

Updated Fuel Poverty Estimates for July 2011 and September 2011

1st Approximation

24th November 2011

Introduction

1. The Scottish Government uses the definition of fuel poverty as set out in the Scottish Fuel Poverty Statement (FPS)¹ published in 2002:

"A household is in fuel poverty if it would be required to spend more than 10% of its income (including Housing Benefit or Income Support for Mortgage Interest) on all household fuel use."

Under these circumstances, a household cannot afford to heat their home to an adequate level. The Scottish Government has pledged to ensure that by November 2016, so far as is reasonably practicable, people are not living in fuel poverty in Scotland.

2. The concept of fuel poverty is based on a model of adequate heating and lighting costs. For a detailed description of this model, see the Scottish Fuel Poverty Statement and the Scottish House Condition Survey (SHCS) 2002 Fuel Poverty in Scotland Report²
3. The SHCS sample size is about 3,000 households per year. This means that in order to provide reliable local authority level analysis we must combine three years of survey data. We publish the data from a survey year in the following November. Therefore, where we combine three years worth of data, the mid-term survey date is 28 months out-of-date.
4. For many aspects of housing, because the stock changes relatively slowly, combining three years worth of data and creating a lag may not be critical. However, fuel prices change rapidly and so changes in fuel poverty are quite sharp and the estimates of fuel poverty which the SHCS provides can be relatively out-of-date.
5. Therefore the purpose of this paper is to outline the methodology we have developed to update fuel poverty estimates and then to present the results for July 2011 and September 2011 at national and local authority level.
6. This paper explains in turn how we have treated each of the three main components of fuel poverty – income, fuel prices and energy efficiency of the household. We also note where there are weaknesses in the method and request suggestions to improve the method. This version of the output is therefore labelled as the ‘First Approximation’.
7. It is important that users clearly understand the status of these data and the cautions that apply. All statistics contained in this report are classed as data being developed. At best we consider them to be indicative. They are not suitable for use in high level official documents such as SOAs at this time.

¹ <http://www.scotland.gov.uk/Publications/2002/08/15258/9951>

² <http://www.scotland.gov.uk/Topics/Statistics/SHCS/FuelPoverty>

Method

8. We use the data from the last three survey years (2008, 2009 and 2010) and update household income and modelled energy costs to estimate figures for July 2011 and September 2011. How these figures are updated is outlined in the sections below.

a) Income

9. The household income variable in the SHCS was updated using the ONS Average Weekly Earnings Index for the Whole Economy³. We used this index rather than an income index as this is updated monthly and there seems to be no equivalent up to date income index available. This is presumably due to the fact that income data comes from surveys rather than administrative data and therefore has a longer lag.
10. Table 1 shows a subset of the table we used to update earnings. We used the seasonally adjusted average earnings index to smooth out seasonal effects.
11. As the SHCS survey year runs from January to December, we have used the mid point, July, as the reference point for updating the combined data sets (2008-2010) to July 2011. This year we have also updated to September 2011 (most recent fuel price data) in order to capture the recent fuel price rises. However, due to time lag, we have also used July income data for this estimate.
- 12.

Table1: Subset from ONS table for Average Earnings Index

Average Weekly Earnings Index for Whole Economy (seasonally adjusted)	
Month	Index (2000=100)
2008 07	138.4
2009 07	138.9
2010 07	141.7
2011 07	145.8

b) Fuel costs

13. We derived each year's fuel costs from the DECC Quarterly Energy Prices Table (QEP⁴). We update the cost of each energy source for each type of energy use: space heating cost, water heating cost, cooking cost, appliance cost and standing charge cost.
14. The fuel costs are shown in Table 2. The fuel costs for households in each year were taken as July of that year and each in turn updated to July 2011 and September 2011 for the relevant estimate.
15. We estimate that 5 of the 6 main energy suppliers implemented their fuel prices rises between July and September 2011, so in projecting both of these figures we can estimate the impact that the increases have had.

³ <http://www.statistics.gov.uk/StatBase/tsdataset.asp?vlnk=392>

⁴ <http://www.decc.gov.uk/en/content/cms/statistics/source/prices/prices.aspx>

Table 2: Subset from DECC Quarterly Prices Index

Month	Quarterly Energy Prices Table (QEP 2.1.3.) - Retail Prices Index (2005=100): fuel components, monthly figures					
	Coal and smokeless fuels	Gas	Electricity	Heating oils	Fuel and light	Petrol and oil
2005 00	100	100	100	100	100	100
2008 07	131.7	154.8	145.7	203.1	152.8	139.1
2009 07	157.7	191.2	155.5	117.7	165.5	117.6
2010 07	156.3	179.4	154.7	154.7	162.1	134.6
2011 07	165.7	190.4	161	198.9	174.2	154.2
2011 09	166.9	219.5	174.7	197.5	192.7	155.2

16. The fuel cost figures for each household are derived from the output of the National Home Energy Rating (NHER) assessment programme which models energy use for fuel poverty.
17. The frequency of use of different primary heating fuels is shown in Table 3 (SHCS 2008 - 2010).

Table 3: Fuel Usage in Scottish Households, SHCS 2008-10 data

#	Fuel Type	Frequency	Percent	Cumulative Percent
1	Gas (mains)	1,787,000	76	76
2	Bulk LPG	17,000	1	77
3	Bottled gas	1,000	0	77
4	Oil	138,000	6	83
5	House coal	15,000	1	84
6	Smokeless fuel	7,000	0	84
7	Anthracite	3,000	0	84
8	Wood/Peat	7,000	0	84
9	Peak Electric	29,000	1	86
10	Off peak electric	317,000	14	99
11	CommHeat (No CHP)	20,000	1	100
12	CommHeat (with CHP)	1,000	0	100
13	Dual fuel	0	0	100
14	Not applicable	0	0	100
	Total	2,344,000	100	

18. We make certain assumptions when up-rating the costs:
 - a. For space or water heating costs, if the source is:
 - 1, 11 or 12 the source is mains gas;
 - 2, 3 or 4 the source is heating oils;
 - 5, 6, 7 or 8 the source is coal and smokeless fuels;
 - 9 or 10 the source is electricity.
 - b. In general, we upgraded the cooking costs according to fuel type. However if the cooker had a gas hob and an electric oven, or the cooker type was unobtainable we used upgrade costs of 50% electric and 50% gas. If there was no cooker, there was no upgrade to costs. Table 4 shows the breakdown of Scottish households by cooker type for 2008-10.

- c. Appliance costs were all assumed to be electric and costs upgraded by the change in electricity index.

Table 4: Cooker Types in Scottish Households, SHCS 2008-10 data

Cooker Type			Cumulative
	Frequency	Percent	Percent
Gas cooker	600,000	26	26
Electric cooker	1,121,000	48	73
Gas hob, electric oven	577,000	25	98
Kitchen range, gas	14,000	1	99
Kitchen range, oil	18,000	1	99
Kitchen range, solid fuel	2,000	0	99
No cooker	12,000	1	100
Total	1,000	0	100

c) Changes in household characteristics and the energy efficiency of housing.

19. Changes to the thermal performance of buildings, efficiency of appliances and personal circumstances all affect fuel poverty categorisation. There may also be other changes, such as rises in unemployment, which will affect the population.
20. We dealt with change over time by 'modernising' the sample, i.e. by applying variable weights to upgrade the sample to a more accurate reflection of current conditions. There are many potential models which could be constructed to do this. Tables 5a and 5b with their graphs illustrate two such models.
21. In Model A, each year starts with the same weight (33%). So taking the combined three year data set for 2008, 2009 and 2010, 2008 has a 33% weight as do the other two years for the first quarter of the upgraded estimate (which will be a December because it follows the November annual publication when we can apply the new survey year data).
22. As we progress through the year, the influence of the oldest year decreases and the influence of the youngest most recent year increases. The influence of the middle year holds steady.

Table 5a: Variable weighting of SHCS three year data – Same starting point and same gradient (unit = proportion of overall data)

Reporting Period		2007	2008	2009	2010	2011
2007-09	Q1	0.333	0.333	0.333	-	-
	Q2	0.25	0.333	0.417	-	-
	Q3	0.167	0.333	0.5	-	-
	Q4	0.083	0.333	0.583	-	-
2008-10	Q1	-	0.333	0.333	0.333	-
	Q2	-	0.25	0.333	0.417	-
	Q3	-	0.167	0.333	0.5	-
	Q4	-	0.083	0.333	0.583	-
2009-11	Q1	-	-	0.333	0.333	0.333
	Q2	-	-	0.25	0.333	0.417
	Q3	-	-	0.167	0.333	0.5
	Q4	-	-	0.083	0.333	0.583

Graph 5a: Variable weighting of SHCS three year data – Same starting point and same gradient

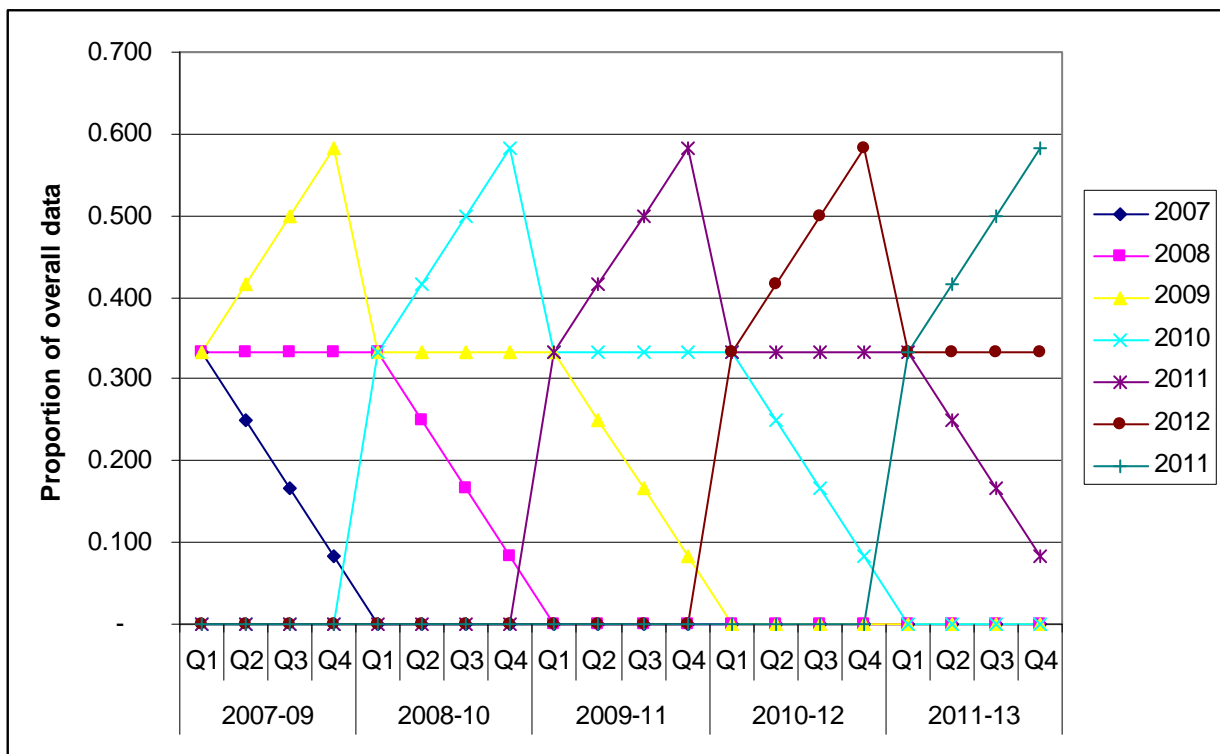
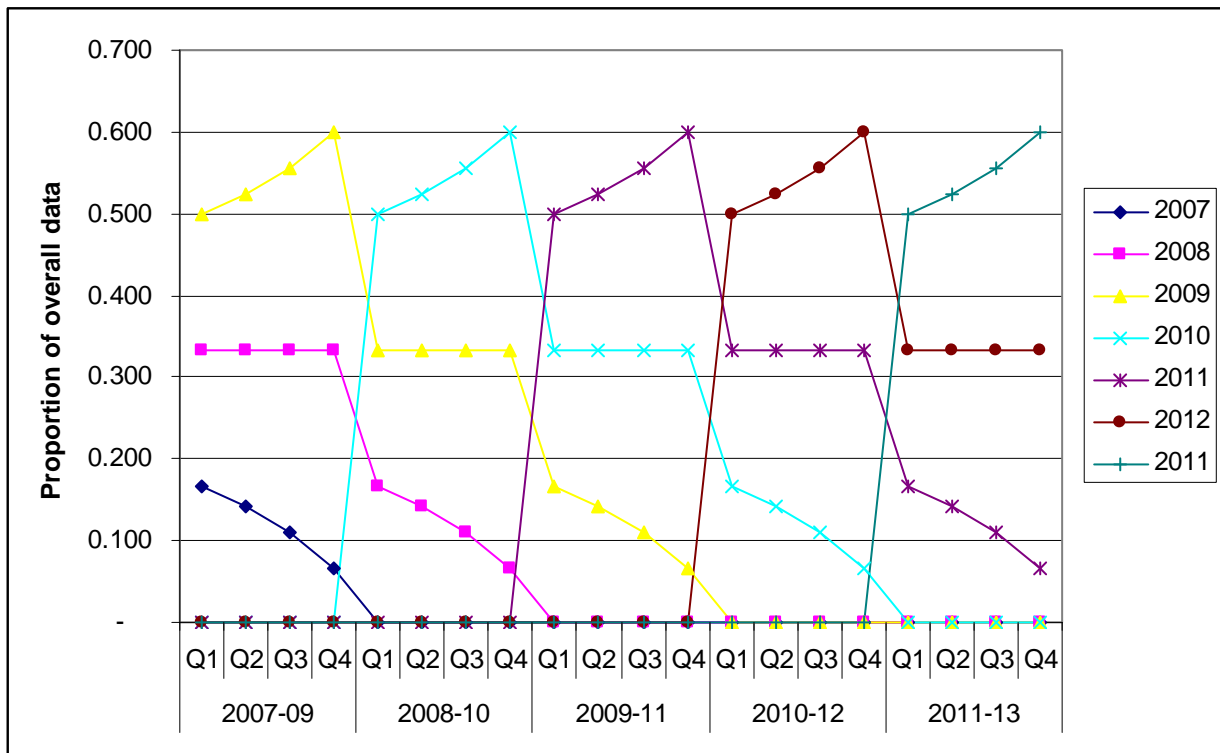


Table 5b: Variable weighting of SHCS three year data – Different starting point, variable gradient (unit = proportion of overall data)

Reporting Period		2007	2008	2009	2010	2011
2007-09	Q1	0.167	0.333	0.5	-	-
	Q2	0.143	0.333	0.524	-	-
	Q3	0.111	0.333	0.556	-	-
	Q4	0.067	0.333	0.6	-	-
2008-10	Q1	-	0.167	0.333	0.5	-
	Q2	-	0.143	0.333	0.524	-
	Q3	-	0.111	0.333	0.556	-
	Q4	-	0.067	0.333	0.6	-
2009-11	Q1	-	-	0.167	0.333	0.5
	Q2	-	-	0.143	0.333	0.524
	Q3	-	-	0.111	0.333	0.556
	Q4	-	-	0.067	0.333	0.6

Graph 5b: Variable weighting of SHCS three year data – Different starting point, variable gradient



23. In Model B, the key difference is that when the new year's data comes in, it has a relatively higher weight; it 'jumps' in and has a relatively greater affect. At the same time, year three loses its influence more drastically and the weight loss curve steepens.
24. As it gave more weight to the latest data we preferred this solution. However, for the time being we have had to settle on using a mid-year constant as we don't currently hold date data for the surveys, i.e. 17% for year one, 33% year two and 50% for year three.

25. The next stage is to obtain the date data for the survey in order to implement the quarterly weighting in 5b. We would be pleased to hear of any other solutions which could be considered better.

Results

26. There are three sets of results to be considered in Table 6, for both the July 2011 and September 2011 updated fuel poverty:
- The original 2008, 2009 and 2010 combined data set estimate of fuel poverty by Local Authority;
 - The fuel costs and earnings increased combined data sets estimates of fuel poverty by Local Authority;
 - The variably weighted, with increased fuel costs and earnings data by Local Authority.

Table 6: Summary of fuel poverty estimates, actual and projected

Reporting period	A: Original survey Estimate	B: Updated for fuel price and income	C: Updated for fuel price, income and variable weighting
2008-10	28.3%		
Jul-11		30.1%	29.9%
Sep-11		35.3%	35.0%

27. The 2008 to 2010 fuel poverty estimate using the 2008-10 survey data is 28.3% (i.e. for the mid point July 2009). The fuel costs and earnings- adjusted estimates for fuel poverty are 30.1% for July 2011 and 35.3% for September 2011. The fully adjusted estimates (i.e. includes variable weighting) of fuel poverty are 29.9% for July 2011 and 35.0% for September 2011.
28. Tables 7a and 7b show household counts and % in fuel poverty by LA for
- July 2009 using 2008-2010 data (cols 1 - 2);
 - July 2011 projected using 2008-2010 data (cols 3 - 4)
 - July 2011 projected with variable weights using 2008-2010 data (cols 5 - 6)

The critical comparison is between columns two and six which show the fuel poor for 2008-10 and the July 2011 estimate. The equivalent tables for the September 2011 estimate are in Tables 8a and 8b.

Table 7a: Fuel poverty by Local authority, actual and July 2011 projections (count of households)

Local Authority	A: Original Survey Estimate, 2008-10		B: Updated for fuel price and income, Jul-11		C: Updated for fuel price, income and variable weighting, Jul-11	
	Not Fuel Poor	Fuel Poor	Not Fuel Poor	Fuel Poor	Not Fuel Poor	Fuel Poor
Aberdeen City	82,000	22,000	80,000	23,000	80,000	24,000
Aberdeenshire	74,000	29,000	73,000	30,000	71,000	32,000
Angus	35,000	15,000	35,000	16,000	36,000	15,000
Argyll and Bute	26,000	15,000	25,000	16,000	25,000	17,000
Clackmannanshire	19,000	4,000	19,000	4,000	19,000	4,000
Dumfries and Galloway	43,000	25,000	40,000	28,000	40,000	28,000
Dundee City	52,000	17,000	52,000	18,000	50,000	19,000
East Ayrshire	38,000	16,000	37,000	17,000	37,000	17,000
East Dunbartonshire	33,000	10,000	32,000	11,000	32,000	11,000
East Lothian	31,000	11,000	30,000	12,000	30,000	12,000
East Renfrewshire	26,000	10,000	26,000	10,000	26,000	10,000
City of Edinburgh	166,000	53,000	163,000	56,000	163,000	56,000
Eilean Siar	6,000	6,000	6,000	6,000	6,000	6,000
Falkirk	53,000	15,000	53,000	16,000	52,000	17,000
Fife	112,000	49,000	108,000	53,000	111,000	50,000
Glasgow City	204,000	78,000	199,000	83,000	206,000	76,000
Highland	67,000	34,000	63,000	38,000	62,000	39,000
Inverclyde	27,000	10,000	26,000	10,000	26,000	11,000
Midlothian	25,000	9,000	25,000	10,000	25,000	10,000
Moray	26,000	13,000	26,000	13,000	26,000	13,000
North Ayrshire	42,000	19,000	42,000	20,000	40,000	22,000
North Lanarkshire	106,000	38,000	102,000	42,000	106,000	39,000
Orkney Islands	5,000	4,000	5,000	4,000	5,000	5,000
Perth and Kinross	43,000	21,000	42,000	23,000	42,000	23,000
Renfrewshire	64,000	15,000	64,000	15,000	65,000	14,000
Scottish Borders	35,000	17,000	34,000	18,000	34,000	18,000
Shetland Islands	7,000	3,000	6,000	3,000	6,000	4,000
South Ayrshire	37,000	14,000	36,000	15,000	35,000	16,000
South Lanarkshire	87,000	49,000	84,000	52,000	85,000	51,000
Stirling	27,000	11,000	26,000	12,000	26,000	12,000
West Dunbartonshire	33,000	8,000	32,000	9,000	33,000	9,000
West Lothian	50,000	23,000	49,000	24,000	48,000	25,000
Scotland	1,681,000	663,000	1,641,000	708,000	1,646,000	703,000

Table 7b: Fuel poverty by Local authority, actual and July 2011 projections (% of households)

Local Authority	A: Original Survey Estimate, 2008-10		B: Updated for fuel price and income, Jul-11		C: Updated for fuel price, income and variable weighting, Jul-11	
	Not Fuel Poor	Fuel Poor	Not Fuel Poor	Fuel Poor	Not Fuel Poor	Fuel Poor
Aberdeen City	79.1	20.9	77.7	22.3	77.2	22.8
Aberdeenshire	72.2	27.8	71.3	28.7	68.9	31.1
Angus	70.3	29.7	68.7	31.3	70.7	29.3
Argyll and Bute	63.2	36.8	61.1	38.9	59.6	40.4
Clackmannanshire	83.3	16.7	82.2	17.8	83.4	16.6
Dumfries and Galloway	62.6	37.4	59.2	40.8	59.1	40.9
Dundee City	75.7	24.3	74.3	25.7	72.3	27.7
East Ayrshire	70.4	29.6	68.9	31.1	68.7	31.3
East Dunbartonshire	75.8	24.2	73.5	26.5	74.8	25.2
East Lothian	73.5	26.5	71.5	28.5	71.7	28.3
East Renfrewshire	72.7	27.3	71.4	28.6	72.8	27.2
City of Edinburgh	75.9	24.1	74.5	25.5	74.3	25.7
Eilean Siar	49.0	51.0	46.2	53.8	46.2	53.8
Falkirk	77.4	22.6	77.0	23.0	75.4	24.6
Fife	69.6	30.4	67.2	32.8	69.1	30.9
Glasgow City	72.4	27.6	70.6	29.4	73.0	27.0
Highland	66.2	33.8	62.8	37.2	61.0	39.0
Inverclyde	72.8	27.2	71.6	28.4	69.9	30.1
Midlothian	72.8	27.2	71.9	28.1	72.0	28.0
Moray	66.6	33.4	66.0	34.0	65.8	34.2
North Ayrshire	68.5	31.5	67.3	32.7	64.6	35.4
North Lanarkshire	73.4	26.6	71.0	29.0	73.2	26.8
Orkney Islands	54.2	45.8	51.3	48.7	49.8	50.2
Perth and Kinross	67.2	32.8	64.4	35.6	64.9	35.1
Renfrewshire	81.1	18.9	80.8	19.2	82.6	17.4
Scottish Borders	67.2	32.8	65.4	34.6	65.2	34.8
Shetland Islands	67.8	32.2	64.3	35.7	62.3	37.7
South Ayrshire	72.2	27.8	70.5	29.5	68.4	31.6
South Lanarkshire	64.1	35.9	61.8	38.2	62.4	37.6
Stirling	72.1	27.9	69.1	30.9	69.3	30.7
West Dunbartonshire	80.6	19.4	78.2	21.8	78.7	21.3
West Lothian	68.7	31.3	67.0	33.0	65.4	34.6
Scotland	71.7	28.3	69.9	30.1	70.1	29.9

Table 8a: Fuel poverty by Local authority, actual and September 2011 projections (count of households)

Local Authority	A: Original Survey Estimate, 2008-10		B: Updated for fuel price and income, Sep-11		C: Updated for fuel price, income and variable weighting, Sep-11	
	Not Fuel Poor	Fuel Poor	Not Fuel Poor	Fuel Poor	Not Fuel Poor	Fuel Poor
Aberdeen City	82,000	22,000	76,000	27,000	76,000	27,000
Aberdeenshire	74,000	29,000	70,000	33,000	68,000	35,000
Angus	35,000	15,000	32,000	18,000	33,000	18,000
Argyll and Bute	26,000	15,000	23,000	18,000	23,000	19,000
Clackmannanshire	19,000	4,000	17,000	6,000	18,000	5,000
Dumfries and Galloway	43,000	25,000	37,000	31,000	37,000	31,000
Dundee City	52,000	17,000	48,000	22,000	47,000	23,000
East Ayrshire	38,000	16,000	34,000	19,000	34,000	19,000
East Dunbartonshire	33,000	10,000	29,000	14,000	29,000	14,000
East Lothian	31,000	11,000	29,000	14,000	29,000	14,000
East Renfrewshire	26,000	10,000	24,000	12,000	24,000	12,000
City of Edinburgh	166,000	53,000	154,000	65,000	154,000	65,000
Eilean Siar	6,000	6,000	5,000	7,000	5,000	7,000
Falkirk	53,000	15,000	50,000	19,000	49,000	20,000
Fife	112,000	49,000	96,000	65,000	99,000	62,000
Glasgow City	204,000	78,000	182,000	100,000	189,000	93,000
Highland	67,000	34,000	56,000	45,000	55,000	46,000
Inverclyde	27,000	10,000	24,000	12,000	24,000	13,000
Midlothian	25,000	9,000	24,000	11,000	24,000	11,000
Moray	26,000	13,000	24,000	15,000	24,000	15,000
North Ayrshire	42,000	19,000	38,000	24,000	37,000	25,000
North Lanarkshire	106,000	38,000	95,000	49,000	98,000	47,000
Orkney Islands	5,000	4,000	4,000	5,000	4,000	5,000
Perth and Kinross	43,000	21,000	38,000	27,000	38,000	26,000
Renfrewshire	64,000	15,000	60,000	19,000	61,000	18,000
Scottish Borders	35,000	17,000	31,000	20,000	31,000	21,000
Shetland Islands	7,000	3,000	6,000	4,000	6,000	4,000
South Ayrshire	37,000	14,000	34,000	18,000	33,000	18,000
South Lanarkshire	87,000	49,000	79,000	58,000	80,000	56,000
Stirling	27,000	11,000	24,000	14,000	24,000	14,000
West Dunbartonshire	33,000	8,000	29,000	12,000	29,000	12,000
West Lothian	50,000	23,000	46,000	26,000	45,000	28,000
Scotland	1,681,000	663,000	1,520,000	829,000	1,526,000	823,000

Table 8b: Fuel poverty by Local authority, actual and September 2011 projections (% of households)

Local Authority	A: Original Survey Estimate, 2008-10		B: Updated for fuel price and income, Sep-11		C: Updated for fuel price, income and variable weighting, Sep-11	
	Not Fuel Poor	Fuel Poor	Not Fuel Poor	Fuel Poor	Not Fuel Poor	Fuel Poor
Aberdeen City	79.1	20.9	73.6	26.4	73.6	26.4
Aberdeenshire	72.2	27.8	67.7	32.3	65.7	34.3
Angus	70.3	29.7	63.8	36.2	64.7	35.3
Argyll and Bute	63.2	36.8	56.0	44.0	54.4	45.6
Clackmannanshire	83.3	16.7	74.6	25.4	77.2	22.8
Dumfries and Galloway	62.6	37.4	54.7	45.3	54.2	45.8
Dundee City	75.7	24.3	68.6	31.4	67.2	32.8
East Ayrshire	70.4	29.6	63.7	36.3	63.6	36.4
East Dunbartonshire	75.8	24.2	66.7	33.3	67.3	32.7
East Lothian	73.5	26.5	67.3	32.7	67.5	32.5
East Renfrewshire	72.7	27.3	66.2	33.8	67.8	32.2
City of Edinburgh	75.9	24.1	70.4	29.6	70.3	29.7
Eilean Siar	49.0	51.0	43.3	56.7	43.2	56.8
Falkirk	77.4	22.6	72.7	27.3	71.2	28.8
Fife	69.6	30.4	59.8	40.2	61.6	38.4
Glasgow City	72.4	27.6	64.6	35.4	67.1	32.9
Highland	66.2	33.8	55.8	44.2	54.2	45.8
Inverclyde	72.8	27.2	66.3	33.7	65.3	34.7
Midlothian	72.8	27.2	68.1	31.9	68.2	31.8
Moray	66.6	33.4	62.7	37.3	62.5	37.5
North Ayrshire	68.5	31.5	61.7	38.3	60.2	39.8
North Lanarkshire	73.4	26.6	66.0	34.0	67.7	32.3
Orkney Islands	54.2	45.8	47.4	52.6	45.8	54.2
Perth and Kinross	67.2	32.8	58.2	41.8	59.5	40.5
Renfrewshire	81.1	18.9	75.6	24.4	77.0	23.0
Scottish Borders	67.2	32.8	60.5	39.5	59.4	40.6
Shetland Islands	67.8	32.2	61.3	38.7	59.4	40.6
South Ayrshire	72.2	27.8	65.5	34.5	64.0	36.0
South Lanarkshire	64.1	35.9	57.6	42.4	58.8	41.2
Stirling	72.1	27.9	64.3	35.7	63.8	36.2
West Dunbartonshire	80.6	19.4	70.4	29.6	70.7	29.3
West Lothian	68.7	31.3	63.6	36.4	61.4	38.6
Scotland	71.7	28.3	64.7	35.3	65.0	35.0

Table 9: Summary of estimated changes in fuel poverty by local authority (local authorities ordered by change in % fuel poor households from 2008 - 10 to September 2011)

Local Authority	Estimate	Projections		Change in local authority order	% change in fuel poverty, 2008-10 to July 2011	% change in fuel poverty, 2008-10 to Sept 2011
	% Fuel Poor, 2008-10	% Fuel Poor, July 2011	% Fuel Poor, Sept 2011			
Renfrewshire	18.9	17.4	23.0	0	-1.5	4.0
Moray	33.4	34.2	37.5	6	0.8	4.1
Midlothian	27.2	28.0	31.8	5	0.8	4.6
East Renfrewshire	27.3	27.2	32.2	5	-0.1	4.8
South Lanarkshire	35.9	37.6	41.2	1	1.7	5.3
Glasgow City	27.6	27.0	32.9	1	-0.6	5.4
Aberdeen City	20.9	22.8	26.4	1	1.9	5.5
Angus	29.7	29.3	35.3	3	-0.4	5.5
City of Edinburgh	24.1	25.7	29.7	0	1.6	5.6
North Lanarkshire	26.6	26.8	32.3	1	0.2	5.7
Eilean Siar	51.0	53.8	56.8	0	2.8	5.8
East Lothian	26.5	28.3	32.5	-1	1.9	6.1
Clackmannanshire	16.7	16.6	22.8	0	-0.1	6.1
Falkirk	22.6	24.6	28.8	1	2.0	6.2
Aberdeenshire	27.8	31.1	34.3	1	3.4	6.6
East Ayrshire	29.6	31.3	36.4	-1	1.7	6.7
Scotland	28.3	29.9	35.0	2	1.6	6.7
West Lothian	31.3	34.6	38.6	-1	3.3	7.2
Inverclyde	27.2	30.1	34.7	-4	2.9	7.6
Perth and Kinross	32.8	35.1	40.5	0	2.3	7.8
Scottish Borders	32.8	34.8	40.6	-1	2.0	7.8
Fife	30.4	30.9	38.4	-1	0.5	8.0
South Ayrshire	27.8	31.6	36.0	-2	3.8	8.2
Stirling	27.9	30.7	36.2	-2	2.8	8.3
North Ayrshire	31.5	35.4	39.8	-1	4.0	8.3
Shetland Islands	32.2	37.7	40.6	-2	5.5	8.3
Orkney Islands	45.8	50.2	54.2	0	4.3	8.4
Dumfries and Galloway	37.4	40.9	45.8	0	3.5	8.5
Dundee City	24.3	27.7	32.8	-4	3.4	8.5
East Dunbartonshire	24.2	25.2	32.7	-4	1.0	8.5
Argyll and Bute	36.8	40.4	45.6	1	3.6	8.8
West Dunbartonshire	19.4	21.3	29.3	-2	1.9	9.9
Highland	33.8	39.0	45.8	-2	5.2	12.0

29. Table 9 and Figure 10 show the variation in predicted changes in fuel poverty between the local authorities in Scotland. The final two columns of table 9 show that the majority of local authorities show a predicted increase in fuel poverty to July 2011, with the Scotland average rising by 1.6%. However the September 2011 projections predict an increase in all local authorities, ranging from 4.0% in Renfrewshire to 12.0% in Highland. The Scotland average for the September projections predict an increase of 6.7%. Clackmannanshire maintains its position as the least fuel poor local authority with projections estimating that 22.8% of households will be fuel poor in September 2011 and Eilean Siar retains its position as most fuel poor with 56.8% of households in fuel poverty.

Figure 10: Change in order and % Rise in Households in Fuel Poverty by Local Authority

