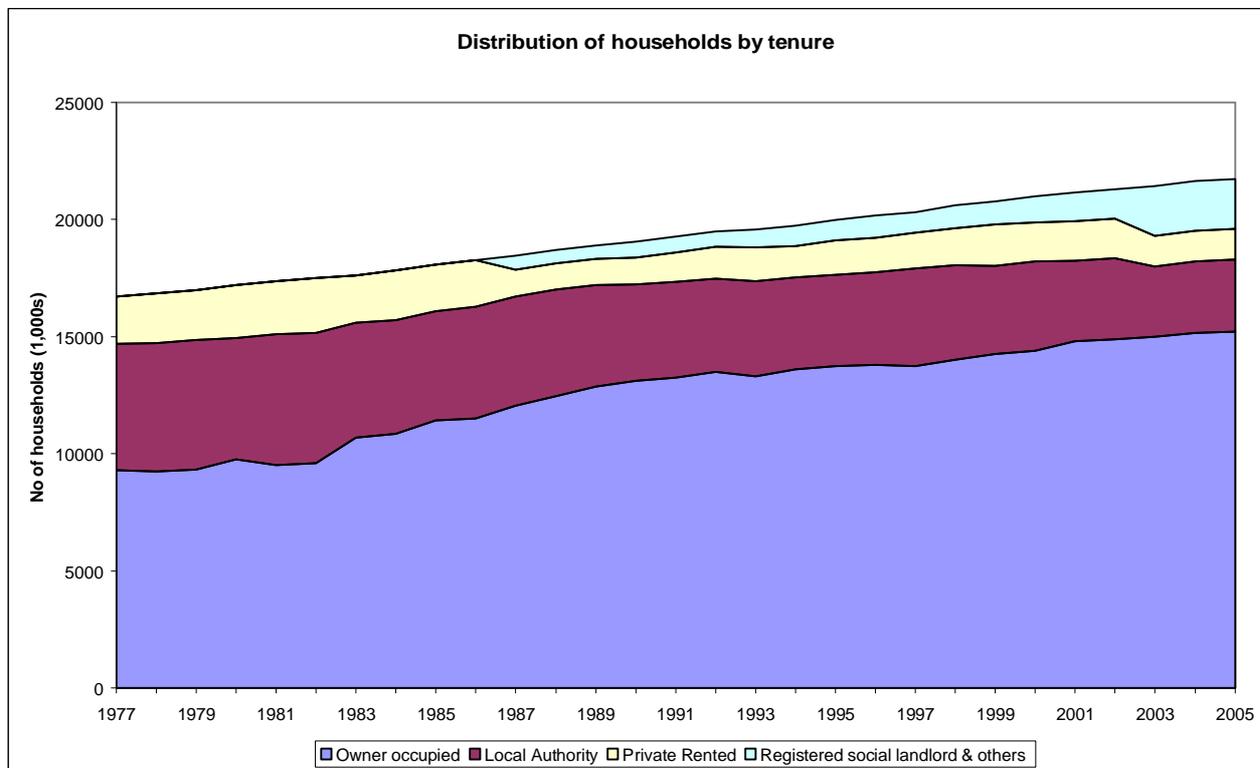


Figure 5E

Before 1987 figures for registered social landlords and private rented tenancies are combined.

The numbers of those owning their houses is increasing. In 1977 56% of households were owner occupied. By 2005 this had risen to 70%. It is now rising more slowly than it was in the 1980s

The increase in households in properties owned by registered social landlords is partly due to stock transfers from local authorities.

Table 4E shows the number of households of each tenure from 1977 to 2005.

House types – England

Figure 6E shows the distribution of the housing stock by type of dwelling.

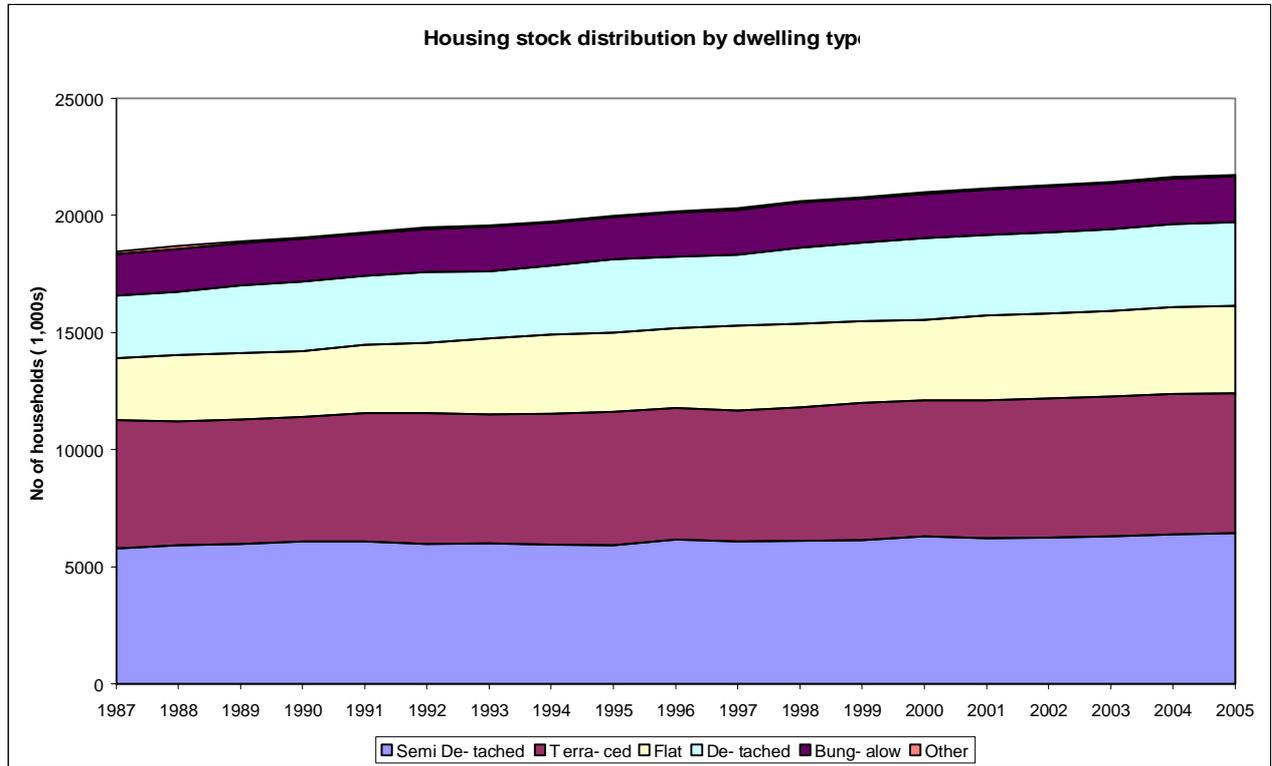


Figure 6E

Although the number of households is increasing the proportion of each type has remained fairly consistent.

Figure 7E shows the proportions of each house type in 2005.

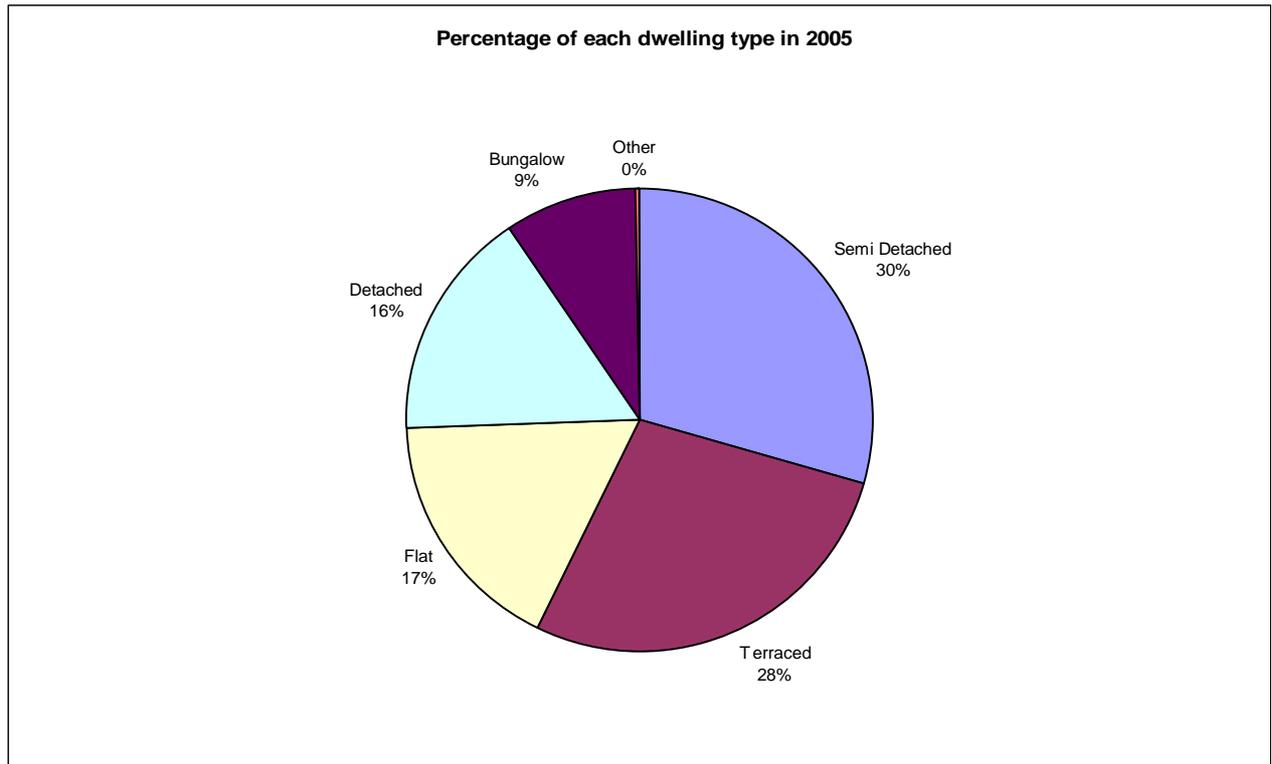


Figure 7E

The main change has been a decrease in terraced housing from 30% in 1987 to 28% in 2005 and an increase in the percentage of flats from 14% in 1987 to 17% in 2005.

Table 5E shows the number of households in each dwelling type from 1987 to 2005.

Loft insulation – England

The ownership of loft insulation is shown in figure 8E.

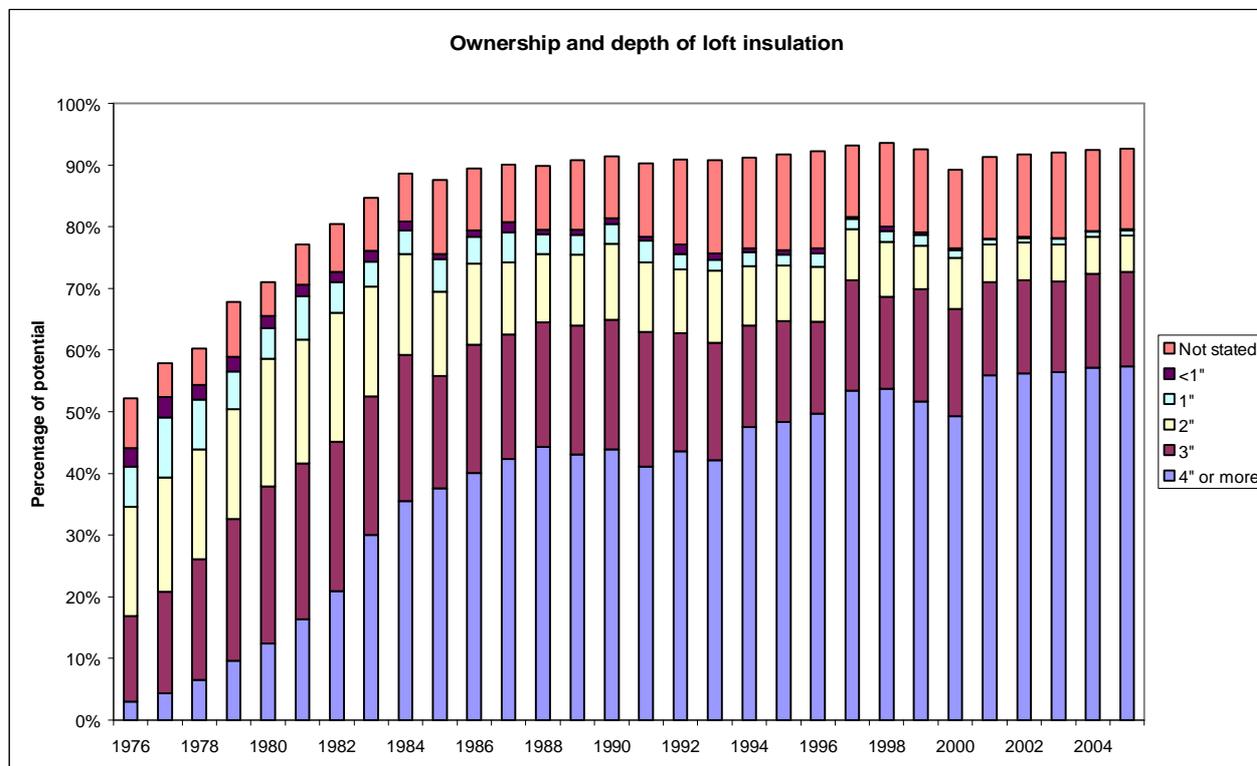


Figure 8E

92.6% of potential lofts now have some loft insulation. This has risen from 52.2 % in 1976. The same level was achieved in 1999 showing that the market for insulation for lofts, that have no insulation, has virtually saturated. However Figure 8E also shows that there has been an increase from 3.1% to 57.3% of those with 4 inches (100mm) or more of loft insulation, between 1976 and 2005. In 1999 51.7% had 4 inches (100mm) or more of loft insulation by 2005 this had increased to 57.3%. Depths of loft insulation are increasing as building regulations require more insulation. There is also an increase in the recommended depth of loft insulation so that some households are adding extra insulation on top of what they have already installed.

Figure 9E shows the 4 inches (100mm) or more category in more detail from 1987 to 2005.

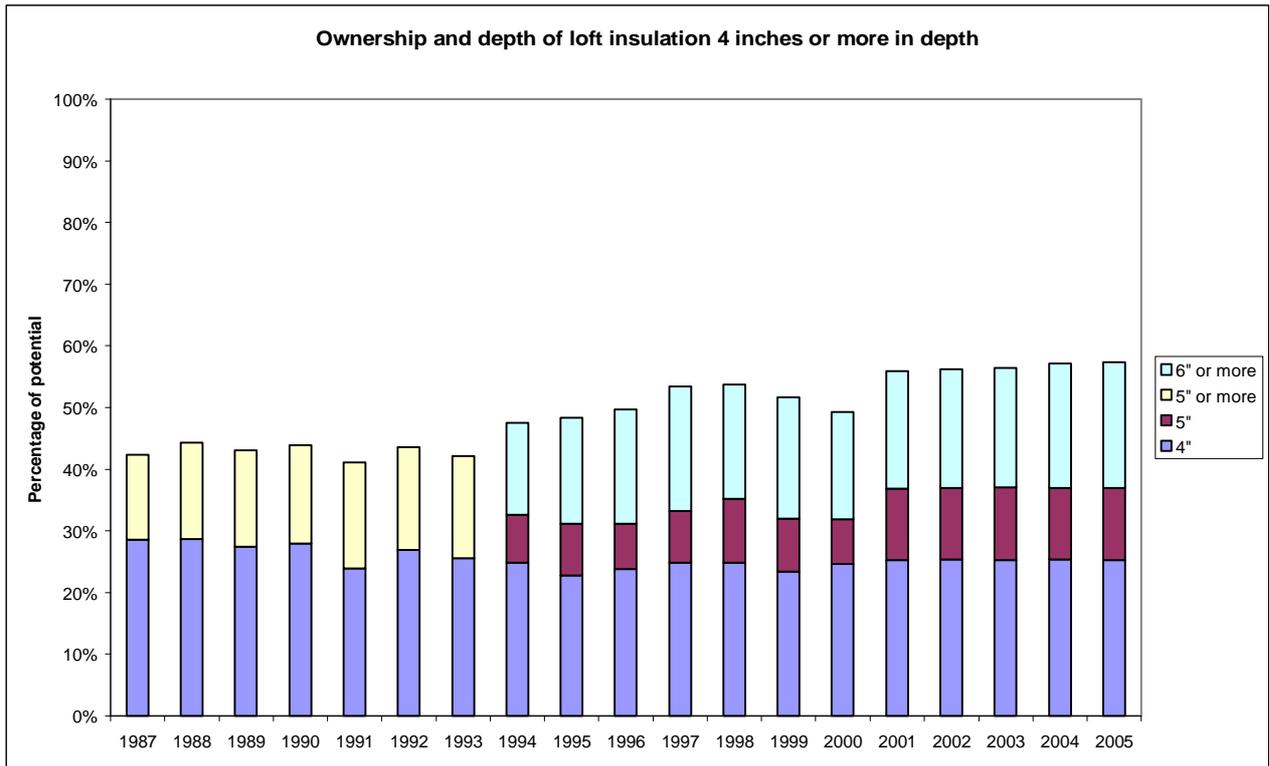


Figure 9E

Between 1994 and 2005 the 6 inches (150mm) or more category has increased from 14.8% of potential lofts to 20.4%. At the same time the total number with loft insulation has only increased from 91.2% to 92.6%.

Table 6E shows ownership and depth of loft insulation from 1976 to 2005.

Table 7E shows the details for those with 4 inches (100mm) or more of insulation.

Cavity wall insulation – England

Figure 10E shows the ownership of cavity wall insulation.

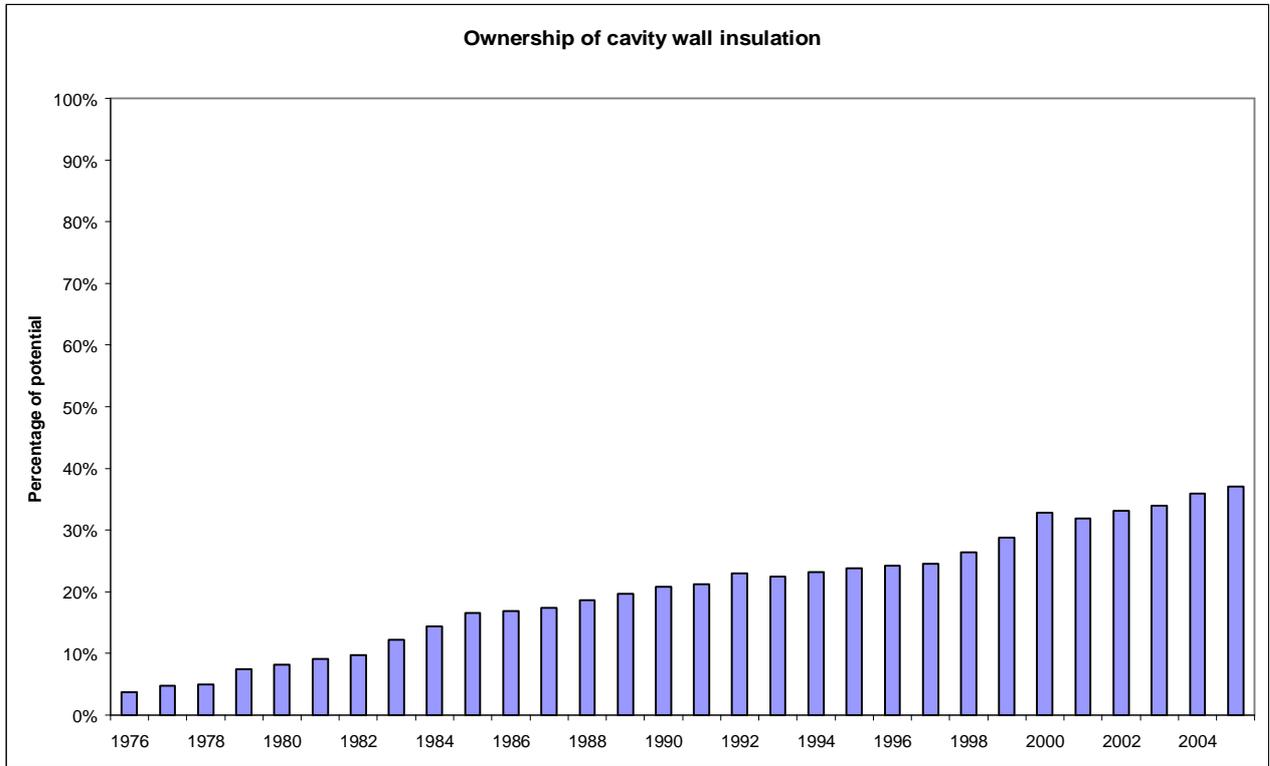


Figure 10E

Cavity wall insulation ownership has increased from 3.8% of cavity wall dwellings in 1976 to 37.0% in 2005.

Table 8E shows the number of households with cavity wall insulation as well as the total number of cavity wall dwellings (potential) in England. It also shows the number who have cavity walls but “don’t know” if they have cavity wall insulation.

Double glazing ownership – England

Figure 11E shows the ownership of double glazing.

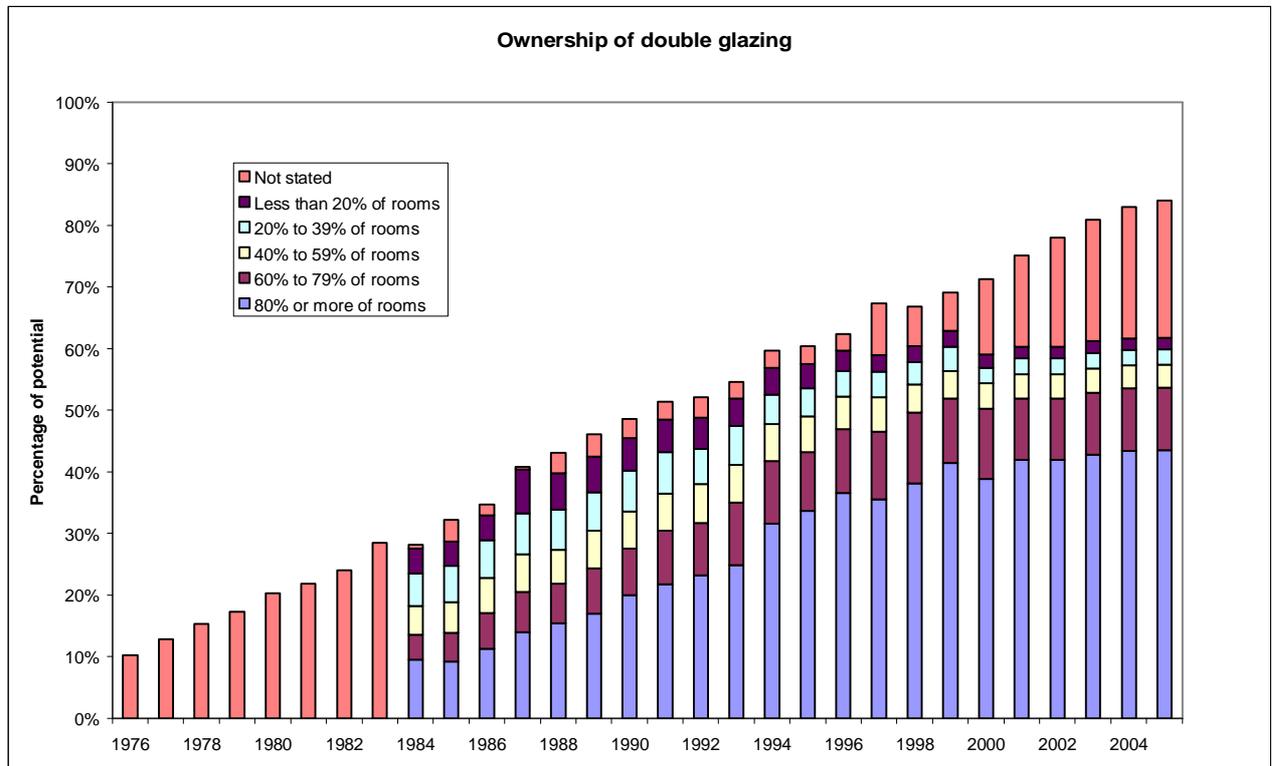


Figure 11E

Double glazing ownership has risen from 10.2% of potential in 1976 to 84.1% in 2005. This refers to any house with any number of windows double glazed. In the earlier years the percentage of rooms double glazed was not recorded and in the last five years the number where the percentage of rooms double glazed has not been given has risen. However between 1984 and 2005 the percentage with 80% or more of rooms double glazed has risen from 9.5% to 43.5%.

Table 9E gives the number of households with double glazing and the percentage of rooms double glazed where available.

Draught proofing – England

Figure 12E shows the ownership of draught proofing. If a dwelling has double glazing or single glazing with draught stripping it is considered to be draught proofed.

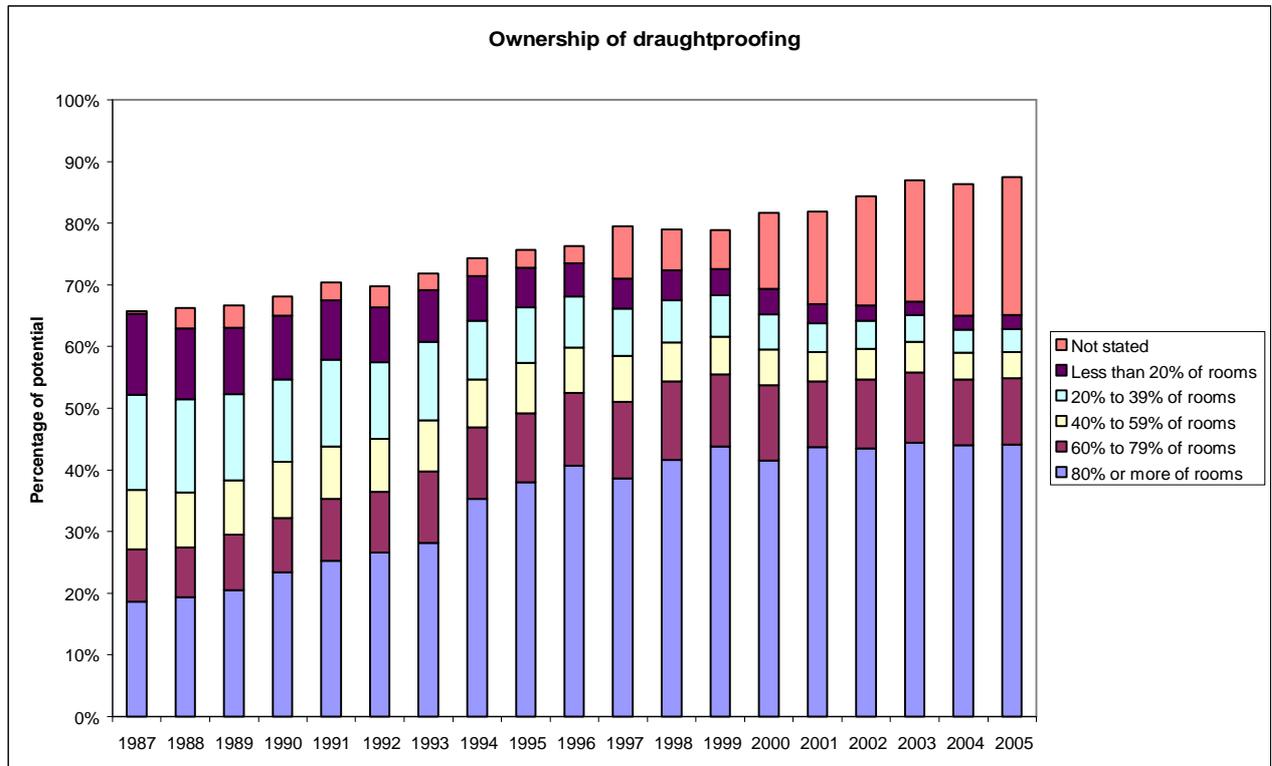


Figure 12E

Ownership levels are increasing largely due to the increase in double glazing. In 2005 87.4% of dwellings were draught proofed compared with 84.1% which were double glazed. In 1987 the figures were 65.8% draught proofed compared with 40.8% double glazed.

Table 10E gives the number of households with draught proofing and the percentage of rooms that are draught proofed.

Hot water tank insulation – England

The ownership of hot water tank insulation is shown in figure 13E.

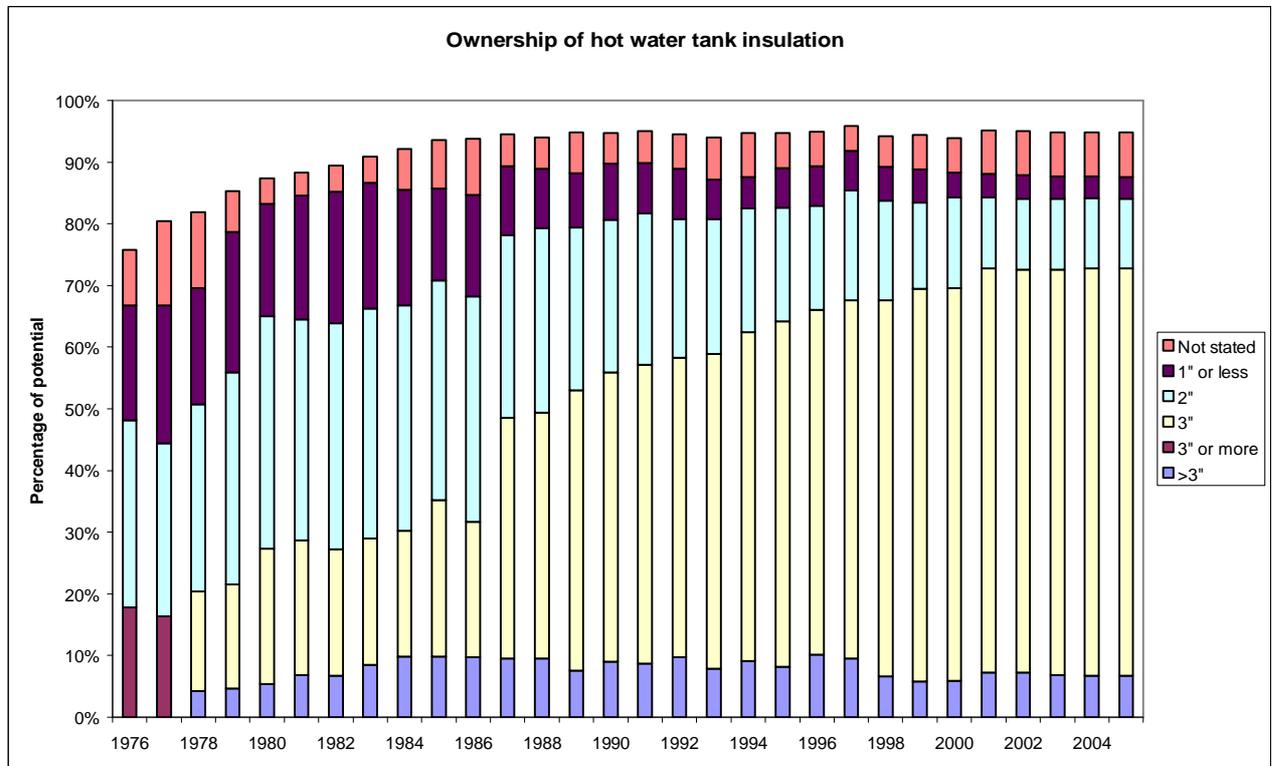


Figure 13E

Ownership of hot water tank insulation has increased from 75.7% of dwellings with hot water tanks in 1976 to 94.8% in 2005. As can be seen from figure 13E this measure has reached saturation at about 95%. In 2005 72.8% of households had 3 inches (75mm) or more of insulation on their hot water tank. Those that have spray foam factory insulated tanks are counted as having the equivalent of a jacket of 3 inches (75mm) or more.

Table 11E shows the number of households with hot water tank insulation and the depths of the insulation.

Insulation measures ownership – England

Figure 14E shows households with full and no insulation. Full insulation is taken as households where there is at least 4 inches (100mm) of loft insulation, if there is a loft, and cavity wall insulation, if there is a cavity, and at least 80% of rooms double glazed. No insulation means there is no loft insulation, if there is a loft, no cavity wall insulation, if there is a cavity, and no double glazing.

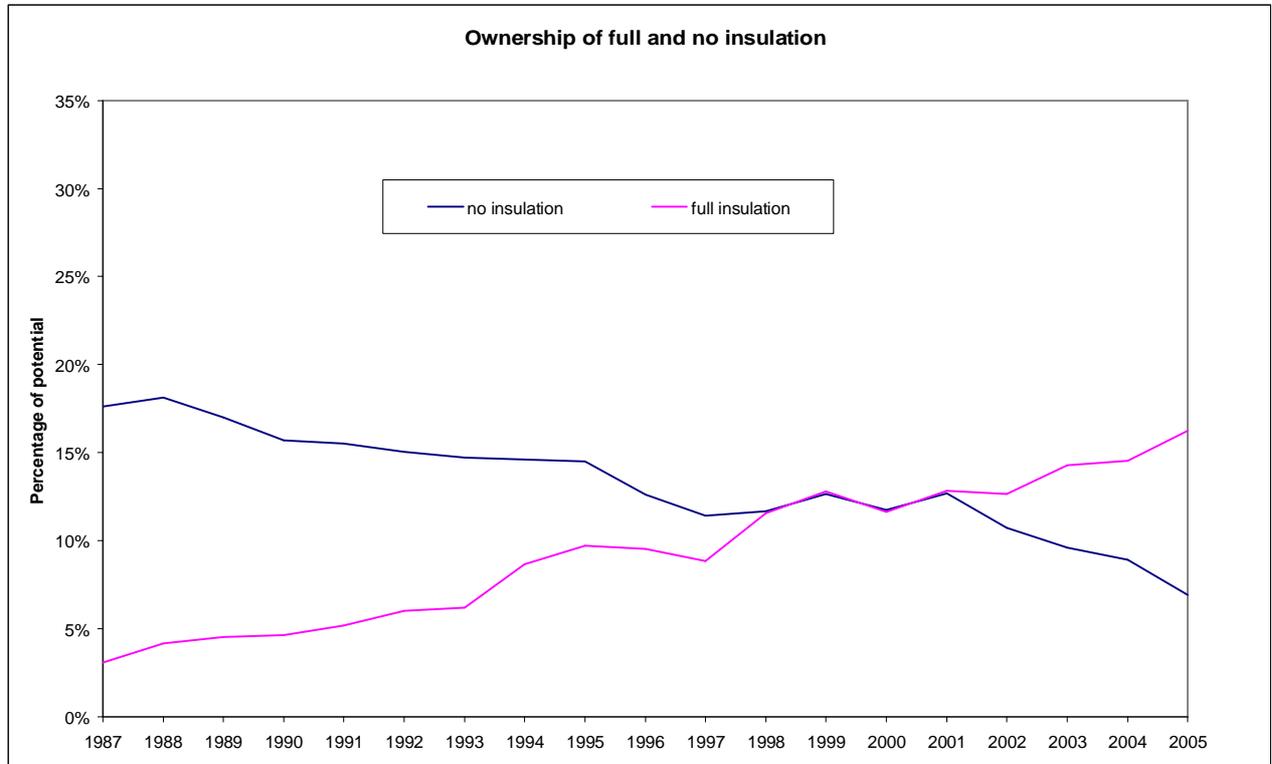


Figure 14E

The proportion of households with no insulation has decreased from 17.6% in 1987 to 6.9% in 2005. In the same time period the proportion with full insulation has risen from 3.1% to 16.2%.

Table 12E shows the number of households with full and no insulation.

Energy consumption and external temperatures - England

Figure 15E shows the delivered energy and average external temperatures from 1976 to 2005

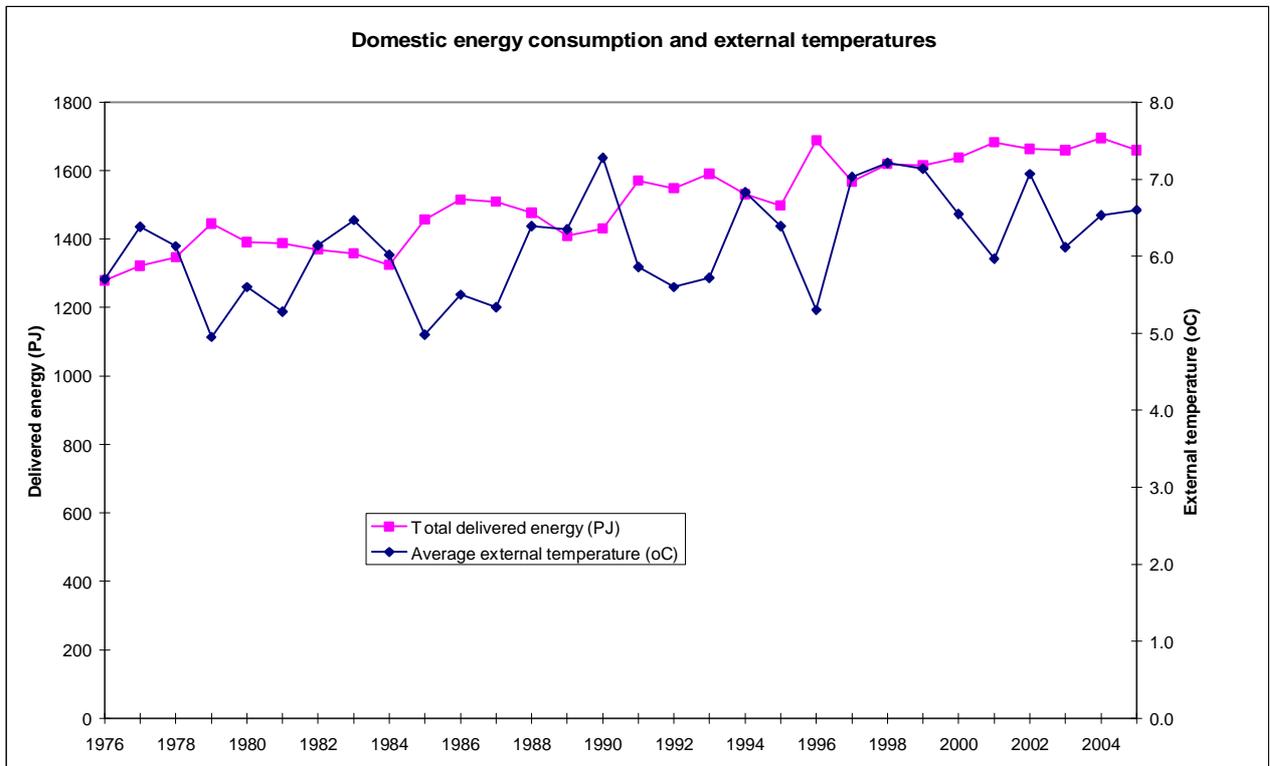


Figure 15E

From 1976 to 2005 delivered energy has increased by 22.9% while the number of households has increased by 22.2%. Figure 15E shows the relationship between average external temperature and delivered energy. In particular the effects of the cold winters in 1979, 1985, 1986, 1987 and 1996 can be seen. These five years are all in the top ten highest consumption per household years.

Table 13E shows the total households, total delivered energy, average external temperature and average energy consumption per dwelling.

Heat loss of the average dwelling – England

Figure 16E shows the changes in average dwelling heat loss from 1976 to 2005.

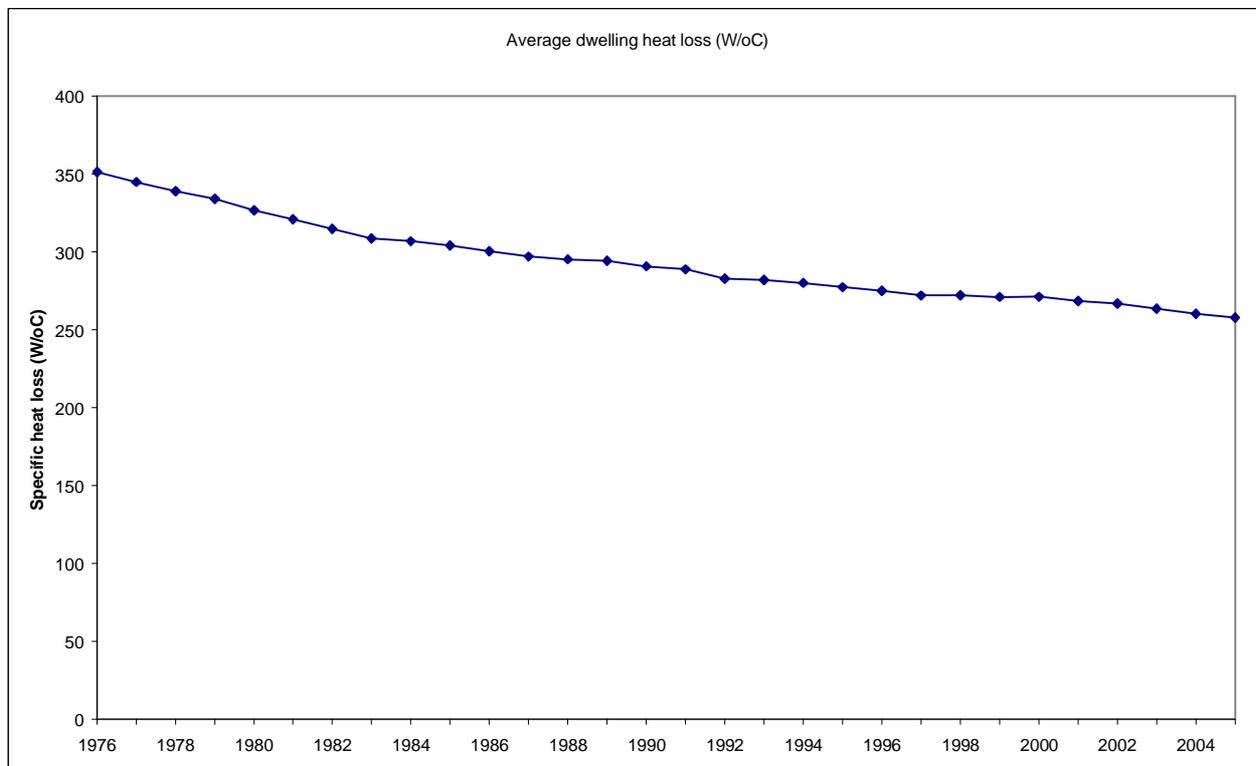


Figure 16E

The heat loss from the average dwelling has steadily been reducing as insulation levels improve.

In 2005 it was 257.8 W/oC per dwelling compared with 351 W/oC in 1976.

Table 14E shows the average dwelling heat loss and the stock heat loss from 1976 to 2005.

Central heating ownership - England

Figure 17E shows the ownership of central heating.

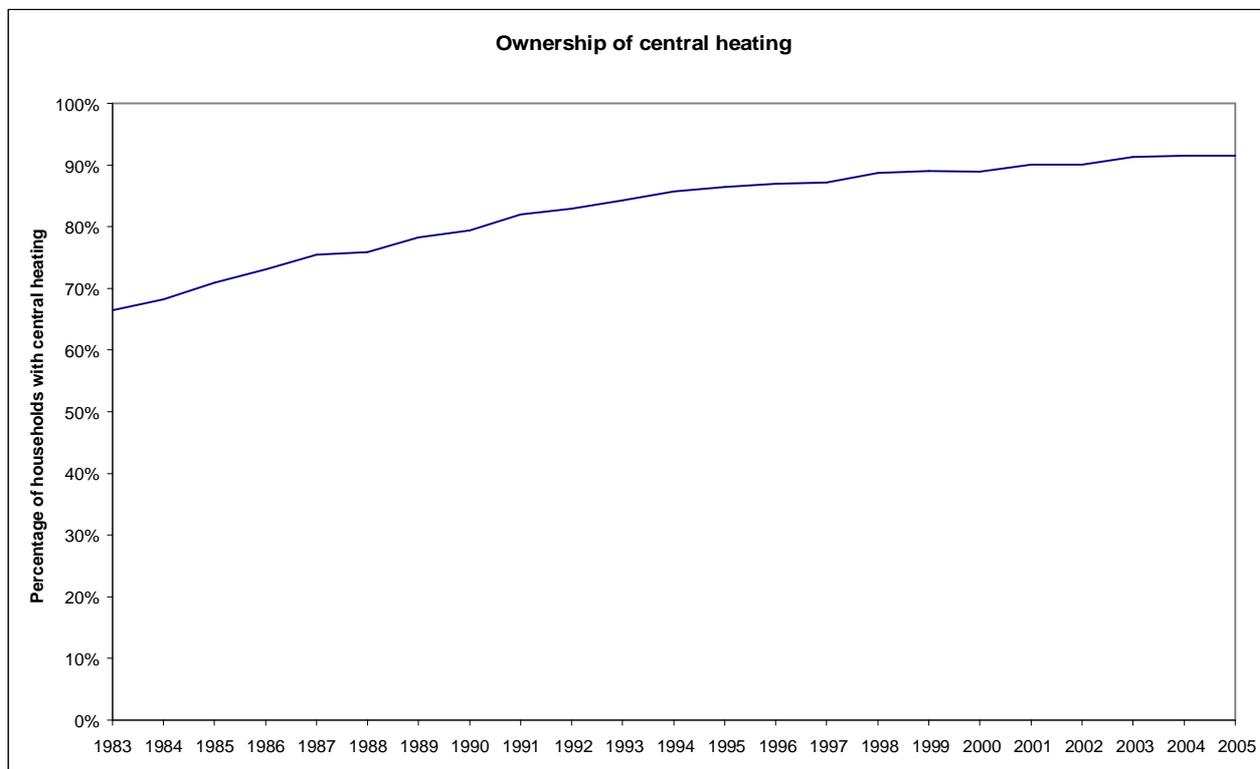


Figure 17E

Central heating ownership has been increasing. In 2005 91.5% of households had central heating this compares with 66.5% in 1983 and 88.9% in 2000.

Table 15E shows the number of households with and without central heating.

Heating appliances – central heating – England

Figure 18E shows the main form of heating in centrally heated homes.

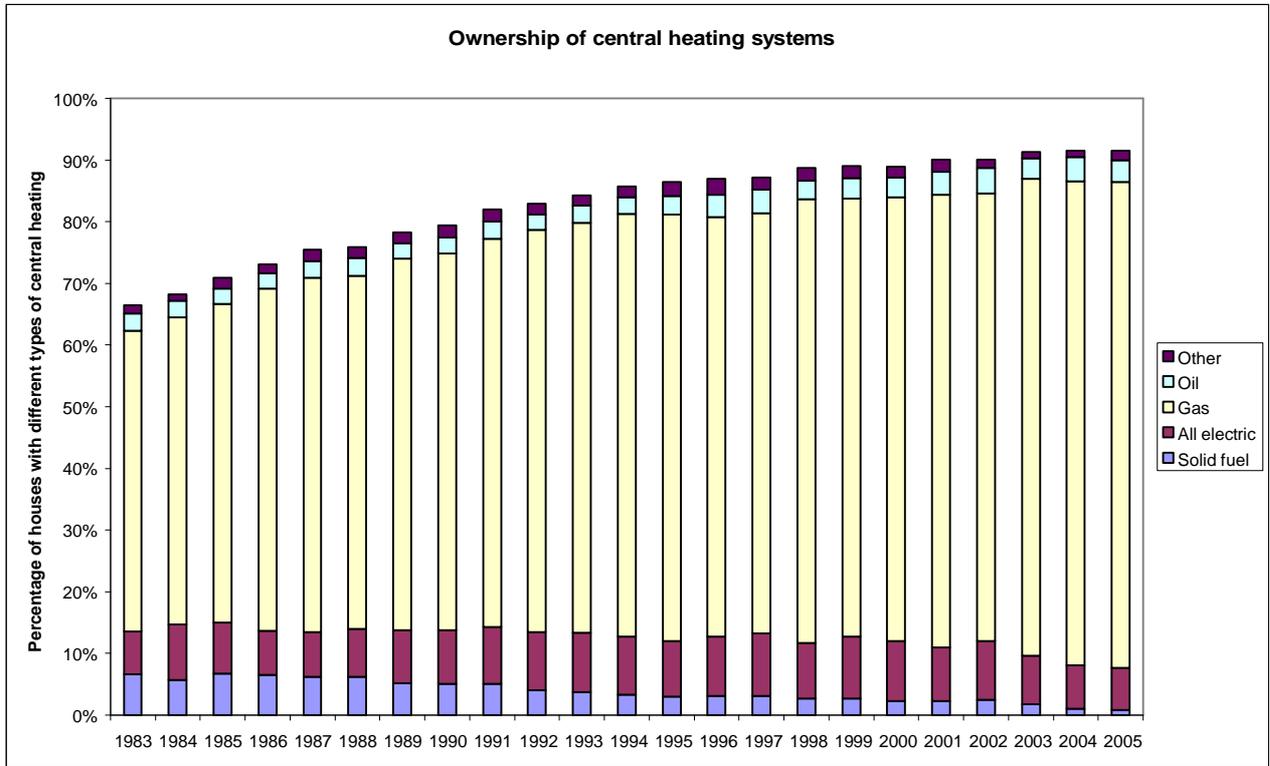


Figure 18E

Figure 18E shows the central heating fuel used as a percentage of the whole stock. The figure shows clearly that gas is the main central heating fuel.

Considering only those homes that are centrally heated, in 2005 gas was used in 86.1% of homes. This compares with 73.4% using gas in centrally heated homes in 1983. Solid fuel use has fallen from 10% of centrally heated homes in 1983 to 0.9% in 2005. As shown in figure 17E the overall percentage of those with central heating has increased.

Table 16E shows the number of households using each fuel type for central heating.

Heating appliances – non central heating – England

Figure 19E shows the percentage of households using non central heating and the fuel they use.

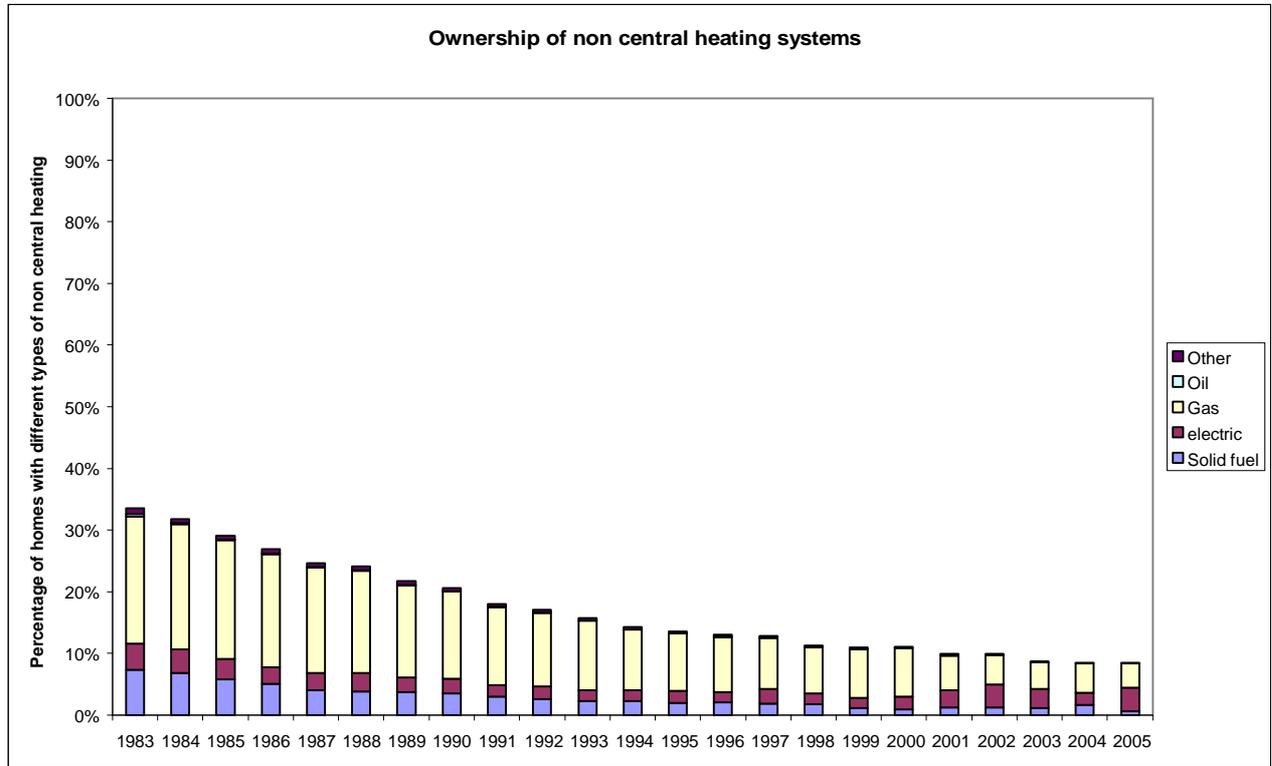


Figure 19E

In 1983 33.5% of total homes used some form of non central heating as their main heating system. In 2005 this had reduced to 8.5% of total homes.

In 2005 46% of those without central heating used gas and 45% electricity. Solid fuel was used by only 8% of these households.

Table 17E shows the number of households with non central heating and the type of fuel they use.

Heating appliances and efficiencies – England

Figure 20E shows the weighted average space heating efficiency.

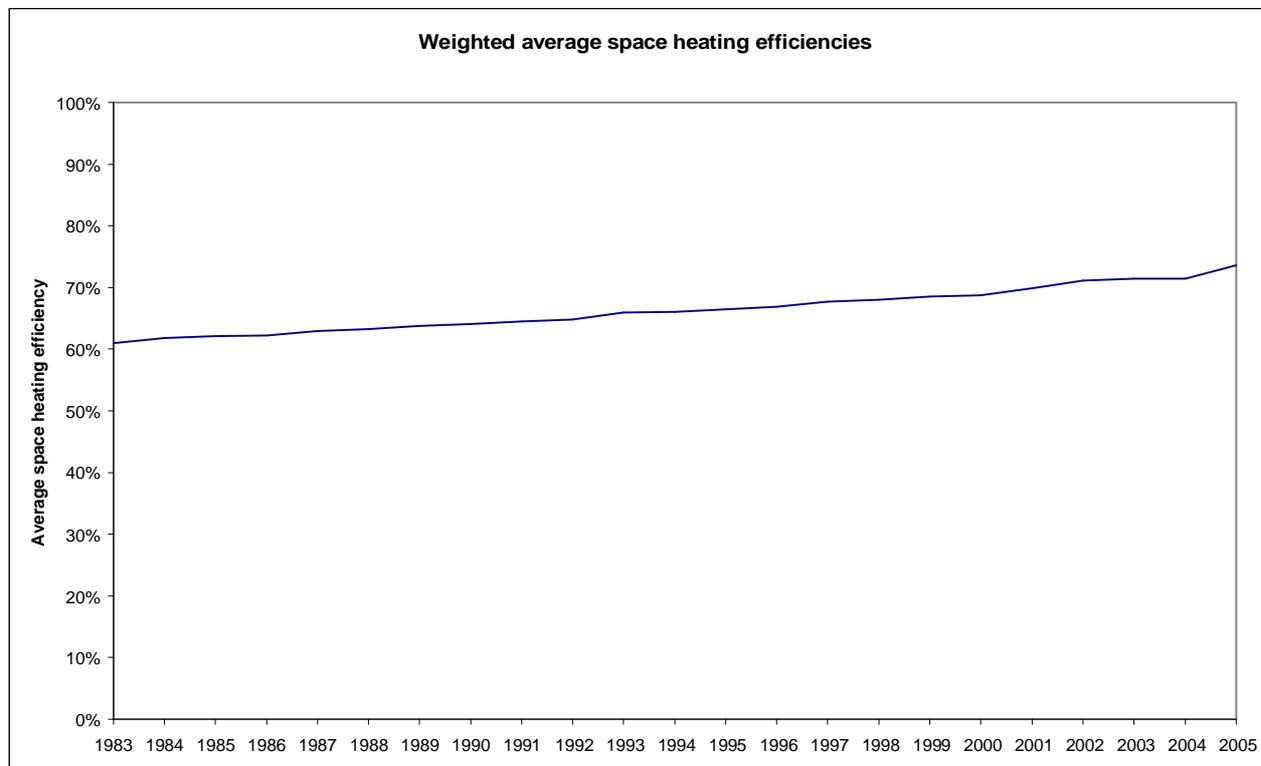


Figure 20E

The average space heating efficiency has improved from 61.0% to 73.6% between 1983 and 2005. This is partly due to changes in fuel for heating systems and partly due to improvements in gas and oil central heating systems where average efficiencies have increased from 57.2% to 72.8% for gas and 59.3% to 81.3% for oil between 1983 and 2005.

Table 18E shows the weighted average central and non central heating space heating efficiencies for each year as well as the weighted average space heating efficiency.

Energy consumption by end use – England

Figure 21E shows the domestic energy consumption by end use for each year.

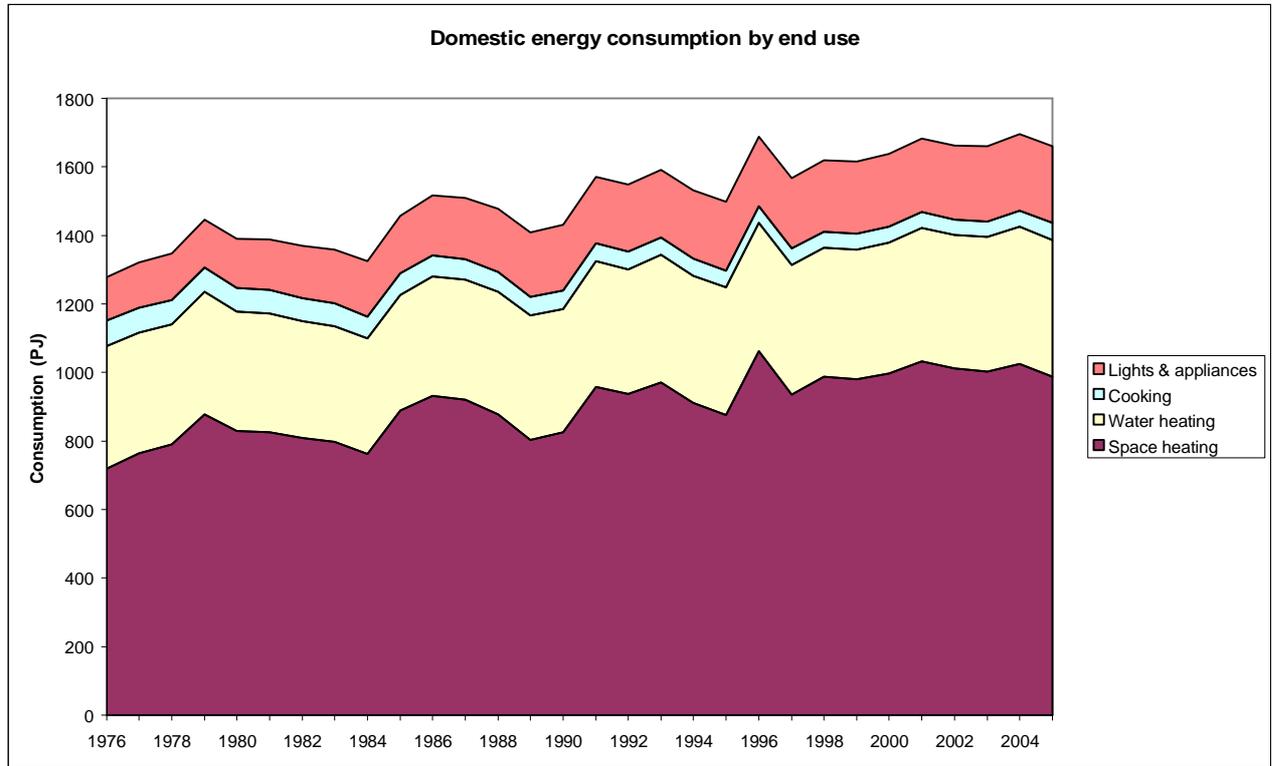


Figure 21E

The average energy use per household has remained very similar throughout the period although total energy consumption has risen due to an increase in the number of households.

Table 19E shows the energy consumption for space heating, water heating, cooking and lights and appliances for all households. It also gives the figures for space heating per household and all energy per household.

Domestic energy consumption by fuel – England

Figure 22E shows the energy use of the housing stock by fuel.

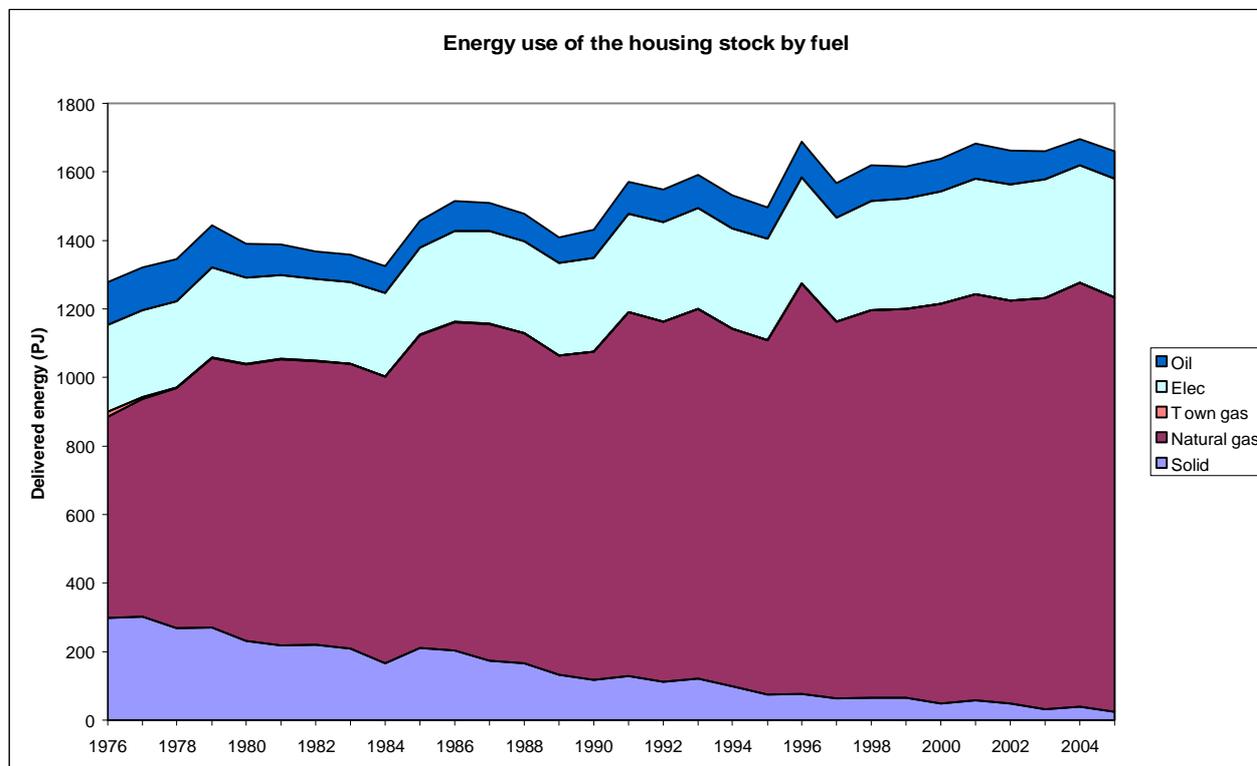


Figure 22E

During this period town gas has been phased out but in 2005 72.9% of domestic energy consumption was gas compared with 47.2% in 1976. In 1976 solid fuel made up 23.3% of the energy consumed whereas by 2005 this had fallen to 1.4%.

Table 20E shows the energy use of the housing stock by the different fuels.

Tables – England

Table 1E Average weekly expenditure on all goods and on fuel, light and power (£/week) - England

Year	Contemporary prices		2005 prices		% fuel light and power
	All goods	Fuel, light and power	All goods	Fuel, light and power	
1976	58.42	3.21	281.76	15.48	5.5%
1977	67.16	3.88	279.65	16.16	5.8%
1978	79.63	4.82	305.71	18.50	6.1%
1979	87.63	4.90	296.67	16.59	5.6%
1980	103.76	5.53	298.16	15.89	5.3%
1981	119.86	6.63	307.59	17.01	5.5%
1982	130.61	7.70	308.76	18.20	5.9%
1983	139.57	8.60	315.56	19.44	6.2%
1984	148.79	9.15	320.19	19.69	6.1%
1985	158.27	9.52	321.15	19.32	6.0%
1986	172.78	10.03	339.12	19.69	5.8%
1987	186.91	10.35	352.09	19.50	5.5%
1988	200.12	10.39	359.35	18.66	5.2%
1989	219.57	10.39	365.87	17.31	4.7%
1990	240.94	10.68	366.77	16.26	4.4%
1991	259.26	11.59	372.78	16.66	4.5%
1992	276.93	12.95	383.81	17.95	4.7%
1993	280.44	13.10	382.60	17.87	4.7%
1994	286.91	12.70	382.19	16.92	4.4%
1995	294.17	12.75	378.72	16.41	4.3%
1996	312.84	13.15	393.26	16.53	4.2%
1997	334.10	12.34	407.19	15.04	3.7%
1998	354.06	11.58	417.21	13.65	3.3%
1999	359.90	11.20	417.68	13.00	3.1%
2000	390.30	11.76	439.94	13.25	3.0%
2001	430.70	11.80	477.07	13.07	2.7%
2002	435.74	11.68	474.71	12.72	2.7%
2003	448.10	11.90	474.35	12.60	2.7%
2004	469.52	12.36	482.92	12.71	2.6%
2005	474.05	13.64	474.05	13.64	2.9%

Source: Family Expenditure Survey, Expenditure and Food Survey

Table 2E Population, households and household size - England

Year	Households (1,000s)	Population (1,000s)	Average household size
1970	15468	46162	2.98
1971	16012	46412	2.90
1972	16107	46572	2.89
1973	16251	46686	2.87
1974	16352	46683	2.85
1975	16455	46674	2.84
1976	16561	46660	2.82
1977	16680	46640	2.80
1978	16800	46638	2.78
1979	16929	46698	2.76
1980	17068	46787	2.74
1981	17362	46821	2.70
1982	17453	46777	2.68
1983	17585	46814	2.66
1984	17757	46912	2.64
1985	17942	47057	2.62
1986	18131	47188	2.60
1987	18335	47300	2.58
1988	18551	47412	2.56
1989	18778	47553	2.53
1990	18970	47699	2.51
1991	19166	47875	2.50
1992	19284	47998	2.49
1993	19395	48102	2.48
1994	19505	48229	2.47
1995	19618	48384	2.47
1996	19727	48519	2.46
1997	19816	48665	2.46
1998	19924	48821	2.45
1999	20052	49033	2.45
2000	20222	49233	2.43
2001	20523	49450	2.41
2002	20720	49647	2.40
2003	20904	49856	2.38
2004	21062	50094	2.38
2005	21291	50432	2.37

Source: www.communities.gov.uk

Table 3E Housing stock distribution by age (1,000s) - England

	PRE 1918	1918-1938	1939-1959	1960-1975	1976-	Total
1987	3755	3967	3454	4672	2489	18336
1988	3595	4045	3592	4557	2761	18550
1989	3716	3970	3486	4637	2968	18777
1990	3655	3833	3558	4637	3288	18970
1991	3800	3930	3562	4543	3332	19166
1992	3809	4013	3520	4443	3499	19284
1993	3714	3925	3735	4445	3576	19395
1994	3870	3941	3611	4432	3651	19505
1995	3938	3969	3626	4455	3628	19617
1996	3859	3956	3725	4409	3778	19727
1997	3673	4051	3767	4452	3872	19816
1998	3778	4050	3556	4342	4197	19924
1999	3878	3922	3576	4301	4373	20051
2000	3666	4073	3614	4516	4354	20222
2001	3833	4139	3516	4548	4487	20522
2002	3869	4179	3550	4591	4529	20719
2003	3874	4234	3592	4607	4596	20904
2004	3775	4095	3506	4810	4878	21063
2005	3801	4122	3535	4845	4987	21291

Source: GfK Home Audit

Table 4E Housing stock distribution by tenure (1,000s) - England

Year	Owner occupied	Local Authority	Private Rented	Registered social landlord & others	Total houses
1977	9296	5378	2006	-	16680
1978	9240	5455	2105	-	16800
1979	9290	5519	2120	-	16929
1980	9682	5142	2243	-	17068
1981	9535	5566	2261	-	17362
1982	9579	5551	2323	-	17453
1983	10658	4916	2011	-	17585
1984	10803	4836	2118	-	17757
1985	11350	4639	1953	-	17942
1986	11421	4730	1980	-	18131
1987	11983	4622	1124	607	18335
1988	12357	4525	1102	568	18551
1989	12812	4302	1109	555	18778
1990	13057	4110	1137	666	18970
1991	13177	4061	1264	664	19166
1992	13358	3954	1335	638	19284
1993	13190	4014	1421	771	19395
1994	13435	3894	1318	859	19505
1995	13494	3840	1425	858	19618
1996	13500	3857	1438	932	19727
1997	13400	4075	1477	863	19816
1998	13537	3911	1524	952	19924
1999	13753	3637	1700	962	20052
2000	13874	3672	1610	1066	20222
2001	14351	3346	1635	1191	20523
2002	14489	3378	1651	1202	20720
2003	14631	2934	1253	2085	20904
2004	14751	2985	1261	2066	21062
2005	14910	3023	1275	2083	21291

Source: GfK Home Audit

Note: Prior to 1987 RSL houses are included in Private rented

Table 5E Housing stock distribution by type of dwelling (1,000s) - England

Year	Semi Detached	Terraced	Flat	Detached	Bungalow	Other	Total
1987	5754	5446	2613	2667	1762	92	18335
1988	5880	5260	2806	2659	1824	121	18551
1989	5957	5289	2813	2856	1788	75	18778
1990	6060	5301	2769	2972	1808	61	18970
1991	6058	5435	2887	2945	1778	64	19166
1992	5919	5530	2965	3010	1801	58	19284
1993	5956	5457	3201	2840	1888	53	19395
1994	5888	5510	3331	2911	1809	56	19505
1995	5831	5583	3322	3064	1769	49	19618
1996	6030	5496	3318	3008	1828	47	19727
1997	5933	5449	3541	2961	1865	66	19816
1998	5917	5485	3460	3124	1872	66	19924
1999	5928	5648	3371	3233	1809	63	20052
2000	6069	5607	3317	3347	1823	60	20222
2001	6031	5723	3497	3347	1862	63	20523
2002	6089	5778	3531	3379	1880	64	20720
2003	6150	5834	3549	3409	1900	61	20904
2004	6223	5813	3617	3446	1900	64	21062
2005	6294	5870	3659	3483	1919	66	21291

Source: GfK Home Audit

Table 6E Ownership and depth of loft insulation (1,000s) - England

Year	<1" (<25mm)	1" (25mm)	2" (50mm)	3" (75mm)	4" (100mm) or more	Not stated	Total with	Potential	Total house holds
1976	380	820	2228	1738	384	1012	6562	12577	16561
1977	431	1238	2366	2087	558	692	7371	12743	16680
1978	312	1042	2313	2535	849	766	7817	12975	16800
1979	317	803	2377	3049	1285	1186	9016	13300	16929
1980	261	690	2833	3482	1695	757	9716	13677	17068
1981	264	974	2806	3528	2291	916	10780	13973	17362
1982	233	697	2960	3416	2959	1095	11359	14131	17453
1983	242	591	2561	3215	4308	1230	12145	14350	17585
1984	205	571	2421	3500	5237	1151	13084	14765	17757
1985	128	782	2035	2704	5586	1792	13026	14869	17942
1986	164	657	2001	3140	6080	1511	13553	15160	18131
1987	255	731	1800	3063	6448	1415	13712	15226	18335
1988	114	484	1719	3112	6842	1606	13877	15442	18551
1989	130	488	1784	3236	6665	1750	14053	15480	18778
1990	148	492	1963	3311	6955	1595	14464	15826	18970
1991	98	550	1763	3451	6461	1879	14202	15734	19166
1992	237	389	1641	3008	6848	2170	14292	15726	19284
1993	161	295	1870	3045	6728	2421	14520	15984	19395
1994	95	343	1496	2561	7354	2279	14128	15495	19505
1995	112	267	1419	2558	7580	2442	14378	15679	19618
1996	121	348	1426	2388	7948	2525	14756	15994	19727
1997	49	265	1318	2850	8494	1842	14819	15905	19816
1998	101	290	1408	2363	8537	2162	14860	15879	19924
1999	57	281	1128	2904	8250	2154	14774	15960	20052
2000	53	198	1354	2828	8051	2073	14556	16323	20222
2001	28	130	999	2479	9150	2159	14946	16375	20523
2002	28	133	1010	2504	9283	2198	15158	16532	20720
2003	29	142	1006	2478	9443	2312	15409	16756	20904
2004	29	138	1007	2574	9621	2201	15571	16850	21062
2005	29	139	1016	2605	9760	2227	15777	17030	21291

Source: GfK Home Audit

Table 7E Ownership and depth of loft insulation for those dwellings with 4" (100mm) or more of insulation (1,000s) - England

Year	4" (100mm)	5" (125mm)	5" (125mm) or more	6" (150mm) or more	Total 4" (100mm) or more	potential	total with insulation
1987	4351		2096		6448	15226	13712
1988	4435		2407		6842	15442	13877
1989	4255		2409		6665	15480	14053
1990	4427		2529		6955	15826	14464
1991	3756		2705		6461	15734	14202
1992	4225		2624		6848	15726	14292
1993	4092		2636		6728	15984	14520
1994	3851	1210		2292	7354	15495	14128
1995	3575	1305		2700	7580	15679	14378
1996	3814	1167		2968	7948	15994	14756
1997	3957	1323		3214	8494	15905	14819
1998	3941	1651		2945	8537	15879	14860
1999	3724	1386		3140	8250	15960	14774
2000	4032	1173		2846	8051	16323	14556
2001	4144	1892		3114	9150	16375	14946
2002	4189	1914		3180	9283	16532	15158
2003	4230	1976		3236	9443	16756	15409
2004	4269	1961		3391	9621	16850	15571
2005	4309	1975		3476	9760	17030	15777

Source: GfK Home Audit

Table 8E Ownership of cavity wall insulation (1,000s) - England

Year	Houses with cavity insulation	Not known if cavity insulated	Potential (houses with cavity walls)	Total households
1976	406		10813	16561
1977	527		11049	16680
1978	564		11247	16800
1979	848		11405	16929
1980	950		11583	17068
1981	1079	2097	11846	17362
1982	1160	2357	11958	17453
1983	1478	2360	12119	17585
1984	1771	2281	12314	17757
1985	2062	2031	12475	17942
1986	2131	2288	12638	18131
1987	2253	2562	12986	18335
1988	2429	2658	13048	18551
1989	2641	2634	13386	18778
1990	2810	2968	13510	18970
1991	2918	3252	13728	19166
1992	3225	3603	14061	19284
1993	3044	3182	13554	19395
1994	3145	3923	13576	19505
1995	3254	4159	13678	19618
1996	3432	4607	14183	19727
1997	3512	4468	14321	19816
1998	3692	4275	13966	19924
1999	4084	1498	14192	20052
2000	4670	1640	14219	20222
2001	4761	1883	14942	20523
2002	4993	1593	15086	20720
2003	5182	1595	15243	20904
2004	5596	1539	15565	21062
2005	5835	6739	15757	21291

Source: GfK Home Audit

Table 9E Ownership of double glazing (1,000s) - England

Year	Less than 20% of rooms	20% to 39% of rooms	40% to 59% of rooms	60% to 79% of rooms	80% or more of rooms	Not stated	Total with double glazing	Potential
1976						1697	1697	16561
1977						2139	2139	16680
1978						2567	2567	16800
1979						2927	2927	16929
1980						3455	3455	17068
1981						3794	3794	17362
1982						4185	4185	17453
1983						5010	5010	17585
1984	721	930	830	717	1688	121	5006	17757
1985	708	1058	900	836	1643	624	5768	17942
1986	729	1110	1041	1045	2038	325	6289	18131
1987	1312	1203	1132	1192	2560	82	7482	18335
1988	1099	1224	1011	1196	2852	606	7987	18551
1989	1085	1158	1150	1399	3177	679	8648	18778
1990	996	1273	1132	1444	3782	591	9219	18970
1991	1014	1295	1143	1674	4169	545	9840	19166
1992	979	1103	1216	1640	4471	639	10048	19284
1993	863	1222	1174	1982	4819	532	10591	19395
1994	844	927	1178	1976	6167	548	11640	19505
1995	788	887	1135	1877	6600	550	11837	19618
1996	646	810	1046	2047	7215	539	12302	19727
1997	526	818	1122	2181	7030	1660	13336	19816
1998	513	716	907	2287	7601	1296	13320	19924
1999	525	792	884	2104	8309	1233	13847	20052
2000	436	511	836	2310	7846	2481	14421	20222
2001	382	528	817	2049	8601	3045	15420	20523
2002	386	532	825	2069	8685	3665	16162	20720
2003	398	534	816	2103	8945	4116	16914	20904
2004	391	528	799	2142	9128	4487	17473	21062
2005	394	532	805	2163	9253	4751	17898	21291

Source: GfK Home Audit

Table 10E Ownership of draught proofing (1,000s) - England

Year	Less than 20% of rooms	20% to 39% of rooms	40% to 59% of rooms	60% to 79% of rooms	80% or more of rooms	Not stated	Total with draught proofing	Potential (Total house holds)
1987	2407	2828	1773	1550	3418	82	12059	18335
1988	2136	2795	1645	1505	3591	606	12279	18551
1989	2022	2619	1654	1689	3849	679	12512	18778
1990	1963	2542	1719	1671	4440	591	12927	18970
1991	1848	2687	1628	1935	4833	561	13492	19166
1992	1730	2390	1642	1904	5132	652	13451	19284
1993	1616	2475	1595	2254	5459	546	13944	19395
1994	1419	1865	1514	2246	6895	570	14509	19505
1995	1269	1754	1605	2192	7454	568	14842	19618
1996	1078	1618	1451	2337	8024	548	15054	19727
1997	974	1513	1480	2452	7654	1675	15748	19816
1998	965	1366	1262	2538	8288	1309	15727	19924
1999	843	1356	1225	2336	8786	1268	15814	20052
2000	836	1155	1176	2451	8403	2498	16520	20222
2001	629	954	992	2188	8956	3096	16815	20523
2002	504	944	1033	2326	9005	3679	17491	20720
2003	461	903	1041	2372	9283	4127	18187	20904
2004	476	790	911	2239	9268	4489	18173	21062
2005	488	785	918	2276	9397	4755	18618	21291

Source: GfK Home Audit

Table 11E Ownership of hot water tank insulation (1,000s) - England

Year	1" (25mm) or less	2" (50mm)	3" (75mm)	3" (75mm) or more	>3" (75mm)	Not stated	Total with	Potential	Total Homes
1976	2629	4282	-	2507	-	1270	10688	14110	16561
1977	3201	3997	-	2343	-	1941	11482	14278	16680
1978	2681	4302	2300	-	604	1743	11628	14206	16800
1979	3337	5034	2469	-	685	972	12497	14655	16929
1980	2721	5589	3278	-	794	611	12993	14869	17068
1981	3000	5336	3246	-	1027	547	13156	14901	17362
1982	3200	5470	3083	-	1005	639	13396	14979	17453
1983	3134	5712	3151	-	1306	665	13967	15362	17585
1984	2937	5715	3189	-	1548	1047	14435	15660	17757
1985	2410	5786	4114	-	1602	1290	15202	16236	17942
1986	2686	5976	3589	-	1584	1486	15322	16331	18131
1987	1853	4909	6484	-	1589	874	15708	16617	18335
1988	1615	5013	6687	-	1591	847	15754	16760	18551
1989	1503	4468	7720	-	1281	1125	16097	16967	18778
1990	1546	4216	7991	-	1535	839	16127	17034	18970
1991	1413	4201	8311	-	1500	888	16314	17160	19166
1992	1389	3790	8184	-	1652	939	15954	16882	19284
1993	1080	3698	8635	-	1339	1158	15909	16933	19395
1994	863	3389	8989	-	1544	1212	15997	16881	19505
1995	1061	3076	9352	-	1369	961	15818	16698	19618
1996	1061	2777	9191	-	1677	927	15634	16466	19727
1997	1079	2993	9781	-	1597	685	16136	16830	19816
1998	900	2653	9990	-	1092	815	15449	16403	19924
1999	857	2251	10229	-	928	910	15175	16069	20052
2000	654	2352	10247	-	944	904	15101	16083	20222
2001	593	1816	10268	-	1142	1109	14929	15693	20523
2002	599	1833	10367	-	1154	1132	15084	15881	20720
2003	577	1839	10470	-	1080	1139	15106	15923	20904
2004	566	1824	10598	-	1084	1152	15224	16050	21062
2005	570	1837	10718	-	1094	1170	15388	16235	21291

Source: GfK Home Audit

Table 12E Households with full and no insulation measures (1,000s) - England

Year	Total households with no insulation	Total households with full insulation	Total households
1987	3231	560	18335
1988	3364	772	18551
1989	3191	851	18778
1990	2979	875	18970
1991	2976	992	19166
1992	2899	1162	19284
1993	2854	1199	19395
1994	2849	1687	19505
1995	2846	1904	19618
1996	2485	1881	19727
1997	2261	1750	19816
1998	2326	2305	19924
1999	2537	2567	20052
2000	2371	2350	20222
2001	2605	2636	20523
2002	2220	2616	20720
2003	2003	2985	20904
2004	1878	3064	21062
2005	1476	3455	21291

Source: GfK Home Audit

Table 13E Domestic energy consumption and external temperatures - England

Year	Total households (1,000s)	Total delivered energy (PJ)	Average external temperature (oC)	Average consumption per dwelling (GJ)
1976	16561	1279	5.7	77.2
1977	16680	1322	6.4	79.2
1978	16800	1347	6.1	80.2
1979	16929	1445	5.0	85.4
1980	17068	1391	5.6	81.5
1981	17362	1389	5.3	80.0
1982	17453	1369	6.1	78.5
1983	17585	1358	6.5	77.2
1984	17757	1325	6.0	74.6
1985	17942	1457	5.0	81.2
1986	18131	1516	5.5	83.6
1987	18335	1509	5.3	82.3
1988	18551	1477	6.4	79.6
1989	18778	1409	6.4	75.0
1990	18970	1431	7.3	75.4
1991	19166	1571	5.9	82.0
1992	19284	1548	5.6	80.3
1993	19395	1591	5.7	82.0
1994	19505	1531	6.8	78.5
1995	19618	1498	6.4	76.4
1996	19727	1688	5.3	85.6
1997	19816	1568	7.0	79.1
1998	19924	1620	7.2	81.3
1999	20052	1615	7.1	80.6
2000	20222	1638	6.6	81.0
2001	20523	1683	6.0	82.0
2002	20720	1663	7.1	80.3
2003	20904	1660	6.1	79.4
2004	21062	1695	6.5	80.5
2005	21291	1660	6.6	78.0

Source: www.communities.gov.uk, Digest of UK Energy Statistics, Family Expenditure Survey, temperatures calculated from Degree Day figures for West Pennines.

Table 14E Heat loss of the average dwelling - England

Year	Households (1,000s)	Average dwelling heat loss (W/oC)	Stock heat loss (GW/oC)
1976	16561	351.0	5.81
1977	16680	344.8	5.75
1978	16800	338.9	5.69
1979	16929	333.9	5.65
1980	17068	326.6	5.57
1981	17362	320.9	5.57
1982	17453	314.8	5.49
1983	17585	308.6	5.43
1984	17757	306.8	5.45
1985	17942	304.2	5.46
1986	18131	300.2	5.44
1987	18335	297.0	5.45
1988	18551	295.2	5.48
1989	18778	294.1	5.52
1990	18970	290.7	5.51
1991	19166	288.7	5.53
1992	19284	282.9	5.45
1993	19395	282.1	5.47
1994	19505	280.0	5.46
1995	19618	277.3	5.44
1996	19727	275.0	5.42
1997	19816	272.0	5.39
1998	19924	272.1	5.42
1999	20052	271.0	5.44
2000	20222	271.2	5.48
2001	20523	268.4	5.51
2002	20720	266.8	5.53
2003	20904	263.4	5.51
2004	21062	260.3	5.48
2005	21291	257.8	5.49

Source: BREHOMES

Table 15E Central heating ownership (1,000s) - England

Year	No central heating	With central heating	Total households
1983	5898	11687	17585
1984	5651	12106	17757
1985	5214	12728	17942
1986	4887	13244	18131
1987	4508	13827	18335
1988	4482	14069	18551
1989	4073	14705	18778
1990	3904	15066	18970
1991	3458	15708	19166
1992	3292	15993	19284
1993	3052	16343	19395
1994	2778	16727	19505
1995	2667	16951	19618
1996	2567	17160	19727
1997	2539	17277	19816
1998	2254	17670	19924
1999	2193	17859	20052
2000	2239	17983	20222
2001	2039	18484	20523
2002	2059	18661	20720
2003	1826	19078	20904
2004	1796	19266	21062
2005	1811	19479	21291

Source: GfK Home Audit

Table 16E Main form of heating – centrally heated dwellings (1,000s) - England

	Solid fuel	Electric storage	Electric other	All electric	Gas	Oil	Other	Total
1983	1168	779	444	1223	8575	485	237	11687
1984	1013	1063	529	1592	8854	463	184	12106
1985	1208	1038	448	1487	9269	434	331	12728
1986	1174	934	376	1310	10065	429	266	13244
1987	1144	1019	311	1331	10518	495	340	13827
1988	1161	1083	355	1438	10621	520	330	14069
1989	962	1186	446	1632	11306	465	340	14705
1990	957	1285	369	1654	11591	484	380	15066
1991	972	1417	342	1759	12075	535	368	15708
1992	785	1489	324	1812	12567	490	338	15993
1993	729	1567	301	1868	12877	556	314	16343
1994	645	1449	391	1840	13363	527	352	16727
1995	587	1463	306	1769	13563	588	444	16951
1996	607	1613	298	1910	13422	716	504	17160
1997	613	1686	318	2004	13508	749	404	17277
1998	541	1595	202	1797	14322	609	401	17670
1999	538	1631	387	2017	14241	665	398	17859
2000	453	1622	352	1974	14540	656	362	17983
2001	464	1476	315	1792	15069	757	402	18484
2002	515	1563	414	1976	15042	839	288	18661
2003	380	1269	362	1632	16156	705	205	19078
2004	226	972	494	1466	16525	835	215	19266
2005	173	961	501	1462	16769	745	330	19479

Source: GfK Home Audit

Table 17E Main form of heating – non centrally heated dwellings (1,000s) - England

	Solid fuel	electric	Gas	Oil	Other	Total
1983	1290	741	3636	71	159	5898
1984	1202	684	3601	45	120	5651
1985	1049	576	3460	25	103	5214
1986	923	477	3340	18	130	4887
1987	747	505	3135	21	100	4508
1988	716	562	3068	20	116	4482
1989	707	442	2805	15	104	4073
1990	669	458	2686	5	87	3904
1991	573	364	2418	15	87	3458
1992	505	390	2305	9	82	3292
1993	436	355	2176	5	80	3052
1994	441	346	1918	3	69	2778
1995	379	390	1817	7	73	2667
1996	405	338	1756	3	64	2567
1997	372	472	1641	2	52	2539
1998	363	336	1498	2	55	2254
1999	223	333	1577	5	56	2193
2000	195	415	1591	0	38	2239
2001	248	587	1149	0	56	2039
2002	253	773	992	0	42	2059
2003	248	645	906	0	27	1826
2004	347	422	994	0	34	1796
2005	145	816	835	0	15	1811

Source: GfK Home Audit

Table 18E Weighted average space heating efficiencies - England

Year	Central heating efficiency	Non-central heating efficiency	Average efficiency
1983	68.1%	50.5%	61.0%
1984	68.8%	50.9%	61.8%
1985	68.4%	50.6%	62.1%
1986	68.0%	50.6%	62.2%
1987	67.9%	51.3%	62.9%
1988	68.1%	51.8%	63.3%
1989	68.3%	51.1%	63.8%
1990	68.3%	51.3%	64.1%
1991	68.3%	51.2%	64.5%
1992	68.4%	51.7%	64.8%
1993	69.4%	51.9%	65.9%
1994	69.3%	51.7%	66.1%
1995	69.2%	52.7%	66.4%
1996	69.9%	52.0%	66.9%
1997	70.5%	53.5%	67.7%
1998	70.7%	52.3%	68.0%
1999	71.0%	53.6%	68.5%
2000	71.0%	54.6%	68.7%
2001	71.6%	57.2%	69.8%
2002	72.6%	59.9%	71.1%
2003	72.9%	58.6%	71.4%
2004	73.7%	53.9%	71.5%
2005	74.7%	63.4%	73.6%

Source: BREHOMES

Table 19E Domestic energy consumption by end use - England

Year	Space heating (PJ)	Water heating (PJ)	Cooking (PJ)	Lights & appliances (PJ)	All energy (PJ)	Space heating per household (GJ)	All energy per household (GJ)
1976	720.4	357.2	73.3	128.1	1279	43.5	77.2
1977	764.9	352.1	72.5	132.3	1322	45.9	79.2
1978	789.7	350.1	71.4	135.9	1347	47.0	80.2
1979	878.7	356.3	70.5	140.0	1445	51.9	85.4
1980	828.5	348.5	69.5	144.4	1391	48.5	81.5
1981	826.1	345.2	68.5	148.7	1388	47.6	80.0
1982	809.2	340.3	67.2	152.5	1369	46.4	78.5
1983	797.9	337.6	65.6	156.8	1358	45.4	77.2
1984	762.4	336.2	63.9	162.3	1325	42.9	74.6
1985	889.0	337.3	62.4	168.4	1457	49.6	81.2
1986	931.5	349.1	60.6	174.5	1516	51.4	83.6
1987	919.8	350.8	58.8	179.9	1509	50.2	82.3
1988	878.2	357.3	57.0	184.3	1477	47.3	79.6
1989	803.2	362.3	55.3	188.2	1409	42.8	75.0
1990	824.5	361.4	53.6	191.3	1431	43.5	75.4
1991	956.9	368.0	52.3	193.9	1571	49.9	82.0
1992	936.6	364.3	51.0	196.4	1548	48.6	80.3
1993	971.5	371.7	49.8	197.6	1591	50.1	82.0
1994	911.8	370.4	48.9	199.6	1531	46.7	78.5
1995	874.7	373.2	48.4	201.9	1498	44.6	76.4
1996	1061.0	375.5	47.8	203.9	1688	53.8	85.6
1997	934.7	379.5	47.5	206.0	1568	47.2	79.1
1998	987.5	376.8	47.1	208.2	1619	49.6	81.3
1999	979.6	378.8	46.8	210.2	1615	48.9	80.6
2000	997.2	381.3	46.4	212.8	1638	49.3	81.0
2001	1031.4	390.8	45.9	214.6	1683	50.3	82.0
2002	1010.9	389.7	45.9	216.5	1663	48.8	80.3
2003	1001.8	393.7	45.6	218.7	1660	47.9	79.4
2004	1024.5	401.4	45.7	223.0	1695	48.6	80.5
2005	987.6	399.4	49.0	223.7	1660	46.4	78.0

Source: BREHOMES

Table 20E Energy use of the housing stock by fuel (PJ) - England

Year	Solid fuel	Natural gas	Town gas	Gas (total)	Electric	Oil	All fuels
1976	298	588	14	603	253	125	1279
1977	301	636	4	641	254	125	1322
1978	269	699	2	701	252	125	1347
1979	270	787	2	790	263	123	1445
1980	232	807	2	809	251	99	1391
1981	219	835	2	837	244	89	1388
1982	220	827	1	829	239	82	1369
1983	209	830	1	831	239	79	1358
1984	165	837	1	839	243	79	1325
1985	210	913	1	915	253	79	1457
1986	203	959	1	960	266	87	1516
1987	174	982	1	983	270	82	1509
1988	166	963	0	963	268	79	1477
1989	132	931	0	931	270	75	1409
1990	117	958	0	958	273	82	1431
1991	129	1062	0	1062	286	94	1571
1992	111	1051	0	1051	291	95	1548
1993	121	1080	0	1080	293	97	1591
1994	99	1043	0	1043	292	96	1531
1995	75	1034	0	1034	295	93	1498
1996	77	1198	0	1198	309	104	1688
1997	64	1099	0	1099	303	102	1568
1998	66	1129	0	1129	319	104	1619
1999	66	1133	0	1133	323	93	1615
2000	49	1165	0	1165	328	95	1638
2001	58	1185	0	1185	338	102	1683
2002	49	1175	0	1175	339	100	1663
2003	33	1199	0	1199	345	82	1660
2004	39	1238	0	1238	343	75	1695
2005	23	1210	0	1210	347	79	1660

Source: Digest of UK Energy Statistics, Family Expenditure Survey, Expenditure and Food Survey

SCOTLAND

The information on Scotland is divided into a number of sections which are listed in the main contents table. It starts by looking at household expenditure and the money spent on fuel, light and power . This is followed by charts that relate to the number of households and the houses they live in. Sections on the different types of insulation in the fabric of the house follow. Hot water tank insulation is considered before an overall assessment of insulation is made. Energy consumption is compared to changes in external temperature and heat losses for the average household are calculated. The following sections relate to heating systems. Finally the energy consumption is split into different end uses and different fuels. Charts illustrating the information appear within the text but the tables on which they are based appear at the end of the section on pages 87 to 106.

Household expenditure on fuel, light and power – Scotland

The percentage of expenditure on fuel, light and power is decreasing as shown in figure 1S.

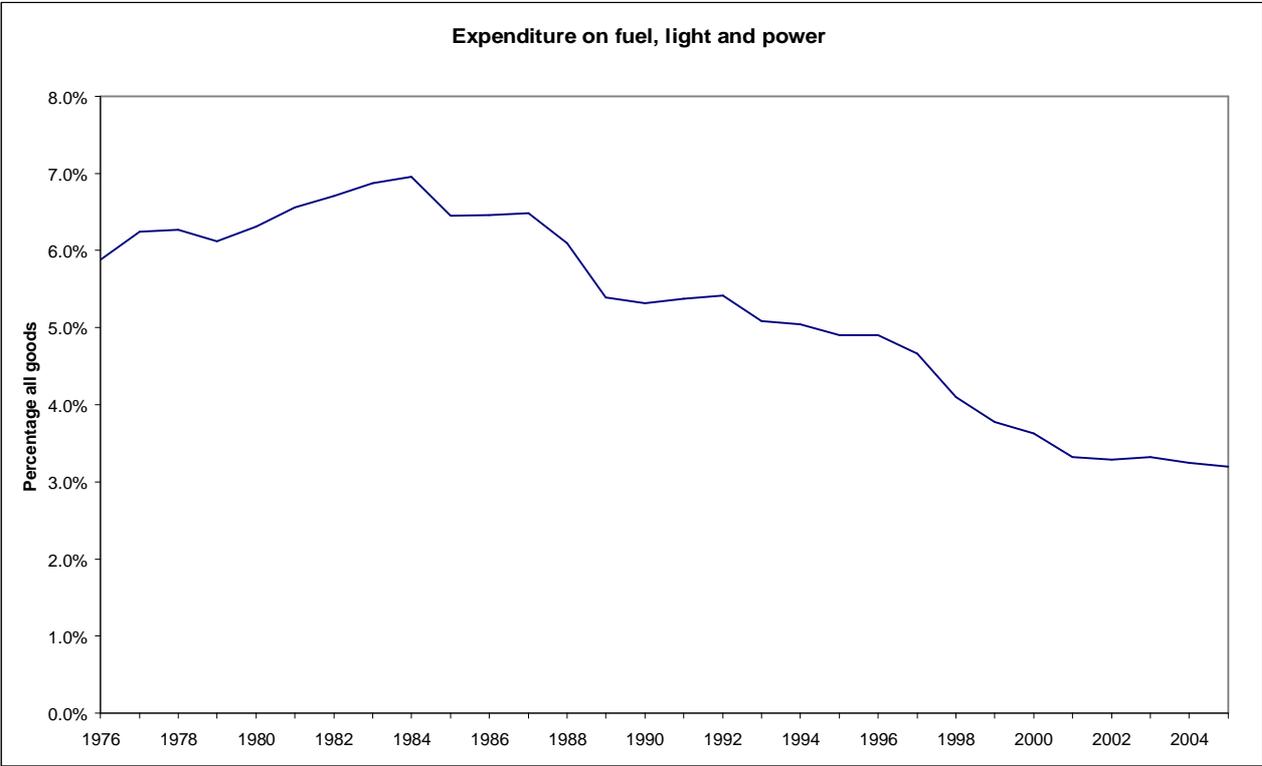


Figure 1S

It has decreased from 5.9% in 1976 to 3.2% in 2005.

Figure 2S shows how expenditure on all goods has risen compared to that on fuel, light and power.

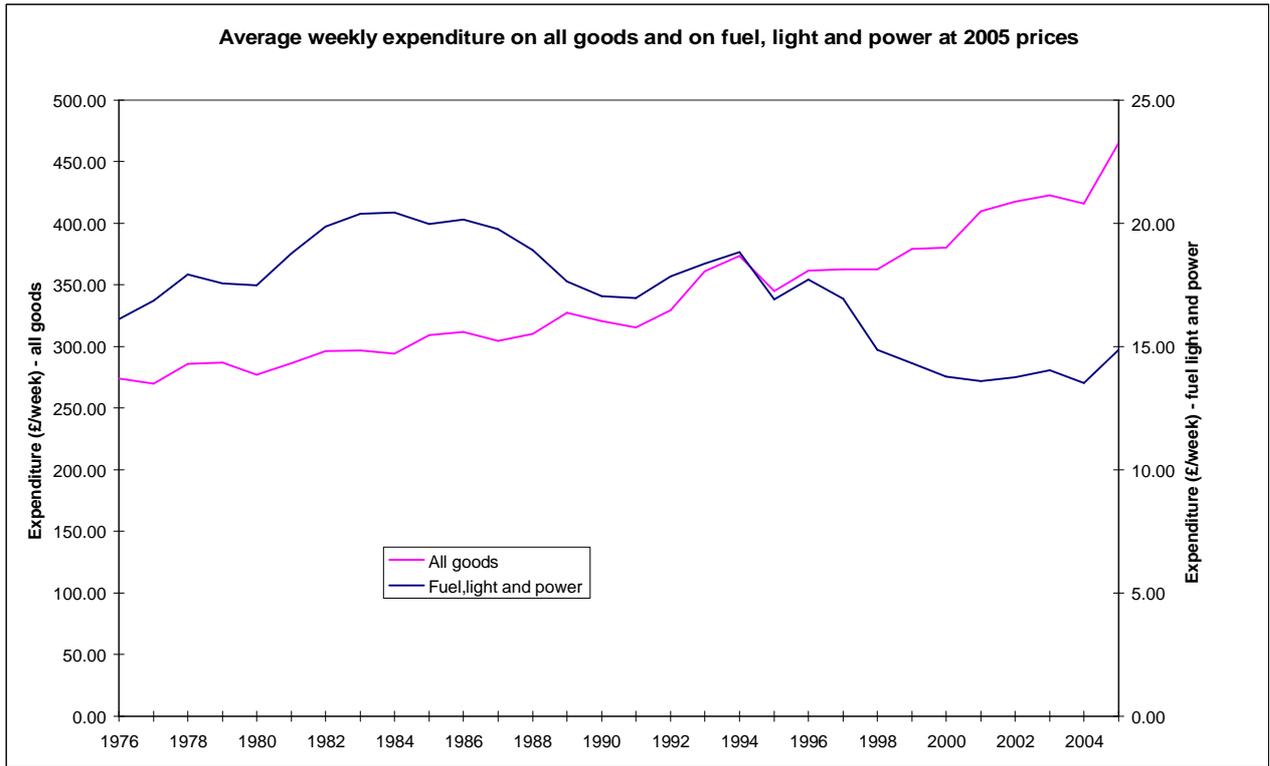


Figure 2S

Table 1S on page 87 shows the average weekly expenditure on all goods and on fuel, light and power both in contemporary prices and adjusted to 2005 prices by using the retail price index.

Population and household numbers – Scotland

The number of households continues to increase while the number of people per household falls. Figure 3S shows the household and population numbers for Scotland.

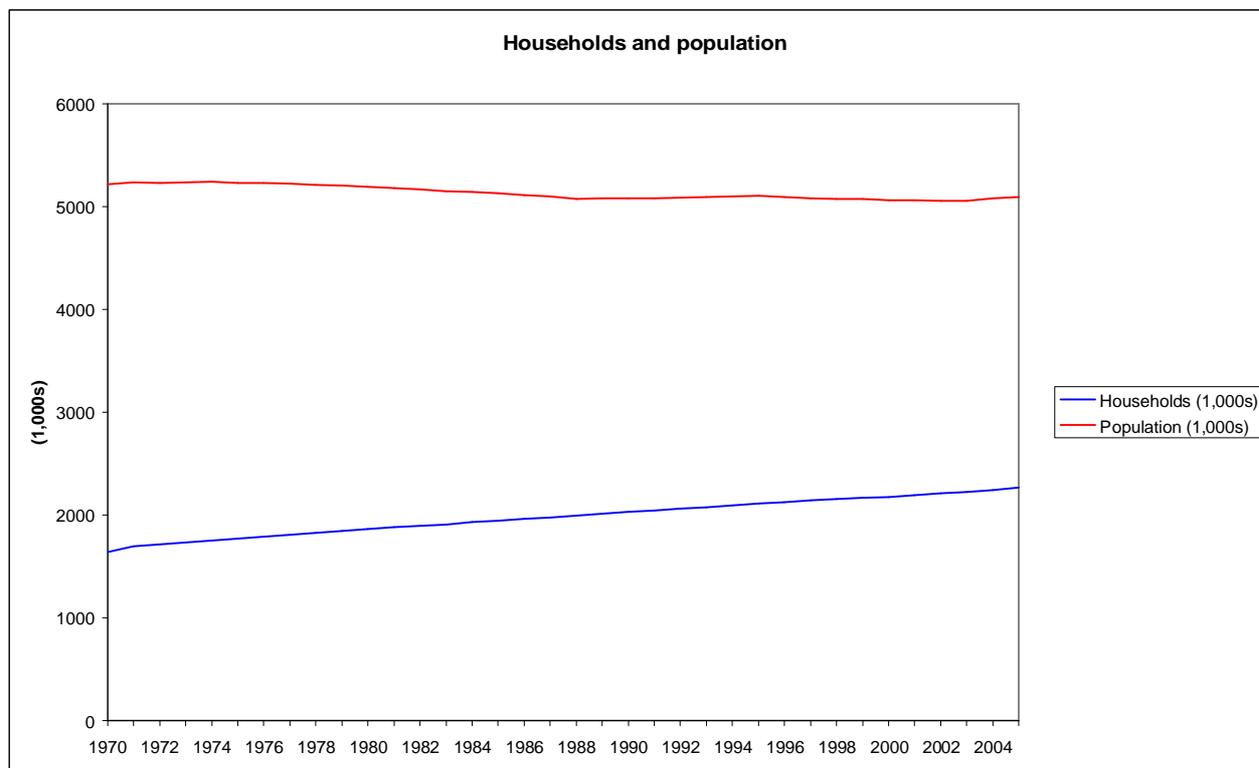


Figure 3S

The average household size has decreased from 3.17 to 2.25 between 1970 and 2005.

Since the previous Country fact file was published some government figures, for population and households in the years included in it, have been revised as a result of the 2001 census. This means there may be small differences in tables produced for this fact file from those in the earlier publication.

Table 2S shows the population, number of households and average household size, for Scotland, for the years 1970-2005.

Age of the housing stock – Scotland

Figure 4S shows the age distribution within the housing stock.

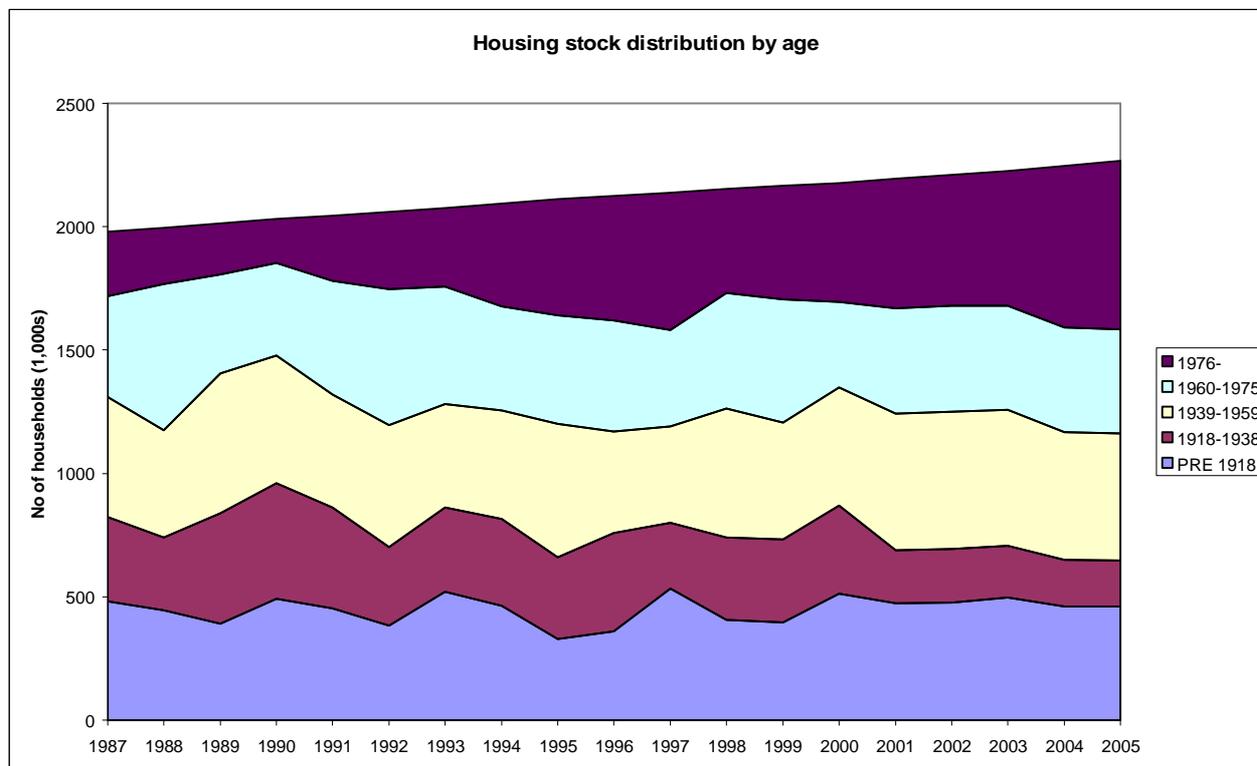


Figure 4S

The number of new dwellings built each year is increasing the post 1976 category. Variations in the other categories are made up from demolitions, conversions and statistical variations due to sample size.

Table 3S shows the number of dwellings in each age category from 1987 to 2005.

Housing stock distribution by tenure – Scotland

Figure 5S shows the tenure distribution of the housing stock.

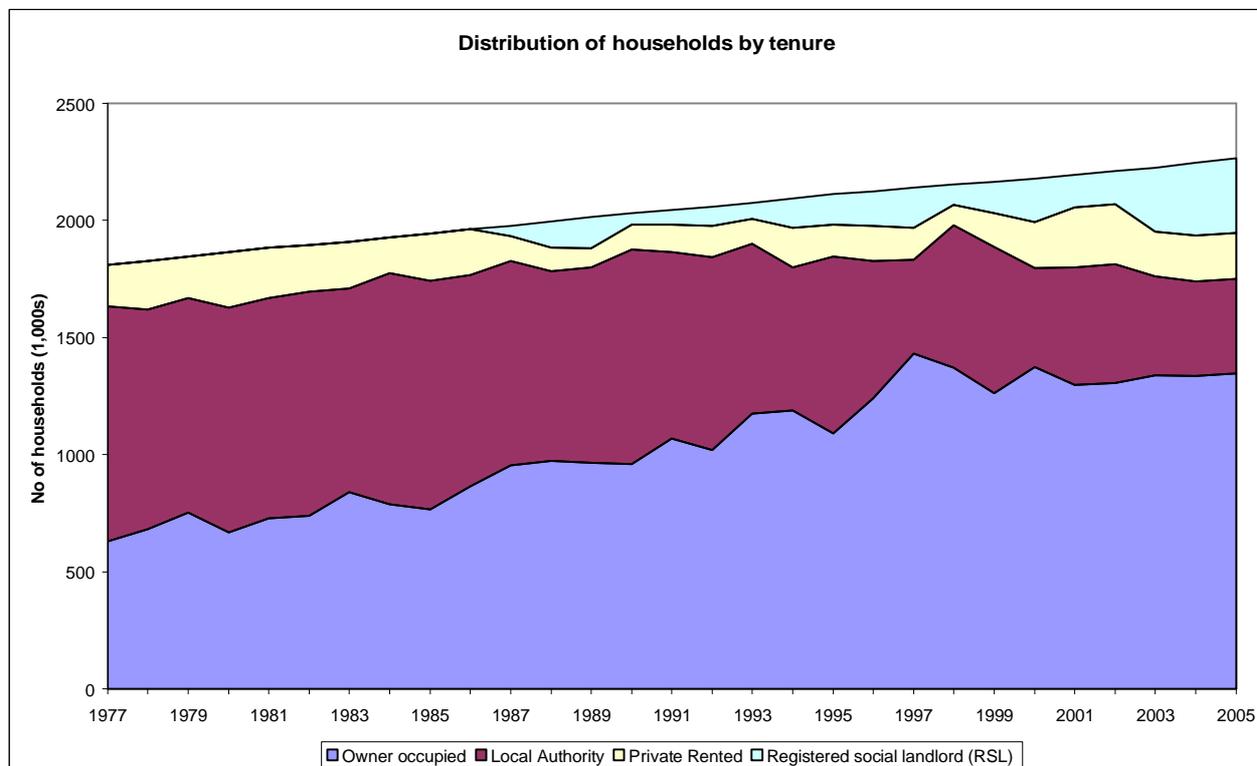


Figure 5S

Before 1987 figures for registered social landlords and private rented tenancies are combined.

The number of those owning their houses is increasing. In 1977 35% of households were owner occupied. By 2005 this had risen to 59%.

Table 4S shows the number of households of each tenure from 1977 to 2005.

House types – Scotland

Figure 6S shows the distribution of the housing stock by type of dwelling.

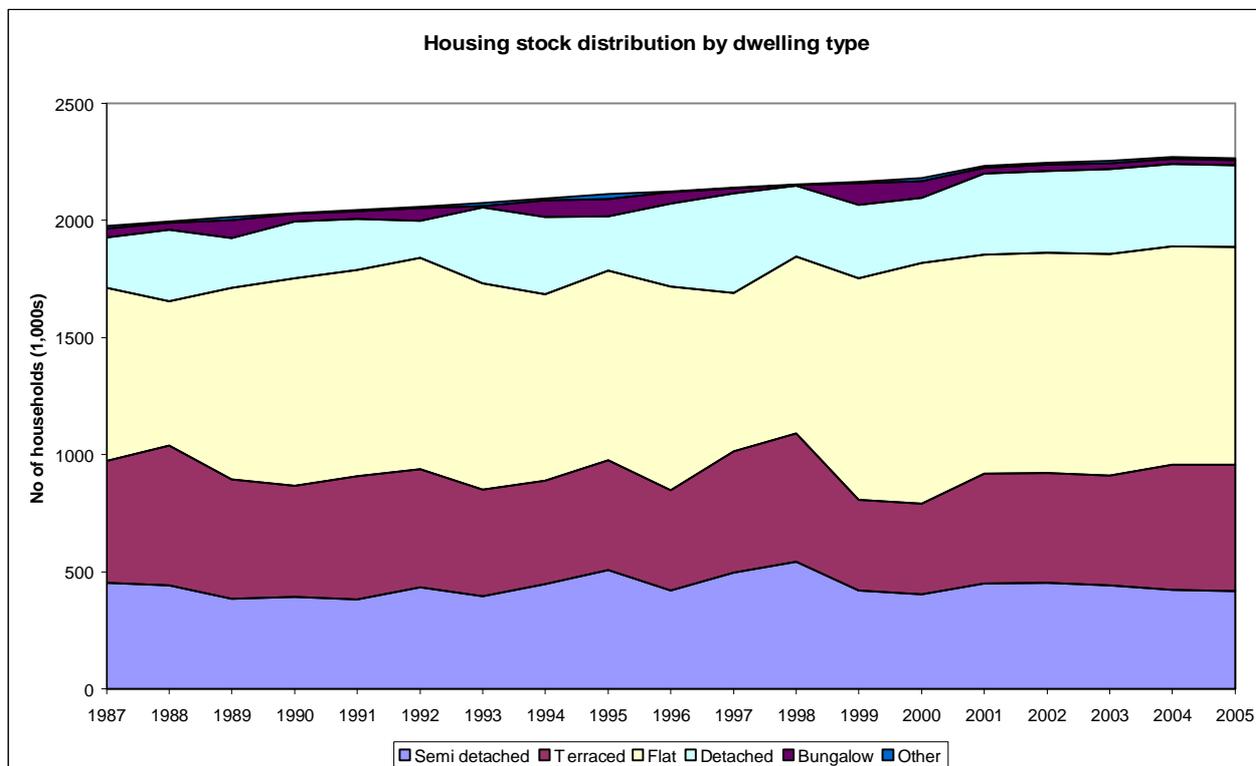


Figure 6S

Although the number of dwellings is increasing the proportions of each house type are changing very little. There is a slight increase in flats and detached houses and a corresponding drop in the proportion of semi-detached and terraced.

Figure 7S shows the proportion of each house type in 2005.

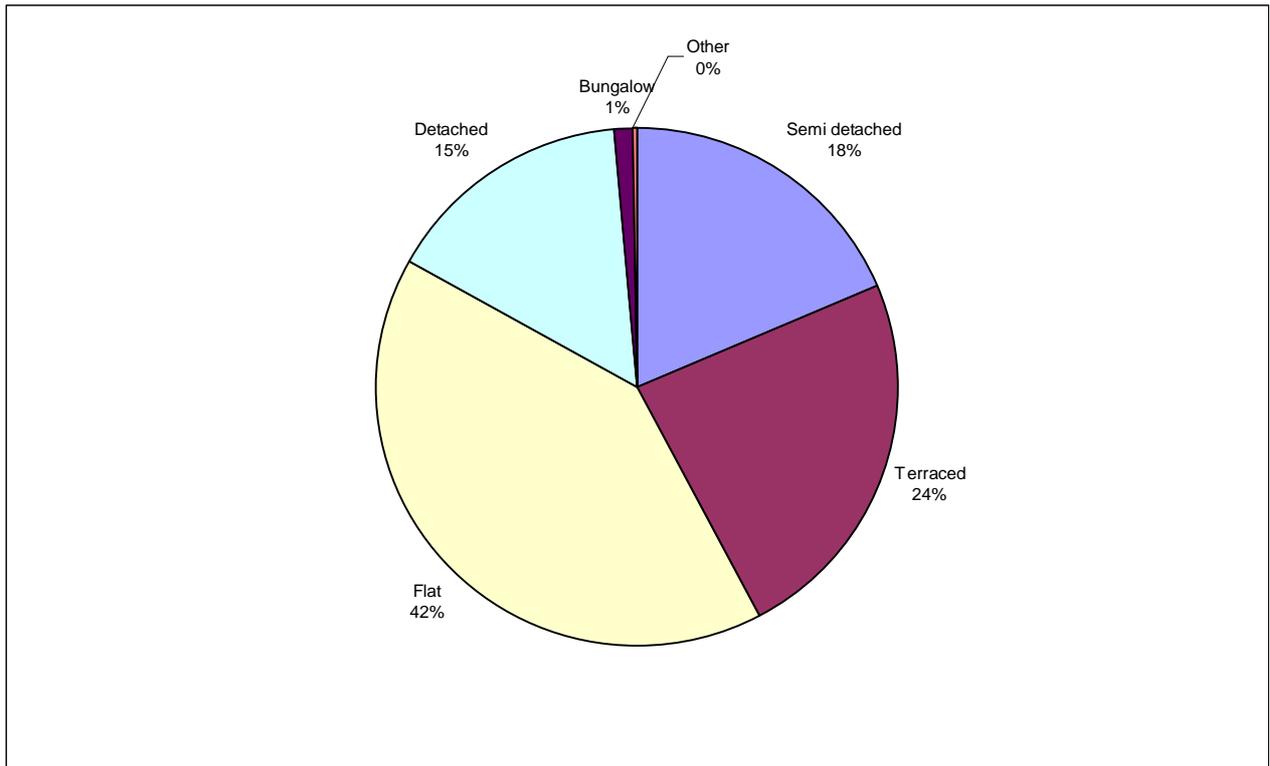


Figure 7S

Table 5S shows the number of households in each dwelling type from 1987 to 2005.

Loft insulation – Scotland

The ownership of loft insulation is shown in figure 8S.

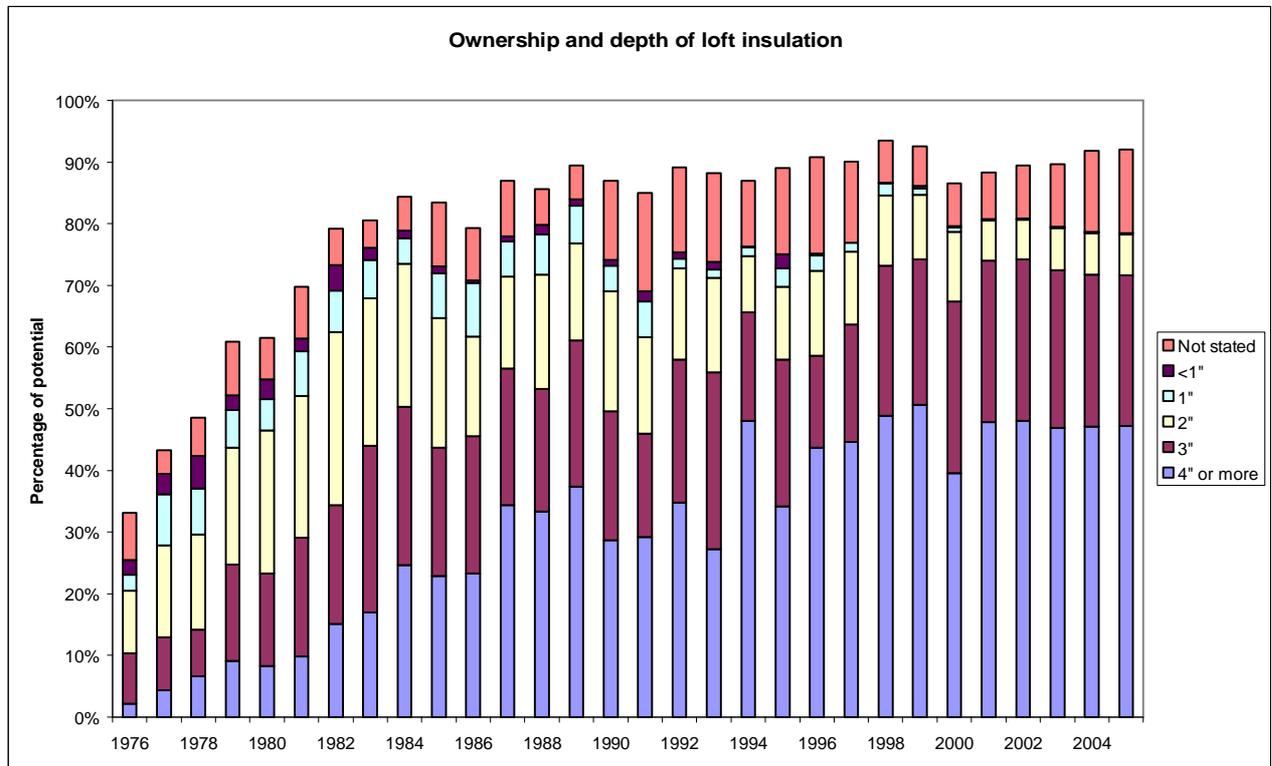


Figure 8S

92.1% of lofts now have some loft insulation. This has risen from 33.1% in 1976. In 1998, 1999 and 2004 ownership levels of 92% or 93% were also achieved showing that the market for loft insulation for uninsulated lofts has virtually saturated. However figure 8S also shows that there has been an increase from 2.2% to 47.2% of those with 4 inches (100mm) or more of loft insulation, between 1976 and 2005.

Figure 9S shows the 4 inches (100mm) or more category in more detail from 1987 to 2005.

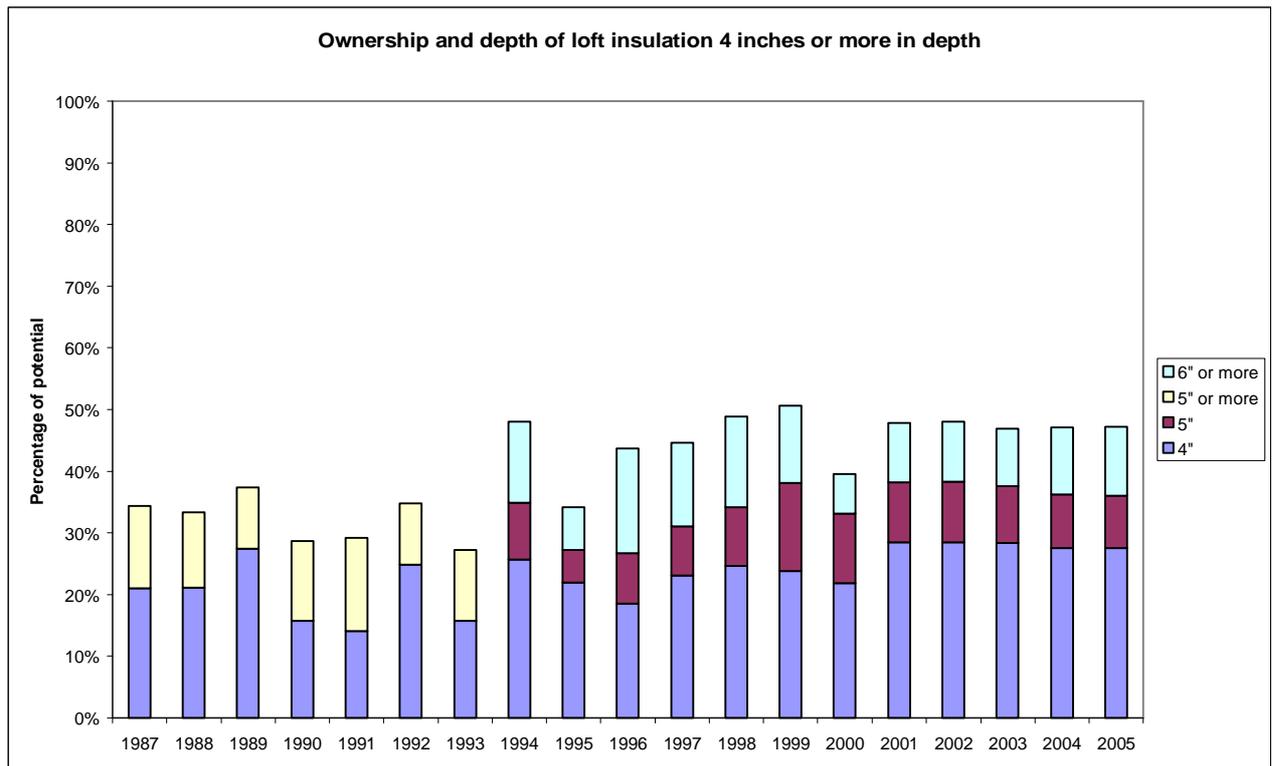


Figure 9S

Table 6S shows ownership and depth of loft insulation from 1976 to 2005.

Table 7S shows the details for those with 4 inches (100mm) or more of insulation.

Cavity wall insulation – Scotland

Figure 10S shows the ownership of cavity wall insulation.

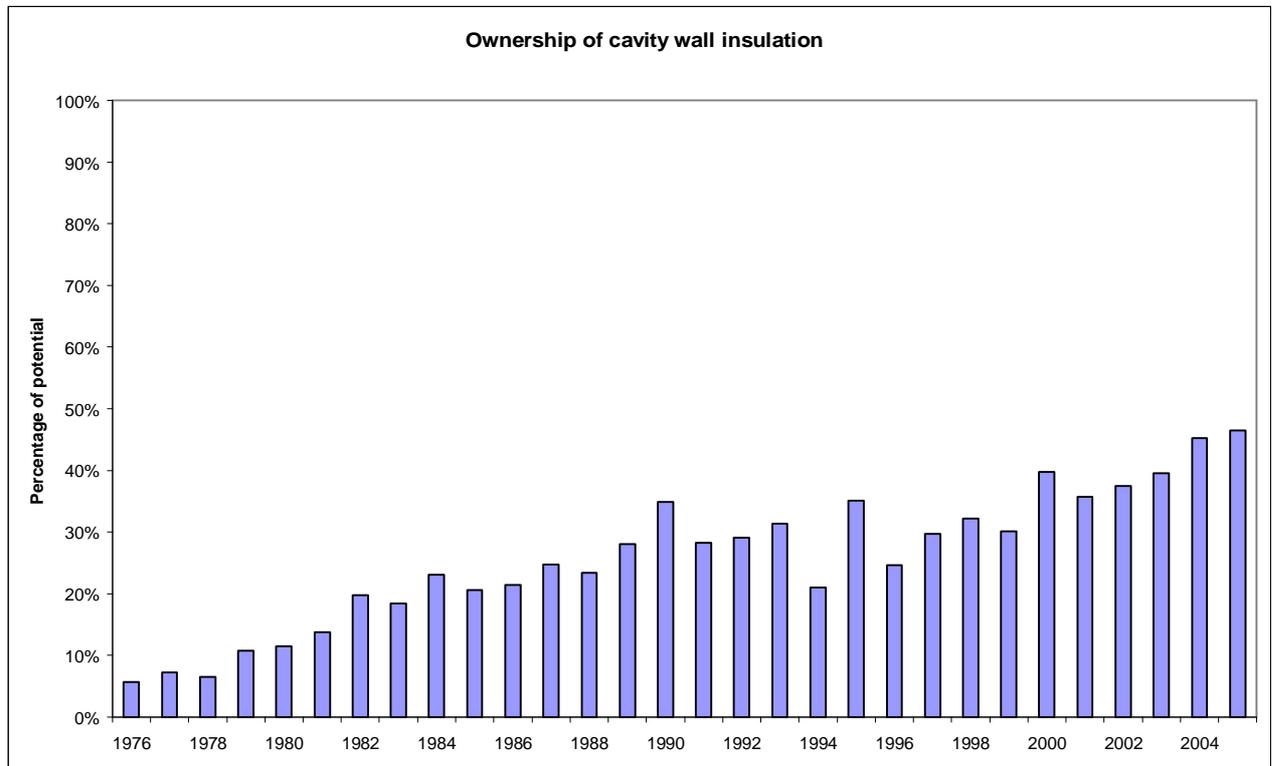


Figure 10S

Cavity wall insulation has increased from 5.7% of cavity wall dwellings in 1976 to 46.5% in 2005.

Table 8S shows the number of households with cavity wall insulation as well as the total number of cavity wall dwellings (potential) in Scotland. It also shows the number who have cavity walls but “don’t know” if they have cavity wall insulation.

Double glazing ownership – Scotland

Figure 11S shows the ownership of double glazing.

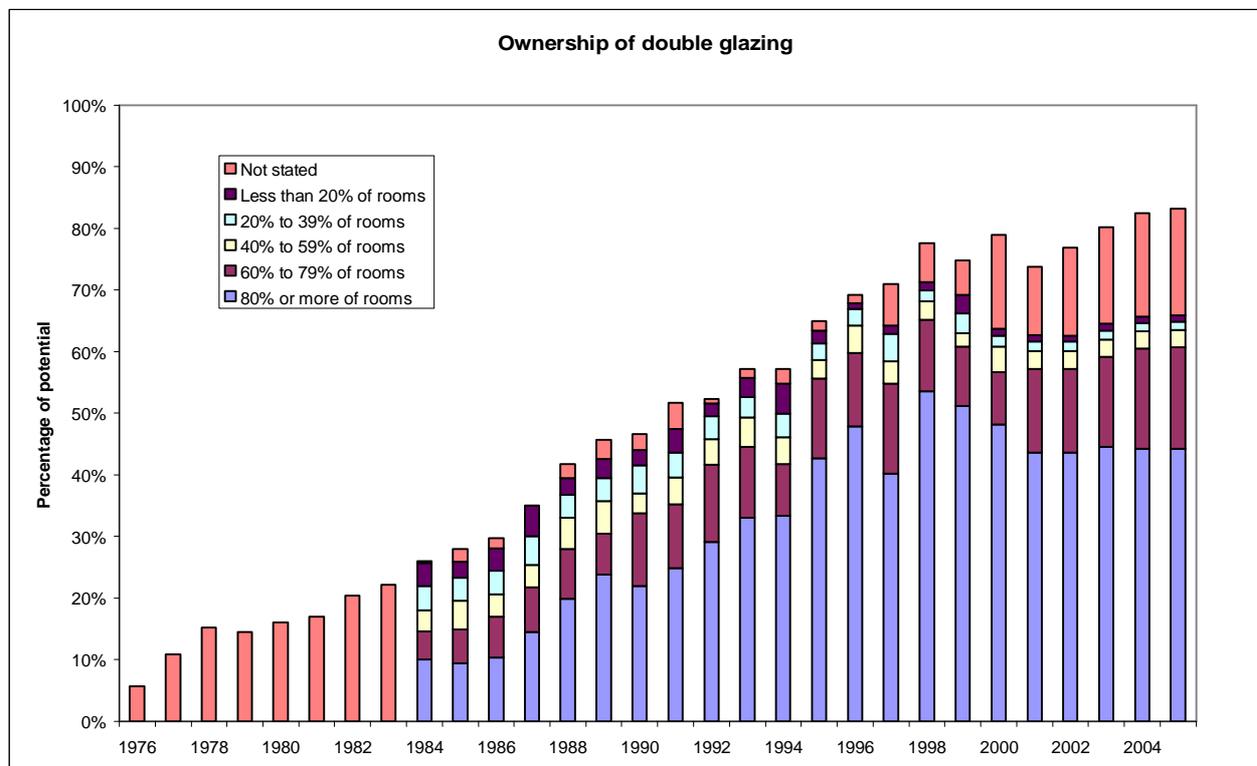


Figure 11S

Double glazing ownership has risen from 5.7% of potential in 1976 to 83.1% in 2005. This refers to any house with any number of windows double glazed. In the earlier years the percentage of rooms double glazed was not recorded and in the last five years the number where the percentage of rooms double glazed has not been given has risen. However between 1984 and 2005 the percentage with 80% or more of rooms double glazed has risen from 10.1% to 44.2%.

Table 9S gives the number of households with double glazing and the percentage of rooms double glazed where available.

Draught proofing – Scotland

Figure 12S shows the ownership of draught proofing. If a dwelling has double glazing or single glazing with draught stripping it is considered to be draught proofed.

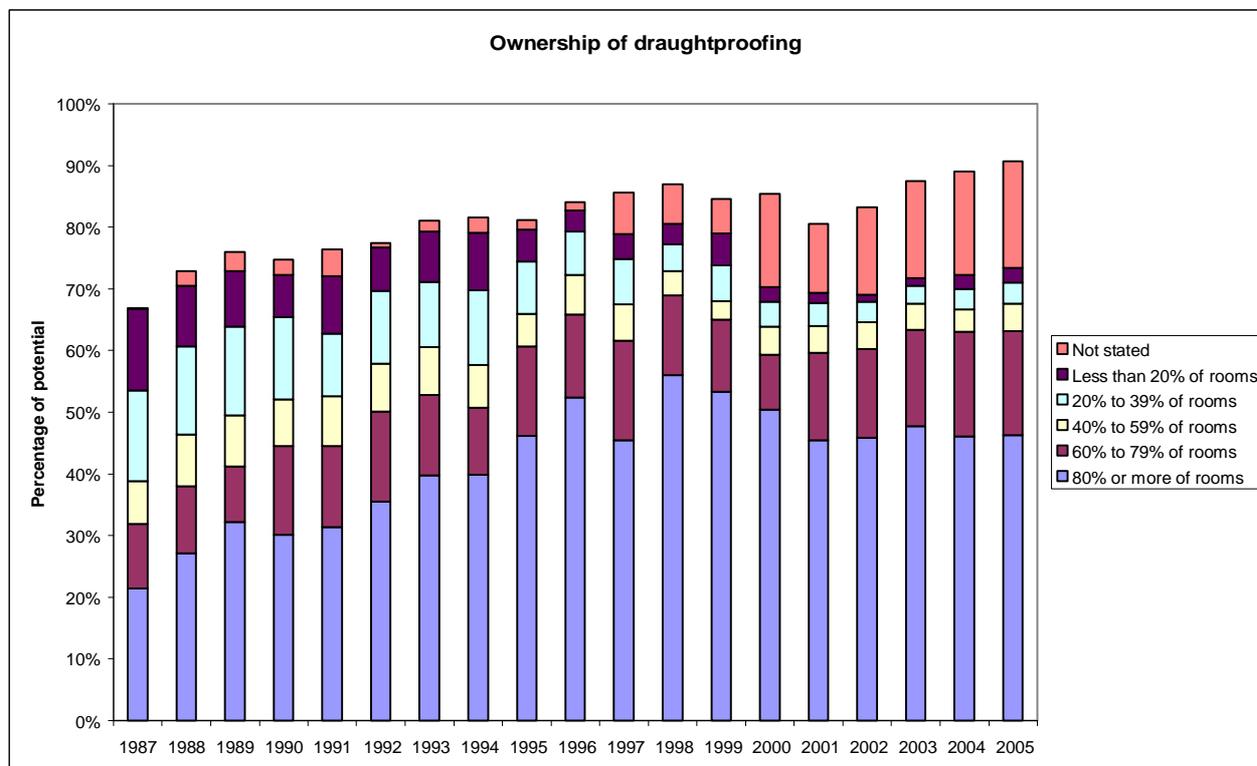


Figure 12S

Ownership levels are increasing largely due to the increase in double glazing. In 2005 90.6% of dwellings were draught proofed compared with 83.1% which were double glazed. In 1987 the figures were 66.9% draught proofed compared with 35% double glazed.

Table 10S gives the number of households with draught proofing and the percentage of rooms which are draught proofed.

Hot water tank insulation – Scotland

The ownership of hot water tank insulation is shown in figure 13S.

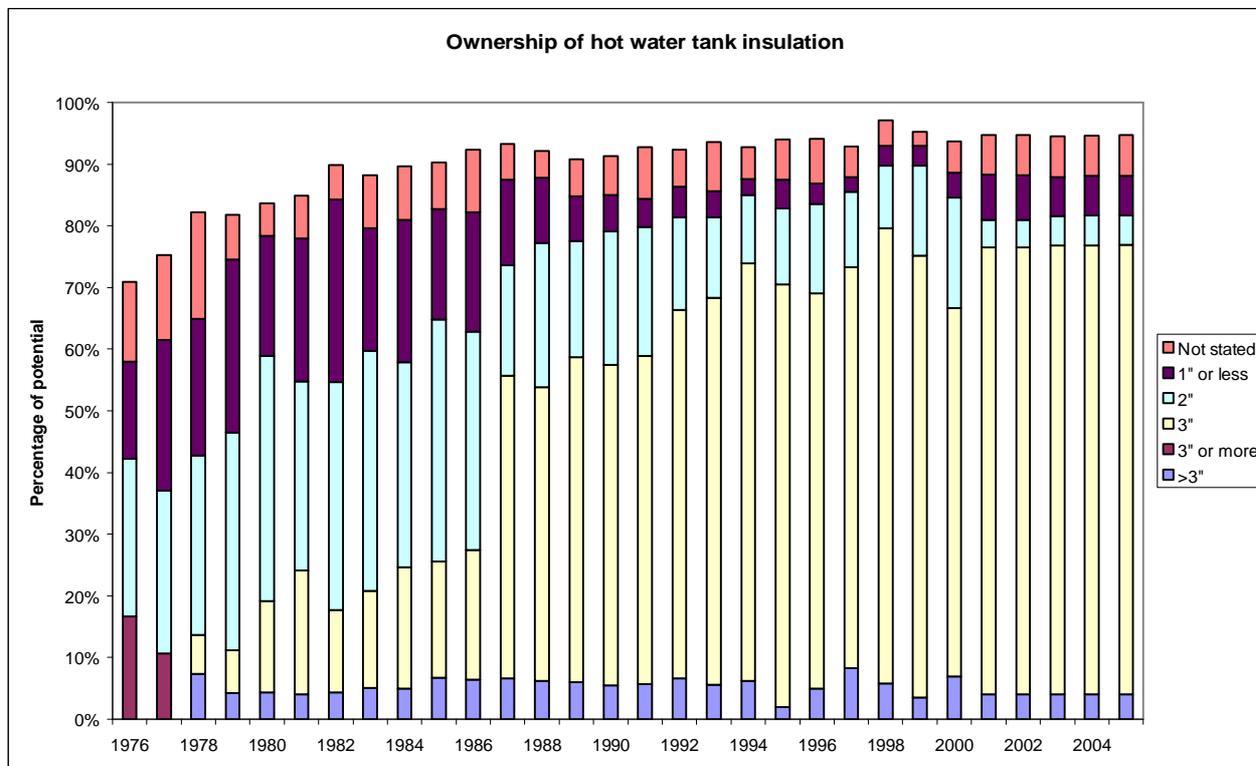


Figure 13S

Ownership of hot water tank insulation has increased from 70.9% of dwellings with hot water tanks in 1976 to 94.7% in 2005. As can be seen from figure 13S this measure has reached saturation at about 95%. In 2005 76.8% of households had 3 inches (75mm) or more of insulation on their hot water tank. Those that have spray foam factory insulated tanks are counted as having the equivalent of a jacket of 3 inches (75mm) or more.

Table 11S shows the number with hot water tank insulation and the depths of the insulation.

Insulation measures ownership – Scotland

Figure 14S shows households with full and no insulation measures. Full insulation is taken as households where there is at least 4 inches (100mm) of loft insulation, if there is a loft, and cavity wall insulation, if there is a cavity, and at least 80% of rooms double glazed. No insulation means there is no loft insulation, if there is a loft, no cavity wall insulation, if there is a cavity, and no double glazing.

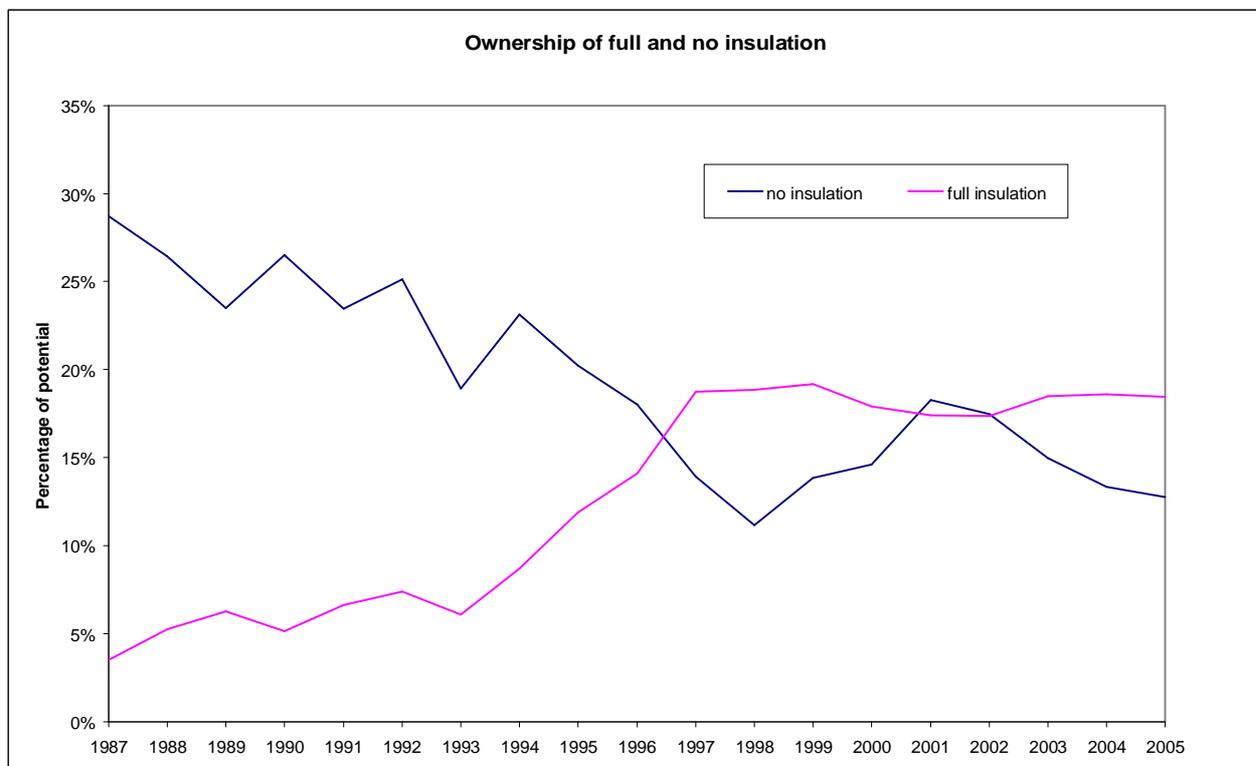


Figure 14S

The proportion of households with no insulation has decreased from 28.7% in 1987 to 12.8% in 2005. In the same time period the proportion with full insulation has risen from 3.5% to 18.4%. The apparent saturation of the increasing trend for full insulation may be caused by the increase in the number of households that “don't know” what levels of insulation they have and therefore cannot be included as having full insulation or simply by statistical variations due to low sample sizes

Table 12S shows the number of households with full and no insulation.

Energy consumption and external temperatures – Scotland

Figure 15S shows the delivered energy and average external temperatures from 1976 to 2005

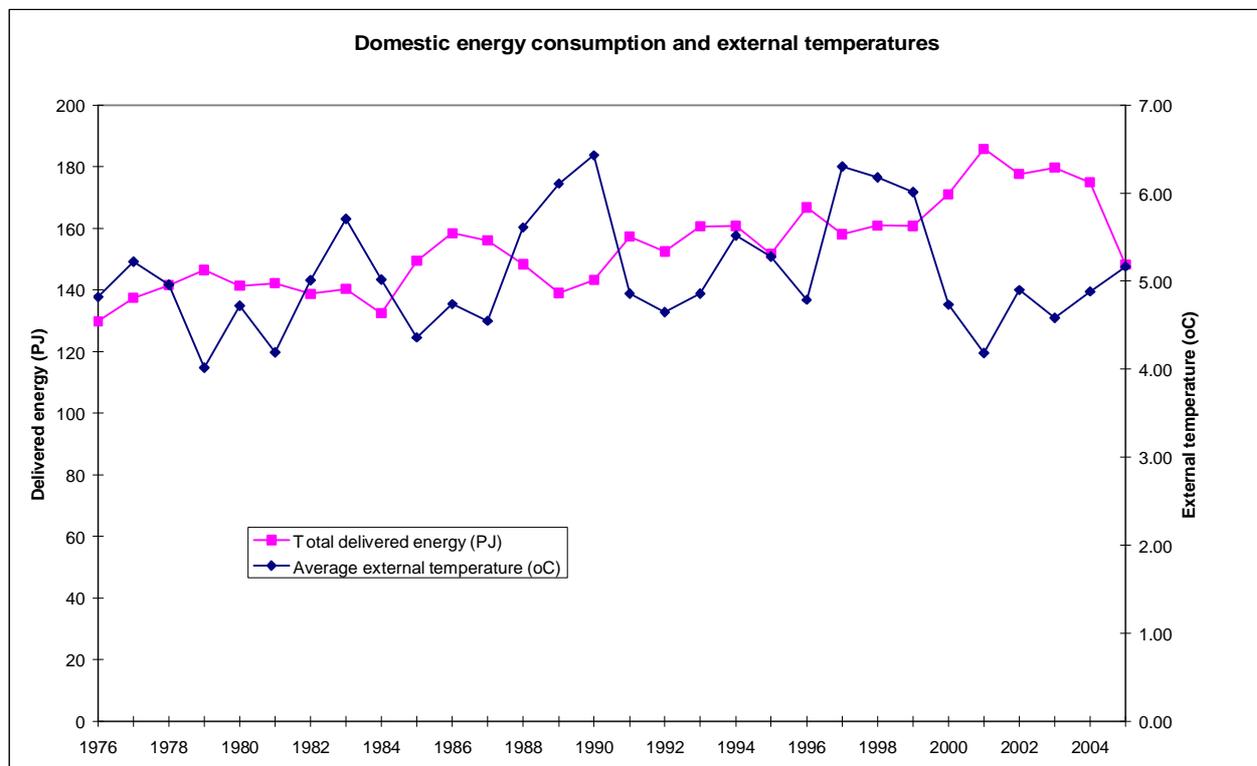


Figure 15S

From 1976 to 2005 delivered energy has increased by 12% while the number of households has increased by 21%. Figure 15S shows the relationship between average external temperature and delivered energy. There would appear to be a general upward trend to the external temperature but it is still possible to see that in the colder winters of 1979, 1985, 1986, 1987, 1996, and the years from 2000 through to 2004 delivered energy increased.

Table 13S shows the total delivered energy, the average external temperature and average energy consumption per dwelling.

Heat loss of the average dwelling – Scotland

Figure 16S shows the changes in the average dwelling heat loss from 1976 to 2005.

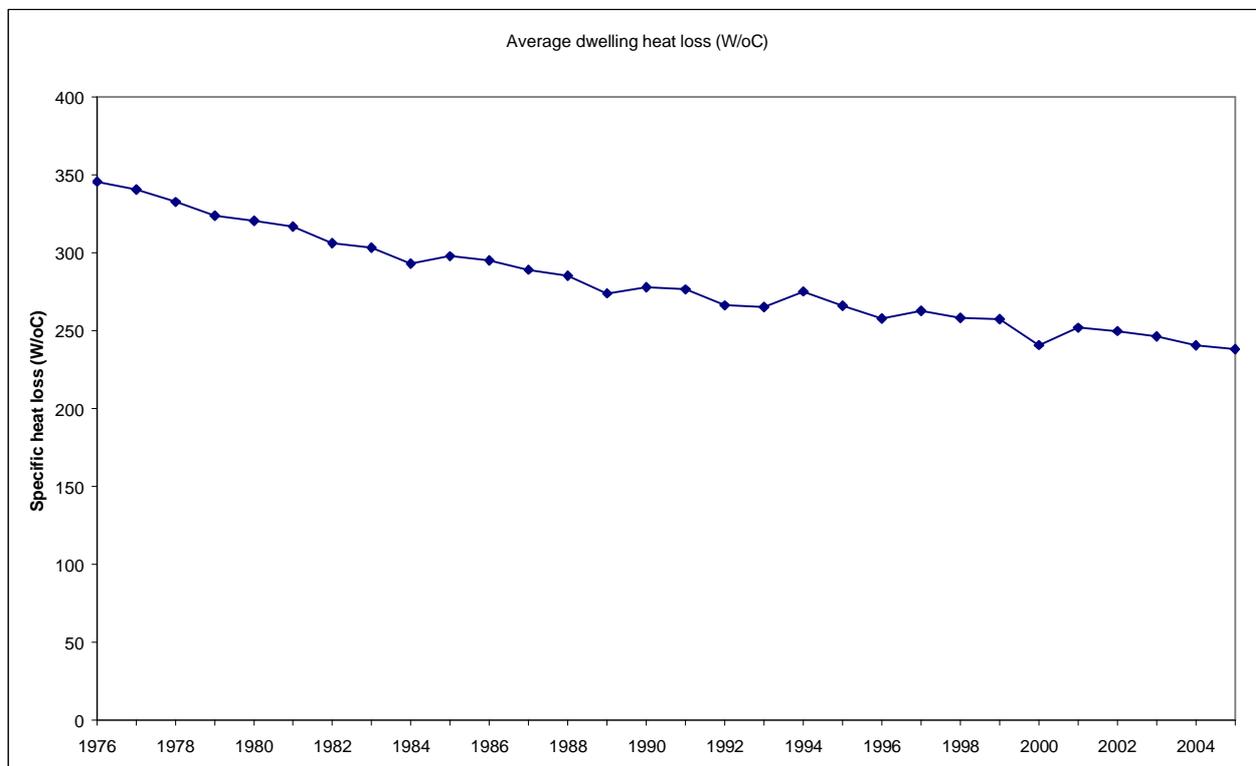


Figure 16S

The heat loss from the average dwelling has steadily been reducing as insulation levels improve. In 2005 it was 238.1 W/°C per dwelling compared with 345.7 W/°C in 1976.

Table 14S shows the average dwelling heat loss and the stock heat loss from 1976 to 2005.

Central heating ownership – Scotland

Figure 17S shows the ownership of central heating

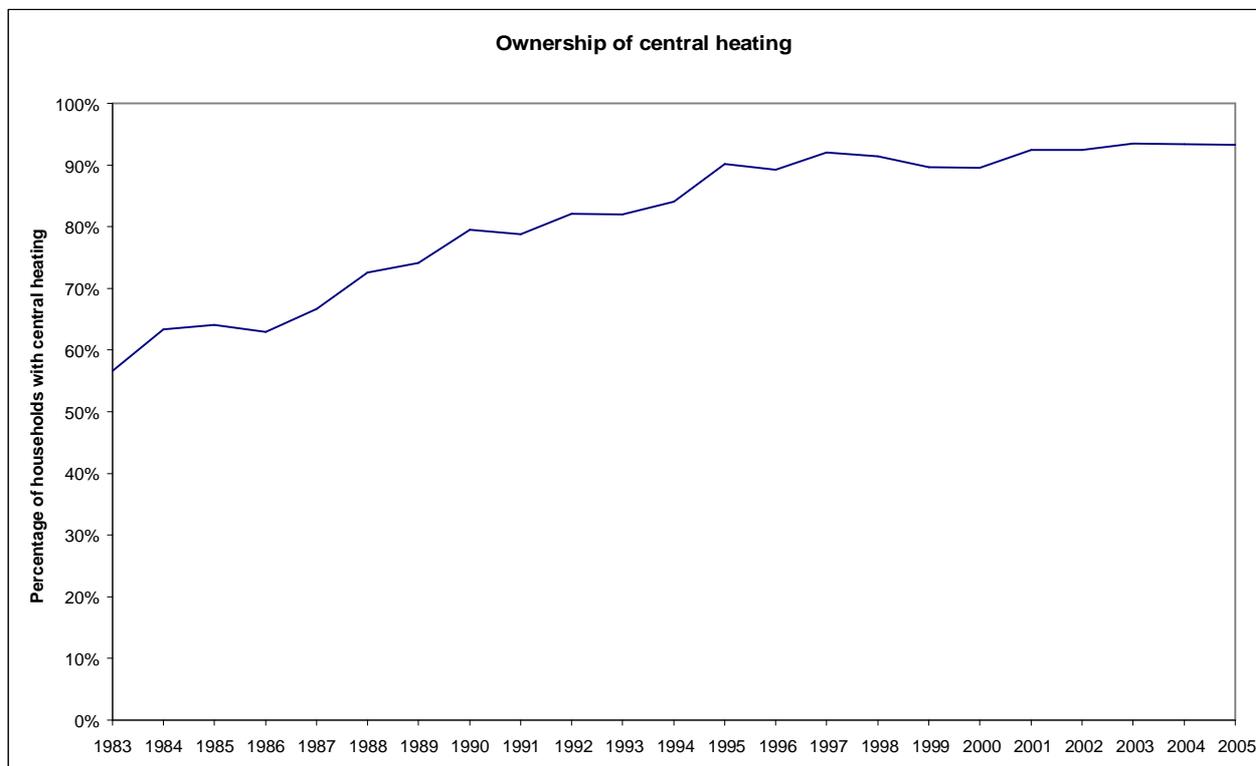


Figure 17S

Central heating ownership has been increasing. In 2005 93.3% of households had central heating this compares with 56.7% in 1983 and 89.5% in 2000.

Table 15S shows the number of households with and without central heating.

Heating appliances – central heating – Scotland

Figure 18S shows the main form of heating in centrally heated homes.

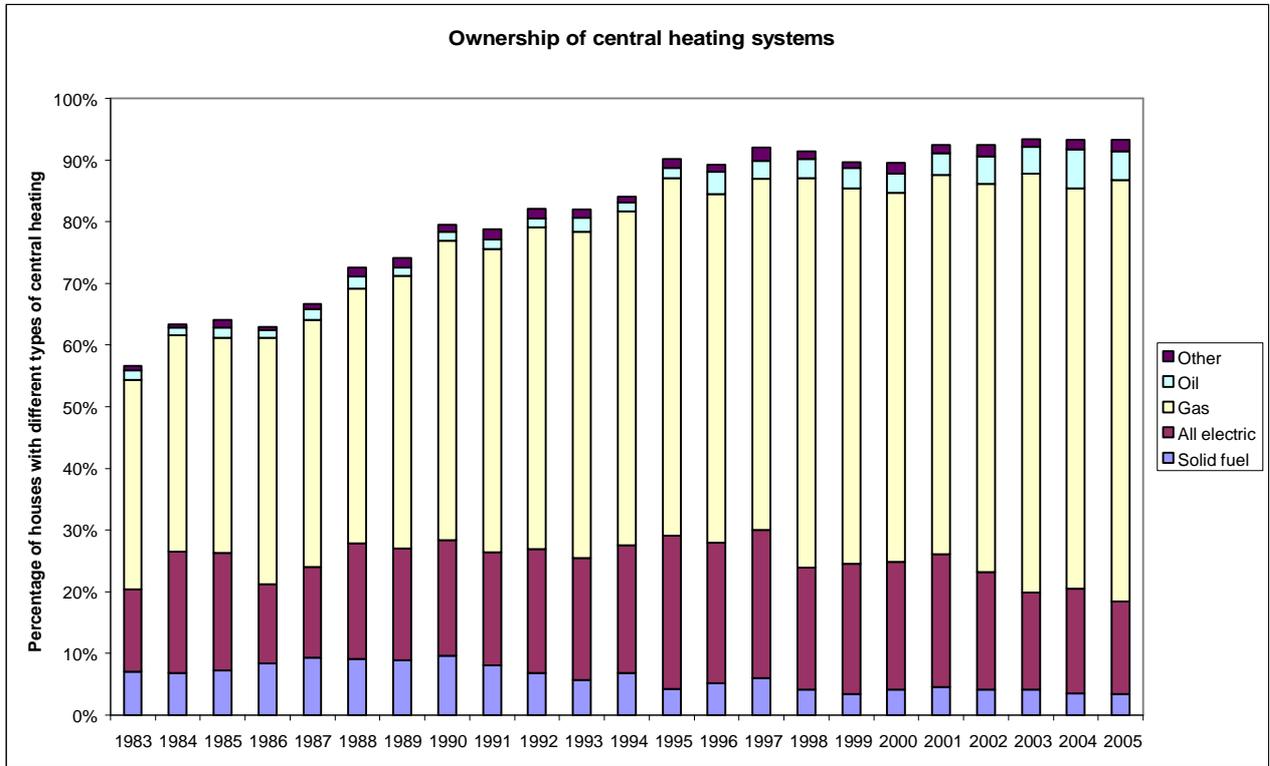


Figure 18S

Figure 18S shows the central heating fuel used as a percentage of the whole stock. The figure shows clearly that gas is the main central heating fuel.

Considering only those homes that are centrally heated, in 2005 gas was used in 73.3% of these homes. This compares with 59.9% using gas in centrally heated homes in 1983. Solid fuel use has fallen from 12.4% of centrally heated homes in 1983 to 3.7% in 2005. As shown in figure 17S the overall percentage of those with central heating has increased.

Table 16S shows the number of households using each fuel type for central heating.

Heating appliances – non central heating – Scotland

Figure 19S shows the percentage of households using non central heating and the fuel they use.

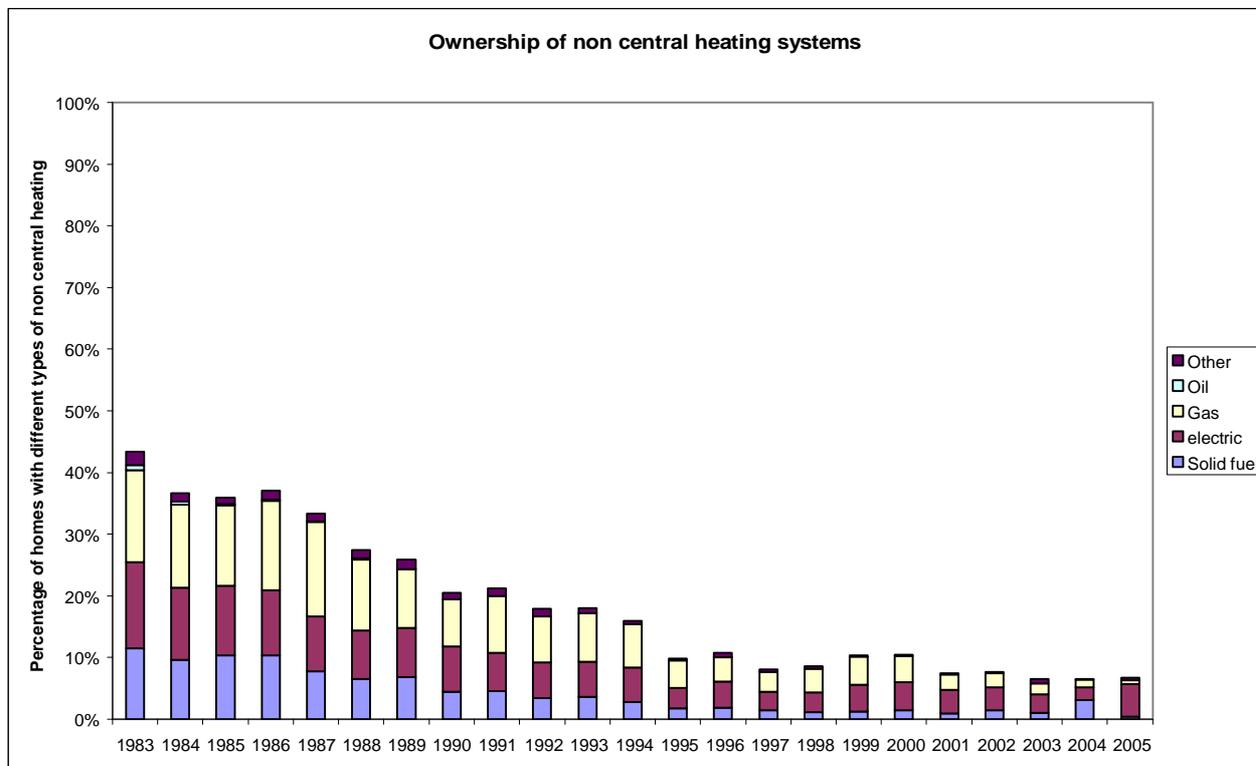


Figure 19S

In 1983 43.3% of total homes used some form of non central heating as their main heating system. In 2005 this had reduced to 6.7% of total homes.

In 2005 80% of those without central heating used electricity. Gas was used by 8% of these homes and solid fuel was used by 6%.

Table 17S shows the number of households with non central heating and the type of fuel they use.

Heating appliances and efficiencies – Scotland

Figure 20S shows the weighted average space heating efficiency.

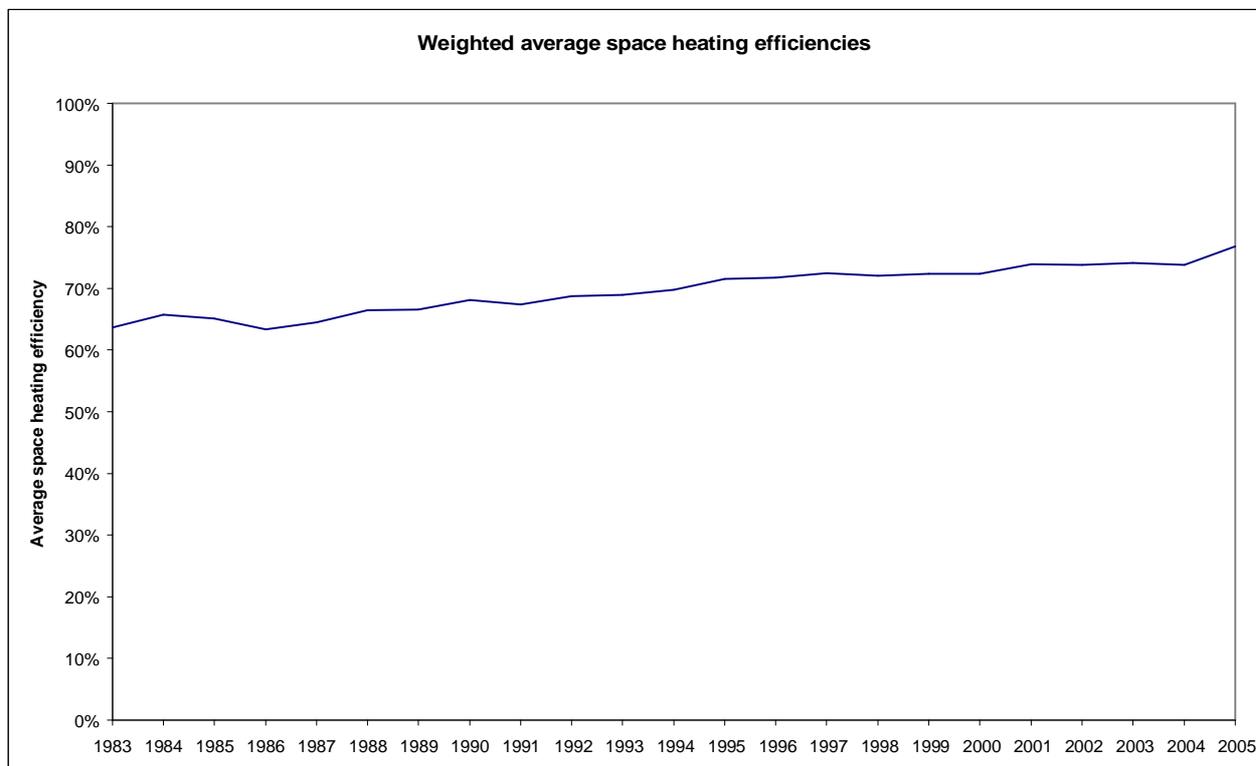


Figure 20S

The average space heating efficiency has improved from 63.7% to 76.8% between 1983 and 2005. This is partly due to changes in fuel for heating systems and partly due to improvements in gas and oil central heating systems where average efficiencies have increased from 57.2% to 72.8% for gas and 59.3% to 81.3% for oil between 1983 and 2005.

Table 18S shows the weighted average central and non central heating space heating efficiencies for each year as well as the weighted average space heating efficiency.

Energy consumption by end use - Scotland

Figure 21S shows the domestic energy consumption by end use for each year.

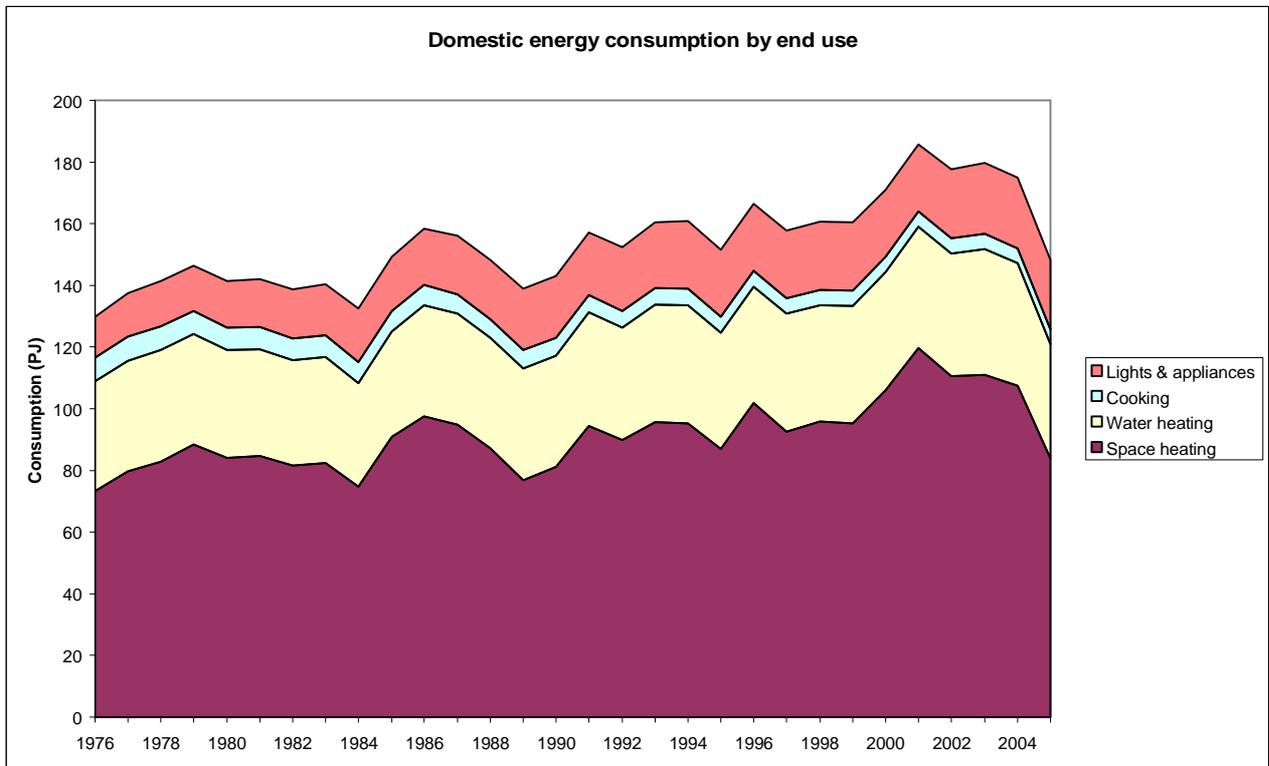


Figure 21S

The average energy use per household has remained very similar throughout the period although total energy consumption has risen due to an increase in the number of households.

Table 19S shows the energy consumption for space heating, water heating, cooking and lights and appliances for all households. It also gives figures for space heating per household and all energy per household.

Domestic energy consumption by fuel – Scotland

Figure 22S shows the energy use of the housing stock by fuel.

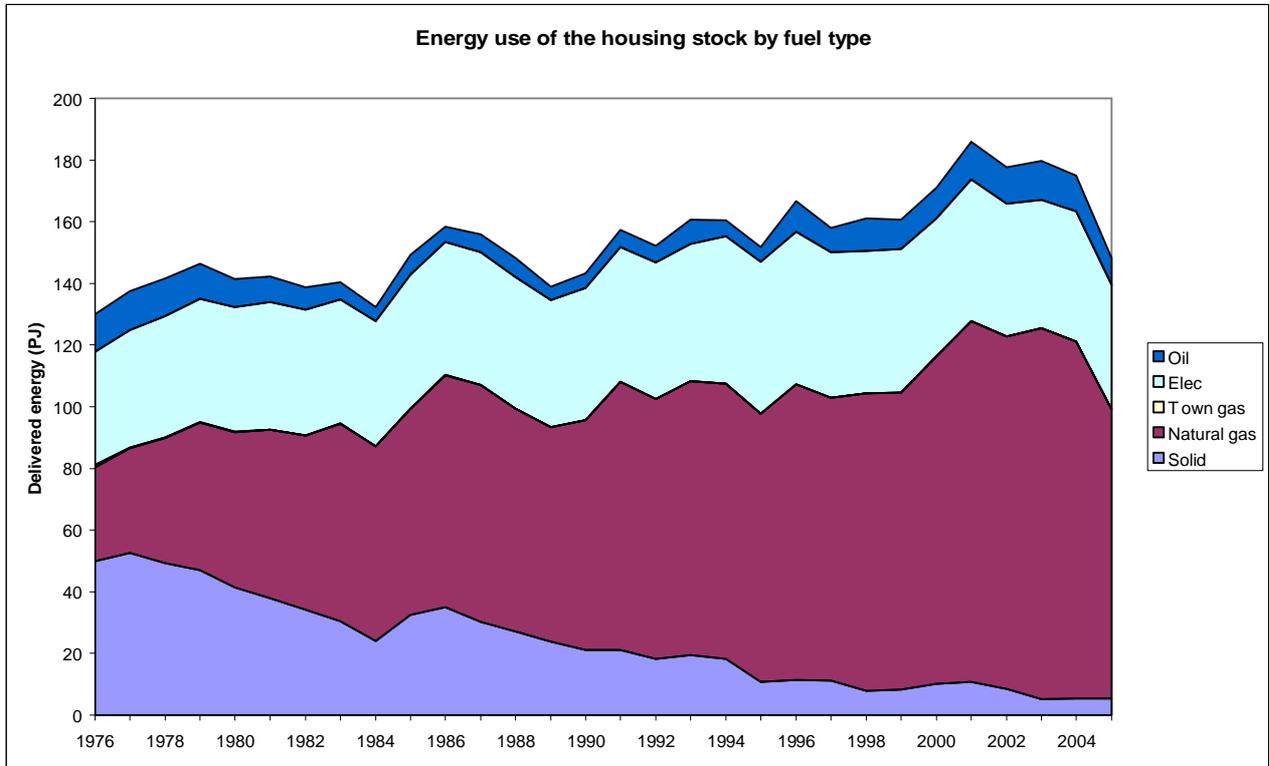


Figure 22S

During this period town gas has been phased out but in 2005 63.3% of domestic energy consumption was gas compared with 24.1% in 1976. In 1976 solid fuel made up 38.4% of the energy consumed whereas by 2005 this had fallen to 3.6%.

Table 20S shows the energy use of the housing stock by different fuels.

Tables – Scotland

Table 1S Average weekly expenditure on all goods and on fuel, light and power (£/week) - Scotland

Year	Contemporary prices		2005 prices		
	All goods	Fuel,light and power	All goods	Fuel,light and power	% fuel light and power
1976	56.83	3.34	274.09	16.11	5.9%
1977	64.81	4.05	269.86	16.86	6.2%
1978	74.49	4.67	285.98	17.93	6.3%
1979	84.80	5.19	287.09	17.57	6.1%
1980	96.34	6.08	276.84	17.47	6.3%
1981	111.56	7.32	286.29	18.78	6.6%
1982	125.24	8.40	296.07	19.86	6.7%
1983	131.19	9.02	296.62	20.39	6.9%
1984	136.64	9.50	294.05	20.44	7.0%
1985	152.47	9.84	309.38	19.97	6.5%
1986	158.80	10.26	311.68	20.14	6.5%
1987	161.80	10.49	304.79	19.76	6.5%
1988	172.78	10.53	310.25	18.91	6.1%
1989	196.27	10.58	327.04	17.63	5.4%
1990	210.69	11.20	320.72	17.05	5.3%
1991	219.56	11.80	315.70	16.97	5.4%
1992	237.67	12.87	329.40	17.84	5.4%
1993	264.84	13.46	361.32	18.36	5.1%
1994	280.53	14.14	373.69	18.84	5.0%
1995	267.94	13.14	344.95	16.92	4.9%
1996	287.60	14.10	361.54	17.72	4.9%
1997	297.71	13.89	362.84	16.93	4.7%
1998	307.51	12.61	362.36	14.86	4.1%
1999	326.83	12.33	379.30	14.31	3.8%
2000	337.14	12.23	380.01	13.78	3.6%
2001	369.84	12.28	409.65	13.60	3.3%
2002	383.49	12.61	417.78	13.74	3.3%
2003	399.30	13.25	422.69	14.03	3.3%
2004	404.24	13.13	415.78	13.51	3.2%
2005	465.43	14.86	465.43	14.86	3.2%

Source: Family Expenditure Survey, Expenditure and Food Survey.

Table 2S Population, households and household size - Scotland

Year	Households (1,000s)	Population (1,000s)	Average household size
1970	1643	5214	3.17
1971	1698	5236	3.08
1972	1717	5231	3.05
1973	1735	5234	3.02
1974	1754	5241	2.99
1975	1772	5232	2.95
1976	1791	5233	2.92
1977	1810	5226	2.89
1978	1828	5212	2.85
1979	1847	5204	2.82
1980	1865	5194	2.78
1981	1884	5180	2.75
1982	1895	5165	2.73
1983	1908	5148	2.70
1984	1929	5139	2.66
1985	1945	5128	2.64
1986	1963	5112	2.60
1987	1978	5099	2.58
1988	1995	5077	2.55
1989	2014	5078	2.52
1990	2032	5081	2.50
1991	2043	5083	2.49
1992	2059	5086	2.47
1993	2076	5092	2.45
1994	2094	5102	2.44
1995	2112	5104	2.42
1996	2126	5092	2.40
1997	2139	5083	2.38
1998	2153	5077	2.36
1999	2166	5072	2.34
2000	2177	5063	2.33
2001	2195	5064	2.31
2002	2209	5055	2.29
2003	2225	5057	2.27
2004	2246	5078	2.26
2005	2266	5095	2.25

Source: www.communities.gov.uk

Table 3S Housing stock distribution by age (1,000s) - Scotland

	PRE 1918	1918-1938	1939-1959	1960-1975	1976-	TOTAL
1987	480	344	486	408	261	1978
1988	445	295	435	593	228	1995
1989	392	445	568	402	207	2014
1990	492	468	517	375	180	2032
1991	453	408	460	459	263	2043
1992	382	319	495	550	313	2059
1993	520	343	418	476	318	2076
1994	464	350	441	423	416	2094
1995	329	332	540	442	471	2112
1996	359	400	409	451	505	2126
1997	533	266	392	391	556	2139
1998	406	333	524	469	420	2153
1999	395	337	472	500	460	2166
2000	513	358	477	347	483	2177
2001	474	215	555	425	525	2195
2002	477	216	558	429	530	2209
2003	496	209	553	421	545	2225
2004	462	189	518	422	656	2246
2005	460	188	515	421	682	2266

Source: GfK Home Audit

Figure 4S Housing stock distribution by tenure (1,000s) - Scotland

Year	Owner occupied	Local Authority	Private Rented	Registered social landlord (RSL)	Total houses
1977	630	1002	177	-	1810
1978	682	937	209	-	1828
1979	755	913	179	-	1847
1980	667	961	237	-	1865
1981	728	942	215	-	1884
1982	740	955	200	-	1895
1983	841	870	198	-	1908
1984	788	986	155	-	1929
1985	767	976	203	-	1945
1986	865	902	196	-	1963
1987	954	873	107	44	1978
1988	974	810	101	111	1995
1989	965	834	83	132	2014
1990	961	914	107	50	2032
1991	1068	797	117	61	2043
1992	1021	822	132	83	2059
1993	1174	725	106	70	2076
1994	1190	610	168	126	2094
1995	1092	754	135	132	2112
1996	1242	584	150	150	2126
1997	1433	398	138	170	2139
1998	1371	607	87	88	2153
1999	1263	624	144	136	2166
2000	1373	424	197	183	2177
2001	1297	502	255	140	2195
2002	1307	506	257	141	2209
2003	1339	424	188	274	2225
2004	1336	405	194	311	2246
2005	1347	404	197	319	2266

Source: GfK Home Audit

Note: Prior to 1987 RSL houses are included in Private rented

Table 5S Housing stock distribution by type of dwelling (1,000s) - Scotland

Year	Semi detached	Terraced	Flat	Detached	Bungalow	Other	Total
1987	453	519	740	216	38	11	1978
1988	443	597	616	304	30	5	1995
1989	386	511	816	214	75	13	2014
1990	394	474	883	243	33	4	2032
1991	381	527	881	218	33	3	2043
1992	433	505	903	158	53	6	2059
1993	396	454	882	324	7	14	2076
1994	447	444	793	329	72	9	2094
1995	508	467	810	231	77	20	2112
1996	420	427	871	355	48	4	2126
1997	497	517	676	425	22	3	2139
1998	543	548	754	302	4	2	2153
1999	422	385	945	314	94	6	2166
2000	404	387	1027	279	72	12	2177
2001	450	468	936	346	26	8	2195
2002	452	470	940	349	26	8	2209
2003	442	469	945	362	25	10	2225
2004	424	533	932	352	23	8	2246
2005	419	540	927	349	24	8	2266

Source: GfK Home Audit

Table 6S Ownership and depth of loft insulation (1,000s) - Scotland

Year	<1" (<25mm)	1" (25mm)	2" (50mm)	3" (75mm)	4" (100mm) or more	Not stated	Total with	Potential	Total house holds
1976	25	26	105	83	23	79	342	1032	1791
1977	38	94	169	97	50	44	491	1134	1810
1978	56	81	168	81	72	68	528	1087	1828
1979	25	62	194	160	93	89	623	1024	1847
1980	36	58	264	170	94	76	698	1136	1865
1981	25	87	277	231	118	101	838	1202	1884
1982	51	83	345	236	185	72	972	1227	1895
1983	25	75	288	326	205	53	972	1207	1908
1984	14	48	271	300	288	64	986	1169	1929
1985	13	89	257	253	279	127	1019	1220	1945
1986	5	111	206	284	298	108	1014	1280	1963
1987	10	71	187	277	430	113	1088	1252	1978
1988	20	88	250	268	449	78	1154	1349	1995
1989	12	74	187	282	445	66	1065	1190	2014
1990	12	52	246	265	363	162	1101	1267	2032
1991	21	72	195	209	364	199	1060	1247	2043
1992	13	19	183	288	431	170	1105	1240	2059
1993	16	17	192	360	342	180	1106	1255	2076
1994	1	20	125	242	661	146	1196	1376	2094
1995	30	41	160	322	463	189	1205	1354	2112
1996	4	32	175	191	557	200	1159	1276	2126
1997	0	23	176	283	664	196	1341	1488	2139
1998	2	30	175	371	744	105	1426	1524	2153
1999	6	14	134	305	651	82	1191	1287	2166
2000	2	10	138	341	486	85	1061	1227	2177
2001	1	1	79	317	579	92	1071	1211	2195
2002	1	1	79	319	586	105	1091	1219	2209
2003	1	2	85	317	582	126	1113	1241	2225
2004	1	2	86	313	601	167	1170	1275	2246
2005	1	2	86	315	608	175	1186	1288	2266

Source: GfK Home Audit

Table 7S Ownership and depth of loft insulation for those dwellings with 4" (100mm) or more of insulation (1,000s) - Scotland

Year	4" (100mm)	5" (125mm)	5" (125mm) or more	6" (150mm) or more	Total 4" (100mm) or more	potential	total with insulation
1987	263		167		430	1252	1088
1988	285		165		449	1349	1154
1989	327		118		445	1190	1065
1990	200		163		363	1267	1101
1991	176		188		364	1247	1060
1992	308		123		431	1240	1105
1993	197		145		342	1255	1106
1994	353	127		181	661	1376	1196
1995	298	72		93	463	1354	1205
1996	236	105		215	557	1276	1159
1997	343	120		202	664	1488	1341
1998	375	146		224	744	1524	1426
1999	307	183		161	651	1287	1191
2000	268	138		79	486	1227	1061
2001	344	119		117	579	1211	1071
2002	347	120		119	586	1219	1091
2003	351	116		115	582	1241	1113
2004	352	110		139	601	1275	1170
2005	355	109		144	608	1288	1186

Source: GfK Home Audit

Table 8S Ownership of cavity wall insulation (1,000s) - Scotland

Year	Houses with cavity insulation	Not known if cavity insulated	Potential (total houses with cavity walls)	Total Households
1976	66		1 142	1 791
1977	85		1 169	1 810
1978	77		1 192	1 828
1979	130		1 214	1 847
1980	142		1 233	1 865
1981	171	331	1 244	1 884
1982	248	264	1 255	1 895
1983	234	255	1 271	1 908
1984	298	306	1 293	1 929
1985	269	233	1 305	1 945
1986	283	230	1 320	1 963
1987	305	266	1 233	1 978
1988	315	247	1 345	1 995
1989	401	336	1 430	2 014
1990	458	359	1 312	2 032
1991	385	338	1 361	2 043
1992	415	367	1 427	2 059
1993	431	364	1 373	2 076
1994	287	468	1 361	2 094
1995	457	426	1 299	2 112
1996	364	530	1 478	2 126
1997	420	414	1 411	2 139
1998	439	448	1 362	2 153
1999	438	222	1 453	2 166
2000	550	128	1 386	2 177
2001	512	140	1 434	2 195
2002	542	95	1 444	2 209
2003	574	101	1 450	2 225
2004	687	101	1 518	2 246
2005	716	672	1 540	2 266

Source: GfK Home Audit

Table 9S Ownership of double glazing (1,000s) - Scotland

Year	Less than 20% of rooms	20% to 39% of rooms	40% to 59% of rooms	60% to 79% of rooms	80% or more of rooms	Not stated	Total with double glazing	Potential
1976						102	102	1791
1977						197	197	1810
1978						278	278	1828
1979						268	268	1847
1980						300	300	1865
1981						319	319	1884
1982						387	387	1895
1983						423	423	1908
1984	72	76	66	87	194	6	501	1929
1985	50	72	91	106	183	42	545	1945
1986	71	76	72	131	202	32	583	1963
1987	98	92	73	142	287	1	693	1978
1988	54	75	101	161	397	46	833	1995
1989	63	75	106	133	480	64	921	2014
1990	50	94	66	240	446	51	947	2032
1991	78	82	89	212	506	87	1056	2043
1992	44	75	86	258	600	14	1077	2059
1993	64	69	98	239	686	32	1188	2076
1994	104	79	91	175	699	49	1198	2094
1995	42	58	64	272	902	33	1372	2112
1996	19	59	94	252	1018	29	1470	2126
1997	30	94	78	312	861	143	1518	2139
1998	29	38	65	249	1154	136	1671	2153
1999	66	70	45	210	1107	121	1620	2166
2000	25	38	91	184	1050	331	1718	2177
2001	23	33	64	299	956	244	1620	2195
2002	23	33	64	301	962	314	1698	2209
2003	25	33	63	326	990	348	1783	2225
2004	23	32	63	366	992	377	1853	2246
2005	24	32	63	374	1001	390	1883	2266

Source: GfK Home Audit

Table 10S Ownership of draught proofing (1,000s) - Scotland

Year	Less than 20% of rooms	20% to 39% of rooms	40% to 59% of rooms	60% to 79% of rooms	80% or more of rooms	Not stated	Total with draught proofing	Potential (total house holds)
1987	263	290	138	205	425	1	1322	1978
1988	197	285	169	215	542	46	1453	1995
1989	181	289	167	184	647	64	1530	2014
1990	139	271	153	291	613	51	1520	2032
1991	190	206	166	268	641	88	1559	2043
1992	146	243	160	300	731	14	1594	2059
1993	170	219	160	272	825	37	1683	2076
1994	194	255	144	227	835	52	1707	2094
1995	108	180	113	306	974	33	1714	2112
1996	72	150	137	285	1114	29	1786	2126
1997	86	157	125	347	971	143	1830	2139
1998	72	94	84	280	1205	138	1872	2153
1999	111	126	66	253	1155	122	1832	2166
2000	52	87	99	192	1099	331	1860	2177
2001	38	82	95	310	998	244	1768	2195
2002	26	74	96	317	1013	314	1839	2209
2003	28	66	94	347	1061	348	1945	2225
2004	51	73	83	381	1034	377	2000	2246
2005	54	78	100	384	1047	390	2054	2266

Source: GfK Home Audit

Table 11S Ownership of hot water tank insulation (1,000s) - Scotland

Year	1" (25mm) or less	2" (50mm)	3" (75mm)	3" (75mm) or more	>3" (>75mm)	Not stated	T total with	Potential	T total households
1976	264	429	-	279	-	218	1190	1677	1791
1977	409	442	-	177	-	229	1258	1671	1810
1978	365	480	104	-	121	284	1353	1647	1828
1979	479	600	120	-	71	123	1393	1703	1847
1980	344	700	261	-	76	91	1471	1760	1865
1981	407	537	352	-	70	122	1489	1753	1884
1982	532	665	240	-	78	99	1614	1797	1895
1983	361	704	286	-	91	154	1596	1810	1908
1984	413	598	353	-	89	157	1611	1796	1929
1985	329	722	348	-	123	139	1661	1840	1945
1986	367	667	397	-	122	192	1745	1889	1963
1987	258	331	911	-	122	107	1729	1854	1978
1988	203	451	919	-	119	84	1776	1929	1995
1989	139	363	1012	-	116	114	1745	1924	2014
1990	115	422	1014	-	107	122	1779	1949	2032
1991	88	405	1026	-	111	161	1791	1931	2043
1992	95	289	1152	-	128	116	1781	1929	2059
1993	80	249	1199	-	107	153	1788	1911	2076
1994	49	214	1303	-	120	99	1786	1926	2094
1995	93	244	1367	-	40	130	1874	1995	2112
1996	63	281	1235	-	96	140	1816	1930	2126
1997	45	232	1239	-	158	96	1771	1907	2139
1998	62	194	1411	-	110	78	1856	1912	2153
1999	53	241	1180	-	58	37	1570	1648	2166
2000	73	324	1083	-	126	93	1699	1812	2177
2001	130	79	1292	-	73	115	1689	1783	2195
2002	131	79	1301	-	73	116	1701	1795	2209
2003	110	82	1274	-	71	117	1654	1750	2225
2004	107	81	1219	-	67	111	1585	1675	2246
2005	106	81	1220	-	67	111	1586	1675	2266

Source: GfK Home Audit

Table 12S Households with full and no insulation measures (1,000s) - Scotland

Year	Total households with no insulation	Total households with full insulation	Total households
1987	568	69	1978
1988	527	105	1995
1989	473	126	2014
1990	539	105	2032
1991	479	136	2043
1992	517	152	2059
1993	393	126	2076
1994	485	182	2094
1995	427	251	2112
1996	383	300	2126
1997	297	401	2139
1998	241	406	2153
1999	300	415	2166
2000	318	390	2177
2001	401	382	2195
2002	386	384	2209
2003	333	412	2225
2004	300	418	2246
2005	289	418	2266

Source: GfK Home Audit

Table 13S Domestic energy consumption and external temperatures - Scotland

Year	Total households (1,000s)	Total delivered energy (PJ)	Average external temperature (oC)	Average consumption per dwelling (GJ)
1976	1791	130	4.8	72.5
1977	1810	137	5.2	76.0
1978	1828	142	5.0	77.4
1979	1847	146	4.0	79.3
1980	1865	141	4.7	75.8
1981	1884	142	4.2	75.5
1982	1895	139	5.0	73.2
1983	1908	140	5.7	73.5
1984	1929	132	5.0	68.7
1985	1945	149	4.4	76.8
1986	1963	158	4.7	80.7
1987	1978	156	4.6	78.9
1988	1995	148	5.6	74.4
1989	2014	139	6.1	69.0
1990	2032	143	6.4	70.5
1991	2043	157	4.9	77.0
1992	2059	152	4.7	74.0
1993	2076	161	4.9	77.4
1994	2094	161	5.5	76.8
1995	2112	152	5.3	71.8
1996	2126	167	4.8	78.4
1997	2139	158	6.3	73.9
1998	2153	161	6.2	74.7
1999	2166	161	6.0	74.2
2000	2177	171	4.7	78.6
2001	2195	186	4.2	84.7
2002	2209	178	4.9	80.4
2003	2225	180	4.6	80.8
2004	2246	175	4.9	77.9
2005	2266	148	5.2	65.4

Source: www.communities.gov.uk, Digest of UK Energy Statistics, Family Expenditure Survey, Expenditure and Food Survey, temperatures calculated from published Degree Day figures for East Scotland.

Table 14S Heat loss of the average dwelling - Scotland

Year	Households (1,000s)	Average dwelling heat loss (W/oC)	Stock heat loss (GW/oC)
1976	1791	345.7	0.62
1977	1810	340.6	0.62
1978	1828	332.6	0.61
1979	1847	323.6	0.60
1980	1865	320.4	0.60
1981	1884	316.8	0.60
1982	1895	306.1	0.58
1983	1908	303.3	0.58
1984	1929	293.1	0.57
1985	1945	297.8	0.58
1986	1963	295.1	0.58
1987	1978	289.0	0.57
1988	1995	285.1	0.57
1989	2014	274.0	0.55
1990	2032	277.9	0.56
1991	2043	276.4	0.56
1992	2059	266.2	0.55
1993	2076	265.2	0.55
1994	2094	275.1	0.58
1995	2112	266.0	0.56
1996	2126	257.7	0.55
1997	2139	262.6	0.56
1998	2153	258.3	0.56
1999	2166	257.5	0.56
2000	2177	240.7	0.52
2001	2195	251.9	0.55
2002	2209	249.8	0.55
2003	2225	246.3	0.55
2004	2246	240.6	0.54
2005	2266	238.1	0.54

Source: BREHOMES

Table 15S Central heating ownership (1,000s) - Scotland

Year	No central heating	With central heating	Total households
1983	827	1081	1908
1984	707	1222	1929
1985	698	1247	1945
1986	727	1236	1963
1987	659	1319	1978
1988	547	1448	1995
1989	522	1493	2014
1990	417	1615	2032
1991	434	1608	2043
1992	369	1691	2059
1993	373	1703	2076
1994	335	1759	2094
1995	208	1904	2112
1996	229	1897	2126
1997	172	1967	2139
1998	184	1969	2153
1999	224	1942	2166
2000	229	1949	2177
2001	166	2028	2195
2002	167	2042	2209
2003	144	2081	2225
2004	148	2097	2246
2005	151	2114	2266

Source: GfK Home Audit

Table 16S Main form of heating – centrally heated dwellings (1,000s) - Scotland

Year	Solid fuel	Electric storage	Electric other	All electric	Gas	Oil	Other	Total
1983	134	128	128	256	648	29	15	1081
1984	133	207	172	379	676	25	9	1222
1985	141	218	152	371	678	34	24	1247
1986	165	173	79	252	784	24	11	1236
1987	184	203	89	292	791	34	18	1319
1988	182	257	117	373	825	39	30	1448
1989	179	273	92	365	891	26	31	1493
1990	197	302	78	380	986	29	23	1615
1991	165	311	63	375	1004	32	33	1608
1992	142	329	84	413	1072	30	33	1691
1993	119	341	69	410	1098	46	29	1703
1994	142	372	62	434	1134	30	18	1759
1995	90	452	73	524	1225	33	31	1904
1996	110	402	81	483	1203	75	26	1897
1997	128	449	66	515	1217	62	45	1967
1998	89	387	38	426	1359	66	29	1969
1999	74	407	50	457	1319	72	20	1942
2000	91	388	64	452	1302	67	38	1949
2001	99	379	94	473	1350	78	29	2028
2002	90	348	75	423	1390	97	42	2042
2003	92	313	36	350	1511	97	29	2081
2004	80	281	100	381	1457	142	36	2097
2005	78	259	80	338	1550	104	43	2114

Source: GfK Home Audit

Table 17S Main form of heating – non centrally heated dwellings (1,000s) - Scotland

	Solid fuel	electric	Gas	Oil	Other	Total
1983	219	266	286	16	40	827
1984	187	225	259	10	27	707
1985	202	218	255	5	19	698
1986	203	208	285	3	28	727
1987	154	174	303	3	24	659
1988	131	156	230	3	27	547
1989	138	160	191	1	31	522
1990	91	148	156	1	21	417
1991	94	126	190	0	25	434
1992	71	119	152	0	26	369
1993	76	117	163	0	17	373
1994	58	117	148	0	12	335
1995	38	68	95	0	7	208
1996	40	90	84	1	14	229
1997	32	65	67	0	8	172
1998	24	69	84	0	8	184
1999	27	93	100	0	4	224
2000	32	99	92	0	6	229
2001	21	84	56	0	4	166
2002	31	83	49	0	4	167
2003	22	68	39	0	15	144
2004	69	48	28	0	2	148
2005	9	121	12	0	9	151

Source: GfK Home Audit

Table 18S Weighted average space heating efficiencies - Scotland

Year	Central heating efficiency	Non-central heating efficiency	Average efficiency
1983	71.4%	55.9%	63.7%
1984	73.4%	55.8%	65.8%
1985	73.0%	54.5%	65.1%
1986	70.5%	54.1%	63.4%
1987	70.9%	54.3%	64.5%
1988	71.9%	55.2%	66.4%
1989	71.6%	55.4%	66.6%
1990	71.4%	57.7%	68.2%
1991	71.3%	55.9%	67.3%
1992	71.7%	57.8%	68.7%
1993	72.4%	56.6%	69.0%
1994	72.6%	58.1%	69.8%
1995	73.5%	57.1%	71.5%
1996	73.3%	60.5%	71.7%
1997	73.9%	59.0%	72.4%
1998	73.4%	60.3%	72.0%
1999	73.9%	61.3%	72.4%
2000	73.9%	61.6%	72.4%
2001	74.6%	65.4%	73.9%
2002	74.9%	62.1%	73.8%
2003	74.8%	65.2%	74.1%
2004	76.1%	51.3%	73.8%
2005	76.3%	84.2%	76.8%

Source: BREHOMES

Table 19S Domestic energy consumption by end use - Scotland

Year	Space heating (PJ)	Water heating (PJ)	Cooking (PJ)	Lights & appliances (PJ)	All energy (PJ)	Space heating per household (GJ)	All energy per household (GJ)
1976	73.3	35.6	7.6	13.3	129.9	40.9	72.5
1977	79.8	35.9	7.7	14.1	137.5	44.1	76.0
1978	82.9	36.2	7.7	14.7	141.4	45.3	77.4
1979	88.4	35.9	7.4	14.7	146.4	47.9	79.3
1980	84.1	34.9	7.3	15.1	141.4	45.1	75.8
1981	84.6	34.6	7.1	15.5	142.2	44.9	75.5
1982	81.6	34.1	7.1	16.0	138.7	43.1	73.2
1983	82.5	34.3	7.0	16.6	140.3	43.2	73.5
1984	74.8	33.5	6.8	17.3	132.4	38.8	68.7
1985	90.9	34.1	6.6	17.7	149.4	46.7	76.8
1986	97.6	36.0	6.4	18.3	158.4	49.7	80.7
1987	94.8	36.0	6.2	19.0	156.1	47.9	78.9
1988	87.2	35.8	6.0	19.4	148.3	43.7	74.4
1989	76.8	36.4	5.8	19.9	139.0	38.1	69.0
1990	81.1	36.2	5.7	20.2	143.2	39.9	70.5
1991	94.4	36.9	5.5	20.4	157.4	46.2	77.0
1992	89.9	36.3	5.4	20.7	152.4	43.7	74.0
1993	95.8	38.1	5.4	21.3	160.6	46.1	77.4
1994	95.2	38.3	5.4	21.9	160.8	45.5	76.8
1995	86.9	37.7	5.2	21.7	151.7	41.1	71.8
1996	101.8	37.7	5.1	21.9	166.8	47.9	78.4
1997	92.6	38.3	5.0	21.9	158.0	43.3	73.8
1998	95.8	37.8	5.0	22.1	160.9	44.5	74.7
1999	95.2	38.1	4.9	22.3	160.8	43.9	74.2
2000	106.0	38.3	5.0	21.7	171.1	48.7	78.6
2001	119.6	39.3	5.0	21.7	185.6	54.5	84.6
2002	110.5	39.8	5.0	22.4	177.7	50.0	80.4
2003	110.9	40.9	5.0	22.8	179.7	49.9	80.8
2004	107.4	39.7	4.9	22.9	174.9	47.8	77.9
2005	83.9	37.1	4.6	22.6	148.2	37.0	65.4

Source: BREHOMES

Table 20S Energy use of the housing stock by fuel (PJ) - Scotland

Year	Solid fuel	Natural gas	Town gas	Gas (total)	Electric	Oil	All fuels
1976	50	31	1	31	37	12	130
1977	53	34	0	34	38	13	137
1978	49	41	0	41	39	12	142
1979	47	48	0	48	40	12	146
1980	41	50	0	51	40	9	141
1981	38	55	0	55	41	8	142
1982	34	56	0	57	41	7	139
1983	30	64	0	64	40	5	140
1984	24	63	0	63	40	5	132
1985	32	67	0	67	43	6	149
1986	35	75	0	75	43	5	158
1987	30	77	0	77	43	6	156
1988	27	72	0	72	43	6	148
1989	24	70	0	70	41	4	139
1990	21	75	0	75	43	5	143
1991	21	87	0	87	44	5	157
1992	18	84	0	84	44	5	152
1993	19	89	0	89	44	8	161
1994	18	89	0	89	48	5	161
1995	11	87	0	87	49	5	152
1996	11	96	0	96	49	10	167
1997	11	92	0	92	47	8	158
1998	8	96	0	96	46	10	161
1999	8	96	0	96	47	9	161
2000	10	106	0	106	45	10	171
2001	11	117	0	117	46	12	186
2002	8	114	0	114	43	12	178
2003	5	120	0	120	42	13	180
2004	5	116	0	116	42	12	175
2005	5	94	0	94	40	9	148

Source: BREHOMES

WALES

The information on Wales is divided into a number of sections which are listed in the main contents table. It starts by looking at household expenditure and the money spent on fuel, light and power. This is followed by charts that relate to the number of households and the houses they live in. Sections on the different types of insulation in the fabric of the house follow. Hot water tank insulation is considered before an overall assessment of insulation is made. Energy consumption is compared to changes in external temperature and heat losses for the average household are calculated. The following sections relate to heating systems. Finally the energy consumption is split into different end uses and different fuels. Charts illustrating the information appear within the text but the tables on which they are based appear at the end of the section on pages 130 to 149.

Household expenditure on fuel, light and power – Wales

The percentage of expenditure spent on fuel, light and power is decreasing as shown in figure 1W.

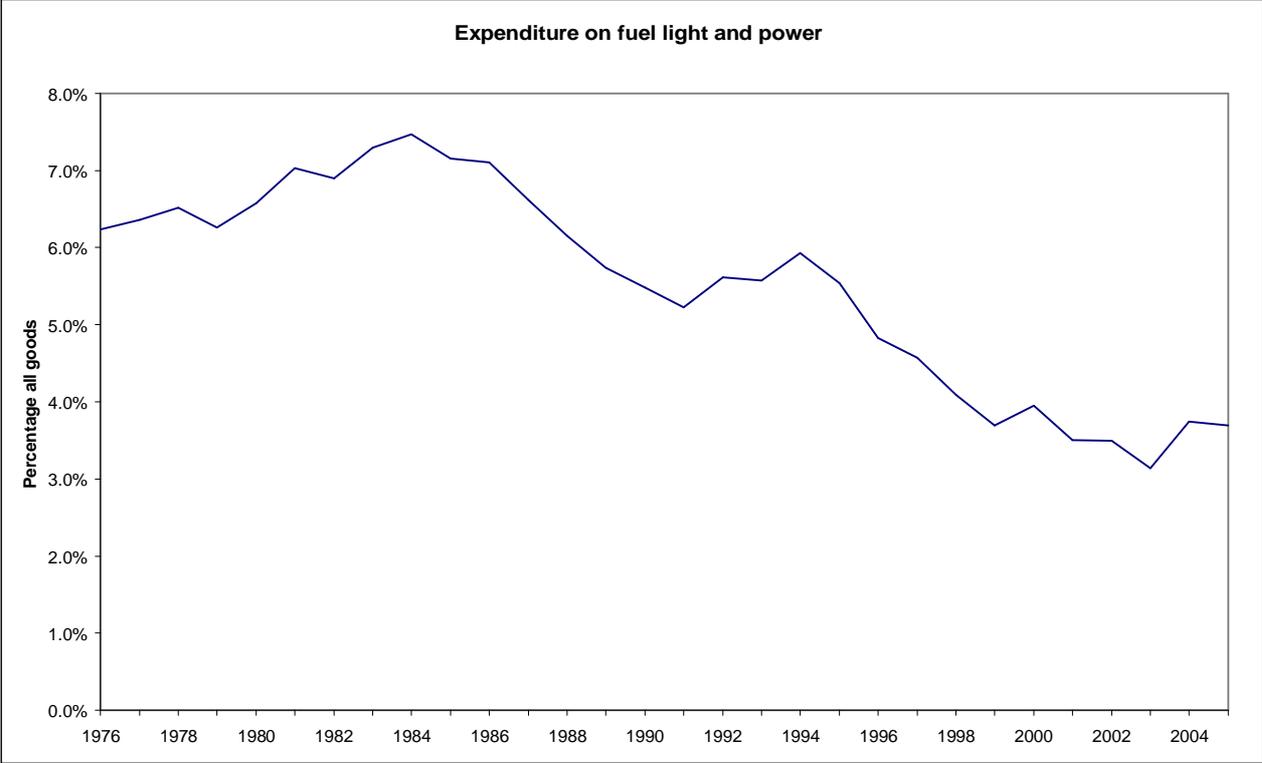


Figure 1W

It has decreased from 6.2% in 1976 to 3.7% in 2005.

Figure 2W shows how expenditure on all goods has risen compared to that on fuel, light and power.

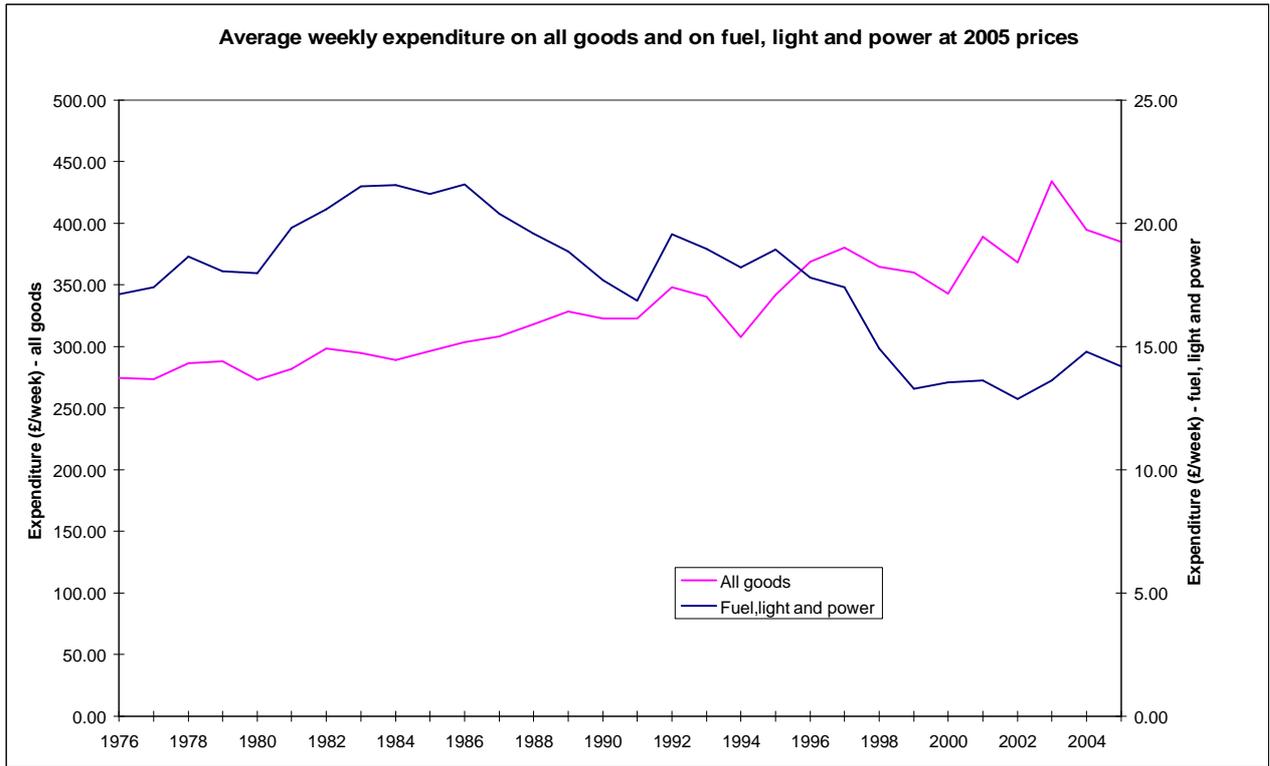


Figure 2W

Table 1W on page 130 shows the average weekly expenditure on all goods and on fuel, light and power both in contemporary prices and adjusted to 2005 prices by using the retail price index.

Population and household numbers – Wales

The number of households continues to increase while the number of people per household falls. Figure 3W shows the household and population numbers for Wales.

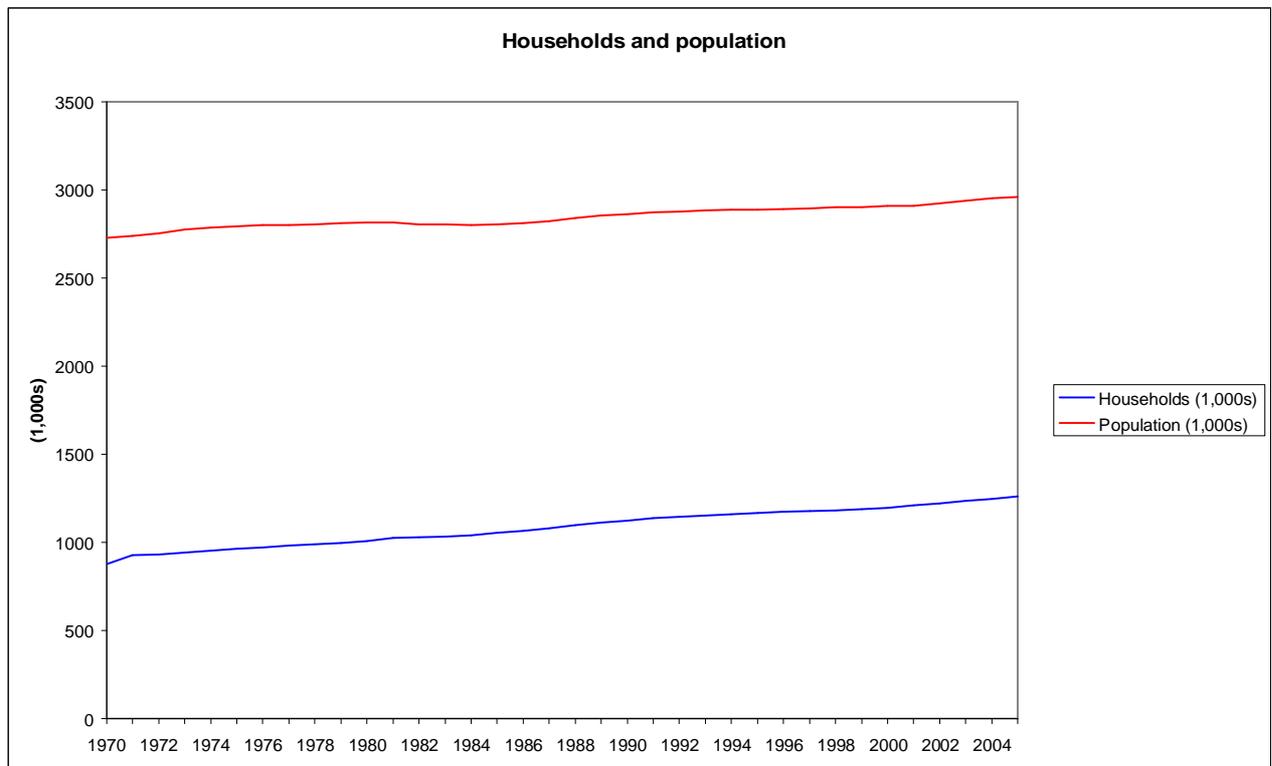


Figure 3W

The average household size has decreased from 3.12 to 2.35 between 1970 and 2005.

Since the previous Country fact file was published some government figures, for population and households in the years included in it, have been revised as a result of the 2001 census. This means there may be small differences in tables produced for this fact file from those in the earlier publication.

Table 2W shows the population, number of households and average household size, for Wales, for the years 1970-2005.

Age of the housing stock – Wales

Figure 4W shows the age distribution within the housing stock.

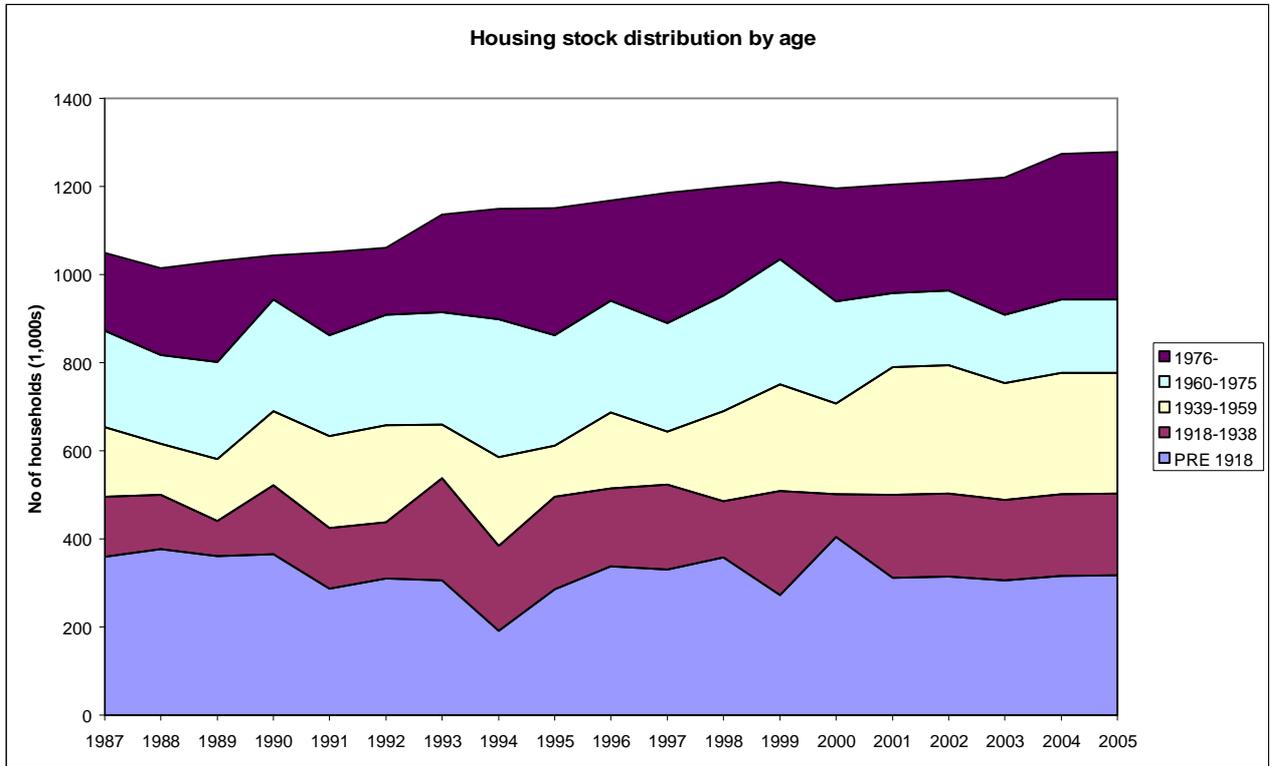


Figure 4W

Although some older dwellings are demolished there is very little decrease in the number of older dwellings since some are also converted to multiple dwellings.

The number of new dwellings built each year is increasing the post 1976 category.

Table 3W shows the number of dwellings in each age category from 1987 to 2005.

Housing stock distribution by tenure – Wales

Figure 5W shows the tenure distribution of the housing stock.

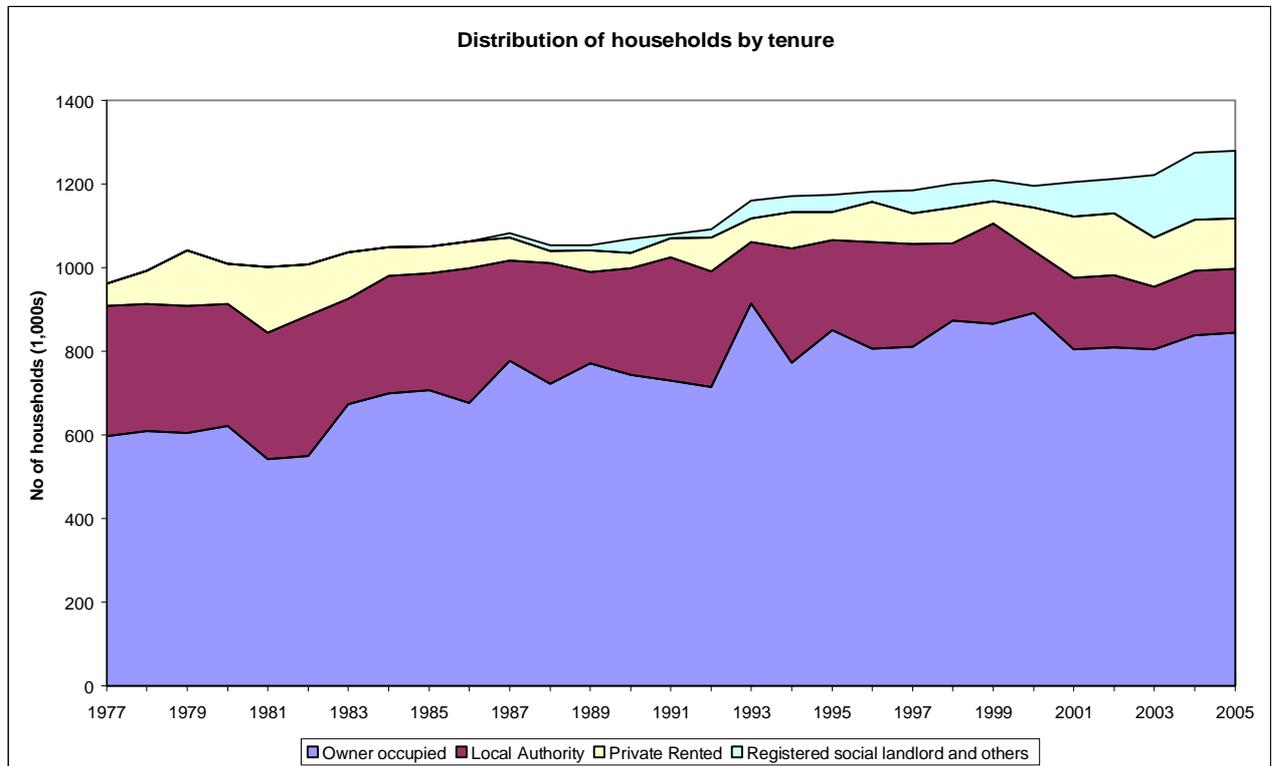


Figure 5W

Before 1987 figures for registered social landlords and private rented tenancies are combined.

The number of those owning their house is increasing slowly from 62% in 1977 to 66% in 2005. Local authority ownership has decreased from 32% to 12% in the same period while registered social landlord ownership had risen to 13% by 2005.

Table 4W shows the number of households of each tenure from 1977 to 2005.

House types – Wales

Figure 6W shows the distribution of the housing stock by type of dwelling.

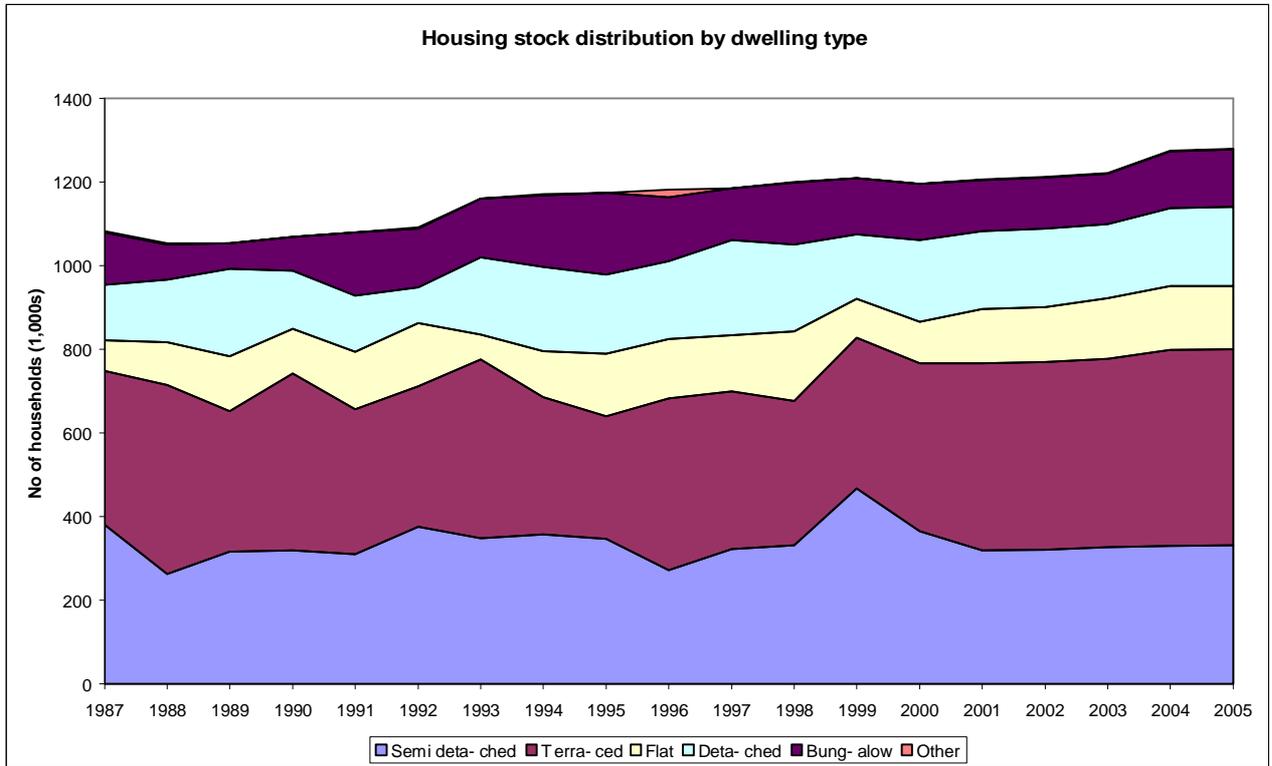


Figure 6W

Although the number of households is increasing the proportion of each type has remained fairly consistent.

Figure 7W shows the proportions of each house type in 2005.

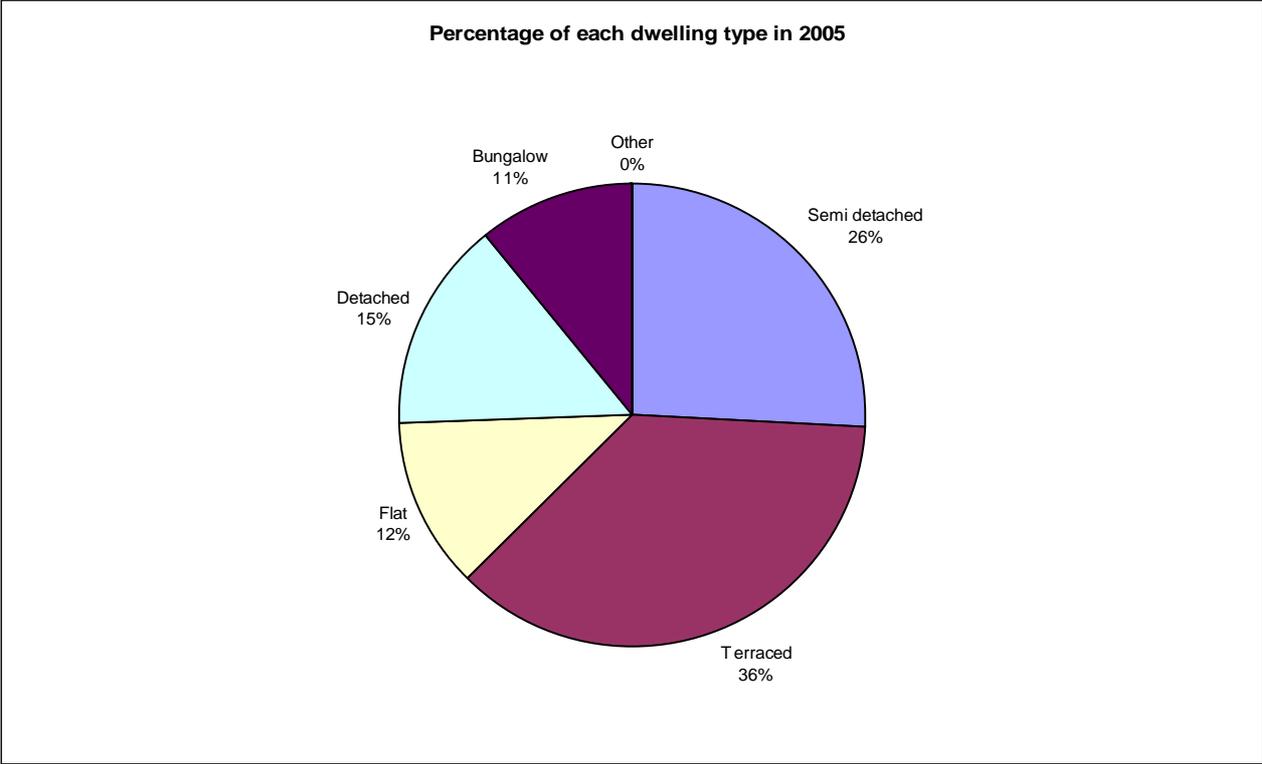


Figure 7W

Although there has been a decrease in semi detached houses from 35% in 1987 to 26% in 2005 this is at least partly due to statistical variations in the data. Over the same time period flats have increased from 7% to 12% of the stock again looking at the full range of years this is not a continuous trend.

Table 5W shows the number of households in each dwelling type from 1987 to 2005.

Loft insulation – Wales

The ownership of loft insulation is shown in figure 8W.

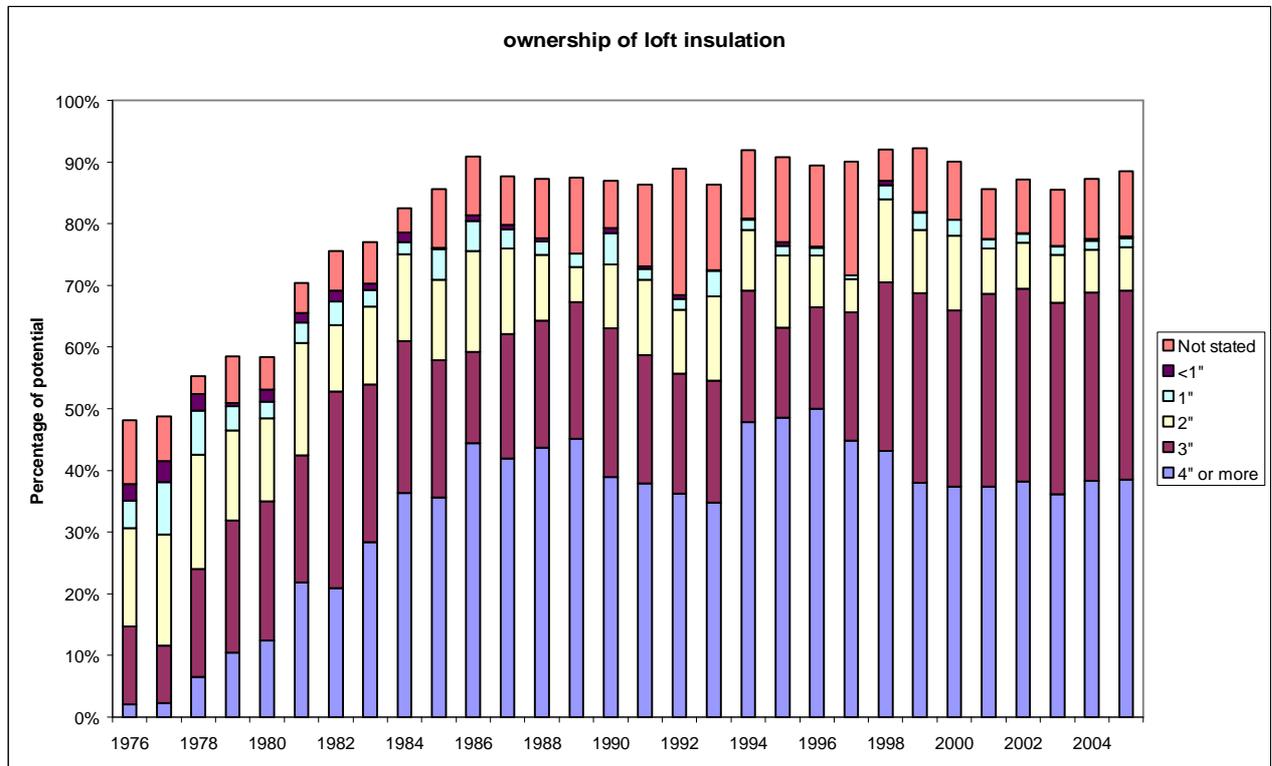


Figure 8W

In 2005 88.4% of lofts had some insulation. This has risen from 48.1% in 1976. It has been as high as 92.2% in 1999. The fluctuations in recent years are due to statistical variations due to the sample size. It is evident however that a saturation point at about 90% has been reached in the late 1980s. However the depth of loft insulation has continued to increase. Since 1994 those lofts with 3 inches (75mm) or more of insulation appears to have saturated at between 60% and 70%.

Figure 9W gives more detail of the 4 inches (100mm) or more category.

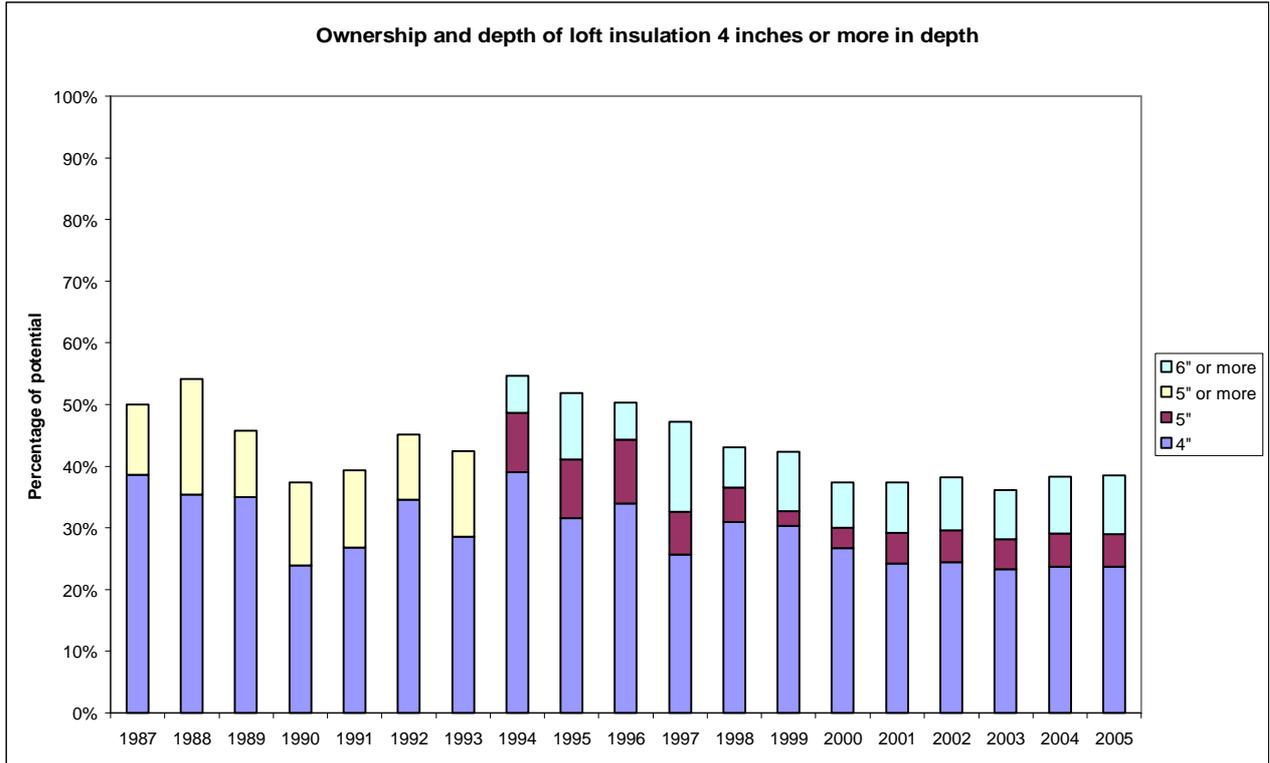


Figure 9W

This appears to show a fall in the percentage of those with 4 inches (100mm) or more of insulation it is balanced by an increase in those with 3 inches (75mm) of insulation. The number of those who “don’t know” how much insulation they have further confuses the situation.

Table 6W shows ownership and depth of loft insulation from 1976 to 2005.

Table 7W shows the details of those with 4 inches (100mm) or more of insulation.

Cavity wall insulation – Wales

Figure 10W shows the ownership of cavity wall insulation.

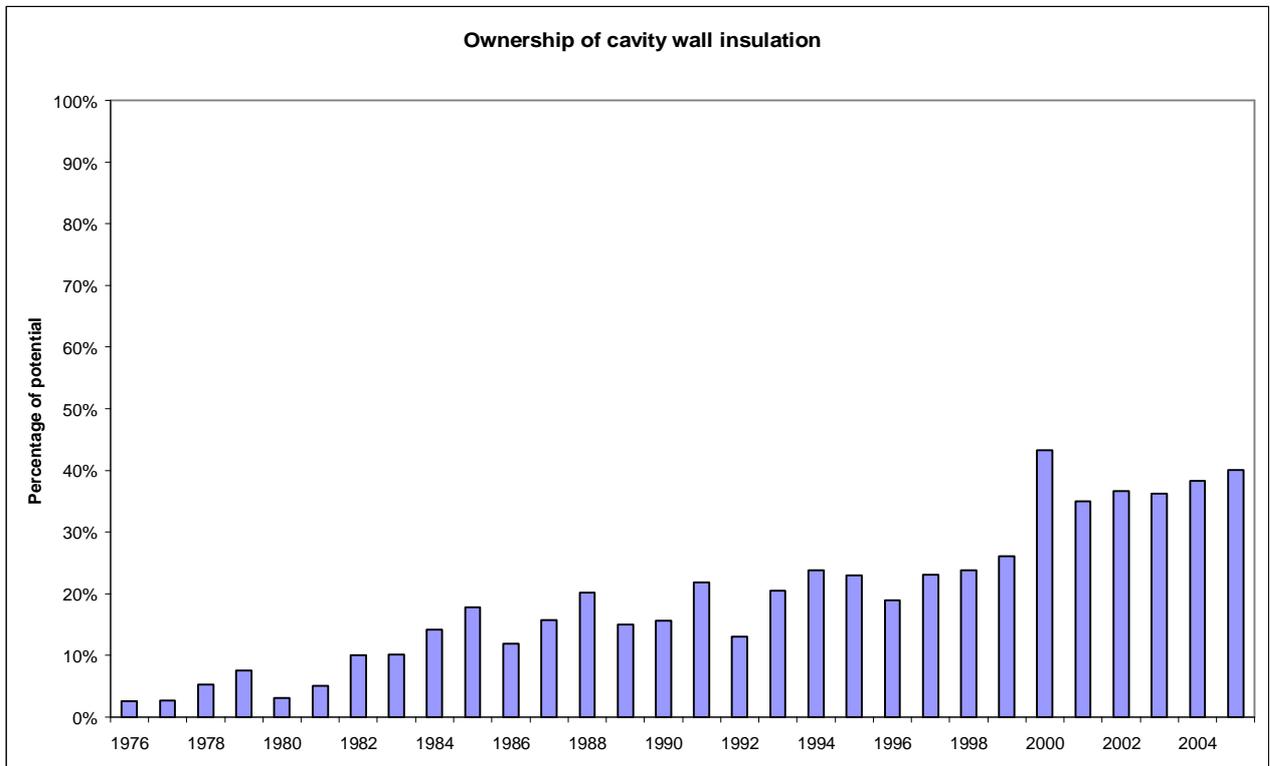


Figure 10W

Cavity wall insulation ownership has increased from 2.6% of cavity wall dwellings in 1976 to 40.1% in 2005.

Table 8W shows the number of households with cavity wall insulation as well as the total number of cavity wall dwellings (potential) in Wales. It also shows the number who have cavity walls but “don’t know” if they have cavity wall insulation.

Double glazing ownership – Wales

Figure 11W shows the ownership of double glazing.

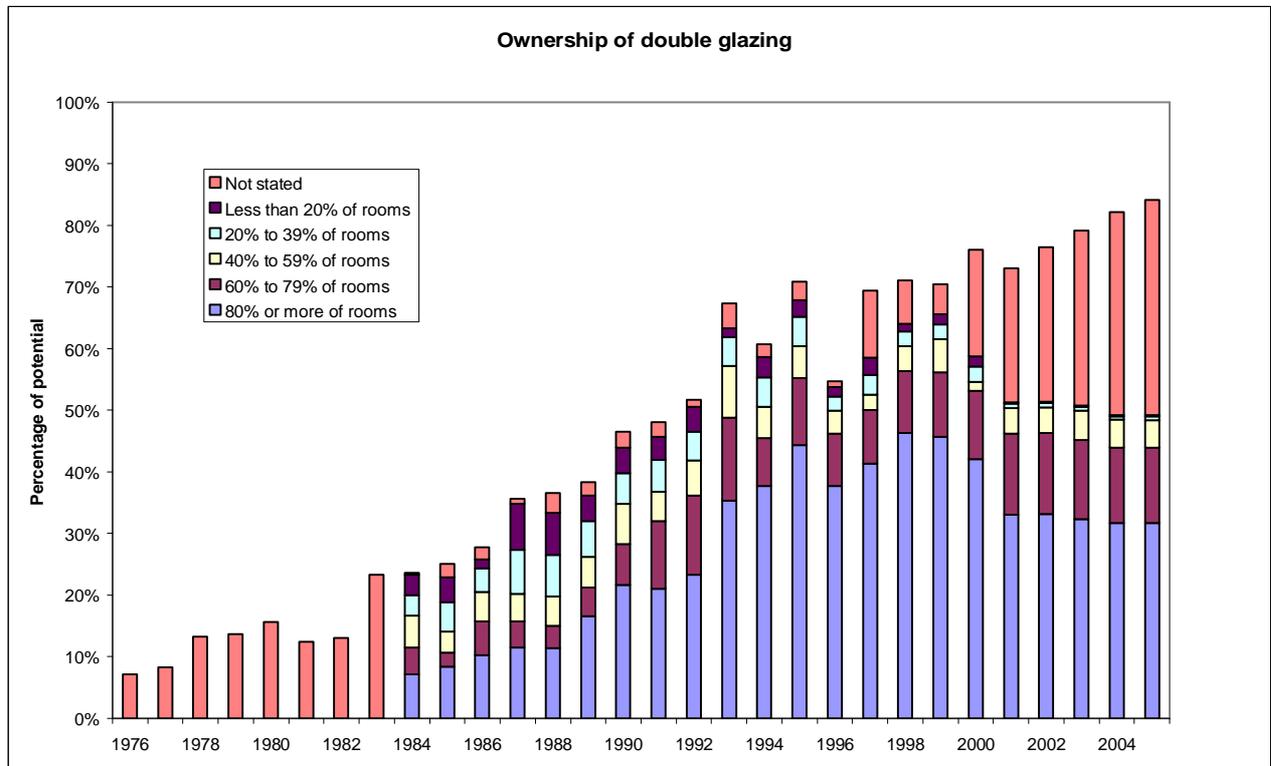


Figure 11W

Double glazing ownership has risen from 7.1% of potential in 1976 to 84.1% in 2005. This refers to any house with any number of windows double glazed. In the earlier years the percentage of rooms double glazed was not recorded and in the last five years the number where the percentage of rooms double glazed has not been given has risen. However between 1984 and 2005 the percentage with 80% or more of rooms double glazed has risen from 7.1% to 31.7%.

Table 9W gives the number of households with double glazing and the percentage of rooms double glazed where available.

Draught proofing – Wales

Figure 12W shows the ownership of draught proofing. If a dwelling has double glazing or single glazing with draught stripping it is considered to be draught proofed.

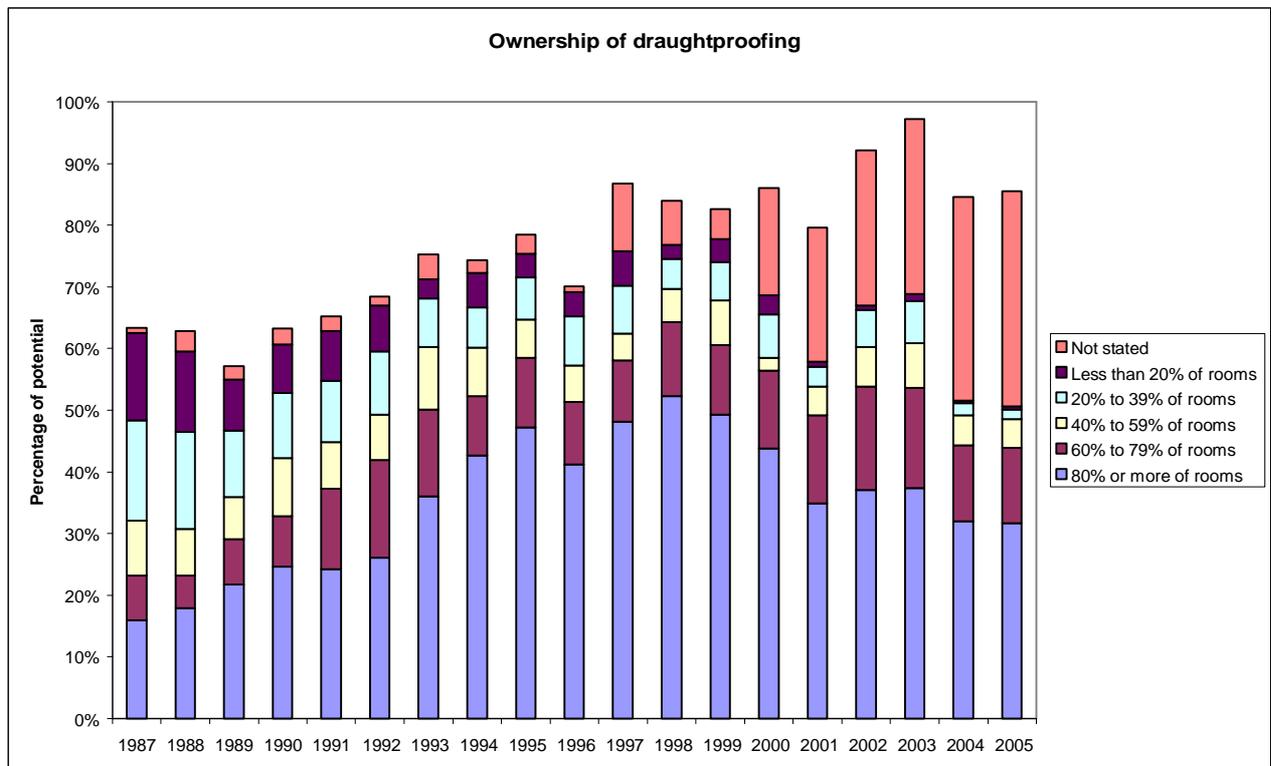


Figure 12W

Ownership levels are increasing largely due to the increase in double glazing. In 2005 85.5% of dwellings were draught proofed compared with 84.1% which were double glazed. In 1987 the figures were 63.3% draught proofed compared with 35.6% double glazed.

Table 10W gives the number of households with draught proofing and the percentage of rooms that are draught proofed.

Hot water tank insulation – Wales

The ownership of hot water tank insulation is shown in figure 13W.

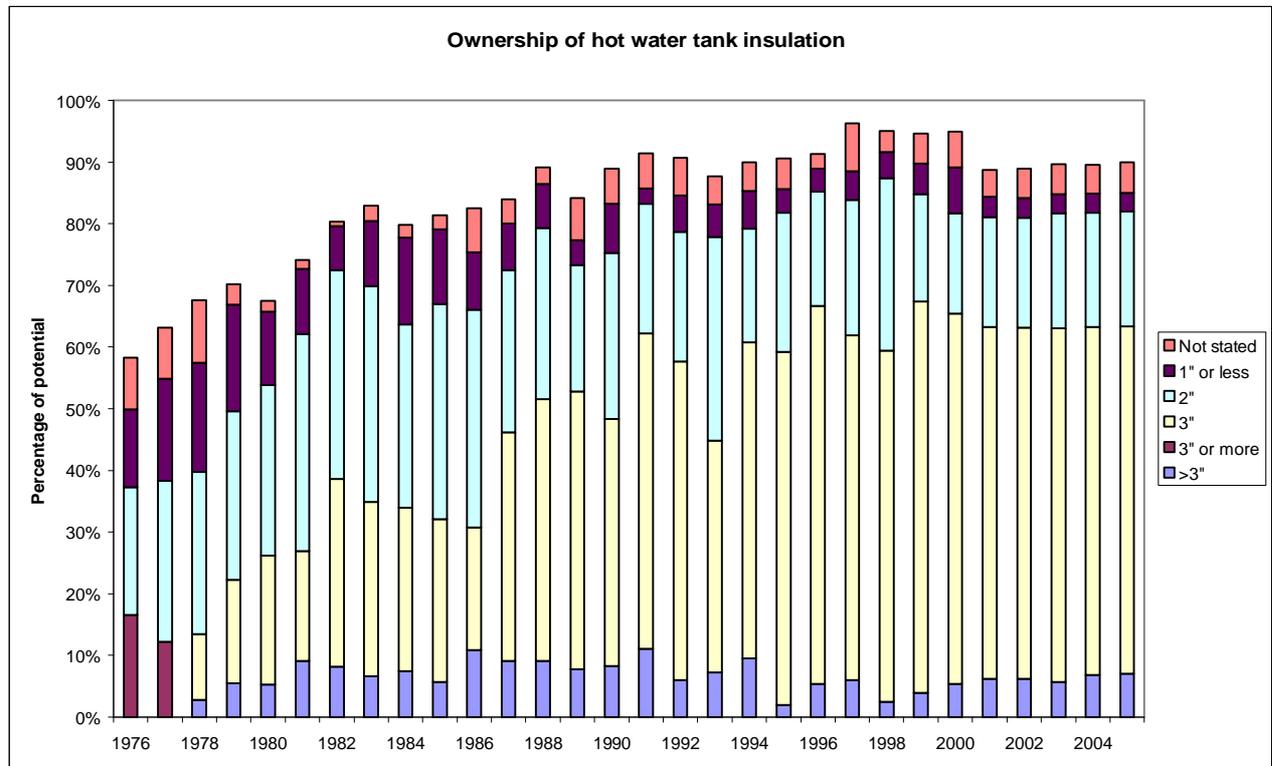


Figure 13W

Ownership of hot water tank insulation has increased from 58.3% of dwellings with hot water tanks in 1976 to 90% in 2005. Ownership has been around 90% since 1991. In 2005 63.4% of households had 3 inches (75mm) or more of insulation on their hot water tank. Those that have spray foam factory insulated tanks are counted as having the equivalent of a jacket of 3 inches (75mm) or more.

Table 11 W shows the number of households with hot water tank insulation and the depths of the insulation.

Insulation measures ownership – Wales

Figure 14W shows households with full and no insulation. Full insulation is taken as households where there is at least 4 inches (100mm) of loft insulation, if there is a loft, and cavity wall insulation, if there is a cavity, and at least 80% of rooms double glazed. No insulation means there is no loft insulation, if there is a loft and no cavity wall insulation, if there is a cavity, and no double glazing.

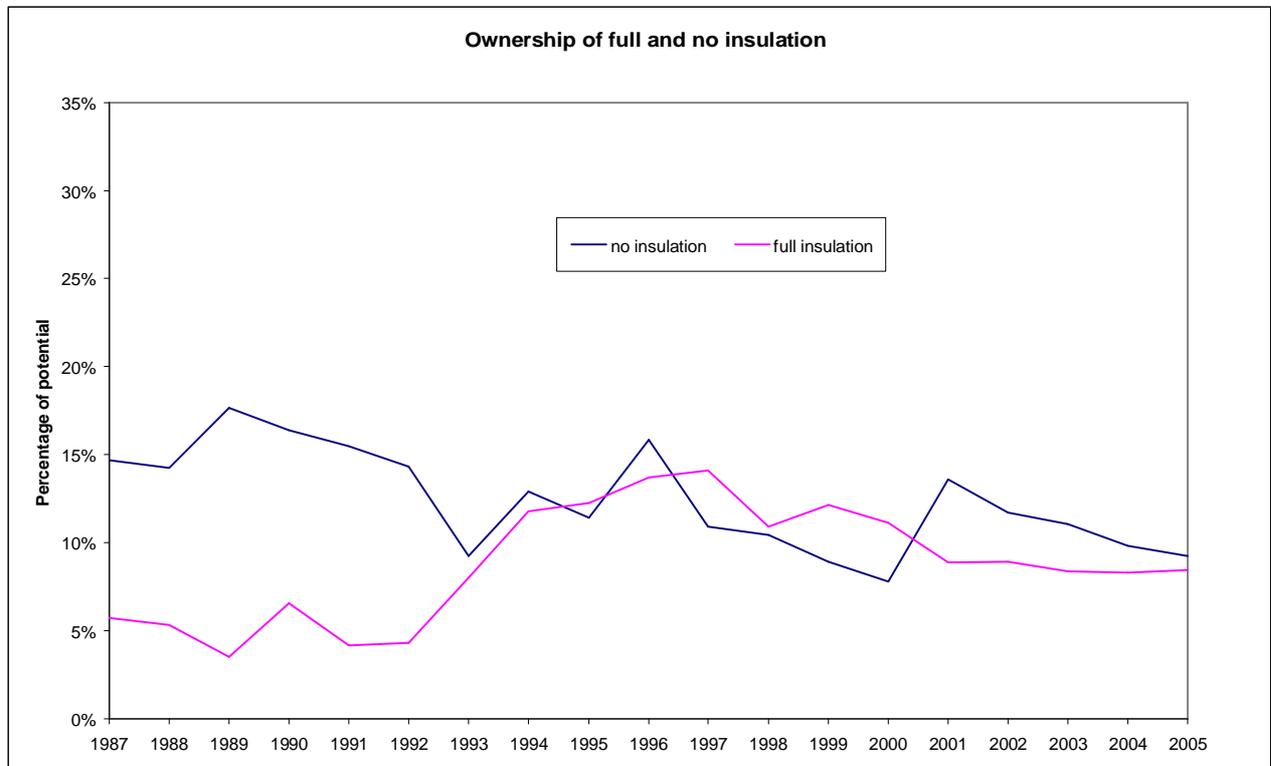


Figure 14W

The proportion of households with no insulation has decreased from 14.7% in 1987 to 9.2% in 2005. The proportion with full insulation has risen from 5.7% in 1987 to 14.1% in 1997 before appearing to decrease again. This may be caused by the increase in the number of households that “don’t know” what levels of insulation they have and therefore cannot be included as having full insulation or simply by statistical variations due to low sample sizes.

Table 12W shows the number of households with full and no insulation.

Energy consumption and external temperatures – Wales

Figure 15W shows the delivered energy and average external temperatures from 1976 to 2005.

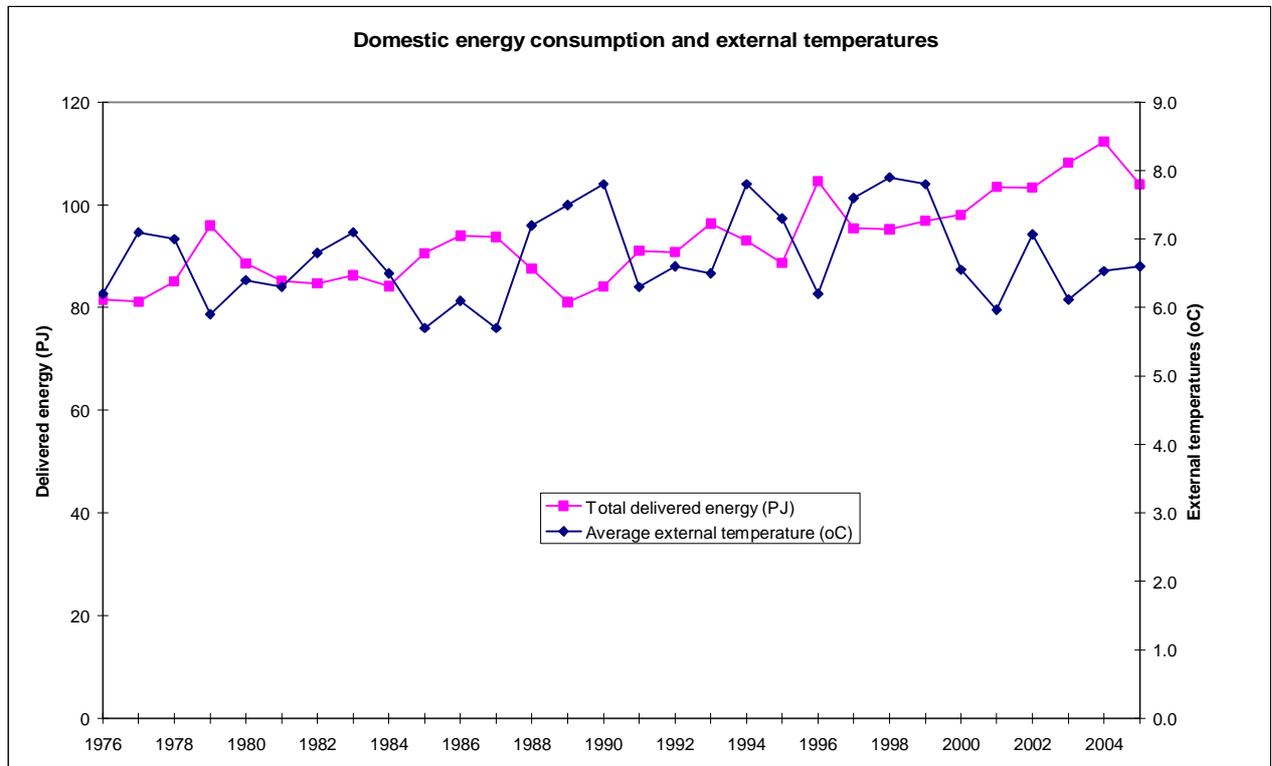


Figure 15W

From 1976 to 2005 delivered energy has increased by 27.4% while the number of households has increased by 29.6%. Figure 15W shows the relationship between external temperature and delivered energy. In particular the effects of the cold winters in 1979, 1985, 1986, 1987, 1996 and 2000 to 2005 can be seen.

Table 13W shows the total households, total delivered energy, average external temperature and average energy consumption per dwelling.

Heat loss of average dwelling – Wales

Figure 16W shows the changes in average heat loss from 1976 to 2005.

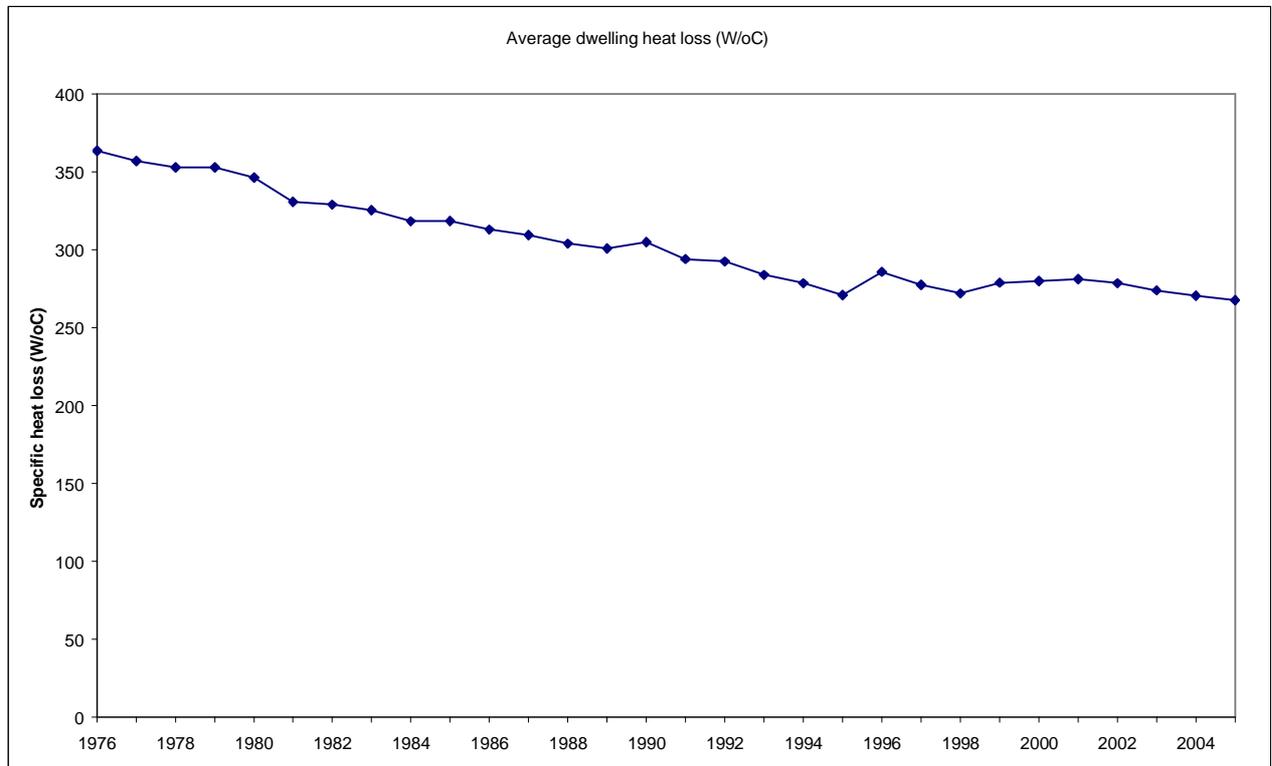


Figure 16W

The heat loss from the average dwelling has steadily been reducing as insulation levels improve. In 2005 it was 267.7 W/°C per dwelling compared with 363.4 W/°C in 1976.

Table 14W shows the average dwelling heat loss and the stock heat loss from 1976 to 2005.

Central heating ownership – Wales

Figure 17W shows the ownership of central heating.

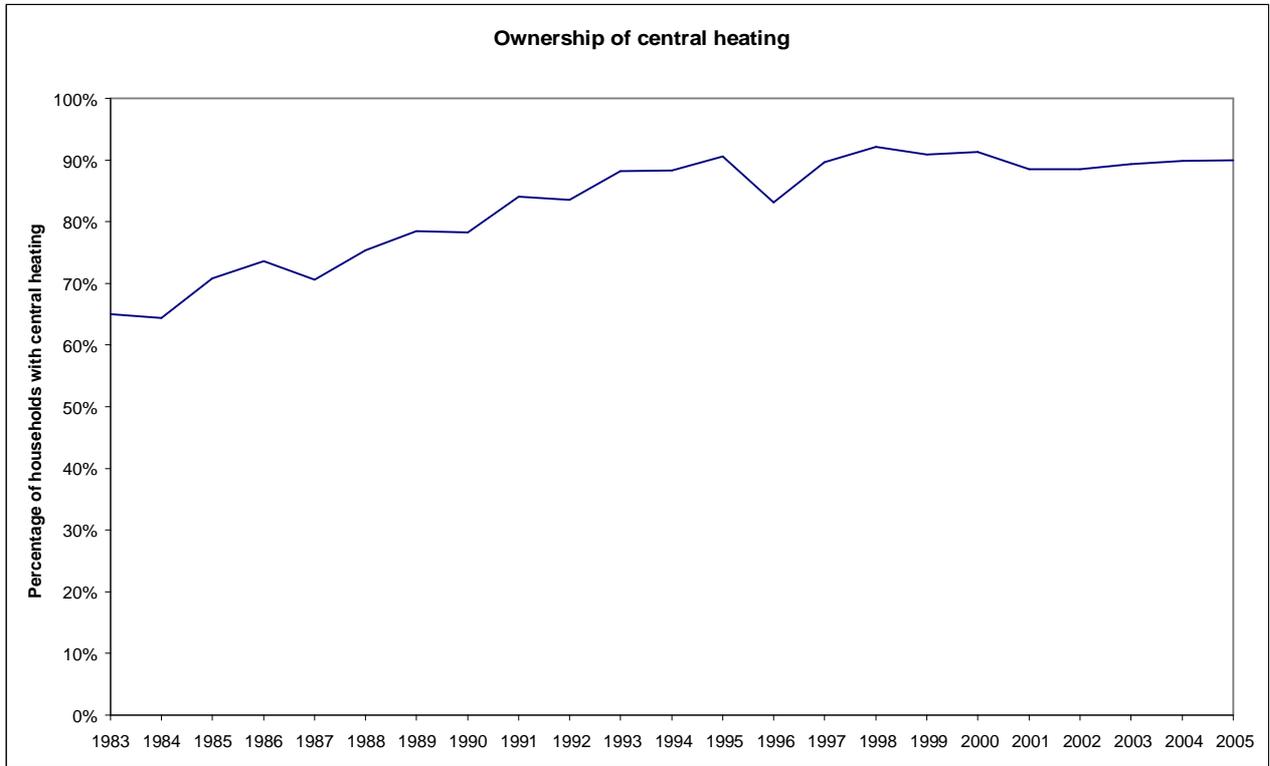


Figure 17W

Central heating ownership has been increasing. In 2005 89.9% of households had central heating this compares with 65% in 1983.

Table 15W shows the number of households with and without central heating.

Heating appliances – central heating – Wales

Figure 18W shows the main form of heating in centrally heated homes.

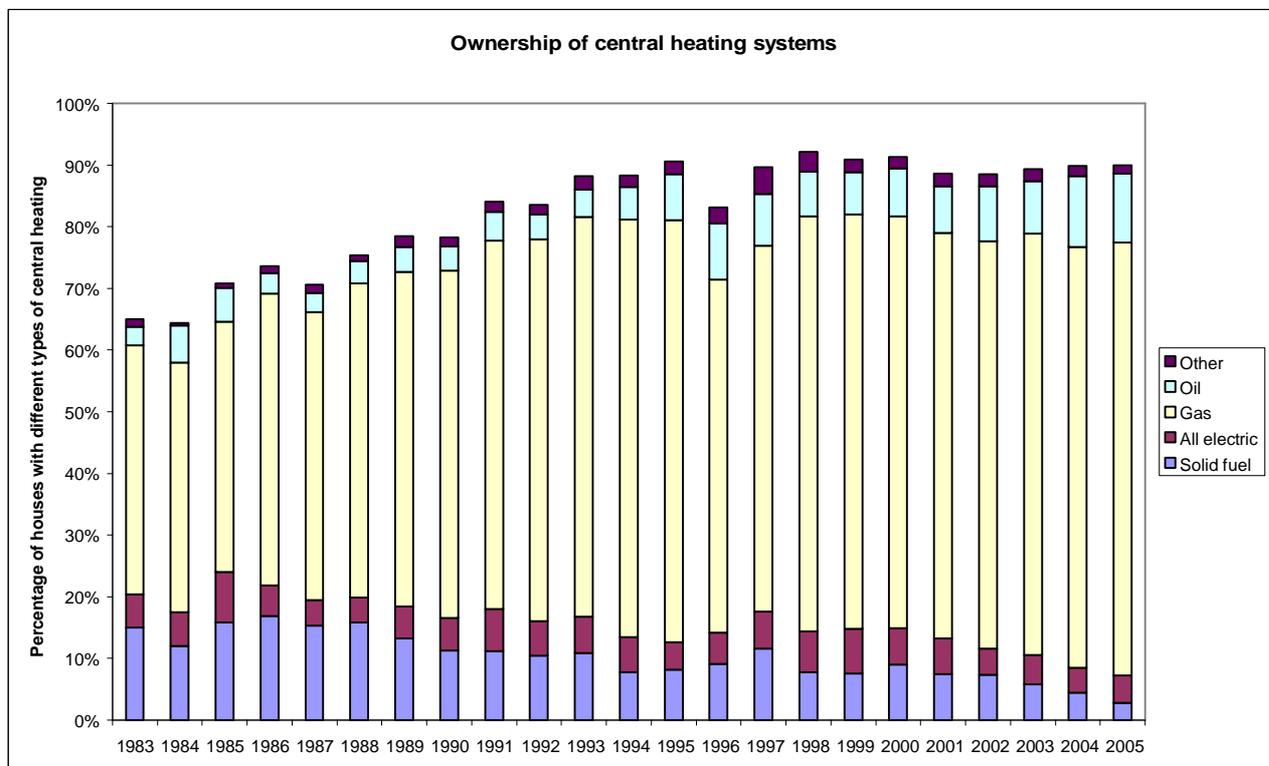


Figure 18W

Figure 18W shows the central heating fuel used as a percentage of the whole stock. The figure shows clearly that the main central heating fuel is gas.

Considering only those homes that are centrally heated, in 2005 gas was used in 78% of these homes. This compares with 62.2% using gas in centrally heated homes in 1983. Solid fuel use has fallen from 23.2% of centrally heated homes in 1983 to 3.1% in 2005. As shown in figure 17W the overall percentage of those using central heating has increased.

Table 16W shows the number of households using each fuel type for central heating.

Heating appliances – non central heating – Wales

Figure 19W shows the percentage of households using non central heating and the fuel they use.

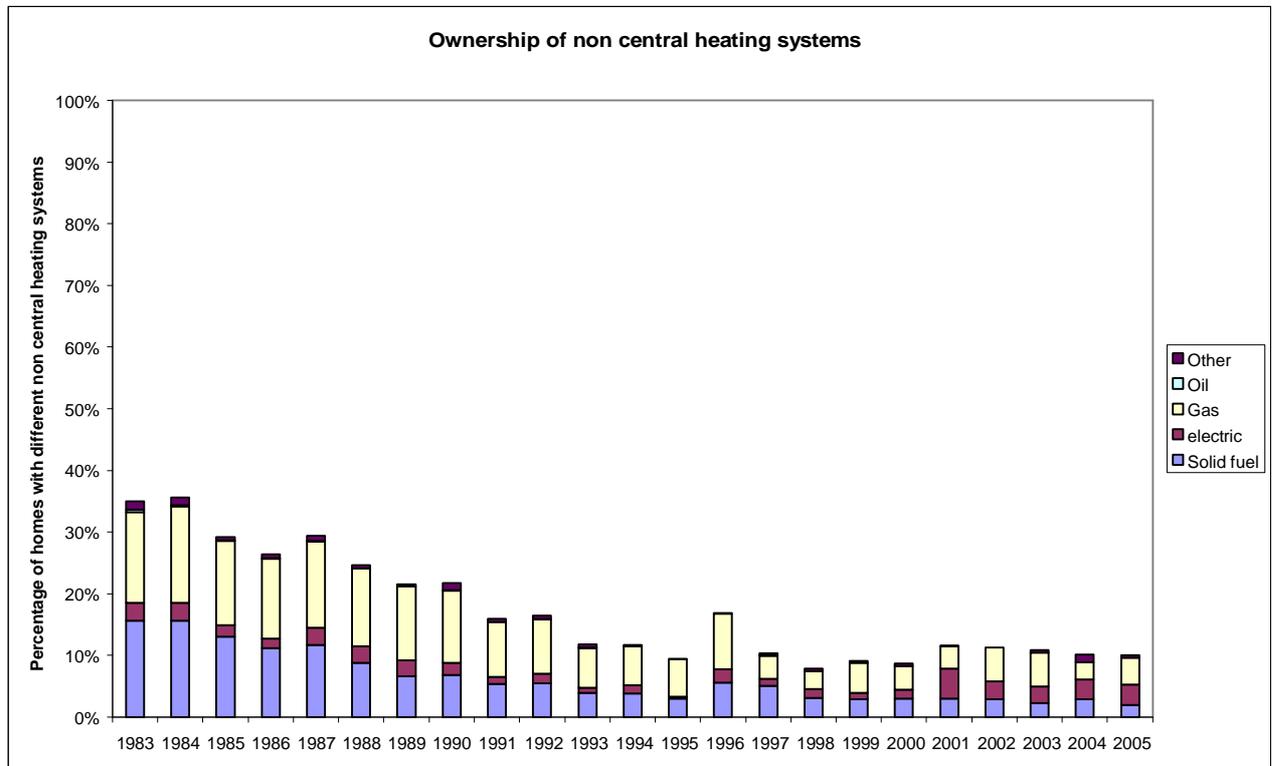


Figure 19W

In 1983 35% of homes used some form of non central heating as their main heating system. In 2005 this had reduced to 10.1%.

In 2005 44% of those without central heating used gas, 32% used electric and 20% used solid fuel.

Table 17W shows the number of households with non central heating and the type of fuel they use.

Heating appliances and efficiencies – Wales

Figure 20W shows the weighted average space heating efficiency.

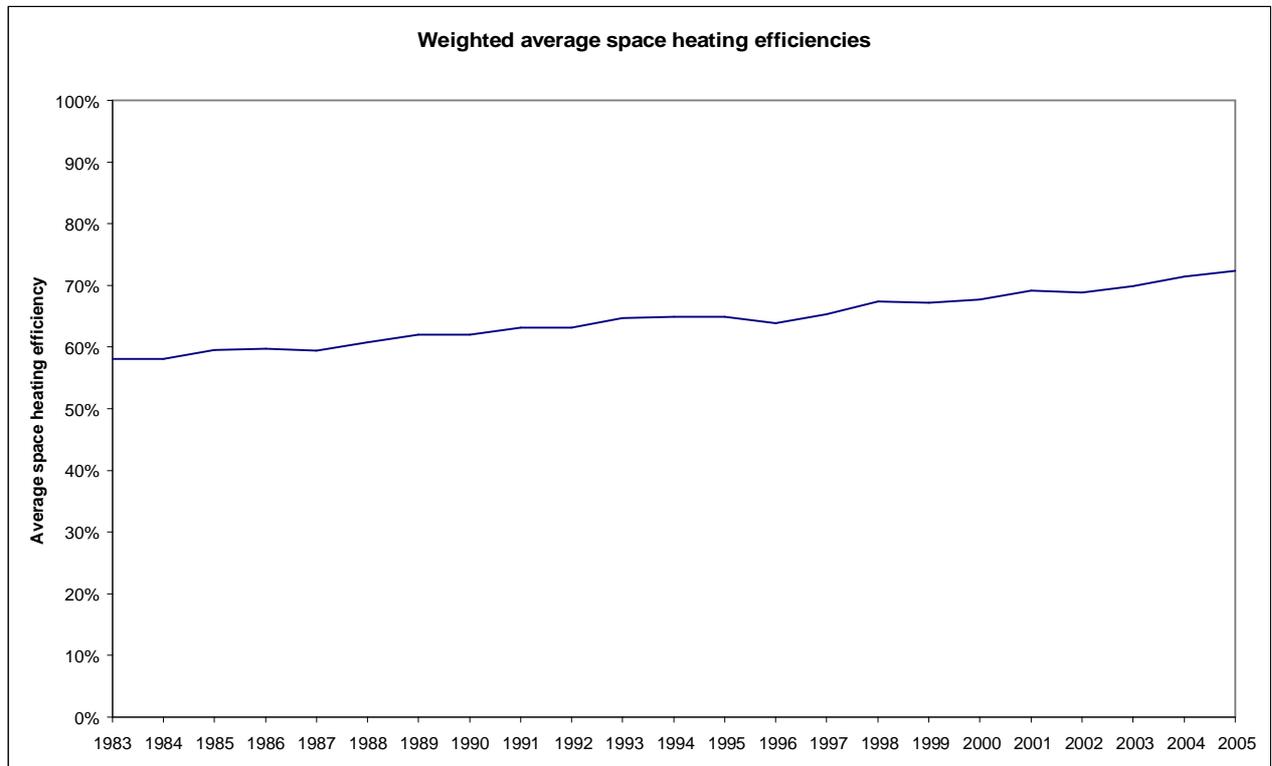


Figure 20W

The average space heating efficiency has improved from 58.1% to 72.4% between 1983 and 2005. This is partly due to changes in fuel for heating systems and partly due to improvements in gas and oil central heating systems where the average efficiencies have increased from 57.2% to 72.8% for gas and 59.3% to 81.3% for oil between 1983 and 2005.

Table 18W shows the weighted average central heating and non central heating efficiencies for each year as well as the weighted average space heating efficiency.

Energy consumption by end use – Wales

Figure 21W shows the domestic energy consumption by end use for each year.

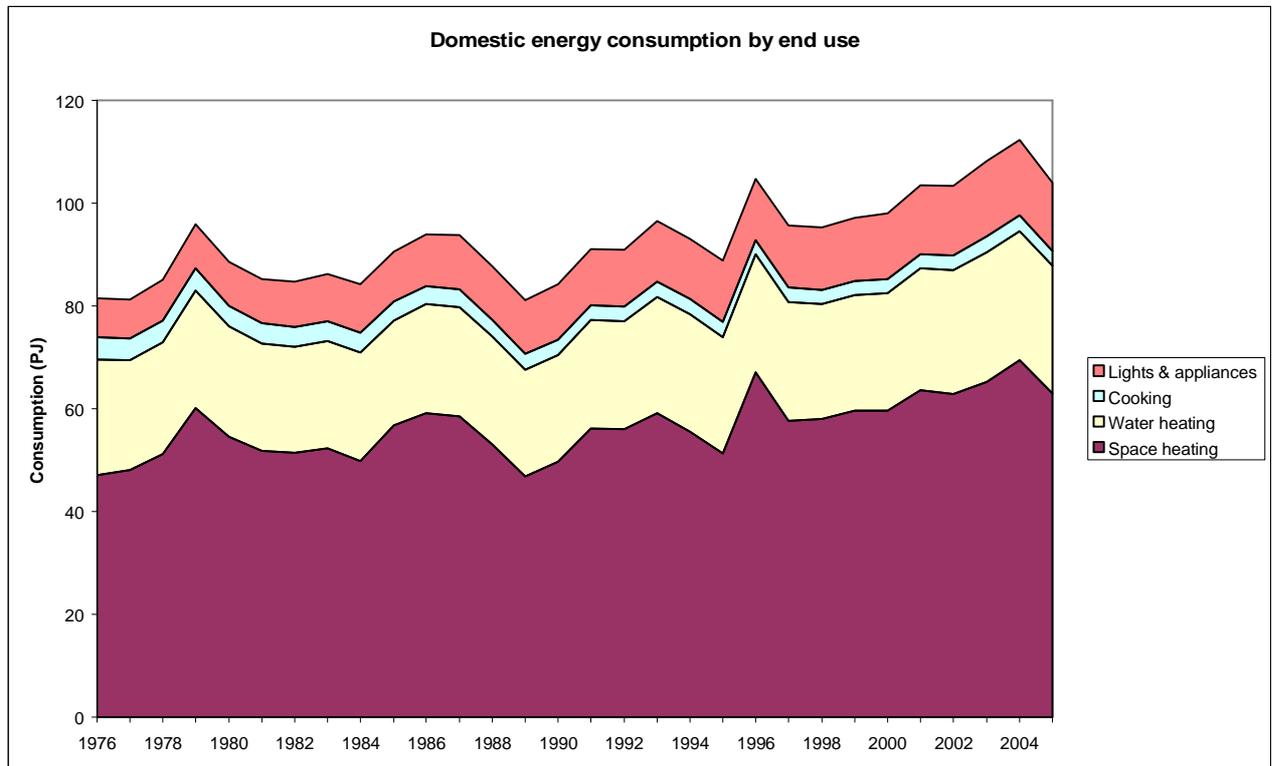


Figure 21W

The average energy use per household has remained very similar throughout the period although total energy consumption has risen due to an increase in the number of households.

Table 19W shows the energy consumption for space heating, water heating, cooking and lights and appliances for all households. It also gives the figures for space heating and all energy per household.

Domestic energy consumption by fuel – Wales

Figure 22W shows the energy use of the housing stock by fuel.

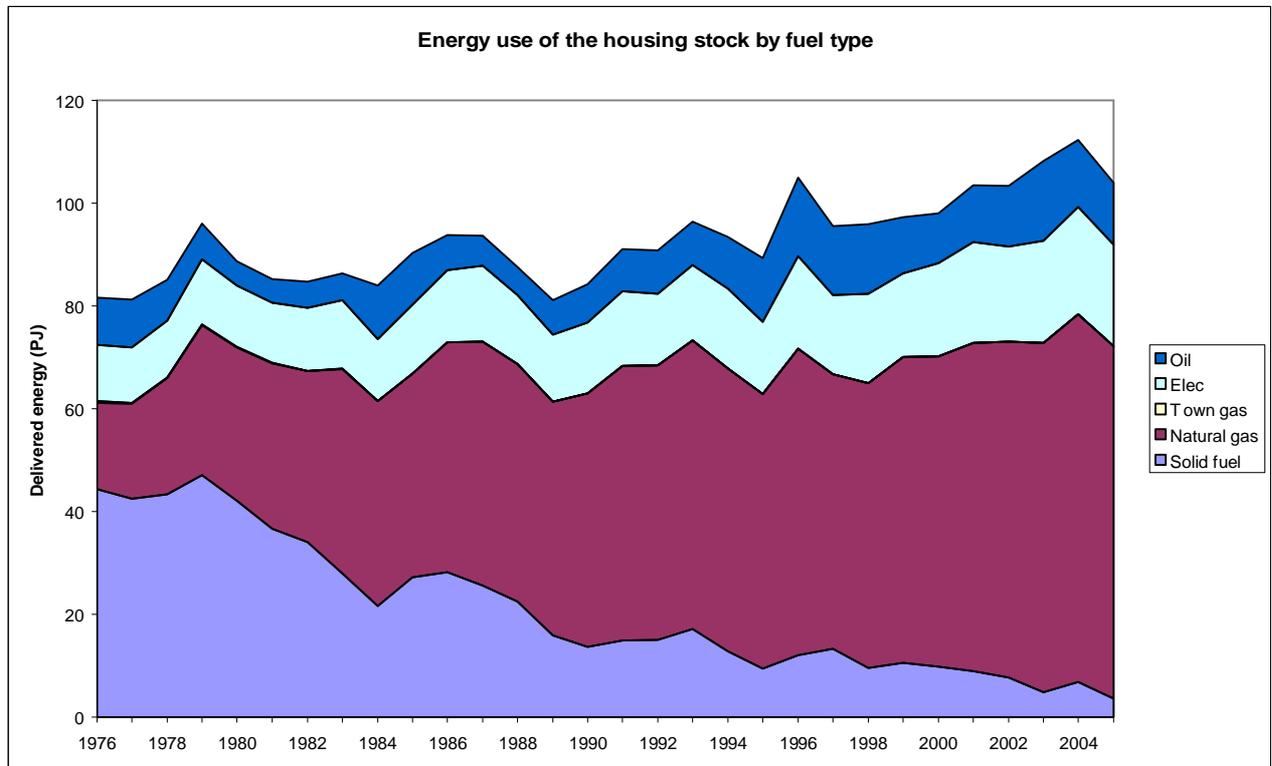


Figure 22W

During this period town gas has been phased out but in 2005 65.9% of domestic energy consumption was gas compared with 21.1% in 1976. In 1976 solid fuel made up 54.4% of the energy consumed whereas by 2005 this had fallen to 3.5%.

Table 20W shows the energy use of the housing stock by the different fuels.

Tables – Wales

Table 1W Average weekly expenditure on all goods and on fuel, light and power (£/week) - Wales

Year	Contemporary prices		2005 prices		% fuel, light and power
	All goods	Fuel, light and power	All goods	Fuel, light and power	
1976	56.92	3.55	274.53	17.12	6.2%
1977	65.69	4.18	273.53	17.41	6.4%
1978	74.55	4.86	286.21	18.66	6.5%
1979	85.08	5.33	288.04	18.04	6.3%
1980	94.99	6.25	272.96	17.96	6.6%
1981	109.87	7.72	281.95	19.81	7.0%
1982	126.19	8.70	298.31	20.57	6.9%
1983	130.29	9.51	294.58	21.50	7.3%
1984	134.15	10.02	288.69	21.56	7.5%
1985	146.01	10.44	296.27	21.18	7.2%
1986	154.66	10.99	303.56	21.57	7.1%
1987	163.63	10.82	308.24	20.38	6.6%
1988	177.17	10.90	318.14	19.57	6.2%
1989	197.10	11.31	328.42	18.85	5.7%
1990	211.93	11.62	322.61	17.69	5.5%
1991	224.37	11.73	322.62	16.87	5.2%
1992	251.22	14.11	348.18	19.56	5.6%
1993	249.45	13.90	340.32	18.96	5.6%
1994	230.73	13.67	307.36	18.21	5.9%
1995	265.53	14.71	341.85	18.94	5.5%
1996	293.21	14.16	368.59	17.80	4.8%
1997	312.14	14.28	380.43	17.40	4.6%
1998	309.52	12.66	364.73	14.92	4.1%
1999	310.25	11.45	360.06	13.29	3.7%
2000	304.28	12.01	342.98	13.54	3.9%
2001	351.07	12.30	388.86	13.62	3.5%
2002	337.92	11.82	368.14	12.87	3.5%
2003	410.10	12.86	434.13	13.61	3.1%
2004	383.97	14.37	394.93	14.78	3.7%
2005	384.73	14.20	384.73	14.20	3.7%

Source: Family Expenditure Survey, Expenditure and Food Survey.

Table 2W Population, households and household size - Wales

Year	Households (1,000s)	Population (1,000s)	Average household size
1970	876	2729	3.12
1971	928	2740	2.95
1972	931	2755	2.96
1973	943	2773	2.94
1974	954	2785	2.92
1975	963	2795	2.90
1976	972	2799	2.88
1977	980	2801	2.86
1978	989	2804	2.84
1979	998	2810	2.82
1980	1007	2816	2.80
1981	1025	2813	2.74
1982	1027	2804	2.73
1983	1033	2803	2.71
1984	1042	2801	2.69
1985	1053	2803	2.66
1986	1065	2811	2.64
1987	1079	2823	2.62
1988	1097	2841	2.59
1989	1113	2855	2.57
1990	1124	2862	2.55
1991	1137	2873	2.53
1992	1145	2878	2.51
1993	1153	2884	2.50
1994	1160	2887	2.49
1995	1166	2889	2.48
1996	1172	2891	2.47
1997	1178	2895	2.46
1998	1183	2900	2.45
1999	1188	2901	2.44
2000	1197	2907	2.43
2001	1209	2910	2.41
2002	1223	2923	2.39
2003	1236	2938	2.38
2004	1247	2952	2.37
2005	1260	2959	2.35

Source: www.communities.gov.uk

Table 3W Housing stock distribution by age (1,000s) - Wales

	PRE 1918	1918-1938	1939-1959	1960-1975	1976-	TOTAL
1987	369	140	163	225	181	1079
1988	407	133	125	218	213	1097
1989	389	86	152	239	246	1113
1990	394	167	182	274	107	1124
1991	310	149	225	248	203	1137
1992	334	138	237	270	165	1145
1993	310	235	124	258	225	1153
1994	193	195	203	316	254	1160
1995	290	212	118	254	293	1166
1996	339	176	173	254	229	1172
1997	329	191	119	246	293	1178
1998	353	125	202	258	243	1183
1999	267	233	237	280	172	1188
2000	405	96	206	232	257	1197
2001	313	189	291	169	248	1209
2002	317	191	293	170	251	1223
2003	310	184	268	158	315	1236
2004	309	182	269	162	324	1247
2005	312	183	270	163	330	1260

Source: GfK Home Audit

Table 4W Housing stock distribution by tenure (1,000s) - Wales

Year	Owner occupied	Local Authority	Private Rented	Registered social landlord and others	Total houses
1977	608	318	54	-	980
1978	607	303	80	-	989
1979	580	291	127	-	998
1980	619	291	97	-	1007
1981	555	310	160	-	1025
1982	560	342	124	-	1027
1983	670	251	112	-	1033
1984	695	278	69	-	1042
1985	708	280	65	-	1053
1986	677	324	64	-	1065
1987	774	239	54	12	1079
1988	753	300	30	14	1097
1989	814	230	56	13	1113
1990	782	268	38	36	1124
1991	769	310	48	9	1137
1992	749	291	84	21	1145
1993	908	147	56	42	1153
1994	765	271	85	39	1160
1995	845	214	66	42	1166
1996	800	254	94	24	1172
1997	806	244	73	56	1178
1998	861	182	85	55	1183
1999	850	236	52	50	1188
2000	893	148	104	51	1197
2001	807	173	146	83	1209
2002	816	174	148	84	1223
2003	815	151	119	151	1236
2004	821	151	119	157	1247
2005	831	151	119	159	1260

Source: GfK Home Audit

Note: Prior to 1987 RSL houses are included in Private rented

Table 5W Housing stock distribution by type of dwelling (1,000s) - Wales

Year	Semi detached	Terraced	Flat	Detached	Bungalow	Other	Total
1987	379	367	73	133	125	4	1079
1988	274	471	106	156	88	2	1097
1989	334	355	138	222	64	0	1113
1990	336	444	113	146	84	1	1124
1991	328	364	145	142	158	0	1137
1992	395	353	157	90	148	2	1145
1993	346	425	59	183	140	0	1153
1994	355	325	108	200	169	3	1160
1995	345	291	148	188	195	0	1166
1996	271	407	140	186	151	18	1172
1997	320	375	134	226	123	0	1178
1998	327	339	165	205	145	2	1183
1999	459	352	92	150	133	1	1188
2000	366	401	98	197	134	0	1197
2001	320	448	130	188	122	1	1209
2002	324	453	132	190	123	1	1223
2003	331	456	147	180	121	1	1236
2004	324	458	149	182	133	1	1247
2005	327	461	149	186	136	1	1260

Source: GfK Home Audit

Table 6W Ownership and depth of loft insulation (1,000s) - Wales

Year	<1" (<25mm)	1" (25mm)	2" (50mm)	3" (75mm)	4" (100mm) or more	Not stated	Total with	Potential	Total house holds
1976	22	36	128	101	17	83	387	804	972
1977	26	65	138	71	17	55	373	765	980
1978	23	61	159	150	56	26	475	859	989
1979	5	35	132	193	94	68	526	900	998
1980	17	24	118	198	110	47	513	879	1007
1981	12	25	137	156	165	37	531	755	1025
1982	15	34	93	276	181	55	654	866	1027
1983	9	25	115	232	257	62	700	908	1033
1984	14	18	128	223	331	36	750	909	1042
1985	2	48	127	216	347	92	832	973	1053
1986	10	47	160	145	435	93	891	980	1065
1987	8	30	134	195	406	76	850	969	1079
1988	4	22	103	201	424	94	848	972	1097
1989	0	20	52	204	416	114	805	920	1113
1990	8	48	98	228	369	71	823	947	1124
1991	4	17	118	201	366	129	834	966	1137
1992	6	17	100	187	350	197	857	964	1145
1993	1	43	140	204	359	143	889	1030	1153
1994	2	17	101	221	493	115	949	1032	1160
1995	6	15	113	142	472	134	882	971	1166
1996	2	12	81	160	485	128	869	971	1172
1997	0	6	56	214	459	189	924	1026	1178
1998	7	22	128	261	413	48	879	956	1183
1999	2	27	105	313	388	105	941	1020	1188
2000	0	28	128	303	396	100	957	1061	1197
2001	1	15	75	319	380	82	875	1019	1209
2002	1	15	77	323	393	90	898	1030	1223
2003	1	14	79	320	372	94	880	1028	1236
2004	3	15	71	314	393	100	897	1028	1247
2005	3	15	73	318	400	110	918	1038	1260

Source: GfK Home Audit

Table 7W Ownership and depth of loft insulation for those dwellings with 4" (100mm) or more of insulation (1,000s) - Wales

Year	4" (100mm)	5" (125mm)	5" (125mm) or more	6" (150mm) or more	Total 4" (100mm) or more	potential	total with insulation
1987	314	-	93	-	406	814	392
1988	277	-	147	-	424	782	381
1989	319	-	97	-	416	910	503
1990	237	-	132	-	369	987	577
1991	249	-	117	-	366	929	542
1992	268	-	82	-	350	774	545
1993	241	-	117	-	359	845	638
1994	353	86	0	54	493	902	696
1995	287	86	0	98	472	909	750
1996	328	99	0	59	485	964	825
1997	250	68	0	142	459	972	884
1998	297	54	0	62	413	959	841
1999	278	22	0	88	388	916	799
2000	283	35	0	78	396	1061	957
2001	247	51	0	82	380	1019	875
2002	252	52	0	89	393	1030	898
2003	239	51	0	82	372	1028	880
2004	244	55	0	95	393	1028	897
2005	246	55	0	98	400	1038	918

Source: GfK Home Audit

Table 8W Ownership of cavity wall insulation - Wales

Year	Houses with cavity insulation	Not known if cavity insulated	Potential (total houses with cavity walls)	Total households
1976	15		563	972
1977	15		579	980
1978	31		589	989
1979	45		599	998
1980	19		609	1007
1981	32	106	628	1025
1982	63	119	632	1027
1983	65	107	640	1033
1984	92	111	650	1042
1985	117	91	659	1053
1986	80	92	670	1065
1987	105	95	664	1079
1988	141	155	698	1097
1989	101	112	676	1113
1990	97	118	619	1124
1991	163	146	748	1137
1992	93	207	717	1145
1993	144	197	704	1153
1994	197	215	828	1160
1995	188	259	818	1166
1996	143	297	755	1172
1997	161	254	699	1178
1998	179	195	753	1183
1999	202	56	774	1188
2000	295	32	683	1197
2001	259	61	740	1209
2002	274	57	748	1223
2003	282	53	778	1236
2004	301	51	788	1247
2005	320	258	798	1260

Source: GfK Home Audit

Table 9W Ownership of double glazing (1,000s) - Wales

Year	Less than 20% of rooms	20% to 39% of rooms	40% to 59% of rooms	60% to 79% of rooms	80% or more of rooms	Not stated	Total with double glazing	Potential
1976						69	69	972
1977						80	80	980
1978						130	130	989
1979						136	136	998
1980						158	158	1007
1981						127	127	1025
1982						133	133	1027
1983						240	240	1033
1984	34	35	55	45	74	4	246	1042
1985	42	50	36	24	88	23	264	1053
1986	15	41	51	58	109	21	296	1065
1987	81	77	49	46	124	9	385	1079
1988	75	74	52	40	125	35	401	1097
1989	46	64	55	53	184	24	427	1113
1990	46	56	74	75	243	29	523	1124
1991	42	59	55	124	239	27	547	1137
1992	46	55	65	147	267	13	592	1145
1993	17	54	96	155	408	47	776	1153
1994	39	54	58	90	438	25	704	1160
1995	32	56	61	126	517	35	826	1166
1996	19	27	43	100	442	11	641	1172
1997	33	38	29	103	486	129	818	1178
1998	15	29	47	119	547	84	841	1183
1999	21	28	64	124	543	57	837	1188
2000	19	30	17	133	503	208	910	1197
2001	3	8	50	160	399	263	883	1209
2002	3	8	50	161	405	308	936	1223
2003	3	7	60	159	399	350	978	1236
2004	3	7	57	152	395	411	1026	1247
2005	3	8	57	154	399	439	1061	1260

Source: GfK Home Audit

Table 10W Ownership of draught proofing (1,000s) - Wales

Year	Less than 20% of rooms	20% to 39% of rooms	40% to 59% of rooms	60% to 79% of rooms	80% or more of rooms	Not stated	Total with draught proofing	Potential (Total house holds)
1987	153	175	96	78	172	9	683	1079
1988	143	173	83	57	197	35	689	1097
1989	92	119	76	82	242	24	636	1113
1990	87	120	105	91	278	29	711	1124
1991	92	114	85	149	275	27	742	1137
1992	86	116	85	181	299	16	783	1145
1993	36	90	117	162	415	47	868	1153
1994	64	76	91	112	494	25	863	1160
1995	45	78	73	131	550	37	915	1166
1996	46	93	68	119	483	11	821	1172
1997	66	92	51	116	568	129	1022	1178
1998	28	57	63	143	618	84	993	1183
1999	44	74	85	135	585	59	982	1188
2000	37	85	24	151	524	208	1030	1197
2001	10	39	56	173	421	263	962	1209
2002	9	74	79	205	454	308	1127	1223
2003	15	84	89	200	463	350	1202	1236
2004	6	24	60	155	398	411	1054	1247
2005	8	19	59	154	399	439	1077	1260

Source: GfK Home Audit

Table 11W Ownership of hot water tank insulation (1,000s) - Wales

Year	1" (25mm) or less	2" (50mm)	3" (75mm)	3" (75mm) or more	>3" (>75mm)	Not stated	Total with	Potential	Total households
1976	113	186	-	149	-	76	523	898	972
1977	145	227	-	107	-	72	551	873	980
1978	159	237	97	-	25	92	610	902	989
1979	156	247	151	-	50	30	635	904	998
1980	107	247	187	-	47	15	603	894	1007
1981	95	318	161	-	82	13	670	903	1025
1982	65	309	277	-	74	6	732	911	1027
1983	100	332	269	-	63	24	787	949	1033
1984	140	297	264	-	74	21	797	998	1042
1985	121	348	262	-	57	23	812	997	1053
1986	93	355	200	-	109	72	830	1006	1065
1987	78	270	380	-	94	41	862	1026	1079
1988	76	293	450	-	96	28	943	1058	1097
1989	39	202	442	-	76	68	827	982	1113
1990	86	287	428	-	88	60	949	1068	1124
1991	26	224	545	-	118	60	974	1065	1137
1992	62	221	546	-	63	64	956	1055	1145
1993	56	347	395	-	77	48	921	1051	1153
1994	62	190	527	-	98	49	926	1029	1160
1995	38	221	561	-	20	49	889	981	1166
1996	38	187	617	-	55	25	921	1008	1172
1997	49	226	578	-	62	80	993	1032	1178
1998	41	274	558	-	25	35	933	981	1183
1999	46	165	599	-	37	46	893	945	1188
2000	70	151	559	-	50	54	885	932	1197
2001	30	167	532	-	58	41	828	933	1209
2002	30	168	537	-	58	44	839	944	1223
2003	29	171	527	-	53	45	824	920	1236
2004	28	171	522	-	64	43	829	925	1247
2005	29	173	526	-	66	46	840	934	1260

Source: GfK Home Audit

Table 12W Households with full and no insulation measures (1,000s) - Wales

Year	Total households with no insulation	Total households with full insulation	Total households
1987	158	62	1079
1988	156	58	1097
1989	196	39	1113
1990	184	74	1124
1991	176	47	1137
1992	164	49	1145
1993	106	92	1153
1994	150	137	1160
1995	133	143	1166
1996	186	161	1172
1997	128	166	1178
1998	123	129	1183
1999	106	144	1188
2000	93	133	1197
2001	164	107	1209
2002	143	109	1223
2003	137	103	1236
2004	122	104	1247
2005	116	106	1260

Source: GfK Home Audit

Table 13W Domestic energy consumption and external temperatures - Wales

Year	Total households (1,000s)	Total delivered energy (PJ)	Average external temperature (oC)	Average consumption per dwelling (GJ)
1976	972	82	6.2	83.9
1977	980	81	7.1	82.8
1978	989	85	7.0	86.1
1979	998	96	5.9	96.2
1980	1007	89	6.4	88.0
1981	1025	85	6.3	83.1
1982	1027	85	6.8	82.4
1983	1033	86	7.1	83.5
1984	1042	84	6.5	80.8
1985	1053	91	5.7	86.0
1986	1065	94	6.1	88.2
1987	1079	94	5.7	86.9
1988	1097	88	7.2	79.8
1989	1113	81	7.5	72.8
1990	1124	84	7.8	74.8
1991	1137	91	6.3	80.1
1992	1145	91	6.6	79.3
1993	1153	96	6.5	83.6
1994	1160	93	7.8	80.2
1995	1166	89	7.3	76.0
1996	1172	105	6.2	89.2
1997	1178	95	7.6	81.0
1998	1183	95	7.9	80.5
1999	1188	97	7.8	81.6
2000	1197	98	6.6	81.9
2001	1209	103	6.0	85.6
2002	1223	103	7.1	84.5
2003	1236	108	6.1	87.5
2004	1247	112	6.5	90.1
2005	1260	104	6.6	82.5

Source: www.communities.gov.uk, Digest of UK Energy Statistics, Family Expenditure Survey, Expenditure and Food Survey, temperatures calculated from published Degree Day figures for Wales.

Table 14W Heat loss of the average dwelling - Wales

Year	Households (1,000s)	Average dwelling heat loss (W/oC)	Stock heat loss (GW/oC)
1976	972	363.4	0.35
1977	980	357.1	0.35
1978	989	352.9	0.35
1979	998	353.0	0.35
1980	1007	346.1	0.35
1981	1025	330.7	0.34
1982	1027	328.9	0.34
1983	1033	325.4	0.34
1984	1042	318.2	0.33
1985	1053	318.4	0.34
1986	1065	312.8	0.33
1987	1079	309.2	0.33
1988	1097	303.8	0.33
1989	1113	300.7	0.33
1990	1124	304.8	0.34
1991	1137	294.0	0.33
1992	1145	292.4	0.33
1993	1153	283.8	0.33
1994	1160	278.5	0.32
1995	1166	270.9	0.32
1996	1172	285.8	0.33
1997	1178	277.4	0.33
1998	1183	272.0	0.32
1999	1188	278.8	0.33
2000	1197	280.0	0.34
2001	1209	281.1	0.34
2002	1223	278.4	0.34
2003	1236	273.9	0.34
2004	1247	270.4	0.34
2005	1260	267.7	0.34

Source: BREHOMES

Table 15W Central heating ownership (1,000s) - Wales

Year	No central heating	With central heating	Total households
1983	362	671	1033
1984	370	671	1042
1985	308	745	1053
1986	281	784	1065
1987	317	762	1079
1988	270	827	1097
1989	239	874	1113
1990	244	880	1124
1991	182	955	1137
1992	189	956	1145
1993	136	1017	1153
1994	135	1025	1160
1995	110	1056	1166
1996	198	974	1172
1997	122	1056	1178
1998	93	1090	1183
1999	108	1080	1188
2000	104	1093	1197
2001	138	1071	1209
2002	140	1083	1223
2003	132	1104	1236
2004	126	1121	1247
2005	127	1132	1260

Source: BREHOMES

Table 16W Main form of heating – centrally heated dwellings (1,000s) - Wales

	Solid fuel	Electric storage	Electric other	All electric	Gas	Oil	Other	Total
1983	155	41	14	55	417	31	13	671
1984	125	49	8	57	422	63	5	671
1985	167	54	32	86	427	58	7	745
1986	179	43	10	53	504	35	12	784
1987	166	41	3	44	504	33	15	762
1988	174	42	2	44	559	40	10	827
1989	147	53	5	58	604	44	20	874
1990	127	53	6	60	632	44	17	880
1991	127	71	6	77	679	53	19	955
1992	120	55	9	64	708	46	18	956
1993	125	65	3	68	747	52	25	1017
1994	90	58	8	66	785	61	22	1025
1995	96	42	9	51	797	87	24	1056
1996	107	56	3	59	671	106	31	974
1997	137	63	7	70	699	99	51	1056
1998	91	70	9	79	796	86	38	1090
1999	89	72	15	86	798	81	25	1080
2000	108	64	7	70	799	93	22	1093
2001	90	58	11	71	794	92	25	1071
2002	90	45	7	52	807	109	24	1083
2003	71	34	25	59	844	105	23	1104
2004	55	38	13	51	850	144	20	1121
2005	35	43	13	56	883	141	17	1132

Source: BREHOMES

Table 17W Main form of heating – non centrally heated dwellings (1,000s) - Wales

	Solid fuel	electric	Gas	Oil	Other	Total
1983	161	30	151	4	14	362
1984	163	31	163	2	12	370
1985	137	20	144	2	5	308
1986	119	17	137	1	7	281
1987	127	31	150	1	8	317
1988	97	29	138	0	6	270
1989	74	29	134	0	3	239
1990	77	22	132	1	13	244
1991	61	13	102	0	6	182
1992	63	18	100	1	6	189
1993	46	9	75	1	6	136
1994	45	15	74	0	2	135
1995	35	4	70	0	1	110
1996	65	26	106	0	1	198
1997	60	13	44	1	4	122
1998	37	17	34	0	5	93
1999	34	12	58	0	4	108
2000	36	17	45	0	5	104
2001	36	59	44	0	2	138
2002	36	36	67	0	0	140
2003	28	34	67	0	6	132
2004	36	40	36	0	15	126
2005	25	41	56	0	5	127

Source: BREHOMES

Table 18W Weighted average space heating efficiencies - Wales

Year	Central heating efficiency	Non-central heating efficiency	Average efficiency
1983	67.2%	46.4%	58.1%
1984	67.3%	46.5%	58.1%
1985	68.0%	45.7%	59.5%
1986	66.9%	45.9%	59.7%
1987	66.7%	47.0%	59.4%
1988	66.6%	47.8%	60.8%
1989	67.0%	48.8%	62.0%
1990	67.1%	48.7%	62.1%
1991	67.4%	47.5%	63.2%
1992	67.1%	48.2%	63.1%
1993	67.9%	47.7%	64.7%
1994	68.0%	48.1%	64.9%
1995	67.7%	46.7%	64.9%
1996	68.2%	48.5%	63.9%
1997	68.7%	46.1%	65.3%
1998	69.5%	49.4%	67.4%
1999	69.8%	48.7%	67.1%
2000	70.1%	49.8%	67.7%
2001	71.0%	57.3%	69.1%
2002	71.5%	53.6%	68.9%
2003	72.5%	53.4%	69.9%
2004	73.5%	56.7%	71.4%
2005	74.7%	56.7%	72.4%

Source: BREHOMES

Table 19W Domestic energy consumption by end use – Wales

Year	Space heating (PJ)	Water heating (PJ)	Cooking (PJ)	Lights & appliances (PJ)	All energy (PJ)	Space heating per household (GJ)	All energy per household (GJ)
1976	47.0	22.5	4.4	7.6	82	48.4	83.9
1977	48.1	21.3	4.2	7.6	81	49.1	82.8
1978	51.2	21.7	4.2	8.0	85	51.8	86.1
1979	60.1	22.9	4.3	8.5	96	60.2	96.2
1980	54.5	21.5	4.1	8.4	89	54.1	88.0
1981	51.8	20.9	3.9	8.6	85	50.5	83.1
1982	51.4	20.7	3.9	8.8	85	50.1	82.4
1983	52.3	20.8	3.8	9.3	86	50.6	83.5
1984	49.9	21.1	3.8	9.5	84	47.8	80.8
1985	56.7	20.5	3.6	9.8	91	53.9	86.0
1986	59.2	21.2	3.5	10.1	94	55.6	88.2
1987	58.5	21.3	3.4	10.5	94	54.2	86.9
1988	53.1	21.0	3.2	10.4	88	48.4	79.9
1989	46.8	20.7	3.1	10.5	81	42.1	72.9
1990	49.7	20.7	3.0	10.7	84	44.2	74.8
1991	56.1	21.2	2.9	10.9	91	49.3	80.1
1992	56.0	21.1	2.8	11.0	91	48.9	79.4
1993	59.2	22.6	2.9	11.8	96	51.3	83.6
1994	55.6	22.8	2.9	11.8	93	47.9	80.2
1995	51.3	22.6	2.8	11.9	89	44.0	76.0
1996	67.1	22.9	2.8	11.9	105	57.3	89.2
1997	57.7	23.1	2.8	12.1	96	48.9	81.1
1998	58.0	22.4	2.7	12.2	95	49.1	80.6
1999	59.6	22.5	2.7	12.3	97	50.2	81.6
2000	59.7	22.9	2.7	12.8	98	49.8	81.9
2001	63.6	23.7	2.8	13.4	103	52.6	85.6
2002	62.8	24.1	2.8	13.6	103	51.4	84.5
2003	65.3	25.2	3.1	14.6	108	52.8	87.5
2004	69.5	25.0	3.1	14.7	112	55.7	90.1
2005	63.0	24.8	2.9	13.2	104	50.0	82.5

Source: BREHOMES

Table 20W Energy use of the housing stock by fuel (PJ) - Wales

Year	Solid fuel	Natural gas	Town gas	Gas (total)	Electric	Oil	All fuels
1976	44	17	0	17	11	9	82
1977	42	19	0	19	11	9	81
1978	43	23	0	23	11	8	85
1979	47	29	0	29	13	7	96
1980	42	30	0	30	12	5	89
1981	37	32	0	32	12	5	85
1982	34	33	0	33	12	5	85
1983	28	40	0	40	13	5	86
1984	22	40	0	40	12	10	84
1985	27	40	0	40	13	10	91
1986	28	45	0	45	14	7	94
1987	26	47	0	47	15	6	94
1988	22	46	0	46	13	6	88
1989	16	45	0	45	13	7	81
1990	14	49	0	49	14	7	84
1991	15	53	0	53	15	8	91
1992	15	53	0	53	14	9	91
1993	17	56	0	56	15	8	96
1994	13	55	0	55	16	10	93
1995	9	53	0	53	14	12	89
1996	12	60	0	60	18	15	105
1997	13	53	0	53	15	13	95
1998	10	55	0	55	17	14	95
1999	11	59	0	59	16	11	97
2000	10	60		60	18	10	98
2001	9	64		64	20	11	103
2002	8	65		65	18	12	103
2003	5	68		68	20	15	108
2004	7	72		72	21	13	112
2005	4	68		68	20	12	104

Source: Digest of UK Energy Statistics, Family Expenditure Survey, Expenditure and Food Survey.

NORTHERN IRELAND

The information on Northern Ireland is divided into a number of sections which are listed in the main contents table. It starts by looking at household expenditure and the money spent on fuel, light and power. This is followed by charts that relate to the number of households and the houses they live in. Sections on the different types of insulation in the fabric of the house follow. Hot water tank insulation is also included. Energy consumption is compared to changes in external temperature. The following sections relate to heating systems. Finally the energy consumption is split into different fuels. Charts illustrating the information appear within the text but the tables on which they are based appear at the end of the section on pages 169 to 178.

Household expenditure on fuel, light and power – Northern Ireland

The percentage expenditure on fuel, light and power is decreasing as shown in figure 1N

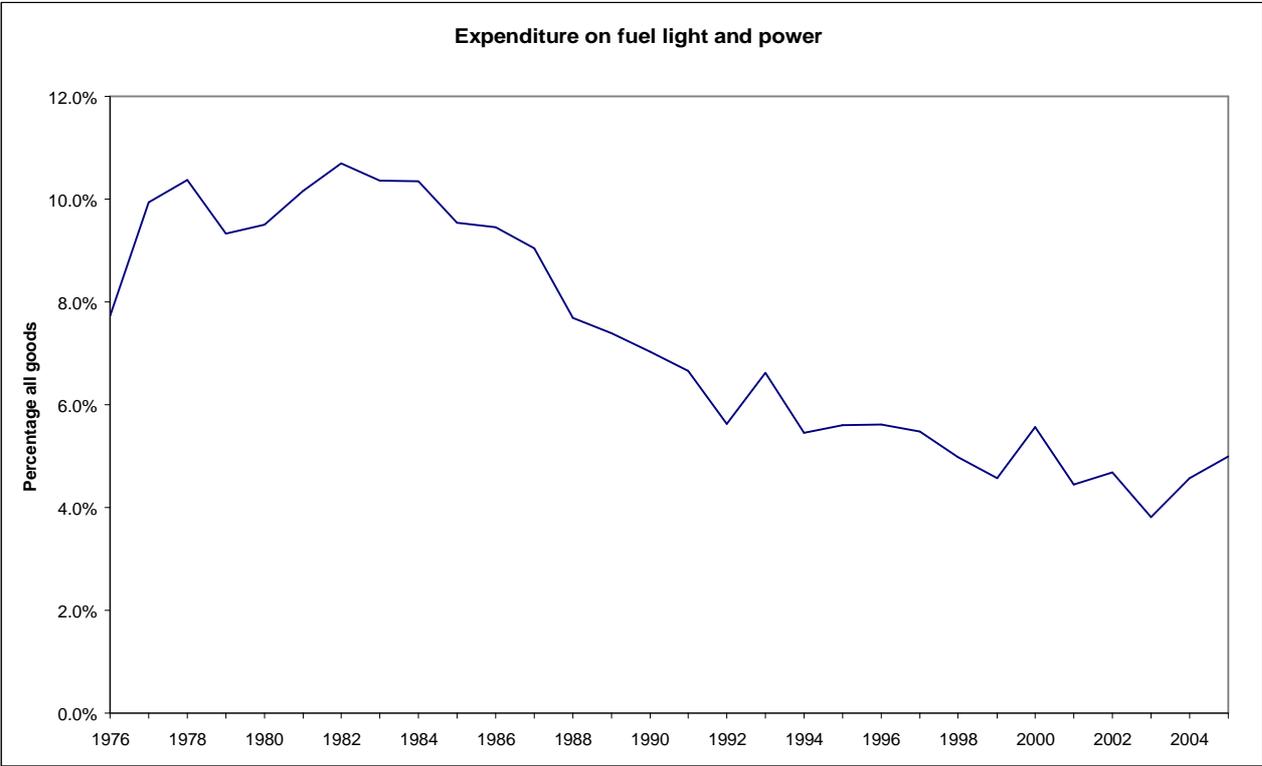


Figure 1N

It has decreased from 7.7% in 1976 to 5% in 2005.

Figure 2N shows how expenditure on all goods has risen compared to that on fuel, light and power.

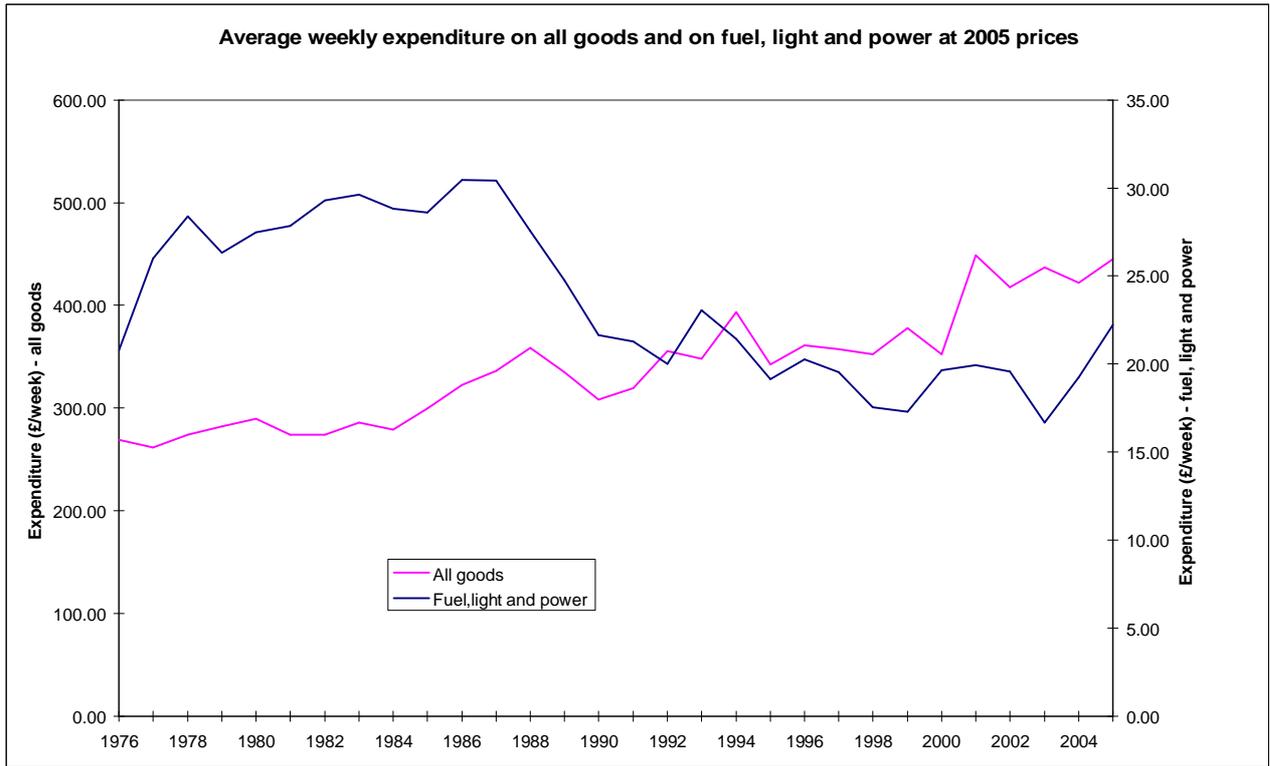


Figure 2N

Table 1N on page 169 shows the average weekly expenditure on all goods and on fuel, light and power both in contemporary prices and adjusted to 2005 prices by using the retail price index.

Population and household numbers – Northern Ireland

The number of households continues to increase while the number per household falls. Figure 3N shows the household and population numbers for Northern Ireland.

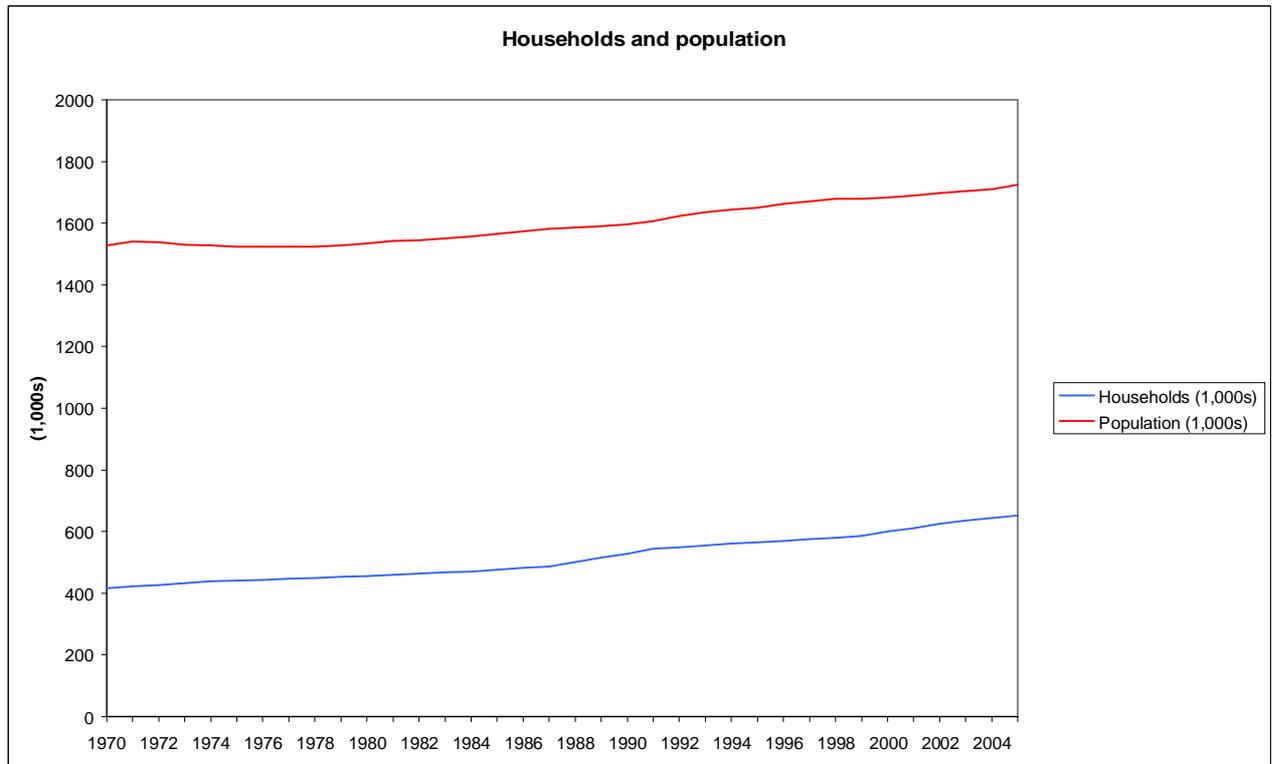


Figure 3N

The average household size has decreased from 3.67 to 2.64 between 1970 and 2005.

Table 2N shows the population, number of households and average households size, for Northern Ireland, for the years 1970 to 2005.

Age of the housing stock – Northern Ireland

Figure 4N shows the age distribution of the housing stock in Northern Ireland.

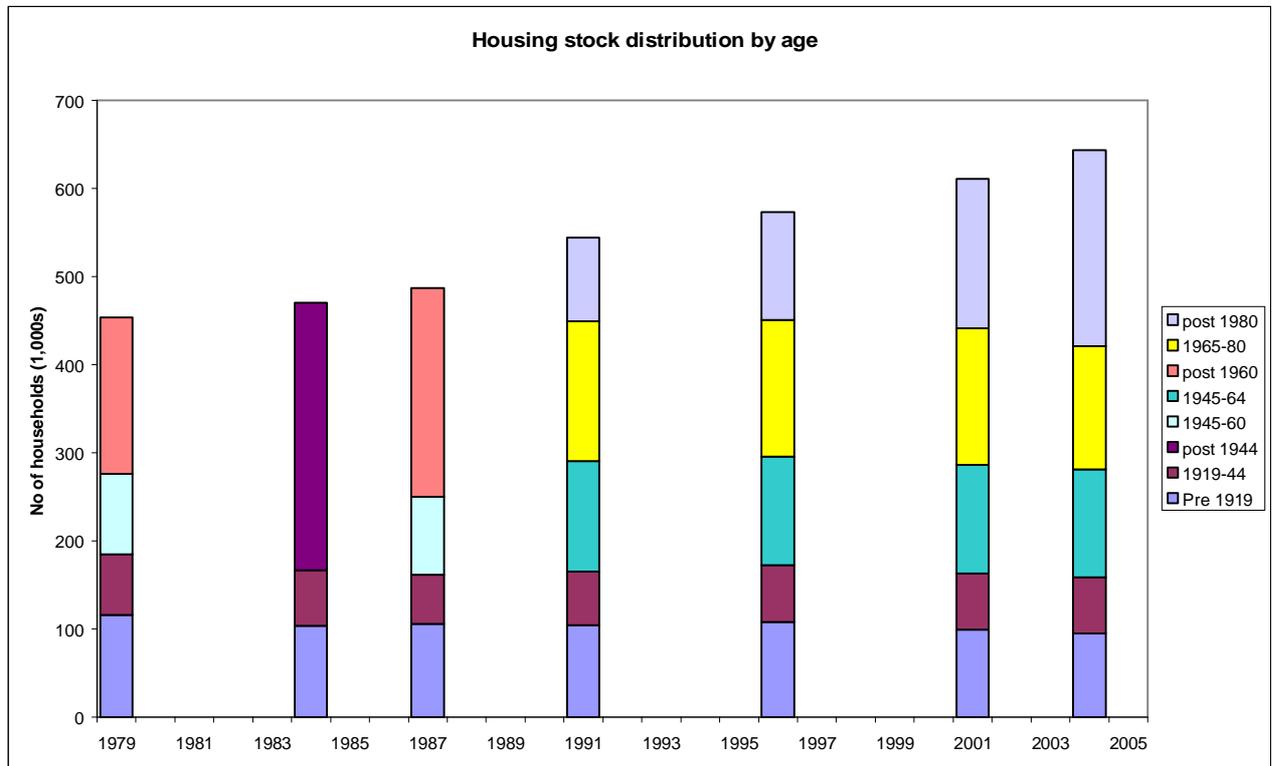


Figure 4N

The information on age for the Northern Ireland stock is more complicated than for GB. In some years there is no breakdown for the post 1960 stock. There is also a split after 1990 where the category 1945 -1960 changes to 1945 -1964. However, it is possible to see that stock built before 1945 is decreasing slowly and overall stock is increasing.

Table 3N shows the number of dwellings in each age category from 1979 to 2004 in those years where the information is available.

Housing stock distribution by tenure – Northern Ireland

Figure 5N shows the tenure distribution of the housing stock.

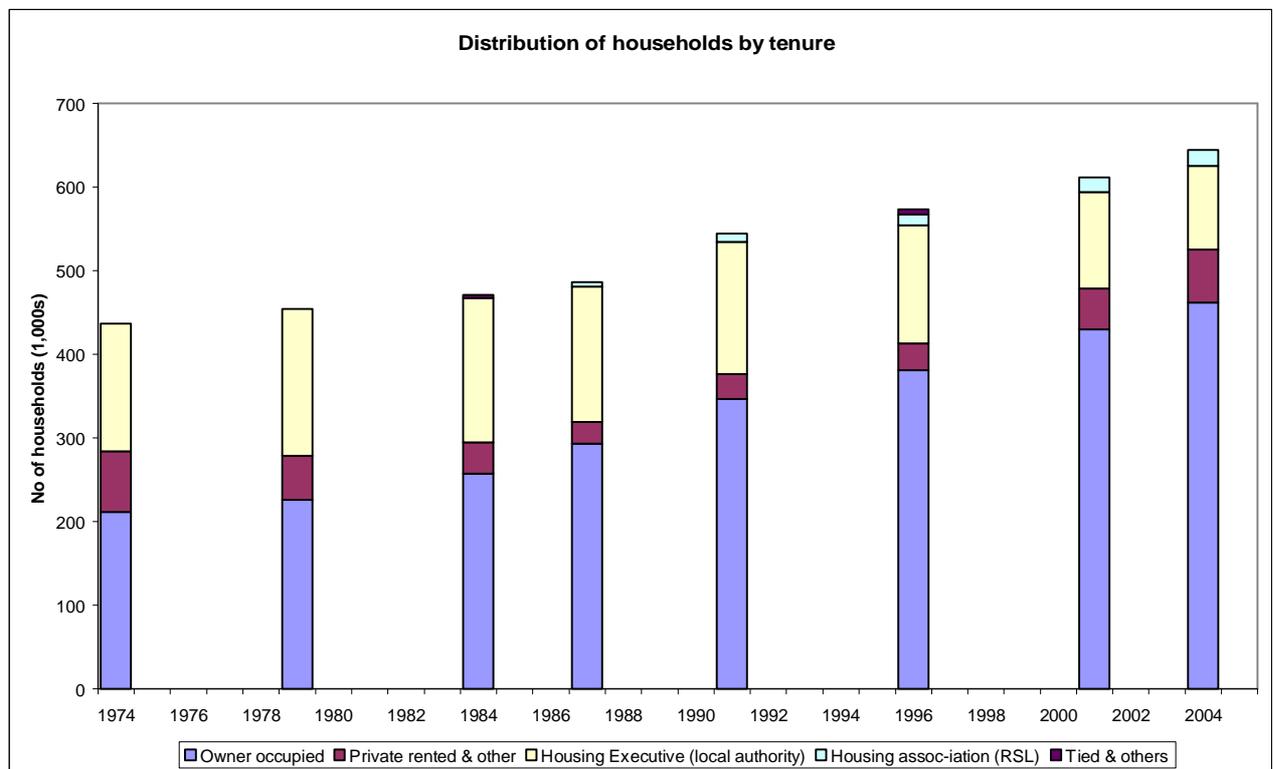


Figure 5N

The number of those owning their houses is increasing. In 1974 48.4% of households were owner occupied. By 2004 this had risen to 71.7% and is continuing to increase. The other main tenure in Northern Ireland is Housing Executive homes. These have decreased from 34.9% of households in 1974 to 15.5% in 2004.

Table 4N shows the number of households in each tenure from 1974 to 2004 in the years when data is available. It also gives the number of vacant dwellings.

House types – Northern Ireland

Figure 6N shows the distribution of the housing stock by type of dwelling.

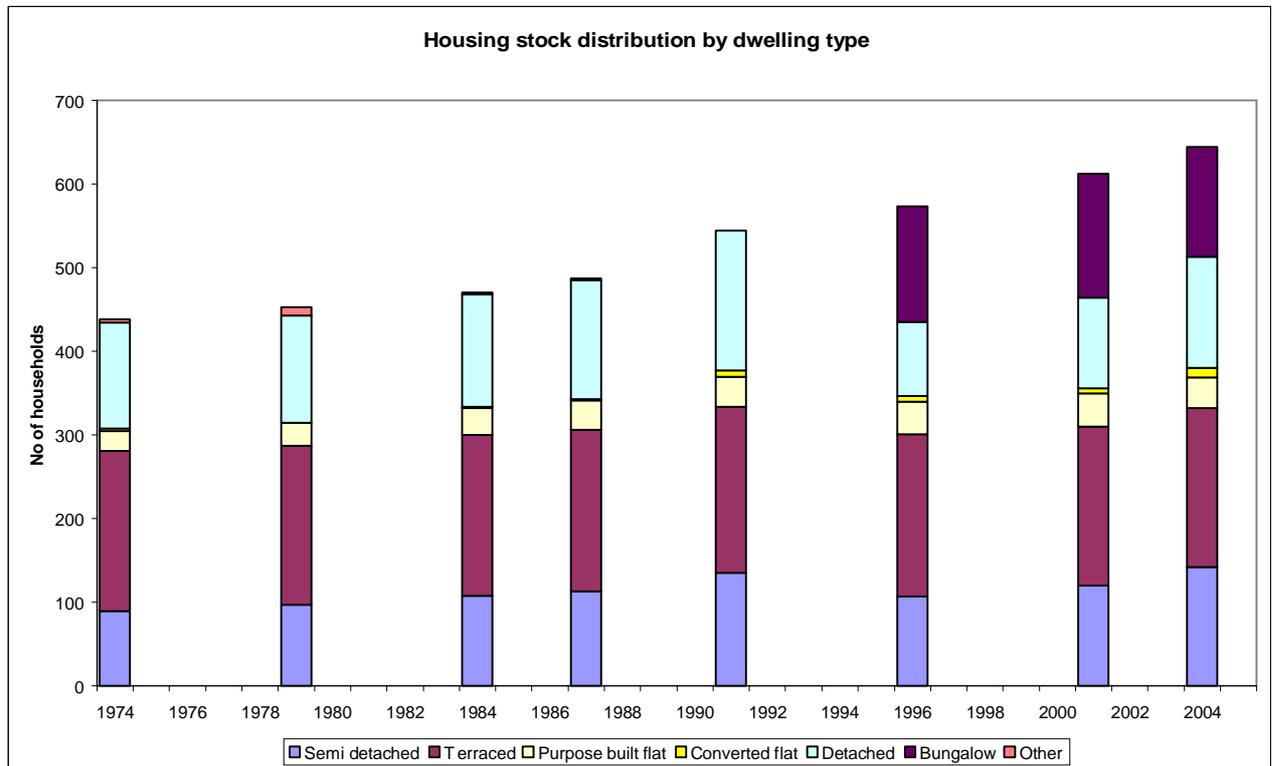


Figure 6N

The proportions of each house type have changed over the years. In the earlier years bungalows are not recorded separately.

Figure 7N shows the proportions of each house type in 2004.

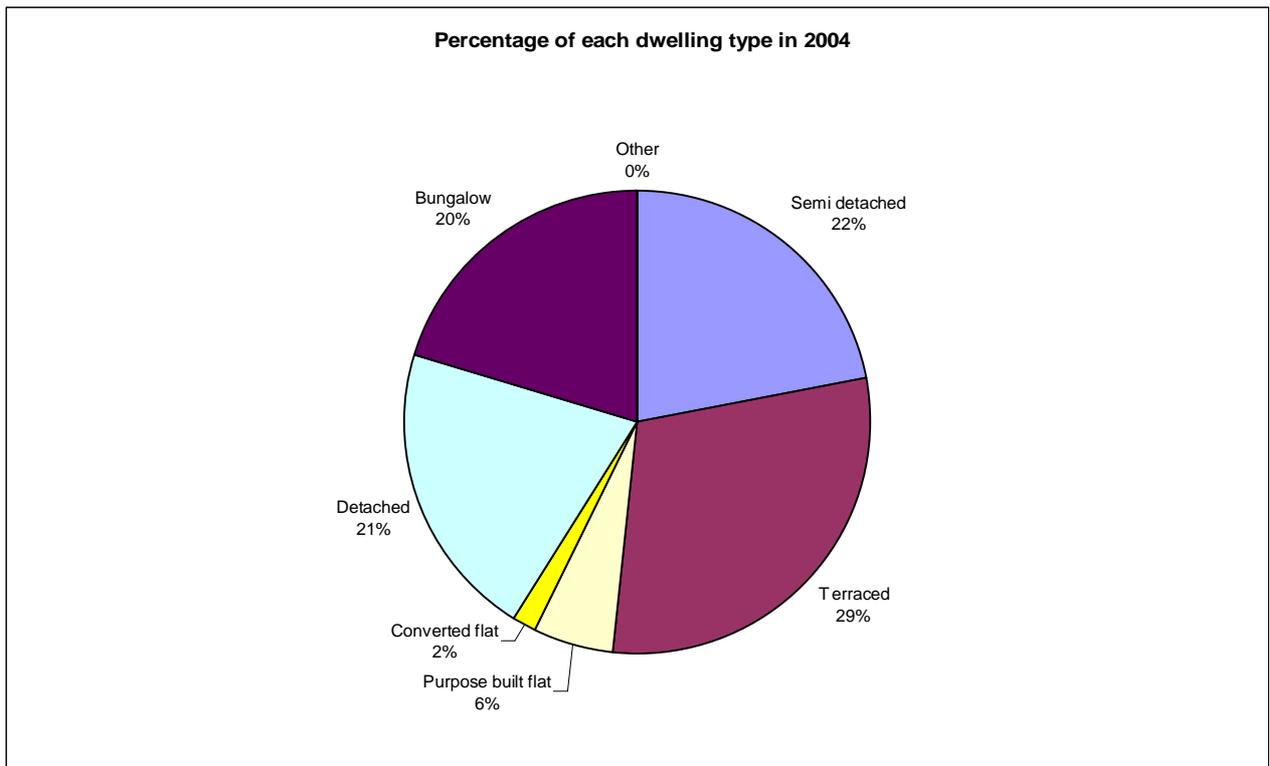


Figure 7N

Figure 7N shows that in 2004 20% of the stock was bungalows.

If bungalows are excluded there has been a decrease in the percentage of terraced housing in the stock between 1974 and 2004 and an increase in semi detached housing.

Table 5N shows the number of households in each dwelling type from 1974 to 2004 for the years in which data is available.

Loft insulation – Northern Ireland

The ownership of loft insulation is shown in figure 8N.

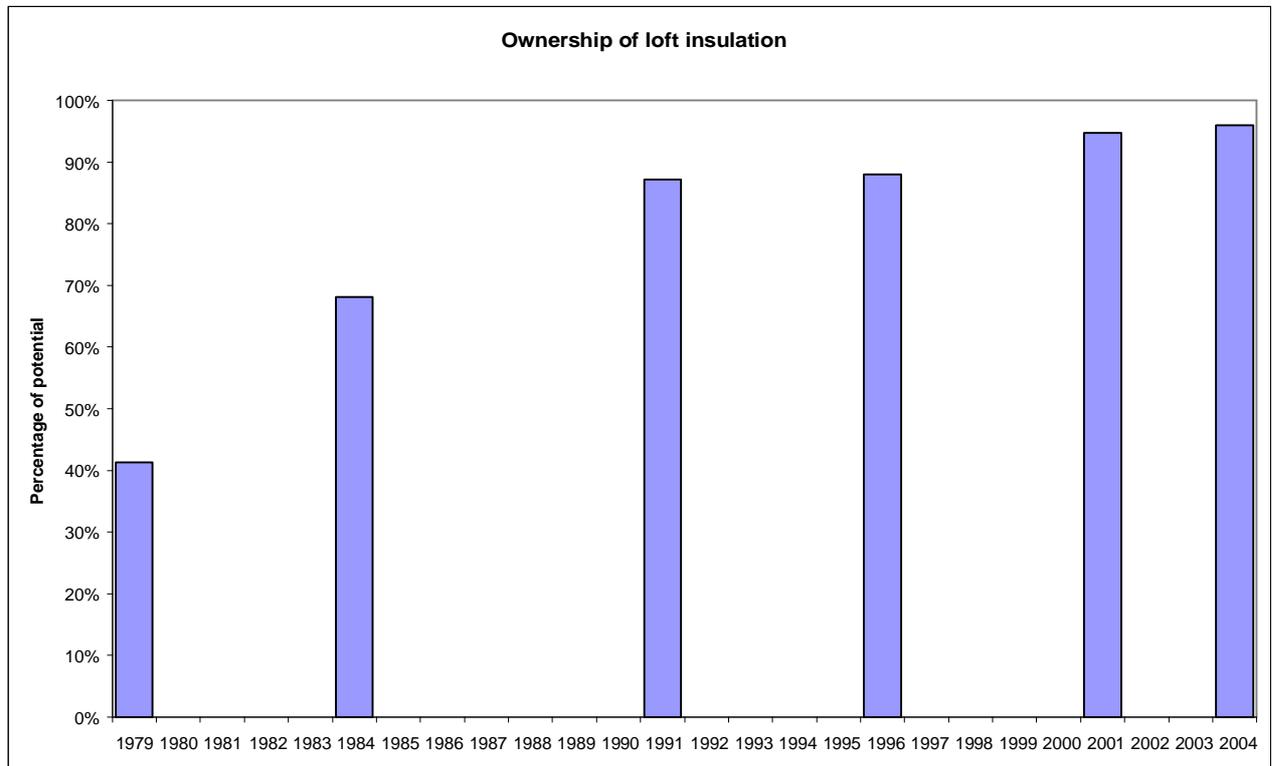


Figure 8N

In 2004 96% of lofts had some insulation. This has risen from 41.3% in 1979. Ownership of loft insulation is continuing to rise but the rate of increase has slowed between 2001 and 2004.

Less information is available about depth of loft insulation in Northern Ireland

Figure 9N shows the information available for depth of loft insulation in Northern Ireland.

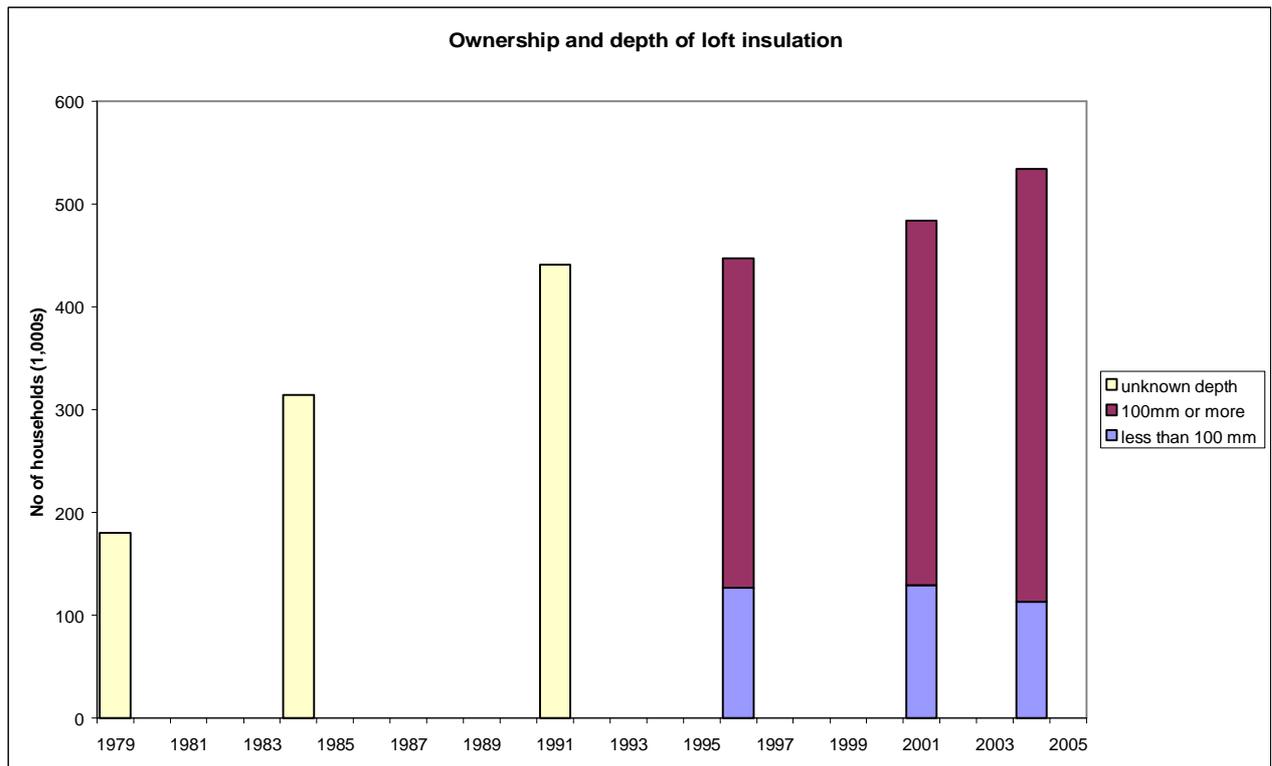


Figure 9N

For the three years where depth of loft insulation is available the number with 100mm or more is increasing while that for less than 100mm is fairly static.

Table 6N shows the ownership and depth of loft insulation for the years where data is available between 1979 and 2005.

Cavity wall insulation – Northern Ireland

Figure 10N shows the ownership of cavity wall insulation.

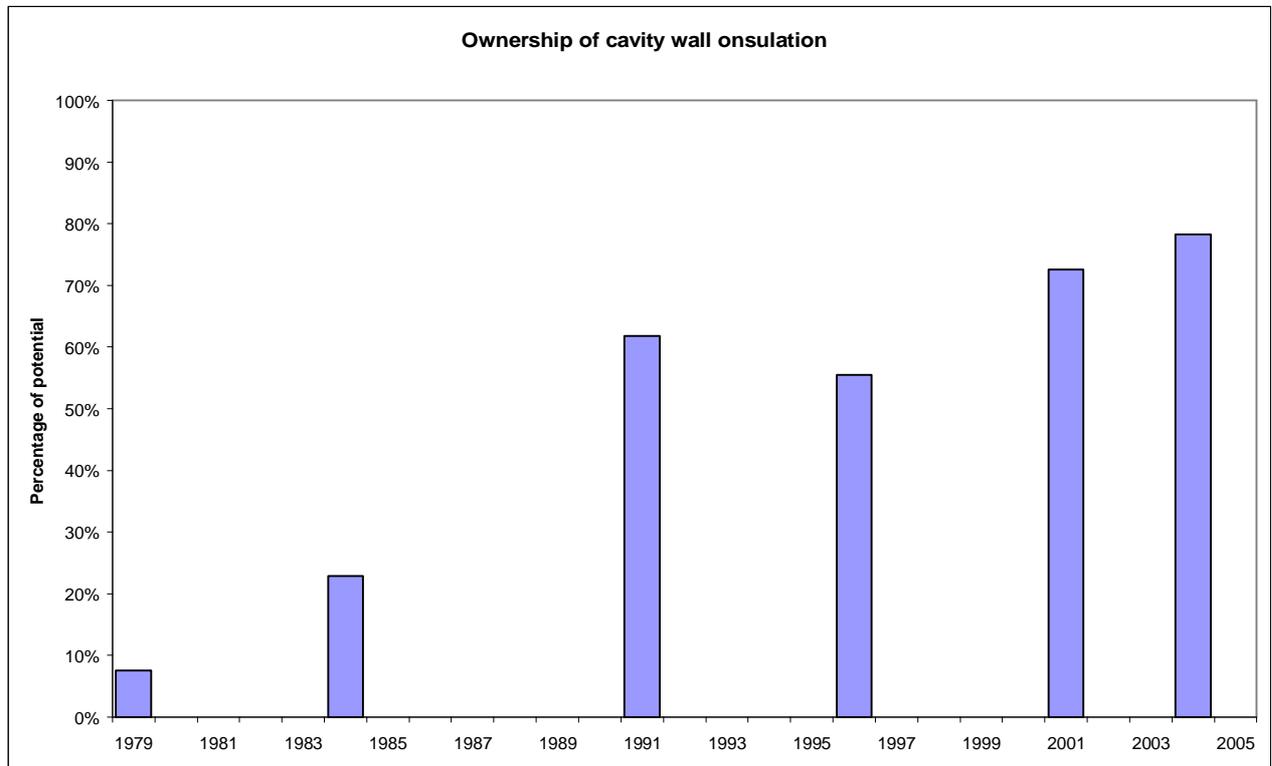


Figure 10N

Cavity wall insulation ownership has increased from 7.6% of dwellings with cavity walls in 1979 to 78.3% in 2004.

Table 7N shows the number of households with cavity wall insulation as well as the total number of cavity wall dwellings (potential) in Northern Ireland in the years between 1979 and 2004 for which data is available. In some cases the number of cavity walls in occupied dwellings has been estimated. Full details are given below Table 7N.

Double glazing ownership – Northern Ireland

Figure 11N shows the ownership of double glazing.

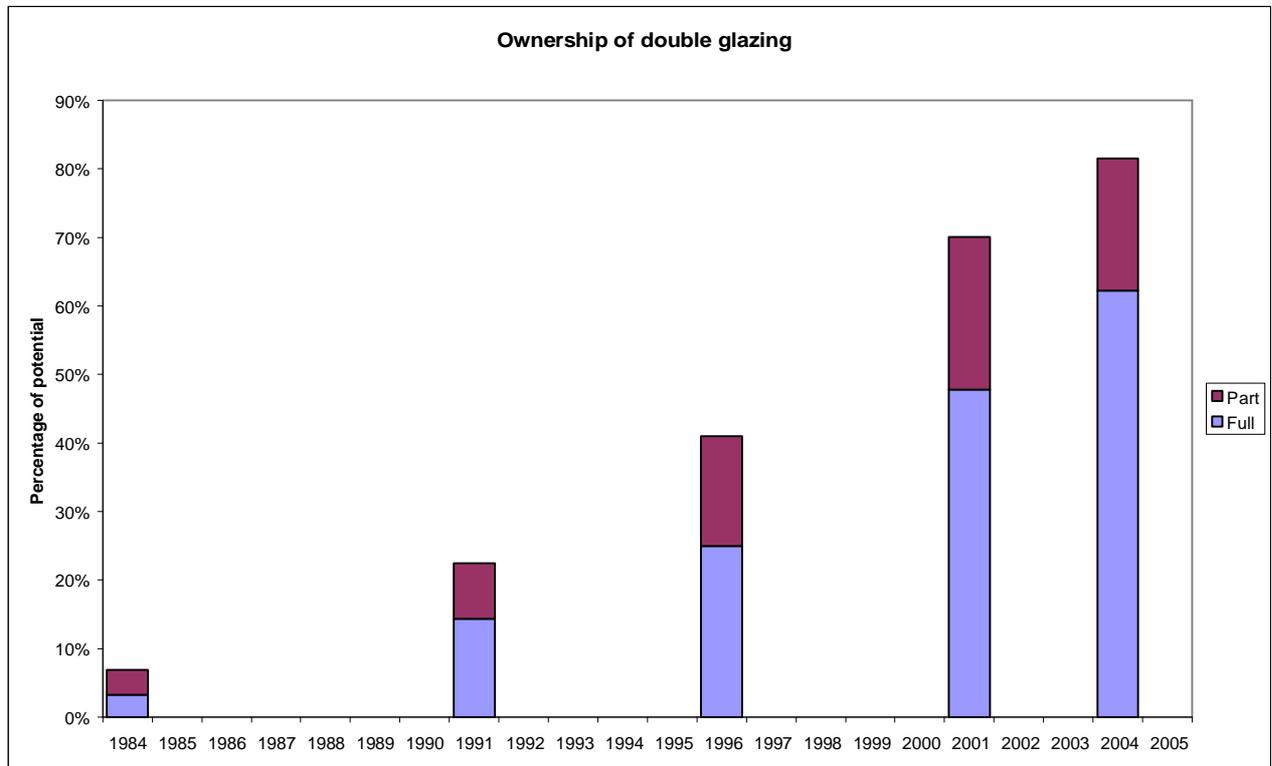


Figure 11N

Double glazing ownership has risen from 6.9% of potential in 1984 to 81.5% in 2004. This refers to any house with any number of windows double glazed. However, between 1984 and 2004 the percentage with full double glazing has increased from 3.3% to 62.3%.

Table 8N gives the number of households with full, part or no double glazing.

Draught proofing - Northern Ireland

Figure 12N shows the ownership of draught proofing.

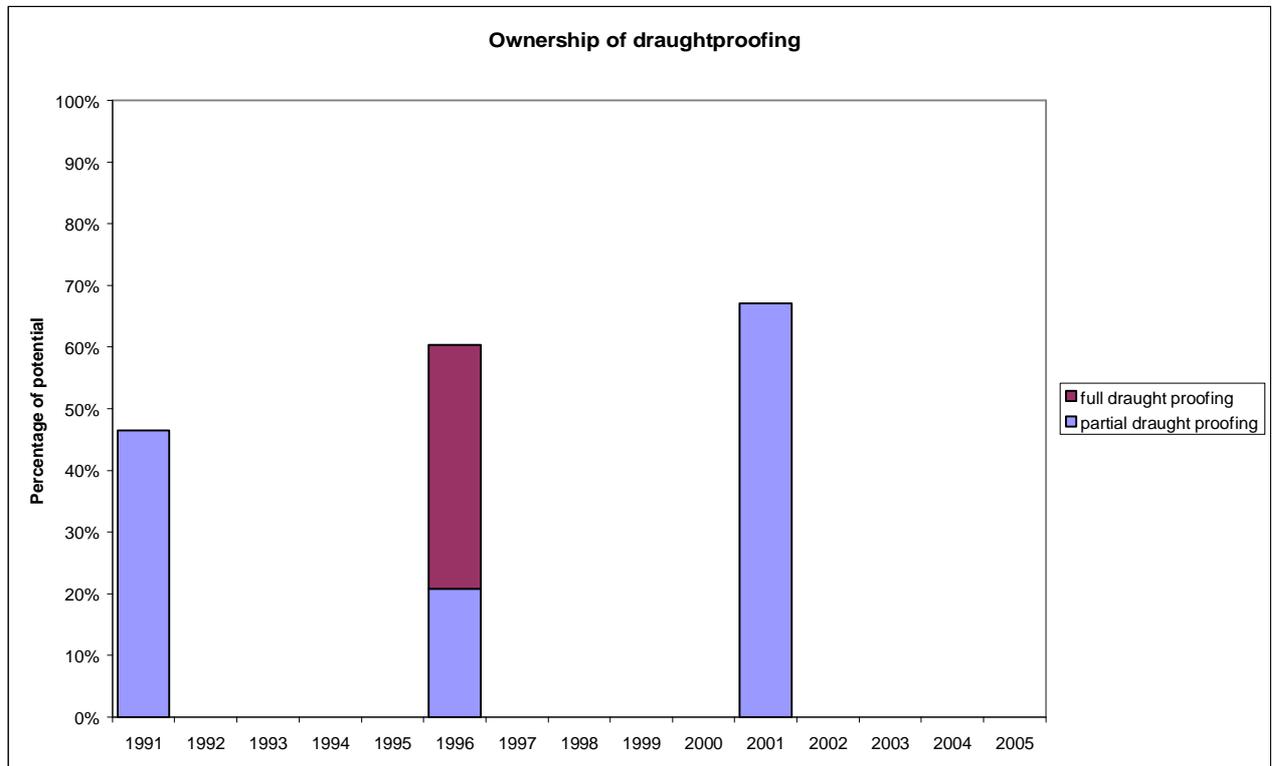


Figure 12N

Detailed information on draught stripping and its use in single glazed houses is not available for Northern Ireland.

Table 9N gives the number of homes with draught proofing and the number draught proofed. This does not include those draught proofed due to double glazing.

Hot water tank insulation – Northern Ireland

The ownership of hot water tank insulation is shown in figure 13N.

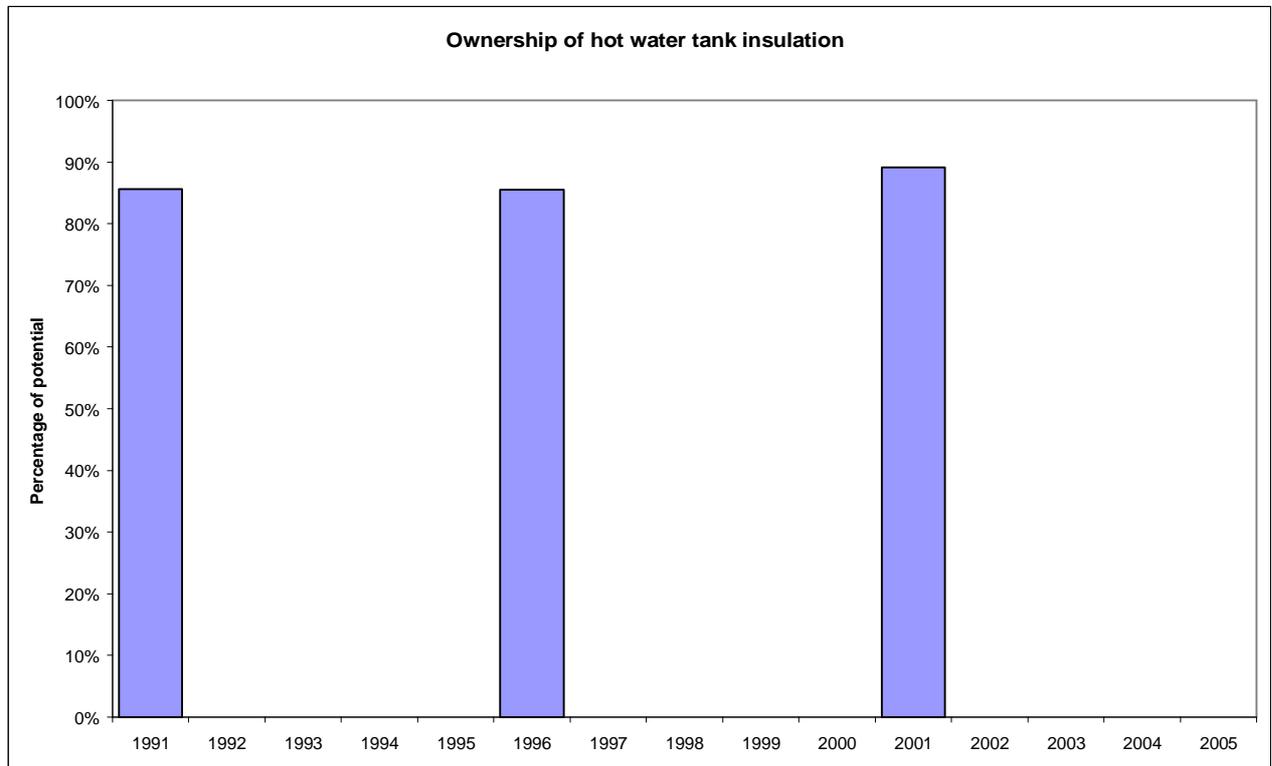


Figure 13N

Ownership of hot water tank insulation has increased from 85.6% of dwellings with hot water tanks in 1991 to 89.1% in 2001. This includes both foam insulation and jackets. Data is not available from all the house condition surveys in Northern Ireland.

Table 10N shows the number of households with foam or jacket hot water tank insulation in the years available.

Energy consumption and external temperatures – Northern Ireland

Figure 14N shows the delivered energy and average external temperatures from 1976 to 2005.

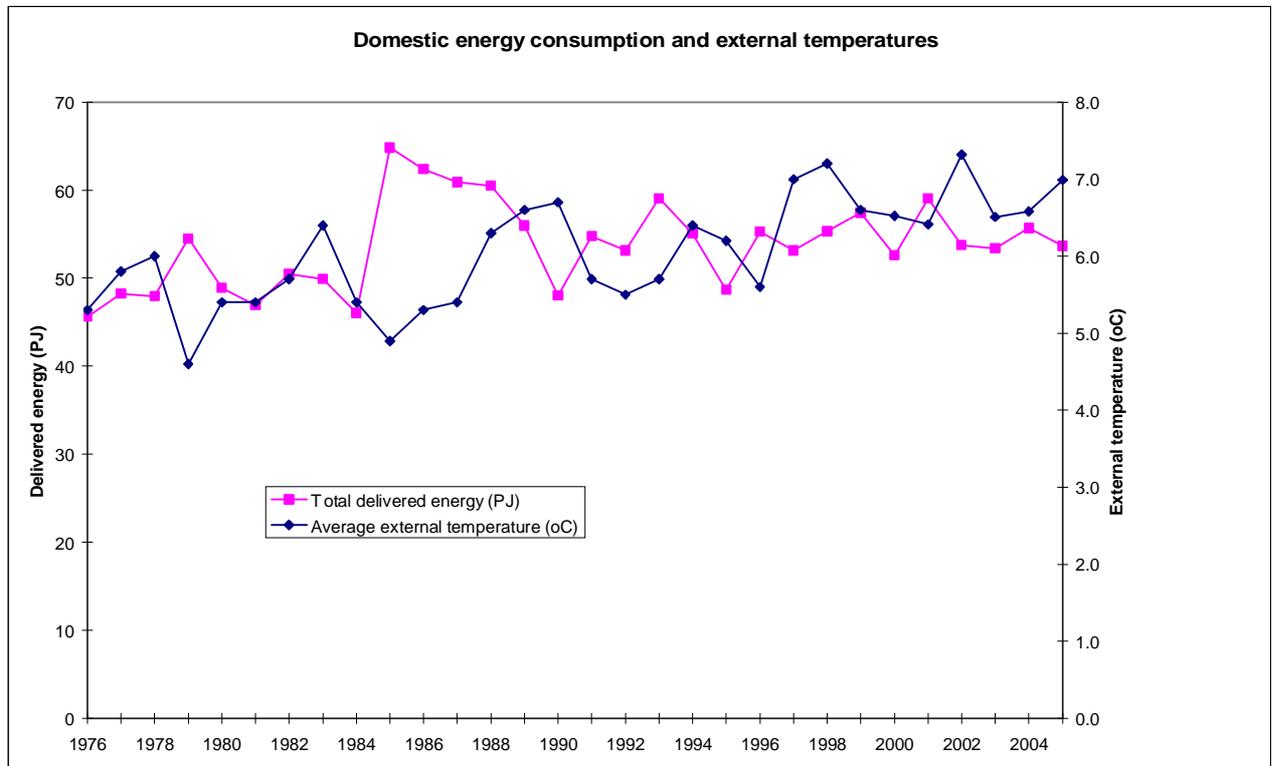


Figure 14N

From 1976 to 2005 delivered energy has increased by 18% while the number of households has increased by 47%. Figure 14N shows the relationship between average external temperature and delivered energy. In general it can be seen in colder years delivered energy increases.

Table 11N shows the total delivered energy, the average external temperature and average energy consumption per dwelling.

Central heating ownership – Northern Ireland

Figure 15N shows the ownership of central heating.

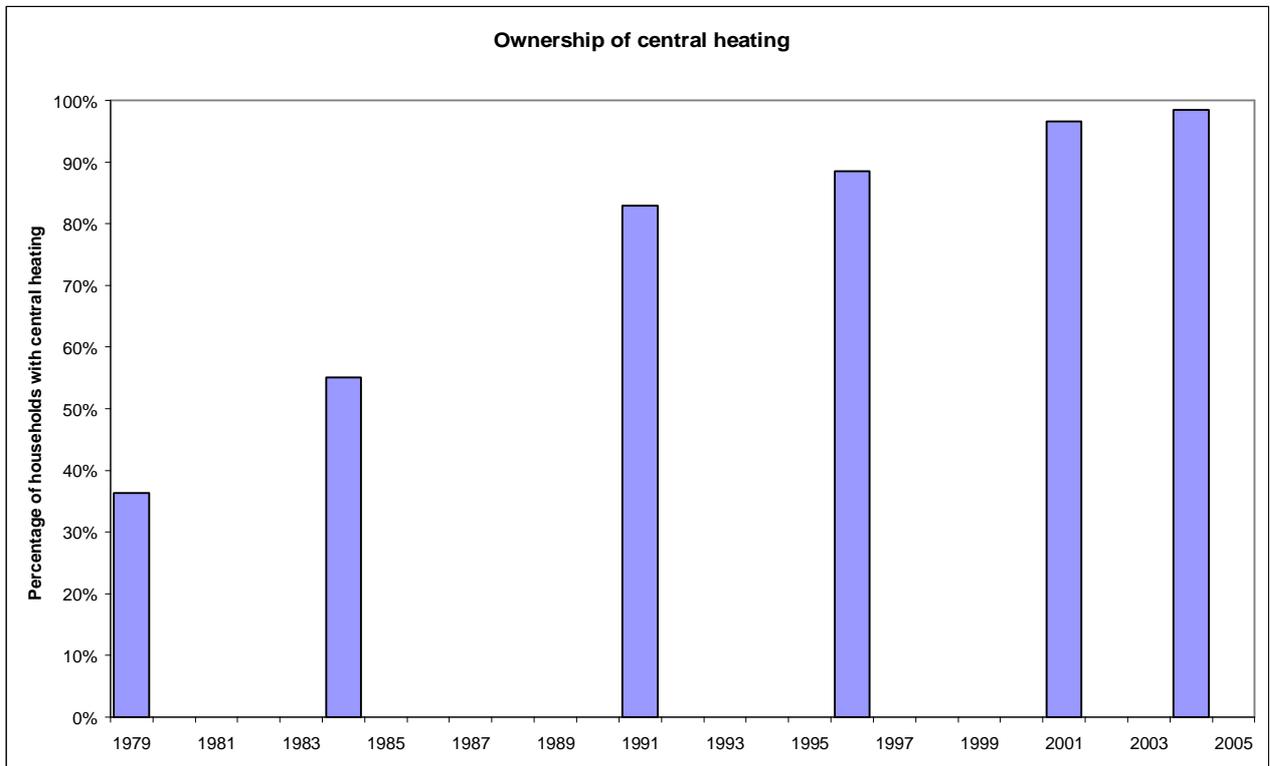


Figure 15N

Central heating ownership has been increasing. In 2004 98.5% of households had central heating this compares with 36.3% in 1979.

Table 12N shows the number of households with and without central heating.

Heating appliances – central heating – Northern Ireland

Figure 16N shows the main form of heating in centrally heated homes.

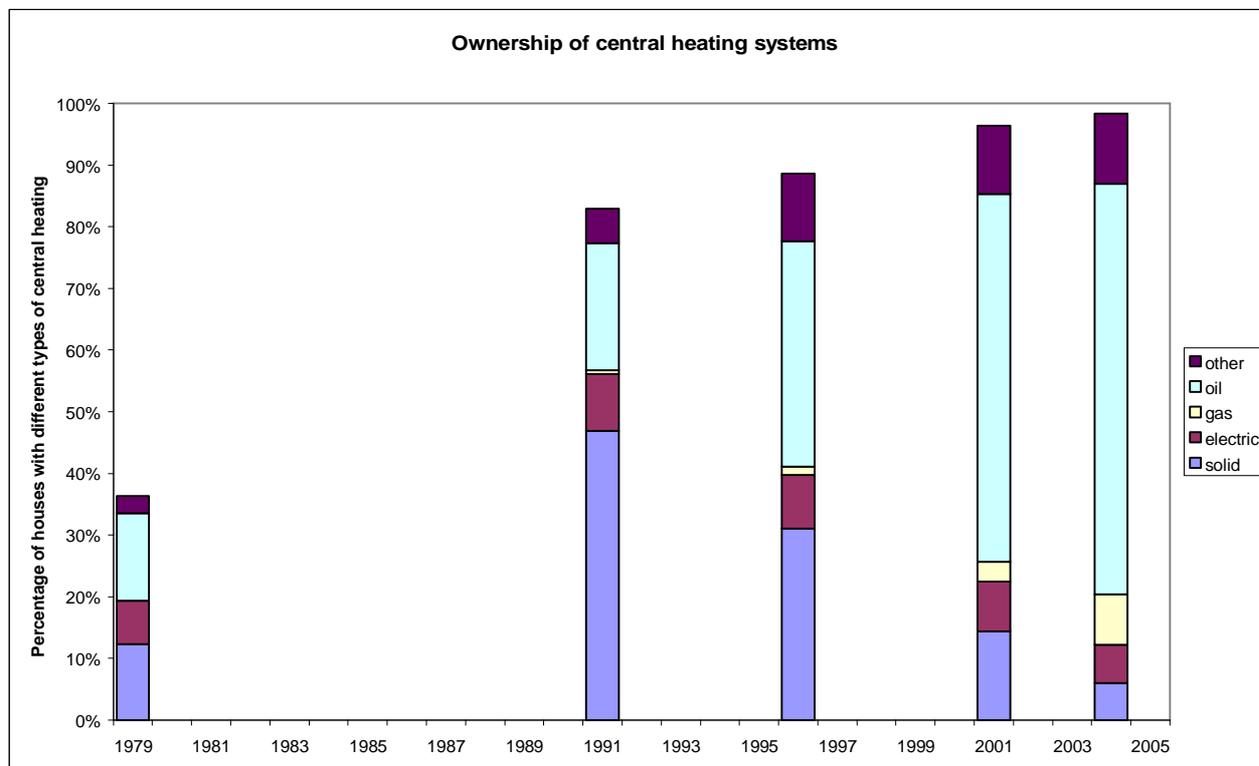


Figure 16N

Figure 16N shows that the main central heating fuel is oil. In 1979 39.1% of centrally heated homes used oil while by 2004 this had risen to 67.7%. In 1979 there was virtually no gas used for central heating but by 2004 8.2% of centrally heated homes used gas. The percentages using electricity and solid fuel have both fallen between 1979 and 2004 with solid fuel use falling faster than electricity use.

Table 13N shows the number of households using each fuel type.

Heating appliances – non central heating – Northern Ireland

Figure 17N shows the percentage of households using non central heating and the fuel they use.

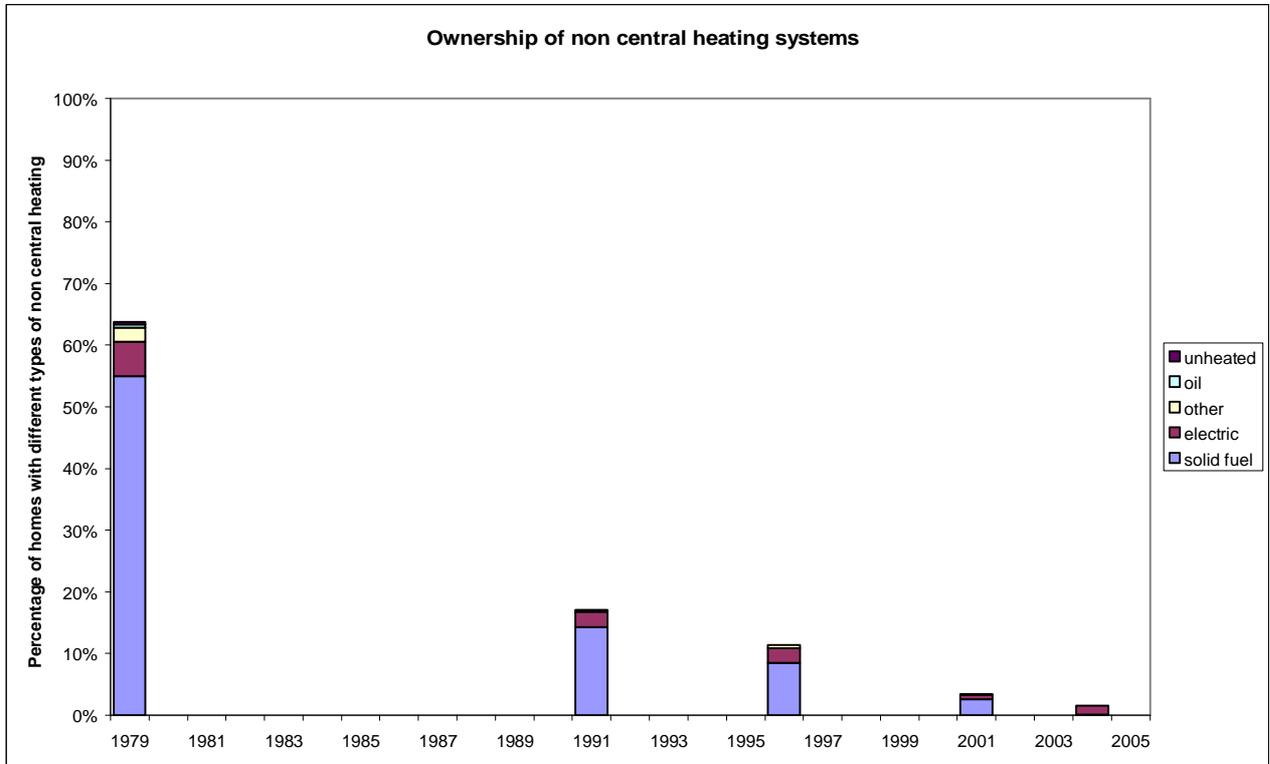


Figure 17N

In 1979 63.8% of homes used some form of non central heating as their main heating system. In 2004 this had reduced to 1.6%.

Table 14N shows the number of households with non central heating and the type of fuel they use.

Domestic energy consumption by fuel – Northern Ireland

Figure 18N shows the energy use of the housing stock by fuel.

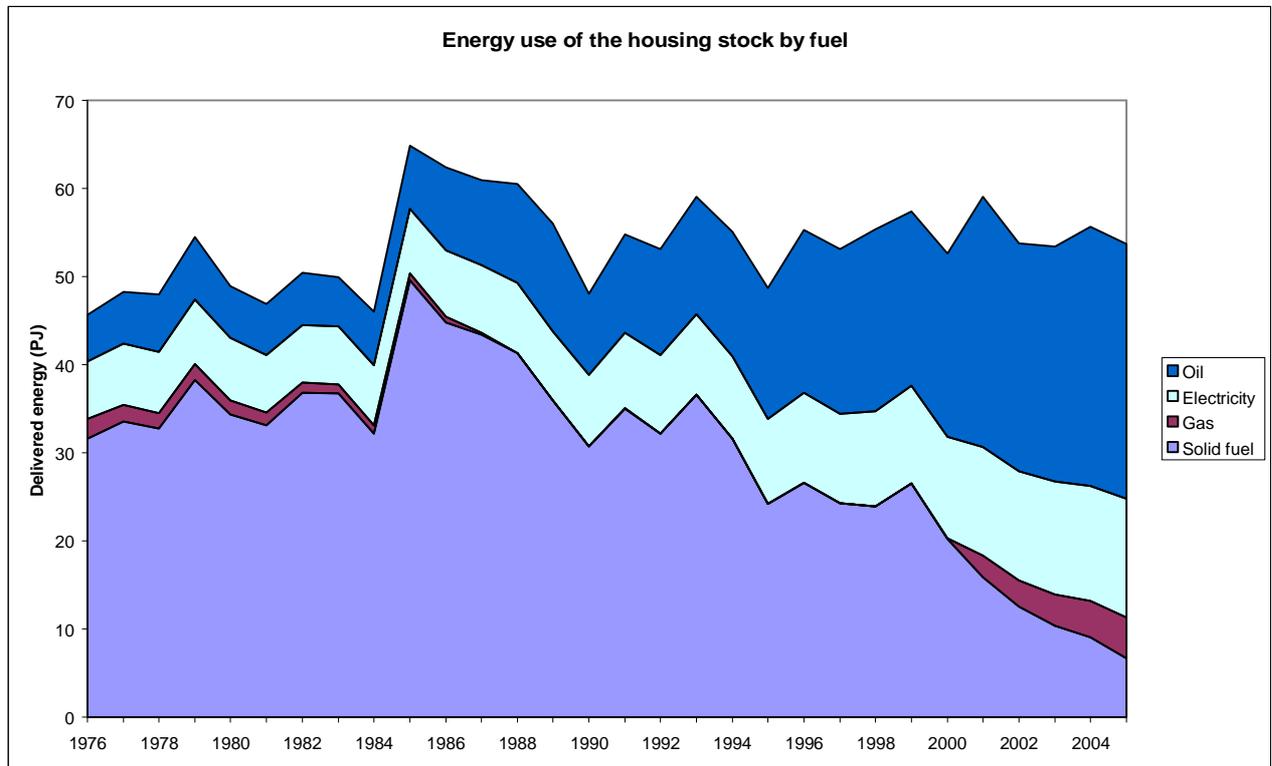


Figure 18N

In 1976 69.3% of domestic energy consumption was solid fuel compared with 12.4% in 2005. In the same period oil consumption has increased from 11.7% to 53.9%.

Table 15N shows the energy use of the housing stock by different fuels.

Tables – Northern Ireland

Table 1N Average weekly expenditure on all goods and on fuel, light and power (£/week) – Northern Ireland

Year	Contemporary prices		2005 prices		% fuel, light and power
	All goods	Fuel, light and power	All goods	Fuel, light and power	
1976	55.75	4.31	268.88	20.79	7.7%
1977	62.78	6.24	261.41	25.98	9.9%
1978	71.31	7.40	273.77	28.41	10.4%
1979	83.40	7.78	282.35	26.34	9.3%
1980	100.72	9.57	289.43	27.50	9.5%
1981	106.81	10.86	274.10	27.87	10.2%
1982	115.89	12.40	273.96	29.31	10.7%
1983	126.51	13.11	286.03	29.64	10.4%
1984	129.49	13.40	278.66	28.84	10.3%
1985	147.72	14.10	299.74	28.61	9.5%
1986	164.17	15.52	322.22	30.46	9.5%
1987	178.54	16.15	336.33	30.42	9.0%
1988	199.68	15.34	358.56	27.55	7.7%
1989	200.99	14.86	334.91	24.76	7.4%
1990	202.56	14.23	308.35	21.66	7.0%
1991	222.30	14.80	319.64	21.28	6.7%
1992	256.55	14.43	355.57	20.00	5.6%
1993	255.32	16.90	348.33	23.06	6.6%
1994	295.33	16.10	393.40	21.44	5.5%
1995	265.83	14.88	342.24	19.16	5.6%
1996	287.27	16.12	361.12	20.26	5.6%
1997	293.10	16.04	357.22	19.55	5.5%
1998	299.01	14.90	352.35	17.55	5.0%
1999	325.64	14.89	377.92	17.28	4.6%
2000	312.75	17.42	352.52	19.63	5.6%
2001	405.05	17.99	448.65	19.93	4.4%
2002	383.57	17.99	417.87	19.59	4.7%
2003	413.01	15.76	437.20	16.68	3.8%
2004	410.00	18.73	421.70	19.26	4.6%
2005	444.82	22.22	444.82	22.22	5.0%

Source: Family Expenditure Survey, Expenditure and Food Survey.

Table 2N Population, households and household size – Northern Ireland

Year	Households (1,000s)	Population (1,000s)	Average household size
1970	416	1527	3.67
1971	422	1540	3.65
1972	427	1539	3.60
1973	432	1530	3.54
1974	438	1527	3.49
1975	441	1524	3.46
1976	444	1524	3.43
1977	447	1523	3.41
1978	450	1523	3.38
1979	453	1528	3.37
1980	456	1533	3.36
1981	460	1543	3.35
1982	464	1545	3.33
1983	468	1551	3.31
1984	471	1557	3.31
1985	476	1565	3.29
1986	482	1574	3.27
1987	487	1582	3.25
1988	501	1585	3.16
1989	515	1590	3.09
1990	529	1596	3.02
1991	544	1607	2.95
1992	549	1623	2.96
1993	554	1636	2.95
1994	560	1644	2.94
1995	565	1649	2.92
1996	570	1662	2.92
1997	575	1671	2.91
1998	580	1678	2.89
1999	585	1679	2.87
2000	601	1683	2.80
2001	611	1689	2.76
2002	625	1697	2.71
2003	635	1703	2.68
2004	644	1710	2.66
2005	653	1724	2.64

Source: Northern Ireland House Condition Survey

Years where there is no House Condition Survey data numbers have been extrapolated or interpolated.

Table 3N Housing stock distribution by age (1,000s) – Northern Ireland

	Pre 1919	1919-44	post 1944	1945-60	1945-64	post 1960	1965-80	post 1980	current households
1979	116	69	-	91	-	177	-	-	453
1984	104	63	304	-	-	-	-	-	471
1987	106	56	-	89	-	237	-	-	487
1991	104	61	-	-	126	-	159	94	544
1996	108	65	-	-	123	-	155	123	570
2001	99	64	-	-	123	-	155	170	611
2004	95	64	-	-	122	-	140	222	644

Source: Northern Ireland House Condition Survey

Table 4N Housing stock distribution by tenure (1,000s) – Northern Ireland

	Owner occupied	Private rented & other	Housing Executive (local authority)	Housing association (RSL)	Tied & others	Total households	Vacant	Total dwellings
1974	212	72	153	-	-	438	18	456
1979	226	53	175	-	-	453	18	471
1984	257	38	172	-	4	471	21	492
1987	293	26	162	5	-	487	24	511
1991	347	29	158	10	-	544	30	574
1996	381	32	141	13	6	574	29	603
2001	430	49	115	17	-	611	32	648
2004	462	63	100	19	-	644	36	680

Source: Northern Ireland House Condition Survey

Table 4N shows number of vacant dwellings as well as number of households. Figures in table 3N and the following tables relate to households rather than dwellings. In some cases or some years figures have been manipulated to relate to households rather than dwellings. This is noted under relevant tables.

Table 5N Housing stock distribution by type of dwelling (1,000s) – Northern Ireland

	Semi detached	Terraced	Purpose built flat	Converted flat	Detached	Bungalow	Other	Total households
1974	90	191	24	3	126	-	4	438
1979	97	190	28	0	128	-	10	453
1984	108	192	32	2	134	-	2	470
1987	113	193	35	2	142	-	2	487
1991	135	199	36	7	167	-	-	544
1996	107	194	39	7	88	138	-	573
2001	120	190	40	6	108	148	-	611
2004	142	190	37	11	133	131	-	644

Source: Northern Ireland House Condition Survey

Note that bungalows were included within the other individual dwelling types in the surveys prior to 1996.

Table 6N Ownership and depth of loft/roof insulation (1,000s) – Northern Ireland

Year	Less than 100mm	100mm or more	has loft/roof insulation	No loft/roof insulation	Total house holds with lofts	% households with lofts insulated
1979			180	256	436	41.3%
1984			314	146	461	68.1%
1987						
1991			441	65	506	87.2%
1996	127	320	447	61	508	88.0%
2001	129	355	506	29	534	94.8%
2004	113	421	549	23	572	96.0%

Source: Northern Ireland House Condition Survey

Note: 1984 figures have been adjusted for vacant properties.

1991 figures have been converted to households by using the ratio of households to dwellings.

Table 7N Ownership of cavity wall insulation (1,000s) – Northern Ireland

Year	Dwellings with cavity wall insulation	Potential (total houses with cavity walls)	Total households
1979	20	267	453
1984	66	286	471
1991	223	361	544
1996	216	390	574
2001	323	445	611
2004	407	520	644

Source: Northern Ireland House Condition Survey

Note:

Potential for 1979, 1984 and 1991 is based on known number of non cavity wall dwellings in 1996 – assuming that these were present in previous years.

1974 & 1984 figures have been converted to households by using the ratio of households to dwellings for those years.

1991 figures may include wall insulation which is not cavity wall insulation, although this should be less than 10%. It includes adjustments for 2347 households which were not recorded.

Table 8N Ownership of double glazing (1,000s) – Northern Ireland

Year	Full	Part	Any	None	Total households
1984	16	17	32	438	471
1991	78	44	122	422	544
1996	143	92	235	338	574
2001	292	136	428	183	611
2004	401	124	525	118	644

Source: Northern Ireland House Condition Survey

Note:

Figures for 1984 and 1991 have been adjusted to households from dwellings.

Table 9N Ownership of draught proofing (1,000s) – Northern Ireland

Year	With draught proofing	Fully draught proofed	Total households
1991	253	-	544
1996	346	227	574
2001	410	-	611
2004	-	-	644

Source: Northern Ireland House Condition Survey

Table 10N Ownership of hot water tank insulation (1,000s) – Northern Ireland

Year	Foam	Jacket	None	Total insulated	Potential	Total households
1991	-	-	78	464	542	544
1996	73	407	82	480	562	574
2001	132	401	65	533	598	611
2004	-	-	-	-	-	644

Source: Northern Ireland House Condition Survey

Table 11N Domestic energy consumption and external temperatures – Northern Ireland

Year	Total households (1,000s)	Total delivered energy (PJ)	Average external temperature (oC)	Average consumption per household (GJ)
1976	444	46	5.3	102.8
1977	447	48	5.8	107.9
1978	450	48	6.0	106.6
1979	453	55	4.6	120.3
1980	456	49	5.4	107.2
1981	460	47	5.4	102.0
1982	464	50	5.7	108.7
1983	468	50	6.4	106.6
1984	471	46	5.4	97.7
1985	476	65	4.9	136.2
1986	482	62	5.3	129.4
1987	487	61	5.4	125.1
1988	501	60	6.3	120.7
1989	515	56	6.6	108.7
1990	529	48	6.7	90.8
1991	544	55	5.7	100.7
1992	549	53	5.5	96.8
1993	554	59	5.7	106.6
1994	560	55	6.4	98.3
1995	565	49	6.2	86.1
1996	570	55	5.6	96.9
1997	575	53	7.0	92.4
1998	580	55	7.2	95.4
1999	585	57	6.6	98.2
2000	601	53	6.5	87.6
2001	611	59	6.4	96.6
2002	625	54	7.3	86.0
2003	635	53	6.5	84.1
2004	644	56	6.6	86.5
2005	653	54	7.0	82.1

Source: Northern Ireland House Condition Survey, Digest of UK Energy Statistics, temperatures are calculated from published Degree Days figures for Northern Ireland.

Table 12N Central heating ownership (1,000s) – Northern Ireland

Year	No central heating	With central heating	Total households
1979	289	165	453
1984	211	259	471
1991	93	451	544
1996	65	508	574
2001	21	590	611
2004	10	634	644

Source: Northern Ireland House Condition Survey

Table 13N Main form of heating – centrally heated dwellings (1,000s) – Northern Ireland

Year	Solid fuel	Solid fuel back boiler	Total solid fuel	Electric storage	Electric other	Total electric	Gas	Oil	Other	Total households with central heating
1979	56	-	56	-	32	32	-	64	13	165
1991	46	210	255	47	3	50	3	112	30	451
1996	6	172	178	49	1	50	8	210	63	508
2001	-	-	88	-	-	49	20	364	68	590
2004	-	-	39	-	-	40	52	429	73	634

Source: Northern Ireland House Condition Survey

Note:

Data for 1979 has been adjusted to households

Table 14N Main form of heating – non centrally heated dwellings (1,000s) – Northern Ireland

Year	Solid fuel open fire	Solid fuel stove/ spaceheater	Total solid fuel	Electric fixed	Electric portable	Total electric	Other	Oil	Un-heated	Total households
1979	-	-	249	-	-	26	10	3	2	289
1991	58	20	78	10	3	14	2	-	-	93
1996	37	11	48	9	5	14	3	-	-	65
2001	-	-	25	-	-	8	1	-	-	33
2004	-	-	1	-	-	20	-	-	-	21

Source: Northern Ireland House Condition Survey

Note:

Data for 1979, 2001 and 2004 has been adjusted to households

Table 15N Energy use of the housing stock by fuel – Northern Ireland

	Solid fuel	Gas	Electricity	Oil	Total
1976	31.6	2.2	6.5	5.3	45.6
1977	33.5	1.9	7.0	5.8	48.2
1978	32.8	1.7	7.0	6.5	48.0
1979	38.2	1.8	7.3	7.1	54.5
1980	34.4	1.6	7.1	5.9	48.9
1981	33.1	1.4	6.5	5.8	46.9
1982	36.8	1.2	6.5	6.0	50.4
1983	36.8	1.0	6.5	5.6	49.9
1984	32.2	0.9	6.8	6.1	46.0
1985	49.6	0.8	7.3	7.1	64.8
1986	44.8	0.6	7.6	9.4	62.4
1987	43.4	0.2	7.7	9.6	60.9
1988	41.3	0.0	7.9	11.2	60.5
1989	35.9	0.0	7.8	12.2	56.0
1990	30.8	0.0	8.1	9.2	48.0
1991	35.0	0.0	8.6	11.1	54.8
1992	32.2	0.0	8.9	12.1	53.1
1993	36.6	0.0	9.1	13.4	59.1
1994	31.6	0.0	9.4	14.1	55.1
1995	24.2	0.0	9.6	14.9	48.7
1996	26.6	0.0	10.3	18.4	55.3
1997	24.3	0.0	10.1	18.7	53.1
1998	23.9	0.0	10.8	20.6	55.3
1999	26.5	0.0	11.1	19.8	57.4
2000	20.2	0.1	11.5	20.8	52.6
2001	15.9	2.5	12.3	28.4	59.0
2002	12.6	2.9	12.4	25.8	53.8
2003	10.4	3.5	12.8	26.7	53.4
2004	9.0	4.2	13.0	29.4	55.7
2005	6.7	4.7	13.4	28.9	53.7

Source: Digest of UK Energy Statistics, Family Expenditure Survey, Expenditure and Food Survey.

REFERENCES

- 1 Domestic energy fact file 2003, L D Shorrocks and J I Utley, BR 457, 2003.
- 2 Domestic energy fact file England, Scotland, Wales and Northern Ireland, J I Utley, L D Shorrocks and J H F Bown, BR 427, 2001.

In addition a number of sources have been referred to in compiling this report. The relevant sources are listed below. In most cases several editions of these sources have been consulted.

GfK Home Audit. GfK Marketing Services Ltd. Home heating and insulation ownership reports. Produced annually.

Digest of United Kingdom Energy Statistics. Department of Trade and Industry (now the Department for Business Enterprise and Regulatory Reform). Published annually.

Family Expenditure Survey. Office of National Statistics. Published annually, recently replaced by *Expenditure and Food Survey.* Office for National Statistics.

Northern Ireland House Condition Survey. Housing Executive. Both the main report and interim report for the years quoted.

Also the following web sites have been consulted to obtain some information:

www.statistics.gov.uk

www.defra.gov.uk

www.berr.gov.uk/energy

www.communities.gov.uk

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