



Scottish
House Condition
Survey
2002

Housing and Disrepair in Scotland



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Communities
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Housing and Disrepair in Scotland

Analysis of the 2002 Scottish House Condition Survey

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Executive Summary

In November 2002, Communities Scotland published the Scottish House Condition Survey Main Report which included an overview of levels of disrepair to Scotland's housing stock and a summary of householders' reports of maintenance and repair work done. This report provides more in-depth analyses on the relationship between maintenance and disrepair and includes chapters on disrepair in common blocks and the association between right-to-buy and disrepair. The main findings of the report are as follows:

- Across Scotland, approximately 81% of dwellings have some kind of disrepair, around 33% have urgent disrepair and 57% have critical disrepair. The highest levels of critical and urgent disrepair are found in the private rented sector.
- Householders' gender and health status have no association with the likelihood of a dwelling having disrepair.
- Older households were less likely to have done work to their dwellings and are more likely to agree that they only do repairs in emergencies than younger households.
- About 60% of householders who received grants for repair work reported that they would have done the work even if they had not received a grant.
- Most householders say that 'general improvements' was their motivation for doing repair work. Relatively few state their motivation to be improving the value of the property.
- Householders do not prioritise critical repairs, and often conduct other types of repair/improvement work while ignoring critical disrepair. This is despite the fact that the majority of householders claim that they do regularly inspect their home to see if repairs are needed.
- There is no evidence that dwellings bought under the right-to-buy scheme are in more disrepair than dwellings retained by local authorities or housing associations, or dwellings occupied by non-RTB owners.
- Right-to-buy owners and non-right to buy owners are very similar in the amount and type of work that they report having done to their dwellings, and both report having done far more work to their dwellings than local authorities or housing associations.
- About 10% of householders living in common blocks pay a factor or management company to clean the stairs or maintain the roof. Slightly more meet regularly with neighbours to discuss common maintenance and repairs, and these households are less likely to have disrepair to the common elements of their dwellings than households that do not meet regularly.
- The majority of householders say that it is easy to get repairs done on common elements. Between 27,500 and 38,500 households said that they knew of occasions when people have failed to pay their share of repairs and more than half reported that the repairs got done anyway. The majority of householders claim to be satisfied with the maintenance of the common elements.
- Revised disrepair cost estimates are presented which are slightly higher than those given in the SHCS 2002 Main Report. The total visible repair estimate for the housing stock is £1.8 billion.

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Introduction

The 2002 Scottish House Condition Survey (SHCS) assessed the extent of disrepair across Scottish housing, investigated the types of disrepair that are most common, and estimated the likely costs of correcting that disrepair. Furthermore, as part of the survey, householders were interviewed about the work that they had done on their dwellings in the five years prior to the survey, and their attitudes towards home maintenance.

The Scottish House Condition Survey 2002 Main Report included chapters on 'Disrepair and Repair Costs' that provided an overview of disrepair in Scotland, and 'Work Done by Householders and Landlords' which provided an overview of the extent and type of repairs conducted by householders. The Local Authority Report provided repair cost estimates and money spent on repairs at local authority level. The present report adds to the information provided in those chapters by looking at the observed levels of disrepair together with the householders own reports of repair work done. This report also looks at disrepair in dwellings bought through the right-to-buy scheme, disrepair in common areas and the way in which cost estimates are reported. Finally, revised disrepair cost estimates are reported that supersede figures previously reported in the national and local authority reports.

More specifically, the report contains six chapters:

- Chapter one reports analyses of the relationship between householders and disrepair and householders and repair work done.
- Chapter two provides summary statistics describing householders reported motivation for undertaking repair and improvement work, whether householders do the work themselves or employ others, and whether they repair critical elements as a priority.
- Chapter three provides analyses of the levels of disrepair and amount of work done to properties bought through the right-to-buy scheme. In this chapter, comparisons are made between the level of disrepair and types of work done in right-to-buy owned properties, properties still owned by local authorities and housing associations, and properties occupied by non- right to buy owners.
- Chapter four contains information about disrepair and maintenance in common blocks, with summary statistics about who takes responsibility for common element repairs and the satisfaction of householders with the maintenance of common parts.
- Chapter five contains ideas for alternative forms of reporting disrepair costs in Scotland's housing stock.
- Chapter six provides the revised estimates of the costs of making good disrepair to the housing stock, previously reported in the second part of chapter seven in the 2002 main report and chapter 4 of the local authority report.

Conventions used in the report

Confidence intervals

The format of the tables in this report differs slightly from those in previous SHCS reports. In this report 95% confidence intervals have been included for all estimates.

All sample surveys produce estimates of the proportions within the population as a whole. These estimates may differ from the true rate of prevalence in the population. It is important to know the extent of this possible divergence when interpreting the estimates and a confidence interval provides this. A 95% confidence interval is a range around the estimate within which 95 out of 100 estimates would fall if 100 surveys were conducted. In other words, a 95% confidence interval provides a range which can be used to judge the accuracy of the estimate.

For example, it is estimated that 265,000 dwellings have been bought under the right to buy, with a lower confidence interval of 254,500 and an upper confidence interval of 276,000, so we can be fairly sure that the number of dwellings bought under right-to-buy lies somewhere between 254,500 and 276,000 and that the best guess is 265,000. In this example, the confidence interval is fairly tight, so we can be fairly confident when using the best guess of 265,000. In contrast, if the confidence intervals for the same estimate were 100,000 and 450,000 then we would not be able to use the figure of 265,000 with very much confidence, because the true prevalence might well differ from that estimate quite substantially.

* Asterisks

Where one side of the confidence interval is 50% or more of the estimate, the estimate is not reported and is replaced by an asterisk. (This differs from the convention used in previous reports which was dependent on the sample size which the estimate was based on).

Types of disrepair and repair costs

Critical disrepair: Disrepair to those elements which are central to the weather proofing of a dwelling, and/or its structural integrity.

Extensive disrepair: 20% or more disrepair to any element.

Urgent disrepair: Disrepair, that if not repaired, would cause the fabric of the building to deteriorate further and/or place the health and safety of residents at risk.

Patch / visible repair costs: The cost of rectifying visible disrepair.

Comprehensive repair costs: Patch repairs plus the cost of replacing all external and common elements assessed to have a residual life of 10 years or fewer.

Types of repair work

General building work: Building conservatory, porch or extension; converting loft or garage; refitting kitchen or bathroom; providing additional bathroom/WC; work to foundations or structural work to walls or roof; any work to the damp-proof course and the replacement of drives and paths.

Work inside the house: Rewiring the dwelling; any work to stairs or staircase; re-plastering; replacing/repairing floor boards or joists and timber treatment.

Work to external windows and doors: Paint outside of windows; replace windows; replace door.

Heating/Insulation: Installing, replacing or servicing central heating or storage heaters; installing/replacing gas fires, heaters or solid fuel fires; installing or improving loft/wall insulation.

Work outside the house: Replacing an area of roof covering; replacing flat roof with pitched roof; re-building or re-pointing chimney stack; replacing gutters or down pipes; repairing or replacing rendering or harling on walls; replacing external timber with uPVC and replacing mains water connection.

Other work to flats: Installing entry phone system; basic repairs to corridors, stairway or main entrance; installing or replacing fire alarm and removing one or more storeys or demolishing part of the block.

Abbreviations used in the report

SHCS: Scottish House Condition Survey

RTB: Right to Buy.

HIH: Highest Income Householder.

LA/HA: Local Authority / Housing Association

Chapter 1: Householders, disrepair and repair work

1.1 Introduction

This chapter focuses on the relationship between householders, disrepair and repair work. More specifically, the first section examines the likelihood of a dwelling having disrepair according to its type, location and the householders who inhabit it.

The second part of the chapter reports the estimated numbers of different types of repair and maintenance work done by householders according to their tenure, dwelling type, location and household type. The estimates reported refer to householders own reports of work done in the 12 months prior to being surveyed.

In order to properly assess the likelihood of a dwelling having disrepair or a household having done repair work, a series of logistic regression models were analysed. An explanation of this type of analysis is given in the box below.

In section 1.4, the main results from the chapter are summarised.

Understanding logistic regression analysis

An important feature of this analysis is the fact that an entire set of variables can all be taken into account simultaneously. The results then show which variables are independent significant predictors of the variable in question (e.g. urgent disrepair). In other words, it might be shown in the frequency tables that dwellings in urban locations are equally likely to have urgent disrepair as dwellings in rural locations. However, when the fact that different types of dwellings and tenures are prominent in rural locations than they are in urban locations, the impact of location alone on the likelihood of disrepair is shown to be significant.

It is also important to understand the concept of relative risks when considering the results of regression analyses. Within each variable (e.g. tenure) one value (e.g. owner-occupier) is set as the reference category. This means that the likelihood of dwellings in different tenures having disrepair can only be understood in comparison to the reference category. That the reference category has no value associated with it does *not* mean that households within that category have no chance of being in disrepair. Nor does it mean that the chance of those dwellings being in disrepair is equal to the chance of the population as a whole. It is essential for the operation of the model that a value within each category of variables is set as the reference point in this way, but it is important to interpret the information presented in terms of relative and not absolute risk.

1.2 Disrepair

In this section, three different types of disrepair are considered: any disrepair, urgent disrepair and critical disrepair.

Across Scotland, approximately 1,764,500 dwellings have some kind of disrepair; this represents about 81% of all dwellings. Of these, approximately 714,000 have urgent disrepair (about 33% of all dwellings), and 1,239,500 have critical disrepair (about 57% of all dwellings). This is shown in table 1.2.1.

Table 1.2.1: Number and percentage of dwellings with disrepair, urgent disrepair, and critical disrepair.

	estimate	95% Confidence Interval		%	95% Confidence Interval	
		lower	upper		lower	upper
any disrepair	1764500	1748500	1780500	81	80	81
urgent disrepair	714000	696000	732000	33	32	33
critical disrepair	1239500	1220000	1258500	57	56	57

Table 1.2.2 shows that between 23 and 27% of detached houses have urgent disrepair compared to between 38 and 42% of tenement flats, or between 38 and 51% of flats in converted buildings. The results in table 1.2.3 suggest that the likelihood of a dwelling having any type of disrepair increases with the age of the building. This is supported by the regression analysis in table 1.2.7.

In table 1.2.4 it can be seen that the private rented sector has higher proportions of dwellings with urgent and critical types of disrepair than any other tenure, although the percentage of dwellings with any disrepair in the private rented sector is no higher than in LA/other public owned dwellings.

Older households (older smaller or single pensioners) are less likely to live in dwellings with any disrepair than other household types; this is shown in table 1.2.5.

The results in table 1.2.6 suggest that there is little difference in the likelihood of a dwelling having disrepair according to its location, but this is contradicted by the regression analysis which shows that when all other variables are considered, rural dwellings are more likely to have disrepair.

Table 1.2.2: Percentage of dwellings with disrepair, urgent disrepair, and critical disrepair, by dwelling type.

	Any disrepair			Urgent disrepair			Critical disrepair		
	%	95% confidence interval		%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper		lower	upper
detached	70	68	72	25	23	27	46	44	48
semi-detached	81	79	82	30	28	31	55	53	57
terrace	81	80	83	31	29	33	54	52	56
tenement	84	83	85	40	38	42	64	62	66
4-in-a-block	87	85	89	38	35	40	66	63	68
flat conversion	87	82	92	44	38	51	70	63	76
tower/slab	86	82	90	31	26	37	54	48	60

Table 1.2.3: Percentage of dwellings with disrepair, urgent disrepair, and critical disrepair, by date of construction.

	Any disrepair			Urgent disrepair			Critical disrepair		
	%	95% confidence interval		%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper		lower	upper
pre 1919	91	90	92	48	46	50	75	73	77
1919-1944	91	90	93	40	37	42	70	68	72
1945-1964	89	88	90	36	35	38	63	62	65
1965-1982	79	77	80	27	26	29	52	50	53
post 1982	48	46	50	10	9	12	19	17	21

Table 1.2.4: Percentage of dwellings with disrepair, urgent disrepair, and critical disrepair, by tenure.

	Any disrepair			Urgent disrepair			Critical disrepair		
	%	95% confidence interval		%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper		lower	upper
owner occupied	78	77	79	30	29	31	53	52	54
LA/other public	89	88	90	36	35	38	65	63	66
HA/housing co-op	66	63	70	21	18	24	39	36	43
private rented	87	85	89	46	43	50	70	66	73

Table 1.2.5: Percentage of dwellings with disrepair, urgent disrepair, and critical disrepair, by household type.

	Any disrepair			Urgent disrepair			Critical disrepair		
	%	95% confidence interval		%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper		lower	upper
households without children	81	80	82	35	33	36	58	57	60
households with children	83	81	84	33	32	35	57	55	58
older households	77	76	78	29	28	31	54	52	55

Table 1.2.6: Percentage of dwellings with disrepair, urgent disrepair, and critical disrepair, by location.

	Any disrepair			Urgent disrepair			Critical disrepair		
	%	95% confidence interval		%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper		lower	upper
rural	80	79	82	31	29	33	59	57	61
urban	81	80	81	33	32	34	56	55	57

In order to assess which variables considered can be used to predict whether or not a dwelling has disrepair, a series of regression analyses were conducted. Any disrepair, urgent disrepair and critical disrepair were all considered separately but the results were so similar for all three variables that only the results for urgent disrepair are reported here. The results, shown in table 1.2.7, can be summarised as follows:

- In comparison to owner-occupied dwellings, private rented dwellings are more likely to have urgent disrepair and HA/housing co-op dwellings are less likely to have urgent disrepair. There is no difference between owner-occupied and LA/other public dwellings.
- Older smaller/single pensioners are less likely to be living in dwellings with urgent disrepair than any other household type.
- Households with average weekly income of less than £300 are at lower risk of living in dwellings with urgent disrepair than households with higher incomes.
- Dwellings built before 1965 are at higher risk of having urgent disrepair than dwellings built since 1965.
- There is no difference in the risk of urgent disrepair between different types of houses (detached, semi-detached and terraced), but compared to all houses, tenement flats, 4-in-a-block flats and conversion flats are more likely to have urgent disrepair.
- Rural dwellings have a higher risk of being in urgent disrepair than urban dwellings.
- Compared to dwellings in Glasgow, those in Dumfries & Galloway, East Ayrshire, Inverclyde, North Ayrshire, Renfrewshire, South Ayrshire and South Lanarkshire are at much higher risk of having urgent disrepair.
- Age and sex of the highest-income-householder, whether any member of the household had a longstanding illness or disability, and length of occupation were all excluded from the model as they had no predictive power.

Table 1.2.7: Logistic regression model for urgent disrepair

	odds ratio	relative risk
owner-occupier		reference category
LA/other public	1.10	no difference
HA/co-op	0.60	lower risk
private renter	1.54	higher risk
older smaller/single pensioner		reference category
single/small adult	1.36	higher risk
single parent/small family	1.33	higher risk
large adult/family	1.48	higher risk
average income >£300 per week		reference category
average income <£300 per week	0.84	lower risk
date of construction: pre-1965		reference category
date of construction: post 1965	0.39	lower risk
house		reference category
tenement flat	1.53	higher risk
4-in-a-block flat	1.13	higher risk
flat in converted building	1.38	higher risk
tower/slab flat	1.36	no difference
urban		reference category
rural	1.11	higher risk
Glasgow City		reference category
Aberdeen City	1.63	higher risk
Aberdeenshire	0.92	no difference
Angus	1.36	no difference
Argyll & Bute	2.00	higher risk
Borders	1.78	higher risk
Clackmannan	1.04	no difference
Dumfries & Galloway	2.43	much higher risk
Dundee City	1.87	higher risk
East Ayrshire	2.76	much higher risk
East Dunbartonshire	1.51	higher risk
East Lothian	1.87	higher risk
East Renfrewshire	1.20	no difference
Edinburgh City	1.77	higher risk
Falkirk	1.33	higher risk
Fife	1.80	higher risk
Highland	0.54	lower risk
Inverclyde	2.74	much higher risk
Midlothian	1.08	no difference
Moray	1.08	no difference
North Ayrshire	2.73	much higher risk
North Lanarkshire	1.40	higher risk
Orkney	1.75	higher risk
Perthshire & Kinross	1.74	higher risk
Renfrewshire	2.54	much higher risk
Shetland	1.29	no difference
South Ayrshire	3.55	much higher risk
South Lanarkshire	2.25	much higher risk
Stirling	1.76	higher risk
West Dunbartonshire	1.10	no difference
West Lothian	1.95	higher risk
Western Isles	0.91	no difference

1.3 Type of repairs undertaken

Figure 1.3.1 shows that the most common form of repair undertaken in the year prior to the survey was servicing the heating.

Table 1.3.1 shows that the painting the outside of windows, replastering walls/ceilings, refitting the kitchen and refurbishing the bathroom were also common amongst private tenure householders, but less so amongst the social tenures. Amongst the social tenures, replacing double-glazed windows was more common.

Aside from the obvious exception of extensions, the majority of jobs were equally likely to be undertaken on houses and flats (see table 1.3.2). Less obvious exceptions include rewiring the dwelling (more likely in flats), painting the outside of windows (more likely in houses) and installation of central heating and fire alarms (both more common in flats).

Table 1.3.3 shows that the majority of work done was to urban dwellings, for the simple reason that most dwellings in Scotland are urban, but most jobs were equally likely to have been to rural dwellings as urban ones. Exceptions include installation of loft insulation and wall insulation, which were all more likely in rural dwellings.

Table 1.3.4 looks at work done by household type and shows that older households were most likely to have done no work to their dwellings in the year prior to survey. There is no job which older households were more likely to have done than other household types although they were equally likely to have replaced windows, replaced central heating, made repairs to the roof and placed gutters/downpipes.

Table 1.3.1: Work done in past year by private/social tenure (estimated number of dwellings).

	Private			Social		
	estimate	95% Confidence Interval		estimate	95% Confidence Interval	
		lower	upper		lower	upper
conservatory/porch/extension	32000	28000	36000	*	*	*
convert loft, attic or garage	16500	13500	19500	*	*	*
completely refit kitchen	110500	103000	118000	30500	26500	34000
refurbish existing bathroom	110500	103000	118000	20000	17000	23500
additional bathroom/WC	21000	18000	24500	6000	4000	7500
foundations/structural work to walls/roof	43000	38000	48000	13500	11000	16500
damp-proof course	16500	13000	19500	9000	7000	11500
replace drives/paths	67500	61500	73500	9500	7500	11500
rewire dwelling	18000	15000	21500	10000	7500	12000
work to stairs	31000	27000	35000	7500	5500	9500
re-plaster wall/ceiling	118500	110500	126500	27000	23500	31000
replace/repair floor joists/boards	51000	46000	56500	13000	10500	15500
timber treatment	20000	16500	23000	2500	1500	4000
paint outside windows	140000	131500	148500	22000	18500	25000
replace single-glazed windows	7500	5500	9500	4000	2500	6000
replace double-glazed windows	83000	76500	89500	37000	32500	41000
replace door with uPVC or hardwood	60000	54500	65500	25500	22000	29000
replace door with similar type	42000	37500	47000	18500	15500	21500
install central heating	32500	28500	36500	14500	12000	17000
install gas fire	44000	39500	49000	12000	9500	14500
replace central heating	39000	34500	43500	19500	16500	22500
service heating	272500	261000	284500	100000	93500	107000
install loft insulation	31000	26500	35000	15000	12000	17500
install wall insulation	12500	10000	15000	10500	8000	12500
replace area of roof	33000	29000	37500	6500	4500	8500
replace flat with pitched roof	5500	3500	7000	*	*	*
re-build/point chimney	32500	28500	36500	2500	1500	3500
replace gutters/down pipes	69000	63000	75000	16500	13500	19500
repair rendering on walls	28500	24500	32500	7500	5500	9500
replace external timber with uPVC	13500	10500	16000	*	*	*
replace mains water connection	11000	8500	13500	2500	1500	3500
install entry phone	6500	4500	9000	8000	5500	10000
repairs to entrance	18500	15000	22000	11500	9000	14000
install fire alarm	16500	13500	19500	15000	12500	18000
demolish part of block	*	*	*	*	*	*
none	372000	359000	385000	159500	151000	168000

Table 1.3.2: Work done in past year by dwelling type (estimated number of dwellings).

	Houses			Flats		
	estimate	95% Confidence Interval		estimate	95% Confidence Interval	
		lower	upper		lower	upper
conservatory/porch/extension	30500	26000	34500	*	*	*
convert loft, attic or garage	15000	12000	18000	*	*	*
completely refit kitchen	95000	87500	102500	48000	42000	53500
refurbish existing bathroom	90500	83000	97500	42000	36500	47500
additional bathroom/WC	21000	17500	25000	6500	4000	8500
foundations/structural work to walls/roof	36000	31000	41000	20500	16500	24500
damp-proof course	14000	11000	17000	13000	10000	16000
replace drives/paths	68000	61500	74500	10000	7500	12500
rewire dwelling	15500	12500	18500	12000	9000	15500
work to stairs	28500	24000	32500	9500	6500	12000
re-plaster wall/ceiling	97000	89500	104500	49000	43000	55000
replace/repair floor joists/boards	43500	38000	48500	23000	19000	27500
timber treatment	13500	11000	16500	8000	5500	10500
paint outside windows	124000	115500	133000	37000	32000	42500
replace single-glazed windows	6500	4500	8500	5500	3000	7500
replace double-glazed windows	83000	76000	90000	38500	33000	43500
replace door with uPVC or hardwood	69000	62500	75500	20000	16000	23500
replace door with similar type	40500	35500	45500	17500	14000	21500
install central heating	25500	21500	29500	22000	18000	26000
install gas fire	41000	36500	46000	17500	14000	21500
replace central heating	40500	36000	45500	19500	16000	23500
service heating	266000	254000	278500	113500	104500	122000
install loft insulation	38500	34000	43500	7500	5000	9500
install wall insulation	16000	13000	19000	7000	5000	9500
replace area of roof	27500	23500	32000	14000	10500	17000
replace flat with pitched roof	4500	3000	6500	*	*	*
re-build/point chimney	26000	22000	30000	9500	7000	12500
replace gutters/down pipes	58000	52500	64000	25000	20500	29000
repair rendering on walls	26500	22500	30500	9000	6500	11500
replace external timber with uPVC	12500	9500	15500	*	*	*
replace mains water connection	11500	9000	14000	*	*	*
install entry phone	*	*	*	12500	9500	15500
repairs to entrance	4500	2500	6000	24500	20500	29000
install fire alarm	9500	7000	12000	23000	19000	27000
demolish part of block	*	*	*	*	*	*
none	364500	351500	378000	164500	154500	175000

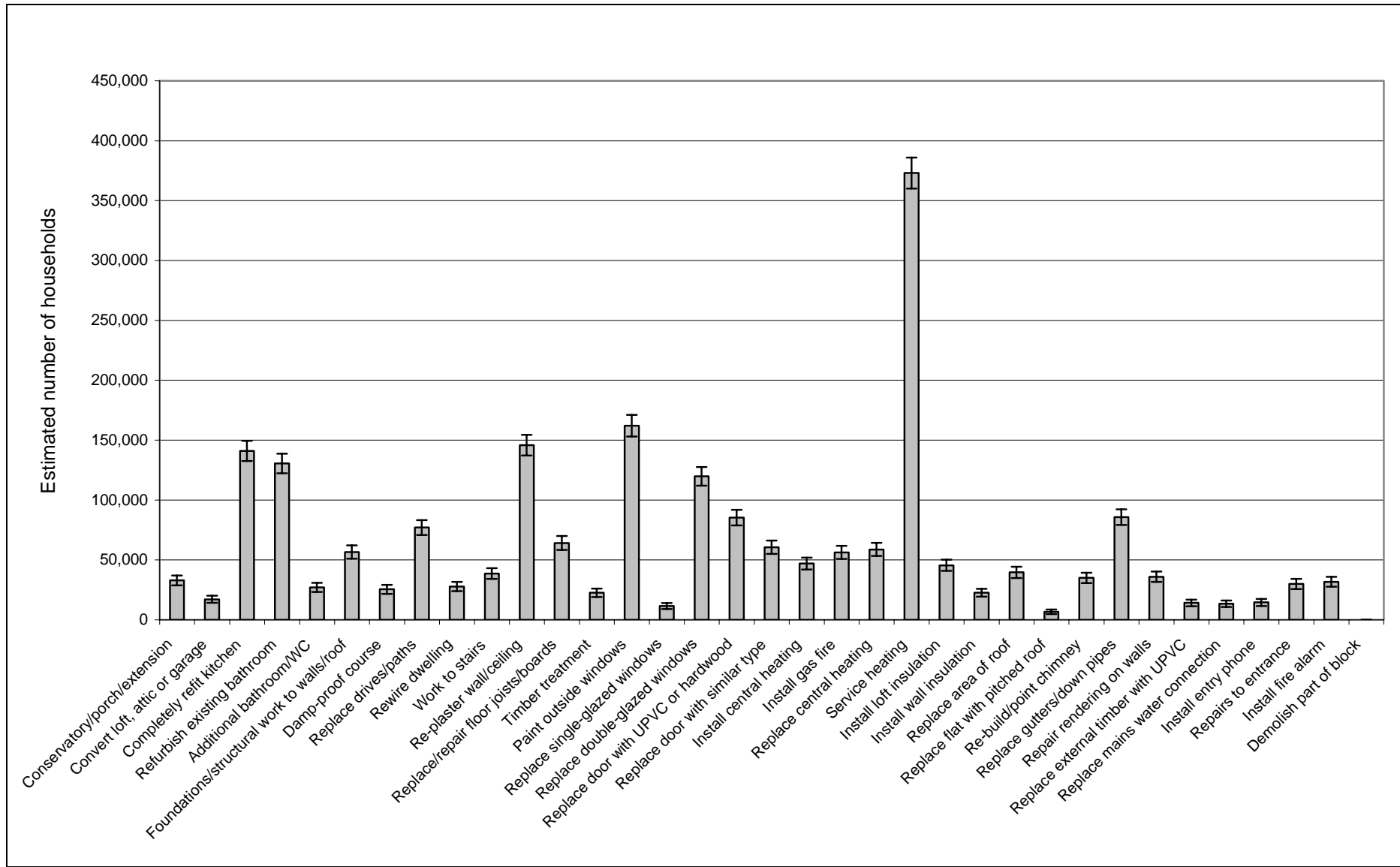
Table 1.3.3: Work done in past year by location (estimated number of dwellings).

	Rural			Urban		
	Estimate	95% Confidence Interval		Estimate	95% Confidence Interval	
		Lower	Upper		Lower	Upper
conservatory/porch/extension	9000	7000	11000	24000	20500	27500
convert loft, attic or garage	4500	3000	6000	12500	10000	15000
completely refit kitchen	22500	19000	25500	118500	110500	126500
refurbish existing bathroom	20000	17000	23500	110500	102500	118000
additional bathroom/WC	7500	5500	9500	19500	16500	23000
foundations/structural work to walls/roof	10500	8500	13000	46000	41000	51000
damp-proof course	5000	3500	6500	20500	17000	23500
replace drives/paths	16000	13000	18500	61000	55500	66500
rewire dwelling	6000	4000	7500	22000	18500	25500
work to stairs	7500	5500	9500	31000	27000	35000
re-plaster wall/ceiling	24000	20500	27500	122000	114000	130000
replace/repair floor joists/boards	11500	9000	13500	53000	47500	58000
timber treatment	5500	3500	7000	17500	14000	20500
paint outside windows	41500	37500	46000	120500	112500	128500
replace single-glazed windows	3000	1500	4000	8500	6500	11000
replace double-glazed windows	19500	16500	22500	100500	93000	107500
replace door with uPVC or hardwood	15000	12500	17500	70500	64500	76500
replace door with similar type	8500	7000	10500	52000	46500	57000
install central heating	9000	7000	11500	37500	33000	42000
install gas fire	10500	8500	13000	45500	40500	50500
replace central heating	9500	7500	12000	49000	44000	54000
service heating	53500	48500	58500	319500	307500	331500
install loft insulation	13000	10500	15500	32500	28500	36500
install wall insulation	7000	5000	9000	15500	13000	18500
replace area of roof	7500	5500	9500	32000	28000	36500
replace flat with pitched roof	*	*	*	5000	3000	6500
re-build/point chimney	8500	6500	10500	26500	22500	30500
replace gutters/down pipes	17000	14000	19500	69000	63000	75000
repair rendering on walls	8500	6500	10500	27500	23500	31500
replace external timber with uPVC	*	*	*	12500	10000	15000
replace mains water connection	4500	3000	6500	8500	6500	11000
install entry phone	*	*	*	13500	11000	16500
repairs to entrance	2000	1000	3000	28000	24000	32000
install fire alarm	3500	2000	5000	28500	24500	32000
demolish part of block	*	*	*	*	*	*
none	99000	92500	105000	433000	419000	446500

Table 1.3.4: Work done in past year by household type (estimated number of dwellings).

	Households without children			Households with children			Older households		
	est.	95% confidence interval		est.	95% confidence interval		est.	95% confidence interval	
		Lower	Upper		Lower	Upper		Lower	Upper
conservatory/ porch/ extension	14500	11500	17500	12500	10000	15000	6000	4500	8000
convert loft, attic or garage	5500	4000	7500	9500	7500	12000	*	*	*
completely refit kitchen	66000	60000	72000	49500	44500	54500	25500	22000	29000
refurbish existing bathroom	62500	56500	68000	47500	42500	52500	21000	17500	24000
additional bathroom/WC	11000	8500	13000	11000	8500	13500	5000	3500	7000
foundations/structural work to walls/roof	26500	22500	30500	20500	17000	23500	10000	7500	12500
damp-proof course	13500	10500	16000	8500	6500	10500	4000	2500	5000
replace drives/paths	35500	31000	39500	27000	23000	30500	15000	12000	17500
rewire dwelling	13500	11000	16500	9000	7000	11500	5000	3500	6500
work to stairs	17500	14500	20500	15500	12500	18000	6000	4000	7500
re-plaster wall/ceiling	69500	63000	75500	65000	59500	71000	11500	9000	14000
replace/repair floor joists/boards	31500	27500	36000	25500	22000	29500	7000	5000	8500
timber treatment	12000	9500	14500	7500	5500	9500	3000	1500	4500
paint outside windows	71000	65000	77000	50000	45000	55000	41000	36500	46000
replace single-glazed windows	6000	4000	8000	2500	1500	4000	2500	1500	4000
replace double-glazed windows	50000	45000	55500	36000	31500	40500	33500	29500	37500
replace door with uPVC or hardwood	37500	33000	41500	30500	26500	34500	17500	14500	20500
replace door with similar type	27000	23000	30500	21500	18000	24500	12500	10000	15000
install central heating	20500	17000	24000	14500	11500	17000	12000	9500	14500
install gas fire	27000	23500	31000	20500	17500	24000	8500	6500	10500
replace central heating	23500	20000	27000	19000	16000	22500	16000	13000	19000
service heating	159500	150500	168500	125000	117000	133000	88500	82000	95500
install loft insulation	19000	16000	22000	16500	13500	19500	10000	8000	12000
install wall insulation	9000	7000	11000	8000	6000	10000	5500	4000	7000
replace area of roof	18000	15000	21000	11500	9000	14000	10000	8000	12500
replace flat with pitched roof	3000	1500	4000	*	*	*	*	*	*
re-build/point chimney	19000	15500	22000	9000	6500	11000	7500	5500	9000
replace gutters/down pipes	38000	33500	42500	26000	22500	30000	22000	18500	25000
repair rendering on walls	15500	12500	18500	13000	10500	15500	7500	5500	9500
replace external timber with uPVC	7000	5000	9000	4000	2500	5500	3000	2000	4500
replace mains water connection	6500	4500	8500	4500	3000	5500	3000	1500	4000
install entry phone	8000	5500	10500	4000	2500	5500	2500	1500	4000
repairs to entrance	17500	14000	20500	8500	6500	11000	3500	2000	5000
install fire alarm	15500	12500	18500	10000	8000	12500	6000	4500	8000
demolish part of block	*	*	*	*	*	*	*	*	*

Figure 1.3.1: Estimated total number of jobs done in the year prior to survey. Vertical lines show 95% confidence intervals.



In order to assess which variables can be used to predict whether or not a household did any repair or maintenance work on their dwelling in the year prior to the survey, a series of regression analyses were conducted. The results, shown in table 1.3.5, can be summarised as follows:

- In comparison to owner-occupied dwellings, HA/housing co-op and private rented dwellings are less likely to have had work done to them. There is no difference between owner-occupied and LA/other public dwellings.
- Older households are less likely to have done work to dwellings than younger households.
- Households within which the highest income householder and/or spouse/partner are long-term ill or disabled were more likely to have done work to their dwellings than households with no such inhabitants.
- Householders who had occupied their home for between 2 and 10 years were more likely to have done work than those who had lived there for more than 10 years. There was no difference between householders who had occupied their homes for less than 2 years and who had occupied them for more than 10 years.
- Householders living in dwellings built before 1944 are more likely to have done work to their homes than those living in 1964-82 dwellings, while those living in newer dwellings are less likely to have had work done.
- In comparison to householders living in Glasgow, those in Aberdeenshire, Aberdeen City, Argyll and Bute, Dumfries and Galloway, East Dunbartonshire, East Ayrshire, Midlothian, South Ayrshire, South Lanarkshire, and West Lothian are more likely to have done work to their dwellings.
- Urban/rural location, household type and sex of the highest-income-householder had no predictive power and were excluded from the model.

Table 1.3.5: Logistic regression model for any work done in year prior to survey

	odds ratio	relative risk
owner-occupier		reference category
LA/Other public	0.99	no difference
HA/Housing co-op	0.82	lower chance
private renter	0.50	lower chance
neither HIH nor spouse aged over 60 years		reference category
HIH or spouse aged over 60 years	0.71	lower chance
householders lived in dwelling more than 10 years		reference category
householders lived in dwelling less than 2 years	0.95	no difference
householders lived in dwelling 2 to 10 years	1.12	higher chance
neither HIH nor spouse have illness or disability		reference category
HIH or spouse have illness or disability	1.21	higher chance
average income <£300 per week		reference category
average income >£300 per week	1.47	higher chance
date of construction: 1964-82		reference category
date of construction: pre-1944	1.30	higher chance
date of construction: post-1982	0.84	lower chance
house		reference category
flat	0.75	lower chance
Glasgow		reference category
Aberdeen City	1.92	higher chance
Aberdeenshire	1.57	higher chance
Angus	0.79	no difference
Argyll & Bute	1.53	higher chance
Borders	1.32	no difference
Clackmannan	1.07	no difference
Dumfries & Galloway	1.68	higher chance
Dundee City	0.87	no difference
East Ayrshire	1.99	higher chance
East Dunbartonshire	1.78	higher chance
East Lothian	1.28	no difference
East Renfrewshire	1.11	no difference
Edinburgh City	1.07	no difference
Falkirk	1.26	no difference
Fife	1.25	no difference
Highland	1.13	no difference
Inverclyde	0.93	no difference
Midlothian	1.68	higher chance
Moray	0.96	no difference
North Ayrshire	1.29	no difference
North Lanarkshire	1.33	no difference
Orkney	0.88	no difference
Perthshire & Kinross	1.02	no difference
Renfrewshire	1.16	no difference
Shetland	1.21	no difference
South Ayrshire	2.01	higher chance
South Lanarkshire	1.57	higher chance
Stirling	1.23	no difference
West Dunbartonshire	1.22	no difference
West Lothian	1.95	higher chance
Western Isles	0.62	lower chance

1.4 Summary

Approximately 81% of dwellings have some disrepair, 33% have urgent disrepair and 57% have critical disrepair. The likelihood of a dwelling having disrepair is affected by its type, date of construction, urban/rural location, the local authority it is in and the composition, income and tenure of the household occupying it. The likelihood of a dwelling having disrepair is not affected by the householder's age, health status or length of occupation.

The most common type of repair work done to dwellings in the year prior to the survey was servicing the heating. Refitting kitchens and bathrooms were more likely to be done in private tenures, while replacing double glazing is more likely to have been done in social tenures. Older households were least likely to have done work to their dwellings compared to younger households.

The likelihood of a household having done repair works in the year prior to the survey is best predicted by tenure, date of construction, type of dwelling (house or flat), age of the householders (under or over 60 years), whether householder has a long term illness or disability, length of time householders had occupied the dwelling, householders' income and local authority.

Chapter 2: Householders' attitudes towards home maintenance

2.1 Introduction

In the social questionnaire administered to all householders who participated in the SHCS 2002, a large section of questions was dedicated to exploring householders' attitudes toward repair and improvement work, their motivations for doing repair work, who they employ to conduct repairs and why they make these decisions. This chapter reports the results of these questions.

Firstly, in section 2.1, householders' reports of grants received and whether householders would have conducted the work had they not received a grant, are reported.

Section 2.3 focuses on householders' motivations for conducting repairs. Table 2.3.3 shows whether the type of work was considered to be a repair or an improvement, and subsequent tables present the results of questions about what prompted householders to do the work.

In order to assess whether householders prioritise repair work to critical building elements, or whether they conduct repair and maintenance work on other parts of their homes while avoiding critical disrepair, the type of repair work undertaken prior to the survey is compared to the disrepair to the property at the time of the survey. The results of this analysis are presented in section 2.4.

Section 2.5 presents householders' attitudes towards undertaking repairs to see whether a proactive or reactive approach to household maintenance is adopted. Householders living in different types of dwellings and tenures are compared.

Finally, in section 2.6, householders' reports of whether they do repairs themselves or employ other people are presented, alongside their reasons for these decisions.

Section 2.7 provides a brief summary of the main results from the chapter.

2.2 Grants for repairs

Under certain circumstances, grants are available from local authorities to fund repair work. Table 2.2.1 shows the estimated number of grants awarded to owner-occupiers according to the type of work. In total, about 15,500 households obtained grants for repairs and improvements. Approximately 4000 of these grants were for a combination of jobs.

Table 2.2.2 shows that between 47 and 83% of householders who received grants for work outside the house said that they would have done the work even if they had not received a grant. For the remaining types of work, between $\frac{1}{3}$ and $\frac{3}{4}$ of those receiving a grant said that they would have done the work if they had not received a grant.

Table 2.2.1: Number of grants received for work done in past year.

	Estimate	95% Confidence Interval	
		Lower	Upper
general building work	3000	1500	4000
work inside the house	*	*	*
external windows and doors	*	*	*
heating/Insulation	3000	2000	4500
work outside the house	3500	2000	5000
other work to flats	*	*	*
grants that are paid in combination	4000	2500	5000
all grants	15500	12500	18000

Table 2.2.2: 'Would you have undertaken the work if no grant was received?'

	Yes			No		
	%	95% Confidence Interval		%	95% Confidence Interval	
		Lower	Upper		Lower	Upper
general building work	54	35	72	46	28	65
work inside the house	*	*	*	*	*	*
external windows and doors	*	*	*	*	*	*
heating/Insulation	64	45	79	36	21	55
work outside the house	67	47	83	33	17	53
other work to flats	*	*	*	*	*	*
grants that are paid in combination	56	38	72	44	28	62
all grants	60	-	-	40	-	-

2.3 Motivation for conducting repairs

As part of the social survey, householders were asked whether they considered the work done to their dwelling in the year prior to the survey to be a repair or an improvement. Table 2.3.3 shows the answers to this question for each job done. Results show that most jobs are considered by householders to be improvements, although exceptions include work done to foundations, chimneys, roofs and heating.

Table 2.3.3: 'Do you consider the work to be a repair or an improvement?'

	Repair			Improvement		
	%	95% Confidence interval		%	95% Confidence interval	
		Lower	Upper		Lower	Upper
conservatory/porch/extension	*	*	*	96	92	98
convert loft, attic or garage	*	*	*	97	92	99
completely refit kitchen	4	3	6	96	94	97
refurbish existing bathroom	7	5	10	93	90	95
additional bathroom/WC	*	*	*	95	88	98
foundations/structural work to walls/roof	69	62	76	31	24	38
damp-proof course	60	46	73	40	27	54
replace drives/paths	11	9	15	89	85	91
rewire dwelling	34	24	46	66	54	76
work to stairs	16	11	23	84	77	89
re-plaster wall/ceiling	53	49	57	47	43	51
replace/repair floor joists/boards	59	52	65	41	35	48
timber treatment	74	62	83	26	17	38
paint outside windows	49	46	53	51	47	54
replace single-glazed windows	54	37	71	46	29	63
replace double-glazed windows	20	16	24	80	76	84
replace door with uPVC or hardwood	18	14	23	82	77	86
replace door with similar type	25	20	32	75	68	80
install central heating	*	*	*	92	87	96
install gas fire	13	10	18	87	82	90
replace central heating	24	18	30	76	70	82
service heating	66	64	69	34	31	36
install loft insulation	*	*	*	92	87	96
install wall insulation	*	*	*	90	73	97
replace area of roof	82	74	87	18	13	26
replace flat with pitched roof	68	48	83	*	*	*
re-build/point chimney	94	89	97	*	*	*
replace gutters/down pipes	75	70	79	25	21	30
repair rendering on walls	63	54	71	37	29	46
replace external timber with uPVC	*	*	*	84	70	92
replace mains water connection	54	36	70	46	30	64
install entry phone	*	*	*	74	50	89
repairs to entrance	49	38	60	51	40	62
install fire alarm	*	*	*	82	72	89
demolish part of block	*	*	*	*	*	*

For every repair job that householders reported having done, they were asked what prompted them (or their landlord) to do the work. Figure 2.3.1 shows the overall response of householders to this question, and tables 2.3.4 to 2.3.7 show the results of these questions according to tenure type, dwelling type, location and household type.

Approximately half of all householders in owner occupied and social rented tenures give the reason for work being done as 'general improvement' (table 2.3.4). This is not true in the private renter sector, where fewer jobs (between 33 and 43%) are done as a general improvement. Private renter households are more likely than any other tenure to be prompted to do a job to fix or replace something.

There is very little difference between dwelling types in motivation to do work (table 2.3.5). One exception is that householders in flats are twice as likely as those in houses to be prompted to do work because of an emergency. Overall, emergency work accounts for only a small fraction of work done (approximately 5%).

Table 2.3.6 shows that there are no differences between householders living in rural and urban locations regarding motivation to do repair work.

Table 2.3.7 shows that there are no differences between households with children and households without children regarding motivation to do work, but in comparison to both groups, older households are less likely to state that they were prompted to do a job because they had recently moved in or that the work improves the value of the house

Figure 2.3.1: Householders' reasons for doing repair and improvement work. Vertical lines show 95% confidence intervals.

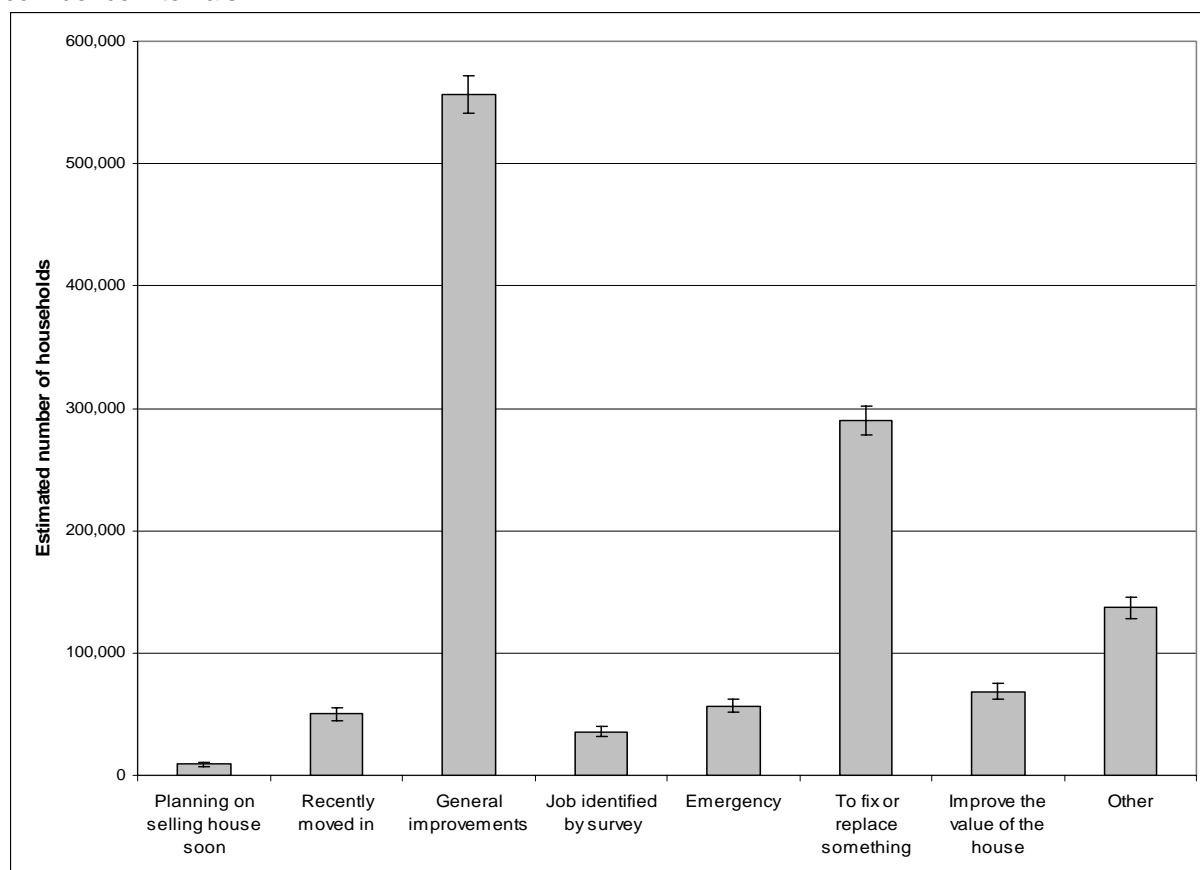


Table 2.3.4: 'Which reason best describes what prompted you/your landlord to do this job?' by tenure.

	Owner-occupier			Local authority		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
planning on selling house soon	1	1	2	*	*	*
recently moved in	6	5	7	2	1	2
general improvements	54	53	56	51	49	53
job identified by survey	2	2	3	7	6	8
emergency	5	4	5	6	5	8
to fix or replace something	27	26	28	28	26	30
improve the value of the house	9	8	10	*	*	*
other	12	11	13	15	13	16
	HA/housing co-op			Private rented		
planning on selling house soon	*	*	*	*	*	*
recently moved in	*	*	*	*	*	*
general improvements	53	48	58	38	33	43
job identified by survey	*	*	*	*	*	*
emergency	6	4	9	9	6	13
to fix or replace something	23	19	28	32	28	37
improve the value of the house	*	*	*	*	*	*
other	16	13	20	17	13	22

Table 2.3.5: 'Which reason best describes what prompted you/your landlord to do this job?' by dwelling type.

	Houses			Flats		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
planning on selling house soon	1	0	1	*	*	*
recently moved in	5	4	6	5	4	6
general improvements	55	53	56	49	46	51
job identified by survey	3	2	3	5	4	6
emergency	4	4	5	8	7	9
to fix or replace something	27	25	28	28	26	30
improve the value of the house	7	6	7	6	5	7
other	13	12	14	12	11	14

Table 2.3.6: Which reason best describes what prompted you/your landlord to do this job by location.

	Rural			Urban		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
planning on selling house soon	*	*	*	1	1	1
recently moved in	5	4	7	5	4	5
general improvements	52	49	54	53	52	54
job identified by survey	3	2	4	4	3	4
emergency	5	4	6	5	5	6
to fix or replace something	29	27	31	27	26	28
improve the value of the house	6	5	8	7	6	7
other	13	11	15	13	12	14

Table 2.3.7: 'Which reason best describes what prompted you/your landlord to do this job?' by household type.

	Households without children			Households with children			Older households		
	%	95% CI		%	95% CI		%	95% CI	
		lower	upper		lower	upper		lower	upper
planning on selling house soon	1	1	2	*	*	*	*	*	*
recently moved in	6	5	7	5	5	6	2	2	3
general improvements	51	50	53	53	51	55	54	52	56
job identified by survey	3	3	4	3	2	4	4	3	5
emergency	5	4	6	6	5	7	5	4	6
to fix or replace something	29	27	30	27	26	29	25	23	27
improve the value of the house	7	6	8	7	6	8	4	3	5
other	12	11	13	12	11	13	16	14	18

2.4 Prioritising critical repairs

In this section of the chapter, work that owner-occupiers did to their dwelling prior to the survey being conducted is compared with the type of disrepair observed by the surveyor. By doing so, it is possible to assess whether home owners prioritise critical repairs, or whether they do other types of repair/improvement work while leaving critical disrepair untouched. Critical disrepair is defined as disrepair to elements central to the structural integrity, or weather-proofing of a dwelling. Results are shown in tables 2.4.1 and 2.4.2.

Table 2.4.1 shows that there are no differences in type of work done between those dwellings with critical elements in disrepair and those without. This indicates that householders do not consider or act on the nature or seriousness of disrepair when doing work on their dwellings.

Table 2.4.2 shows the type of work done in the five years prior to the survey by the type of disrepair observed by the surveyor. These results show a very similar picture: in dwellings where there is critical disrepair, householders are more likely to have done work to non-critical elements than they are to have done work to critical building elements.

Table 2.4.1: Disrepair of critical building elements by the type of jobs done over past year.

	Disrepair to critical elements			No disrepair to critical elements		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
none	51	50	52	52	50	53
only CBE work done	4	4	5	3	3	4
CBE and other work done	9	8	10	8	7	8
other work done, no CBE	36	35	37	38	36	39

Table 2.4.2: Disrepair of critical building elements by the type of jobs done over past five years.

	Disrepair to critical elements			No disrepair to critical elements		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
only CBE work done	26	25	27	28	27	29
CBE and other work done	2	2	3	2	2	2
other work done, no CBE	30	29	31	25	24	26
only CBE work done	41	40	42	45	44	46

In order to look more closely at this issue, the responses of householders to questions about home maintenance were compared between those living in dwellings with critical disrepair and those living in dwellings without critical disrepair.

Tables 2.4.3 and 2.4.4 show that in the year prior to the survey, householders living in dwellings that had no critical disrepair were more likely to strongly agree that they both regularly inspected their home to see if things needed repairing and that they regularly maintain their home, compared to householders in dwellings with critical disrepair. Furthermore, table 2.4.5 shows that householders living in dwellings with critical repair are more likely to agree that they only do repairs in emergencies. These results do indicate that homeowners with a proactive approach to home maintenance are less

likely to live in dwellings with critical disrepair. It is not possible though, on the basis of these data, to say whether or not the relationship is causal.

Section 2.5 considers the extent to which householders are proactive in their home maintenance at greater length.

Table 2.4.3: Response to question 'I regularly inspect my home to see if repairs are needed' by the disrepair of critical building elements.

	Disrepair to critical elements			No disrepair to critical elements		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
strongly agree	29	28	30	34	33	35
tend to agree	39	38	40	38	37	40
neither agree nor disagree	9	9	10	8	8	9
tend to disagree	12	11	13	11	10	12
strongly disagree	5	4	5	4	4	5
don't know	6	5	6	5	4	5

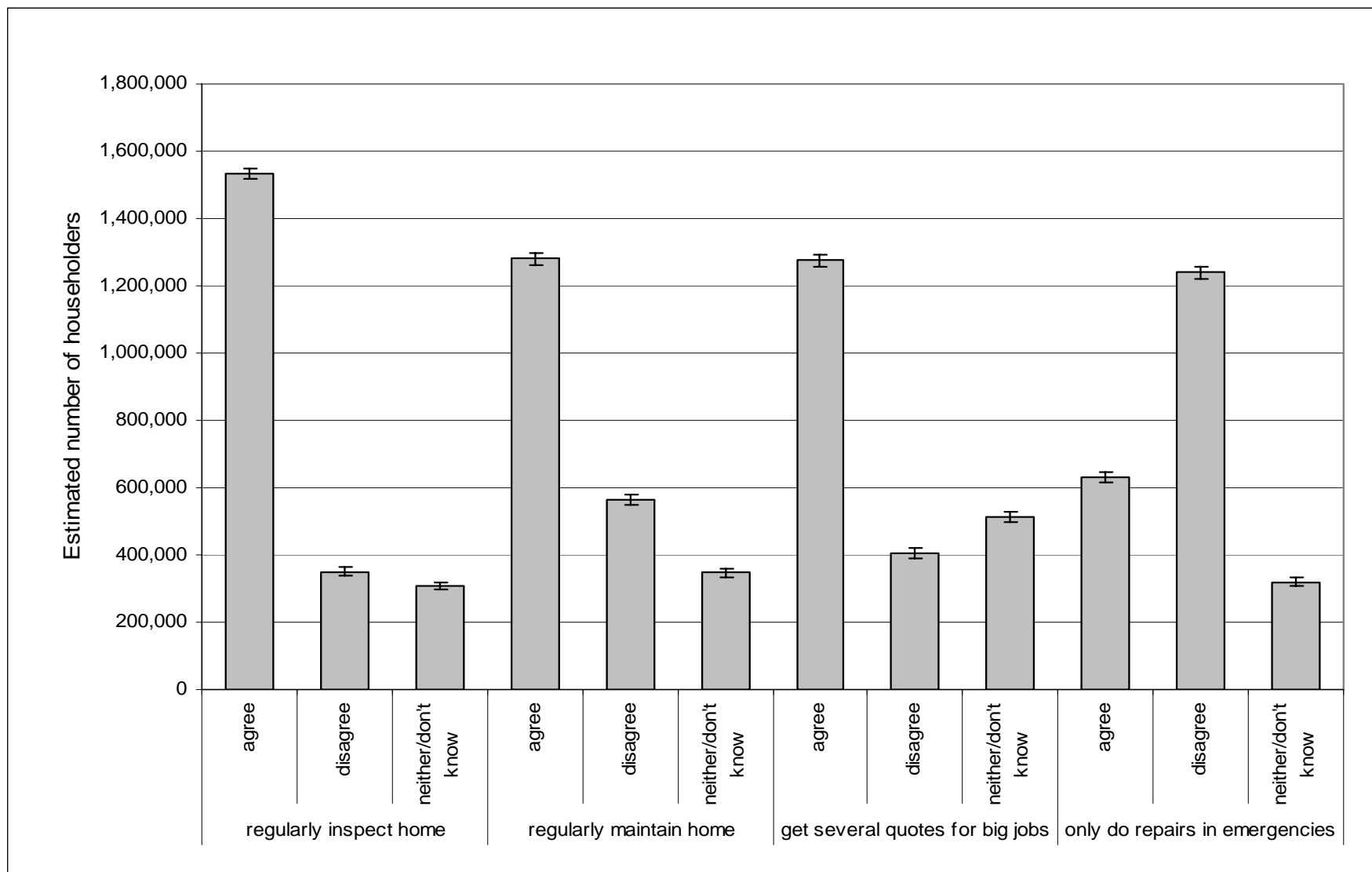
Table 2.4.4: Response to question 'I regularly maintain my home' by the disrepair of critical building elements.

	Disrepair to critical elements			No disrepair to critical elements		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
strongly agree	29	28	30	35	34	36
tend to agree	27	26	28	27	26	28
neither agree nor disagree	6	6	7	6	5	6
tend to disagree	13	12	13	11	10	11
strongly disagree	15	14	16	13	12	14
don't know	10	9	11	9	8	10

Table 2.4.5: Response to question 'I only do repairs in emergencies' by the disrepair of critical building elements.

	Disrepair to critical elements			No disrepair to critical elements		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
strongly agree	10	9	10	9	8	9
tend to agree	21	20	22	18	17	19
neither agree nor disagree	8	7	9	8	7	9
tend to disagree	27	27	28	29	28	30
strongly disagree	27	26	27	31	30	32
don't know	7	6	8	6	6	7

Figure 2.4.1: Overall estimated frequencies of householders' responses to statements regarding home maintenance. Vertical lines show 95% confidence intervals.



2.5 Proactive attitudes toward repair work

In this section, the results of questions about what prompted householders to do work on their dwellings are presented in more detail.

Table 2.5.1 shows owner-occupiers attitudes to home maintenance in comparison to householders in rented accommodation. High proportions of householders in all tenures agreed with the statement 'I regularly inspect my home for repairs'. Only about 11% of owner-occupiers, and 24% of renters disagreed with this statement. The difference between owner-occupiers and renters agreement is far greater for the statement 'I regularly maintain my home', here about 80% of owner-occupiers agree compared to 23% of renters. The majority of owner-occupiers (about 70%) disagree with the statement that they only do repairs in emergencies, suggesting that most owner-occupiers take a proactive approach to home maintenance.

Table 2.5.1: Householders attitudes to home maintenance by tenure.

	Owner-occupier			Private and social rented		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
'I regularly inspect my home to see if repairs are needed'						
agree	82	82	83	49	48	51
disagree	11	10	12	24	23	25
neither/don't know	7	6	7	27	25	28
'I regularly maintain my home'						
agree	80	79	80	23	22	24
disagree	15	14	16	44	42	45
neither/don't know	5	5	6	33	32	35
'If a big job needs to be done I get a number of quotes'						
agree	82	81	83	18	17	19
disagree	11	10	12	31	30	32
neither/don't know	7	6	7	51	50	52
'I only do repairs in emergencies'						
agree	23	22	24	39	38	40
disagree	70	69	71	34	33	35
neither/don't know	7	6	7	27	26	29

The rest of the tables in this section show results for owner-occupiers only.

Table 2.5.2 shows that owner-occupiers are more likely to agree with the statements 'I regularly inspect my home to see if repairs are needed' and 'I regularly maintain my home' if they live in houses than if they live in flats. Furthermore, owner-occupiers of houses are more likely to disagree that they only do repairs in emergencies than owner-occupiers of flats. This suggests that house owner-occupiers take a more proactive attitude to home maintenance than flat owner-occupiers.

Table 2.5.3 shows that owner-occupiers of rural dwellings are more likely to agree than those of urban dwellings that they regularly inspect their homes and regularly maintain their homes. They are less likely though, to agree with the statement that 'If a big job needs to be done I get a number of quotes'.

Table 2.5.4 shows that there are no differences between household types in response to the statement 'I regularly inspect my home to see if repairs are needed'. In contrast, older householders are more likely to agree that they only do repairs in emergencies and are less likely to agree that they regularly maintain their home, suggesting that they take a less proactive attitude to home maintenance than other household types.

Table 2.5.2: Owner-occupiers attitudes to home maintenance by dwelling type.

	Houses			Flats		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
'I regularly inspect my home to see if repairs are needed'						
agree	86	85	87	73	71	75
disagree	9	8	10	17	15	19
neither/don't know	5	5	6	10	9	11
'I regularly maintain my home'						
agree	85	84	86	64	62	66
disagree	11	10	12	27	25	29
neither/don't know	4	3	4	10	8	11
'If a big job needs to be done I get a number of quotes'						
agree	82	81	83	82	80	84
disagree	12	11	12	9	8	10
neither/don't know	6	5	7	9	8	11
'I only do repairs in emergencies'						
agree	21	20	22	28	26	30
disagree	73	72	74	62	60	64
neither/don't know	6	5	6	10	9	12

Table 2.5.3: Owner-occupiers attitudes to home maintenance by location.

	Rural			Urban		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
'I regularly inspect my home to see if repairs are needed'						
agree	86	85	88	82	81	83
disagree	8	7	9	12	11	12
neither/don't know	6	5	7	7	6	7
'I regularly maintain my home'						
agree	87	86	89	78	77	79
disagree	9	7	10	16	16	17
neither/don't know	4	3	5	6	5	6
'If a big job needs to be done I get a number of quotes'						
agree	76	74	78	84	83	84
disagree	17	15	18	10	9	10
neither/don't know	7	6	9	7	6	7
'I only do repairs in emergencies'						
agree	21	19	23	23	22	24
disagree	72	70	74	70	69	71
neither/don't know	7	6	8	7	6	7

Table 2.5.4: Owner-occupiers attitudes to home maintenance by household type.

	Households without children			Households with children			Older households		
	%	95% confidence interval		%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper		lower	upper
'I regularly inspect my home to see if repairs are needed'									
agree	83	81	84	82	81	84	83	81	84
disagree	12	11	13	11	10	13	10	9	11
neither/don't know	6	5	7	7	6	8	7	6	8
'I regularly maintain my home'									
agree	82	81	84	85	83	86	70	68	72
disagree	13	12	14	11	10	12	23	22	25
neither/don't know	5	4	6	4	4	5	7	6	8
'If a big job needs to be done I get a number of quotes'									
agree	83	82	84	84	83	86	79	78	81
disagree	11	10	12	10	9	11	12	11	14
neither/don't know	6	6	7	6	5	7	8	7	10
'I only do repairs in emergencies'									
agree	21	20	22	23	21	24	27	25	28
disagree	73	71	74	71	70	73	65	63	67
neither/don't know	6	6	7	6	5	7	8	7	9

2.6 Who conducts repairs

As part of the social survey, householders were asked who did the repair work to their dwellings. In this section, householders' responses are presented by type of work done, tenure, dwelling type, location and household type.

Table 2.6.1 shows that contractors were commonly employed for jobs such as servicing the heating, replacing windows, replacing areas of roofs and work repointing chimneys. Fitting fire alarms, installing loft insulation and painting the outsides of windows are jobs more commonly undertaken by householders or unpaid friends and relatives. About a quarter of all conservatory/ porch/ extension constructions were undertaken by householders or unpaid friends/relatives. The same is true for about half of all loft, attic and garage conversions and a third of all additional WC installations and dwelling rewirings.

Table 2.6.2 shows that the householders in the social sector are less likely to hire contractors compared to the private sector. It is unclear whether householders in social tenures answering this question mean to say that they hired a contractor directly, or that their landlord hired a contractor. Nevertheless, it is clear that contractors do more work in the private sector than the social sector.

Table 2.6.3 shows that there are no differences between dwelling types in who work is done by, and table 2.6.4 shows that almost 33% of the jobs done in rural areas are done by the householder or unpaid friends/relatives, compared with 24% in urban areas.

Table 2.6.1: 'Who did the work for the jobs paid for over the past year?'

	DIY / unpaid friend/relative			Paid relative/friend			Contractor		
	%	95% confidence interval		%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper		lower	upper
conservatory/porch/extension	23	17	30	*	*	*	71	63	78
convert loft, attic or garage	49	38	60	*	*	*	43	33	54
completely refit kitchen	36	33	40	12	10	15	50	46	54
refurbish existing bathroom	30	27	34	11	9	14	57	53	61
additional bathroom/WC	33	24	43	*	*	*	55	44	65
foundations/structural work to walls/roof	16	11	22	*	*	*	76	70	82
damp-proof course	28	18	42	*	*	*	69	56	81
replace drives/paths	36	32	41	9	6	12	54	50	59
rewire dwelling	32	23	44	*	*	*	53	42	64
work to stairs	51	43	59	*	*	*	35	27	43
re-plaster wall/ceiling	30	26	33	18	16	22	51	47	55
replace/repair floor joists/boards	46	40	53	14	10	20	39	33	46
timber treatment	41	30	53	*	*	*	54	42	65
paint outside windows	60	56	63	7	5	9	34	30	37
replace single-glazed windows	*	*	*	*	*	*	80	61	91
replace double-glazed windows	8	6	11	*	*	*	88	85	91
replace door with uPVC or hardwood	16	12	21	*	*	*	77	71	81
replace door with similar type	26	21	33	14	10	19	59	52	65
install central heating	*	*	*	*	*	*	77	69	83
install gas fire	17	12	22	*	*	*	77	72	82
replace central heating	*	*	*	*	*	*	87	82	91
service heating	3	3	4	3	2	4	93	92	94
install loft insulation	67	59	74	*	*	*	28	21	36
install wall insulation	60	44	75	*	*	*	36	23	52
replace area of roof	*	*	*	*	*	*	87	81	91
replace flat with pitched roof	*	*	*	*	*	*	80	61	91
re-build/point chimney	*	*	*	*	*	*	81	74	87
replace gutters/down pipes	20	16	24	*	*	*	73	68	78
repair rendering on walls	20	14	28	*	*	*	67	58	75
replace external timber with uPVC	15	7	29	*	*	*	78	63	88
replace mains water connection	18	8	35	*	*	*	73	54	86
install entry phone	*	*	*	*	*	*	92	70	98
repairs to entrance	36	26	47	*	*	*	56	45	67
install fire alarm	81	70	89	*	*	*	15	8	26
demolish part of block	*	*	*	*	*	*	*	*	*

Table 2.6.2: 'Who did the work?' by tenure.

	Private			Social		
	estimate	95% confidence interval		estimate	95% confidence interval	
		lower	upper		lower	upper
DIY / unpaid relative/friend	192000	182500	201500	10500	8000	12500
paid relative/friend	67500	61500	73500	4500	3000	5500
contractor	501500	486500	516000	9500	7500	12000
landlord	*	*	*	2000	1000	3000
someone else	6000	4000	7500	*	*	*

Table 2.6.3: 'Who did the work?' by dwelling type.

	Houses			Flats		
	estimate	95% confidence interval		estimate	95% confidence interval	
		lower	upper		lower	upper
DIY / unpaid relative/friend	163500	154000	173000	44000	38000	49500
paid relative/friend	55500	49500	61500	17000	13500	20500
contractor	395500	381500	410000	124000	114500	133500
landlord	*	*	*	*	*	*
someone else	5000	3000	6500	*	*	*

Table 2.6.4: 'Who did the work?' by location.

	Rural			Urban		
	estimate	95% confidence interval		estimate	95% confidence interval	
		lower	upper		lower	upper
DIY / unpaid relative/friend	45500	41000	50000	157000	148000	166000
paid relative/friend	9000	7000	11000	62500	57000	68500
contractor	83500	77500	89500	427500	413500	441500
landlord	*	*	*	3000	1500	4500
someone else	*	*	*	5000	3000	6500

Table 2.6.5: 'Who did the work?' by household type

	Households without children			Households with children			Older households		
	estimate	95% confidence interval		estimate	95% confidence interval		estimate	95% confidence interval	
		lower	upper		lower	upper		lower	upper
DIY / unpaid relative/friend	105000	97500	112500	73500	67500	79500	24000	21000	27500
paid relative/friend	33000	28500	37000	28500	24500	32500	10500	8000	12500
contractor	227500	217000	238000	150000	141500	159000	133500	125000	141500
landlord	*	*	*	*	*	*	*	*	*
someone else	*	*	*	*	*	*	2500	1500	3500

Where householders answered that they took on jobs themselves, they were subsequently asked why. Table 2.6.6 provides a summary of responses.

There were approximately 273,000 DIY tasks completed by the householder in the past year. The most popular reason for doing a job as DIY was that the job was small or easy. About 5000 householders claimed it was because they do not trust builders/contractors.

Table 2.6.6: 'Why did you do this job yourself?'

	One job			Two or more jobs		
	estimate	95% confidence interval		Estimate	95% confidence interval	
		lower	upper		lower	upper
preference/hobby	45500	40500	50000	17500	14500	20500
was small or easy job	84500	78000	91000	21000	17500	24500
couldn't wait for builder	3500	2000	4500	*	*	*
only way could afford it	35500	31500	40000	11500	9000	14000
don't trust builders/contractors	5000	3500	6500	*	*	*
other reason	11500	9000	14000	2500	1000	3500

2.7 Summary

Approximately 15,500 grants were obtained for work done to dwellings in the year prior to the survey. About 60% of householders who received grants reported that they would have done the work even if they had not received a grant.

Most types of work that householders do to their homes they consider to be improvements rather than repairs, and most householders say that 'general improvements' was their motivation for doing the work. Relatively few state the motivation as planning on selling the house soon or to improve the value of the property.

Analysis indicates that householders do not prioritise critical repairs, and often conduct other types of repair/improvement work while ignoring critical disrepair. This is despite the fact that the majority of householders claim that they do regularly inspect their home to see if repairs are needed. It is possible that householders do regularly inspect their homes, and act on what they see, but tend to only notice non-critical disrepair. Alternatively, it may be the case that householders are aware of critical disrepair, but either do not realise the importance of it, or do not know how to go about rectifying it.

Older householders are more likely to agree that they only do repairs in emergencies and more likely to disagree that they regularly maintain their home than younger householders.

The majority of householders employ contractors to do repair and improvement work to their dwellings. Where householders do work themselves, they are mostly likely say they did it because it was a small or easy job.

Chapter 3: Right-to-buy and disrepair

3.1 Introduction

The right-to-buy scheme was established in 1981 to give tenants of local authorities or registered social landlords the opportunity to purchase their homes. As shown in table 3.1.1, in 2002 approximately 265,000 households were living in dwellings that they had bought through the scheme, and a further 44,500 intended to¹.

Table 3.1.1: Numbers of householders who have, have not, intend to, and do not intend to purchase their homes through the right-to-buy scheme.

	estimate	95% confidence interval	
		lower	upper
bought dwelling under RTB	265000	254500	276000
qualify and intend to buy	44500	39500	49500
do not qualify/intend to buy	328000	317000	338500
unknown qualification/intention	153500	144500	162500
Total	790500	787500	794000

Section 3.2 of this chapter compares the levels of disrepair of dwellings bought under right-to-buy with those still owned by local authorities and housing associations, and owner-occupied dwellings not bought through right-to-buy. Overall levels of disrepair are considered first, followed by a breakdown of disrepair to particular elements. Results indicate that dwellings bought through the right-to-buy scheme are no more likely to be in disrepair than other owner-occupied dwellings.

Section 3.3 briefly examines the association between overall levels of disrepair and length of time since right-to-buy purchase.

Finally, in section 3.4, there is a comparison of work done by right-to-buy owners with work done by non-RTB owners and local authorities/housing associations.

Section 3.5 provides a summary of results.

Throughout this chapter, 'RTB householders' is used to refer to householders who purchased their homes through the right-to-buy scheme. 'Non-RTB householders' refers to householders who own their homes but did not purchase them through the right-to-buy scheme, and 'LA/HA householders refers' to householders living in dwellings still owned by local authorities, housing associations or other social landlords.

¹ Note that this figure is not an estimate of the number of dwellings that have been sold through RTB, but rather the number that have bought their homes through RTB *and are still living in them*.

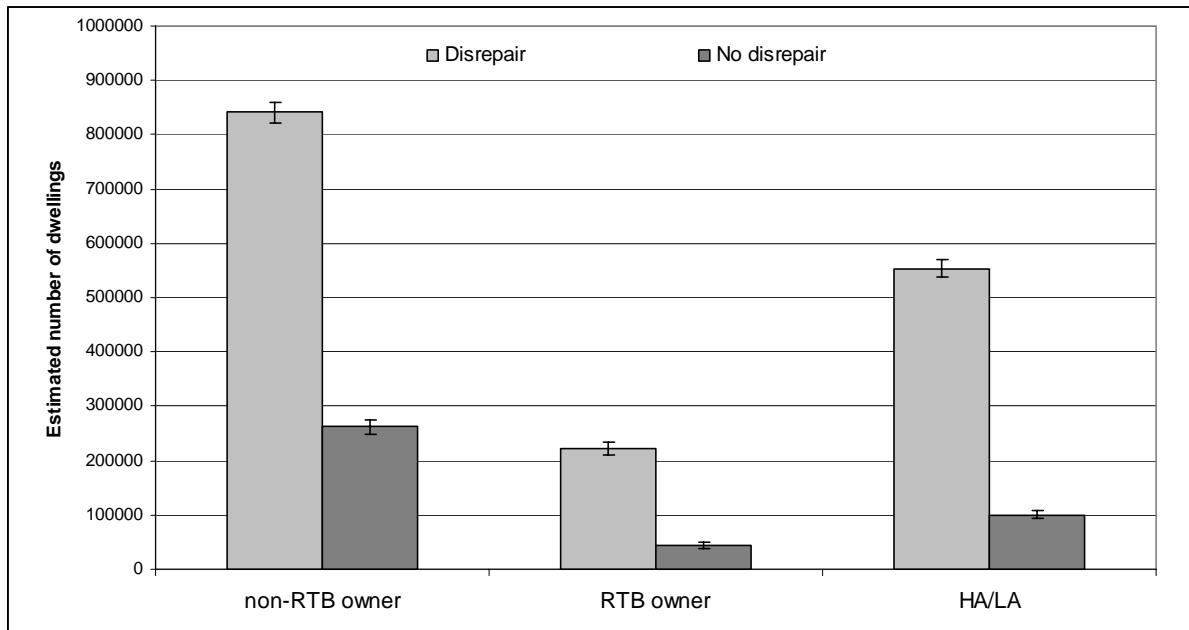
3.2 Right-to-buy and disrepair

Table 3.2.1 shows that ‘urgent disrepair’ is equally likely to exist in dwellings owned by non-RTB owners, RTB owners and LA/HAs. ‘Any disrepair’, however, is slightly less likely to be observed in dwellings owned by non-RTB householders than it is in RTB-owned or LA/HA dwellings. This is illustrated in figures 3.2.1 and 3.2.2.

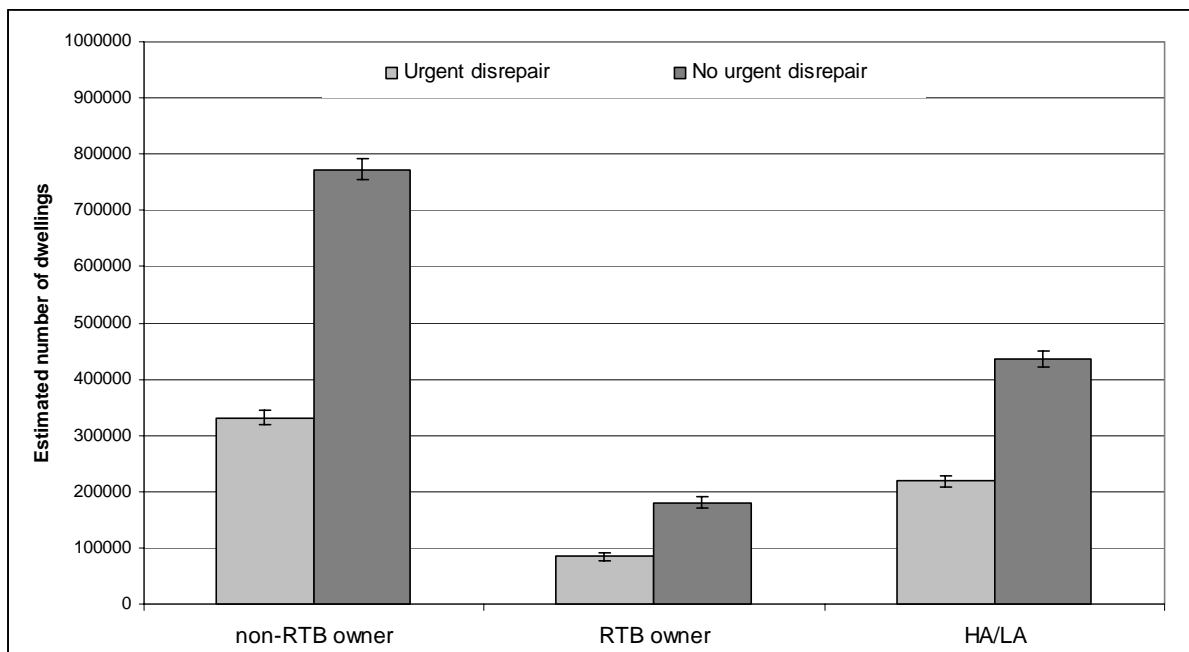
Table 3.2.1: Any urgent disrepair and any disrepair by tenure.

	%	95% confidence interval	
		lower	upper
Any urgent disrepair			
non-RTB owner	30	29	31
RTB owner	32	30	35
HA/LA	33	32	35
Any disrepair			
non-RTB owner	76	75	77
RTB owner	84	82	85
HA/LA	85	83	86

Figures 3.2.1: Estimated number of dwellings with and without any element in disrepair. Vertical lines show 95% confidence intervals.



Figures 3.2.2: Estimated number of dwellings with and without any element in urgent disrepair. Vertical lines show 95% confidence intervals.



External disrepair

Table 3.2.2 shows that non-RTB owners are more likely to have disrepair to both their secondary roof coverings and windows than the other two tenures considered here.

RTB owners are more likely to have disrepair to their soil waste pipes than either non-RTB or LA/HA owned dwellings.

HA/LA owned dwellings are less likely to have disrepair to chimney stacks, but more likely to have disrepair to their external wall finishes, doors and stairs than both non-RTB and RTB owned dwellings.

All other external disrepairs are equally likely to be observed in all three tenure groups.

Table 3.2.2: Percentage of dwellings with disrepair to external elements by tenure.

	%	95% confidence interval	
		lower	upper
Primary roof structure			
non-RTB owner	1	1	2
RTB owner	*	*	*
HA/LA	1	1	1
Primary roof covering			
non-RTB owner	19	18	20
RTB owner	21	19	23
HA/LA	20	19	21
Secondary roof covering			
non-RTB owner	2	2	3
RTB owner	*	*	*
HA/LA	*	*	*
Chimney stacks			
non-RTB owner	16	15	17
RTB owner	15	14	17
HA/LA	13	12	14
Flashings			
non-RTB owner	18	17	19
RTB owner	17	16	19
HA/LA	17	16	19
Roof gutters and downpipes			
non-RTB owner	16	15	17
RTB owner	17	15	19
HA/LA	16	15	17
Soil waste			
non-RTB owner	25	24	26
RTB owner	33	31	35
HA/LA	27	26	29
Wall structure			
non-RTB owner	3	3	3
RTB owner	2	2	3
HA/LA	3	3	4
Wall finish			
non-RTB owner	22	21	23
RTB owner	24	22	26

HA/LA	27	26	29
Doors			
non-RTB owner	6	5	6
RTB owner	4	3	6
HA/LA	8	7	9
Windows			
non-RTB owner	9	8	10
RTB owner	5	4	6
HA/LA	6	5	6
Paint			
non-RTB owner	32	31	33
RTB owner	32	30	35
HA/LA	30	29	31
External stairs			
non-RTB owner	1	0	1
RTB owner	*	*	*
HA/LA	1	1	2

Internal disrepair

HA/LA dwellings are more likely than the other two tenure groups to have disrepair to their internal floor finishes, skirtings, wall finishes, ceiling finishes, internal doors and frames and internal walls.

In contrast, non-RTB owners are more likely to have disrepair to their cornices, fireplaces and flues, but this is probably because they are more likely to have these features.

There is no internal disrepair that is most likely to be observed in RTB-owned properties.

Table 3.2.3: Percentage of dwellings with disrepair to internal elements by tenure.

	%	95% confidence interval	
		lower	upper
Floor structure			
non-RTB owner	1	1	1
RTB owner	*	*	*
HA/LA	1	1	2
Floor finish			
non-RTB owner	10	9	11
RTB owner	10	8	11
HA/LA	13	12	14
Skirtings			
non-RTB owner	4	3	4
RTB owner	4	3	5
HA/LA	5	4	6
Wall finish			
non-RTB owner	9	8	9
RTB owner	7	6	9
HA/LA	16	15	18
Ceiling finishes			
non-RTB owner	11	10	12
RTB owner	9	7	10
HA/LA	16	15	18
Cornices			
non-RTB owner	4	4	5
RTB owner	*	*	*
HA/LA	1	1	2
Doors and frames			
non-RTB owner	10	10	11
RTB owner	11	9	12
HA/LA	17	16	18
Fireplaces and flues			
non-RTB owner	8	8	9
RTB owner	6	5	7
HA/LA	5	4	6
Internal walls			
non-RTB owner	2	2	2
RTB owner	*	*	*
HA/LA	3	2	3
Staircases			
non-RTB owner	4	3	4
RTB owner	4	4	6
HA/LA	4	4	5

Disrepair to services and amenities

LA/HA dwellings are more likely to have disrepair to the main WC, wash-hand basin, bath/shower, sink, electrical power system, central heating source and central heating distribution system than RTB or non-RTB dwellings. There are no differences between RTB-owned and non-RTB owned dwellings in the likelihood of having disrepair to any services and amenities.

Table 3.2.4: Percentage of dwellings with disrepair to amenities and services by tenure.

	%	95% confidence interval	
		lower	upper
Main WC			
non-RTB owner	2	2	2
RTB owner	2	2	3
HA/LA	6	6	7
Wash-hand basin			
non-RTB owner	4	3	4
RTB owner	5	4	6
HA/LA	10	9	11
Hot & cold water to wash-hand basin			
non-RTB owner	1	1	1
RTB owner	*	*	*
HA/LA	1	1	2
Fixed bath/shower in bathroom			
non-RTB owner	5	4	5
RTB owner	6	5	7
HA/LA	11	10	12
Sink			
non-RTB owner	5	5	6
RTB owner	7	6	8
HA/LA	9	8	10
Hot & cold water to sink			
non-RTB owner	1	1	1
RTB owner	*	*	*
HA/LA	2	1	2
Electrical power system			
non-RTB owner	1	1	1
RTB owner	1	1	2
HA/LA	2	2	3
Electrical lighting system			
non-RTB owner	1	1	1
RTB owner	1	1	2
HA/LA	1	1	2
Central heating source			
non-RTB owner	1	1	2
RTB owner	*	*	*
HA/LA	2	2	3
Central heating distribution			
non-RTB owner	2	1	2
RTB owner	2	2	3
HA/LA	4	3	4

3.3 Length of right-to-buy ownership and disrepair

This short section shows the association between overall levels of disrepair and the year in which householders bought their homes through the right-to-buy scheme. The two tables below show that households who bought their homes under right-to-buy during the 1990's are more likely to have urgent disrepair than those who bought their homes in the 1980s or since 2000. The same pattern is not evident for 'any disrepair' where the confidence intervals are too large around the estimates of dwellings with disrepair for any reliable conclusions to be drawn.

Table 3.3.1: Urgent disrepair by year of right-to-buy purchase.

	no urgent disrepair observed			some urgent disrepair		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
1980s	71	68	75	29	25	33
1990 – 1994	63	58	67	37	33	42
1995 – 1999	66	62	71	34	29	38
since 2000	70	64	76	30	24	36
Total	68	66	70	32	30	35

Table 3.3.2: Any disrepair by year of right-to-buy purchase.

	no disrepair observed			some disrepair		
	%	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
1980s	20	17	23	80	77	83
1990 – 1994	17	13	21	83	79	87
1995 – 1999	13	10	16	87	84	90
since 2000	12	8	18	88	82	92
Total	17	15	18	84	82	85

3.4 Right-to-buy and work done to dwellings

The final section of this chapter compares the type of work done to dwellings by RTB-owners with work done to dwellings by both non-RTB owners and LA/HAs. Table 3.4.1 shows type of work done in the five years prior to the survey, and table 3.4.2 shows type of work done in the one year prior to the survey. The results are illustrated in figure 3.4.1 and can be summarised as follows:

- RTB owners are more likely to have done general building work in the 5 years prior to the survey than non-RTB owners. Both are more likely to have had work done than LA/HAs.
- RTB and non-RTB owners are equally likely to have done work inside their dwellings within 1 or 5 years prior to the survey, while LA/HAs are significantly less likely to have done work.
- RTB owners are more likely to have done work to external windows and doors than other owner-occupiers. Both are more likely to have had this kind of work done than LA/HAs.
- In the year prior to the survey, non-RTB owners were more likely to have done work to the heating/insulation in their dwelling than RTB owners, but this is not evident for the 5 year period prior to the survey.
- RTB owners are less likely to have done work to the outside of their dwellings than other owner-occupiers, but HA/LAs are the least likely to have done outside work.

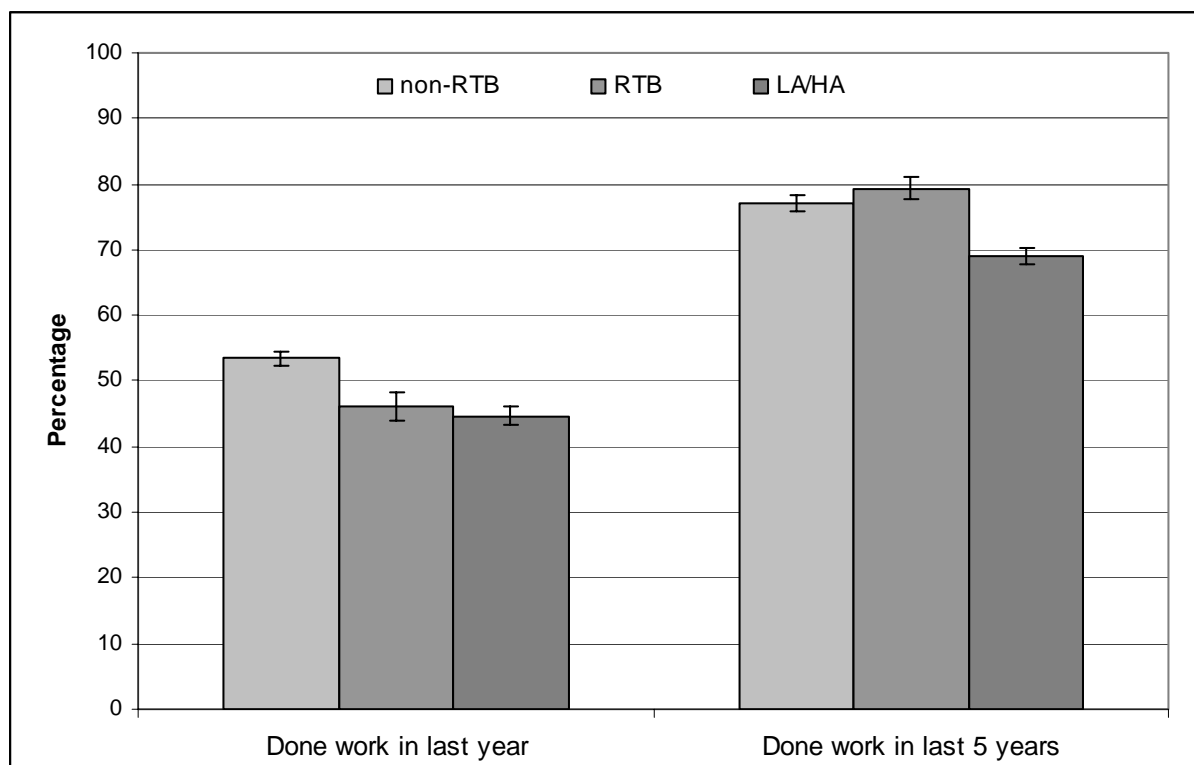
Table 3.4.1: Percentage of householders who have had work done in last five years by tenure.

	%	95% confidence interval	
		lower	upper
General building work			
non-RTB owner	50	49	51
RTB owner	57	54	59
HA/LA	29	27	30
Work inside the house			
non-RTB owner	30	29	31
RTB owner	29	27	31
HA/LA	21	19	22
External windows and doors			
non-RTB owner	51	50	52
RTB owner	54	52	56
HA/LA	43	41	44
Heating/insulation			
non-RTB owner	50	49	51
RTB owner	49	47	51
HA/LA	44	43	46
Work outside the house			
non-RTB owner	27	26	28
RTB owner	23	21	24
HA/LA	13	12	14

Table 3.4.2: Percentage of householders who have had work done in last year by tenure.

	%	95% confidence interval	
		lower	upper
General building work			
non-RTB owner	21	20	22
RTB owner	19	18	21
HA/LA	11	10	12
Work inside the house			
non-RTB owner	12	11	13
RTB owner	8	7	10
HA/LA	8	7	8
External windows/doors			
non-RTB owner	20	19	21
RTB owner	13	12	15
HA/LA	14	13	15
Heating/insulation			
non-RTB owner	27	26	28
RTB owner	20	19	22
HA/LA	23	22	25
Work outside the house			
non-RTB owner	11	10	11
RTB owner	7	6	8
HA/LA	5	4	6

Figure 3.4.1: Percentage of householders who have had work done in last year and last five years by tenure. Vertical lines show 95% confidence intervals.



3.5 Summary

In 2002, about 265,000 households were living in dwellings they had bought through the right-to-buy scheme. There is no evidence that dwellings bought under the right-to-buy scheme are in more disrepair than dwellings retained by local authorities or housing associations, or dwellings occupied by non-RTB owners. Right-to-buy owners and non-right to buy owners are very similar in the amount and type of work that they report having done to their dwellings, and both report having done far more work to their dwellings than local authorities or housing associations.

Chapter 4: Maintenance and repairs in common blocks

4.1 Introduction

In Scotland, approximately 531,500 households live in dwellings within common blocks. The majority of these (about 56%) are tenement flats in urban areas. Almost half are in Glasgow and Edinburgh alone. In common blocks, the repair and maintenance of common elements is the responsibility of no one person or household and can thus pose an array of problems not experienced by people who live in houses.

Households within blocks can agree to appoint a factor or manager to take care of communal areas. In some cases this is a requirement of the title deeds while in others there is no such obligation. The Tenement² Act was designed to clarify the responsibilities of owners of dwellings in common blocks and consequently reduce disagreements about repairs between neighbours and decrease the level of disrepair to common elements across the housing stock.

This chapter focuses on the repair and maintenance of common elements and the reports of householders who live in common blocks only. In section 4.2, householders' reports of who maintains common areas, how this is organised and paid for and whether the householder is satisfied with the system are described.

In section 4.3, the relationship between who takes responsibility for common areas and the levels of disrepair to common elements is explored.

Results are summarised in section 4.4.

² The Tenement Act defines tenements as all dwellings comprising two or more separately owned flats, at least two of which are divided from each other horizontally. As such this definition is wider than the definition of 'tenement' used in this report and applies to most flats in common blocks.

4.2 Who takes responsibility for common area repair and maintenance

If householders reported that they lived in flats with common stairs, they were asked who cleans those stairs. The responses to this question are given in table 4.2.1. Over half of the householders said that the owners or residents cleaned the stairs themselves, about 10% pay a factor or management company to do it, and about 3% of households said that the stairs do not get cleaned.

Table 4.2.1: Responses to 'Who cleans the common stairs of the block?'

	estimate	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
owners / residents	289000	279000	299000	54	53	56
owners or residents pay factor or property management company	51500	45000	57500	10	9	11
council/housing association	86000	79000	93000	16	15	17
landlord	26500	22000	31000	5	4	6
owner pays cleaner / some-one	41000	35000	46500	8	7	9
no-one	17500	13500	21000	3	3	4
don't know	19500	15500	24000	4	3	4

Table 4.2.2 shows that between 14 and 17% of households living in common blocks regularly meet to discuss repairs and maintenance. On the following page, figure 4.2.1 illustrates both the number of households in each household type that regularly meet to discuss repairs (grey bars) and the likelihood of households meeting regularly according to their household type (black diamonds). The diagram illustrates the fact that single pensioner and older smaller households are more likely to meet regularly with their neighbours to discuss repairs than single adult households are, but that otherwise there are no real differences between household types. In terms of actual number, it is single pensioners, older smaller, single adult and small adult who account for most of the households meeting up with neighbours, which reflects the fact that it is these household types who are most likely to live in common blocks.

Table 4.2.2: Responses to 'Do the people who live in this block regularly meet to discuss things like repairs and maintenance?'

	estimate	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
yes	84000	76500	91500	16	14	17
no	426000	417000	434500	80	79	81
don't know	21500	17000	25500	4	3	5

Figure 4.2.1: Number and percentage of householders who regularly meet with neighbours to discuss repairs, by household type. Vertical lines show 95% confidence intervals.

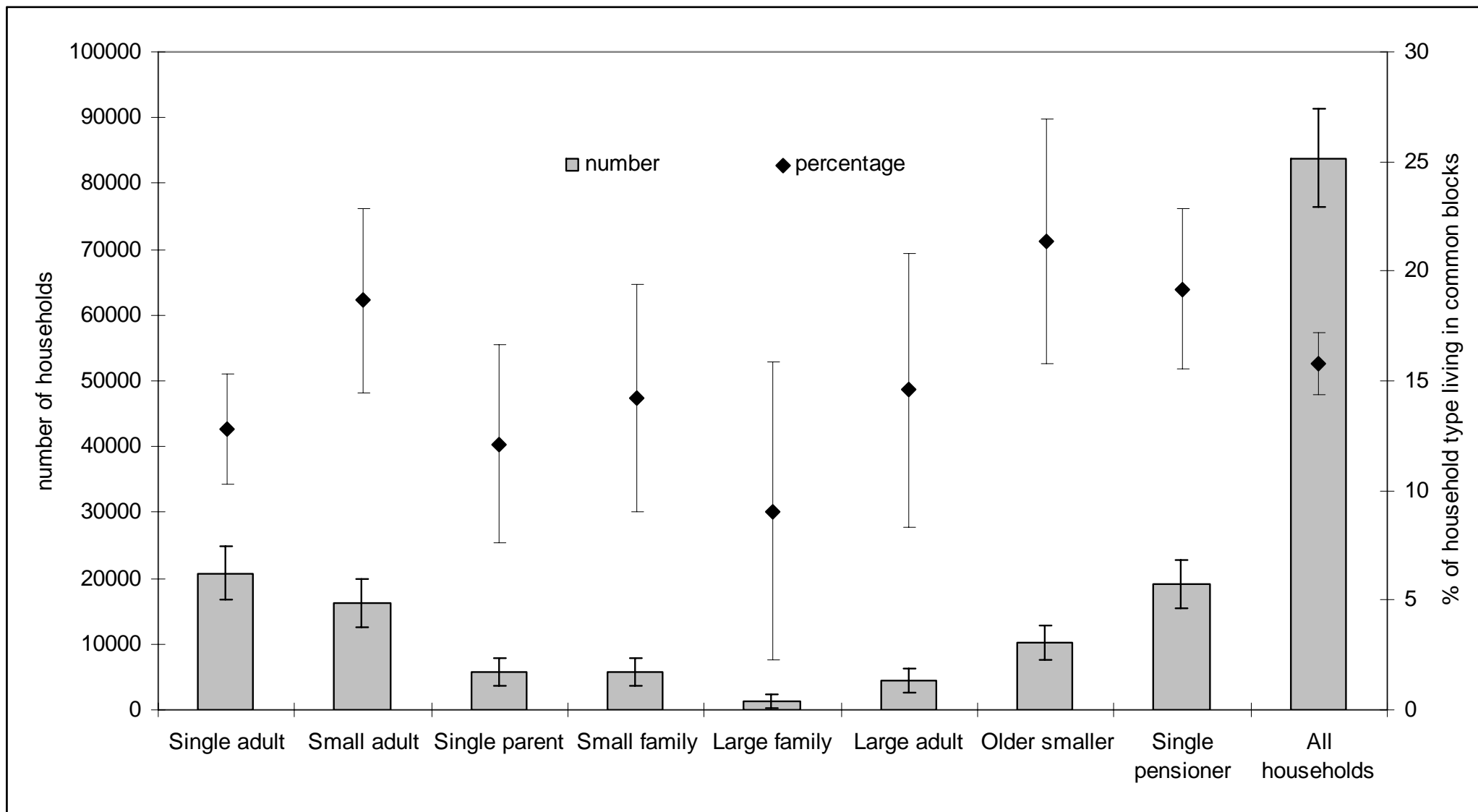


Table 4.2.3 shows that the majority of households report that it is either fairly easy or very easy to get common repair jobs done. Similar number of householders reported that it was either quite difficult or very difficult to get repairs done as reported that they did not know.

Table 4.2.3: Responses to 'How easy or difficult is it to get common repairs done in this block?'

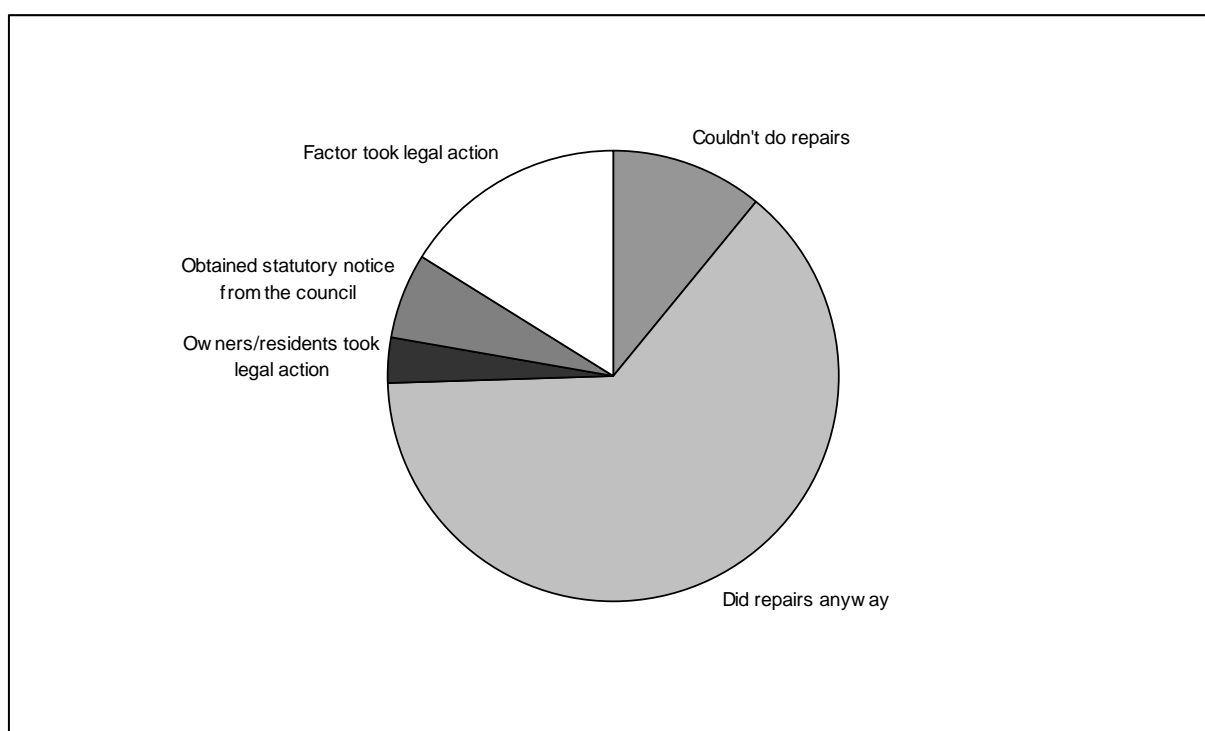
	estimate	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
very easy	96000	88000	104000	18	17	19
fairly easy	191000	181000	200500	36	34	38
quite difficult	68500	61500	75000	13	12	14
very difficult	57000	50500	63000	11	10	12
don't know	119000	110500	128000	22	21	24

Between 27,500 and 38,500 households (approximately 6% of those in common blocks) said that they knew of occasions when people have failed to pay their share of repairs. Table 4.2.4 shows their reports of what happened in that situation. The results show that between 2000 and 5500 of householders reported the repairs could not be done, significantly more responded that legal action was taken. Figure 4.2.2 illustrates this.

Table 4.2.4: Outcome when people failed to pay their share of repairs.

	estimate	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
couldn't do repairs	3500	2000	5500	11	7	14
did repairs anyway	21000	16500	25000	63	60	66
owners/residents took legal action	*	*	*	*	*	*
obtained statutory notice from the council	*	*	*	*	*	*
factor took legal action	5500	3000	7500	16	11	20

Figure 4.2.2: Outcome when people failed to pay their share of repairs.



Householders who live in common blocks were asked who pays for maintenance or repair work to the roof. A summary of the responses given is shown in table 4.2.5. If the householders reported that the owners/residents pay, they were further asked if there is a maintenance fund and whether the roof is regularly maintained. The results to these questions are given in table 4.2.6.

Table 4.2.5: Who pays for the maintenance of the roof or for repairs when it is damaged? (Householders could give more than one answer).

	estimate	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
owners/residents	172500	162500	182000	32	31	34
residents pay factor	55000	48500	61500	10	9	12
council/housing association	232500	223500	241500	44	42	45
landlord	78000	71000	85500	15	13	16
no-one	*	*	*	*	*	*
don't know	28500	23500	33000	5	4	6

Table 4.2.6: Whether maintenance work is done regularly according to whether there is a shared maintenance fund.

	estimate	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
there is a maintenance fund	25000	20500	29500	5 [‡]	4	6
the roof is regularly maintained	11000	8000	14000	44 [†]	35	53
roof work is only done in emergency	9000	6000	12000	36	28	46
don't know	5000	3000	7000	20	13	28
there is not a maintenance fund	156500	147000	165500	29*	28	31
the roof is regularly maintained	35500	30000	40500	23	20	26
roof work is only done in emergency	82000	74500	89500	53	49	56
don't know	39000	33000	44500	25	22	28

[‡] Percentage of all dwellings in common blocks.

[†] Percentage of dwellings where there is a maintenance fund.

Table 4.2.7 summarises householders' reports of what aspects of maintenance the council, housing association or factor is responsible for. Between 308,000 and 327,500 households report that the council, housing association or factor is responsible for maintaining the roof, which is the most commonly reported responsibility. Approximately 42,500 households don't know what the council, housing association or factor is responsible for.

Approximately 22% of householders in common blocks pay an additional service charge for maintenance of common areas. This is shown in table 4.2.8.

Table 4.2.7: Maintenance of common parts done by the council, housing association or factor.

	estimate	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
upkeep of common grounds	265500	256000	275500	51	49	52
cleaning of common stair	182500	173000	192000	35	33	36
window cleaning	39000	34000	44500	8	7	8
repairs to roof	317500	308000	327500	61	59	62
gutter cleaning	261000	251000	270500	50	48	51
repairs to outside walls/windows	281000	271000	290500	54	52	55
repairs to door entry system	261000	251000	270500	50	48	51
surveys to identify problems	143500	134500	152000	27	26	29
don't know	42500	37000	48500	8	7	9
none of these	99500	91500	108000	19	18	20

Table 4.2.8: Service charge for maintenance of common parts.

	estimate	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
service charge additional to rent/mortgage	119000	110500	127500	22	21	24
no additional service charge	412000	403000	421000	78	76	79

Finally, householders living in common blocks were asked how satisfied they were with the management and maintenance of the common parts. The results, shown in table 4.2.9 show that the majority of householders were either very or fairly satisfied, with no more than 10% saying they were very dissatisfied.

Table 4.2.9: Householders satisfaction with the management and maintenance of common parts.

	estimate	95% confidence interval		%	95% confidence interval	
		lower	upper		lower	upper
very satisfied	119000	110500	127000	23	21	24
fairly satisfied	218500	208500	228500	42	40	43
neither / no opinion	83000	75500	91000	16	15	17
fairly dissatisfied	55000	49000	61500	11	9	12
very dissatisfied	48500	42500	54500	9	8	10

4.3 Relationship between disrepair and responsibility for common elements

Table 4.3.1 shows the percentage of dwellings with disrepair to common elements according to whether or not householders regularly meet up with neighbours to discuss repairs and maintenance. The results indicate that if householders do meet with neighbours to discuss repairs then there is less likely to be disrepair to the wall finishes, ceilings and soffits, decorations, doors, screens, windows and roof lights. For all other common elements the confidence intervals around the estimates are too wide for any conclusions to be drawn.

Table 4.3.1: Percentage of dwellings with disrepair to common elements according to whether or not people in the block meet regularly to discuss repairs.

People in the block meet regularly to discuss repairs	% of dwellings with disrepair	95% confidence interval	
		lower	upper
stairs and landings			
yes	15	11	19
no	20	18	21
halls and passages			
yes	2	1	5
no	6	5	7
wall finishes			
yes	19	15	23
no	32	30	34
ceilings and soffits			
yes	14	11	18
no	24	22	26
doors, screens windows and roof lights			
yes	15	12	19
no	29	27	31
decorations			
yes	35	30	40
no	49	46	51
communal security			
yes	3	2	5
no	6	5	7
refuse chutes			
yes	2	1	4
no	2	2	3
bin stores			
yes	8	6	12
no	12	10	13

Table 4.3.2 shows that a higher percentage of dwellings within which householders do not have shared accounts to cover roof repairs have disrepair to the primary roof common than dwellings where neighbours do have such a scheme.

Table 4.3.2: Percentage of dwellings with disrepair to primary roof coverings according to whether or not people in the block have a shared maintenance account and inspect the roof regularly.

	% of dwellings with disrepair to primary roof covering	95% confidence interval	
		lower	upper
Is there a maintenance account that everyone pays into on a regular basis to cover repairs to the roof?			
yes	10	6	17
no	27	24	31
Is the roof regularly inspected or is work only done in an emergency?			
regularly inspected	23	18	29
work only done in emergencies	28	24	33

4.4 Summary

There are approximately 531,500 households living in dwellings that form part of a common block in Scotland. About 10% of these households pay a factor or management company to clean the stairs or maintain the roof. Slightly more (about 84,000) meet regularly with neighbours to discuss common maintenance and repairs, and these households are less likely to have disrepair to the common elements of their dwellings than households that do not meet regularly.

The majority of householders say that it is easy to get repairs done on common elements. Between 27,500 and 38,500 households said that they knew of occasions when people have failed to pay their share of repairs and more than half reported that the repairs got done anyway.

The majority of householders claim to be satisfied with the maintenance of the common elements.

Chapter 5: Alternative methods of reporting disrepair costs

5.1 Introduction

In 1991, 1996 and 2002, the SHCS reported the disrepair to the housing stock in two ways. Firstly by describing the existence of disrepair, for example by reporting the percentage of dwellings that have any disrepair or disrepair to particular elements. Secondly, by providing estimates of the cost of making good disrepair. This chapter focuses on additional methods of reporting disrepair and in particular on the use of repair costs as a measure of disrepair.

Disrepair costs are estimated as follows. Firstly, a surveyor assesses the extent of disrepair to a dwelling. This assessment is entered into a computerised model which factors in the type and extent of disrepair recorded, the type, size and location of the dwelling, and the tenure of the household the model and the model adjusts the costs according to the information about the dwelling that is entered. The outcome is an estimated cost of disrepair to each dwelling. (A more complete explanation is provided in appendix A).

In 2002 the base costs with stereotypes were recalculated to quarter 1 2002 costs. Consequently, while it is possible to compare the total costs of disrepair in 1996 and 2002, it is not possible to infer anything about the state of disrepair of the housing stock from such a comparison. Similarly, because adjustments are made for the costs of repair work according to location and tenure, it is not possible to use the costs to draw conclusions about the relative extent or seriousness of disrepair between different groups of dwellings.

In this chapter alternative forms of reporting disrepair costs are explored and benefits and restrictions of the methods are discussed. This chapter does not seek to establish “the best” method of reporting disrepair but sets out rather to provide alternative approaches which may be made available and in this way demonstrate the possibilities for further exploration of this subject.

5.2 Cost per square metre

Intuitively, it seems that there should be a relationship between the size of dwellings and the cost of making good their disrepair. When it is considered that older dwellings tend to be larger and that older dwellings are more likely to have disrepair it seems even more likely that there should be a correlation between cost of disrepair and size of dwellings. In order to control for the size of the dwelling so that comparisons can be made between dwelling types and dwelling ages, it is necessary to express the repair costs as a cost per square metre. This is achieved by dividing the total repair cost by the floor area of the dwelling. The results for visible disrepair costs are shown in table 5.2.1.

Table 5.2.1: 25th, 50th and 75th percentiles for visible repair costs and costs per square metre by dwelling type, date of construction and tenure

	Scaled visible repair costs			Scaled visible repair costs per square metre		
	25 th percentile	50 th percentile	75 th percentile	25 th percentile	50 th percentile	75 th percentile
Dwelling type						
detached houses	0	240	1020	0	2	9
semi-detached houses	60	370	1100	1	4	13
terraced houses	50	360	980	1	5	12
tenement	80	390	1020	1	6	16
4-in-block	100	420	970	2	6	15
flat in converted building	130	590	1630	2	6	19
tower/slab	60	260	670	1	4	10
Date of construction						
Pre-1919	220	760	1970	2	9	24
1919-1944	160	500	1130	2	7	15
1945-1964	120	450	1030	2	6	14
1965-1982	30	300	850	0	4	11
post-1982	0	0	230	0	0	3
Tenure						
owner-occupier	30	320	970	0	4	11
LA/Other public	120	450	1060	2	7	16
HA/Housing co-op	0	110	490	0	2	8
private renter	170	650	1840	2	9	26

The conversion to a cost per square metre makes little difference to the profile of disrepair costs by dwelling type, date of construction or tenure. For example, from looking at the profile for visible repair costs by dwelling type it can be clearly seen that detached houses and tower/slab have the lowest median cost, all other flats have the highest medians and there is little difference between them, and that semi-detached and terrace houses have costs somewhere in the middle. The same conclusions are drawn from an analysis of the visible repair costs per square metre. The same point is illustrated in figure 5.2.1 for date of construction.

Figure 5.2.1: Median visible repair costs and median visible repair costs per square metre by date of construction.

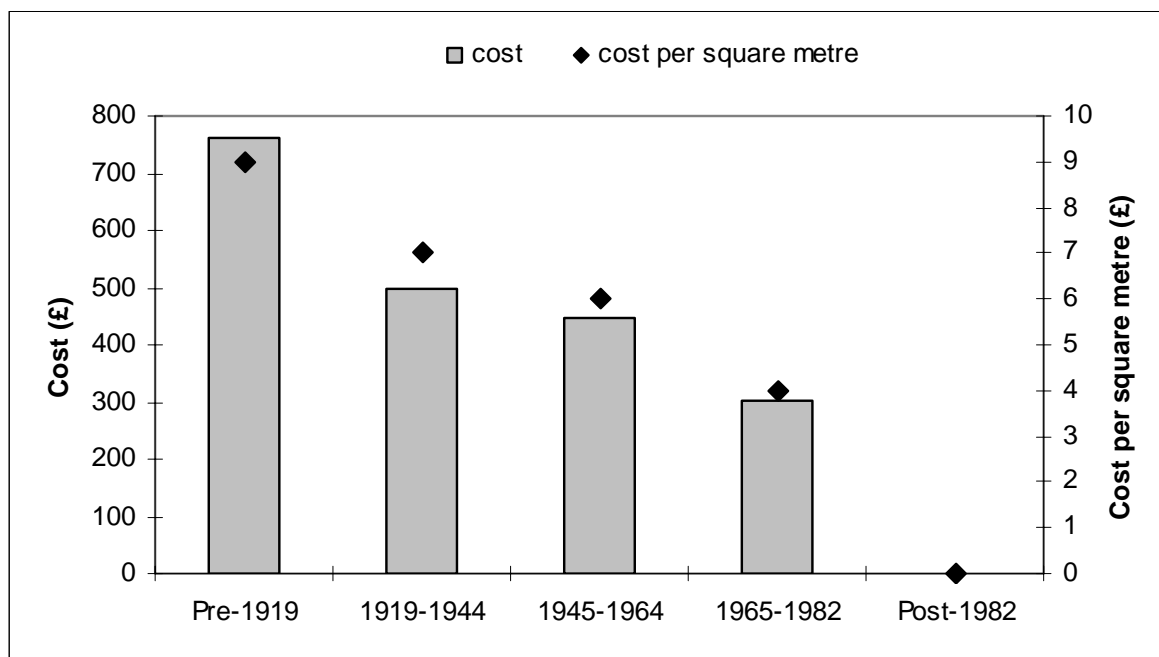


Table 5.2.2 shows the range of comprehensive disrepair costs and comprehensive disrepair costs per square metre by dwelling type, date of construction and tenure. Results indicate that very little is gained by converting the costs to costs per square metre.

Table 5.2.2: 25th, 50th and 75th percentiles for comprehensive repair costs and costs per square metre by dwelling type, date of construction and tenure

	Scaled Comprehensive Repair Costs			Scaled comprehensive repair costs per square metre		
	25 th percentile	50 th percentile	75 th percentile	25 th percentile	50 th percentile	75 th percentile
Dwelling type						
detached houses	1150	1900	4070	10	16	36
semi-detached houses	1190	1770	3490	14	21	42
terraced houses	930	1510	3120	12	19	40
tenement	1290	1940	4070	21	32	67
4-in-block	900	1460	3000	13	22	46
flat in converted building	1370	2480	4820	17	28	64
tower/slab	1010	1520	2970	15	22	51
Date of construction						
pre-1919	1690	3120	7180	20	37	87
1919-1944	1260	1920	3730	16	25	49
1945-1964	1150	1730	3330	15	23	47
1965-1982	1090	1660	3040	14	21	40
post-1982	770	1030	1520	9	12	22
Tenure						
owner-occupier	1120	1760	3570	12	20	42
LA/Other public	1060	1670	3250	16	25	49
HA/Housing co-op	830	1260	2350	13	21	36
private renter	1450	2740	6780	20	38	88

These results are surprising because, as explained, it is intuitive that the size of a dwelling should be related to the amount of disrepair and subsequently the cost of rectifying that disrepair. However, figure 5.2.2 shows that there is actually no correlation between visible disrepair costs and area ($r = 0.12$) and figure 5.2.3 shows that there is no correlation between comprehensive disrepair costs and area ($r = 0.16$).

There are several possible reasons for this lack of correlation. Firstly, the size of a dwelling is no indication of the type or quality of the dwellings construction or the manner in which it has been maintained. Secondly, most dwellings have the same basic elements – it is not the case that small dwellings are simpler, with fewer elements to fall into disrepair than larger ones. Lastly, some of the most expensive repairs, such as to lifts and lift shafts, are only likely to be relevant to blocks of flats and these tend to be smaller than houses in terms of floor space.

Figure 5.2.2: Scatter graph of area of dwelling (m^2) by visible disrepair cost (£).

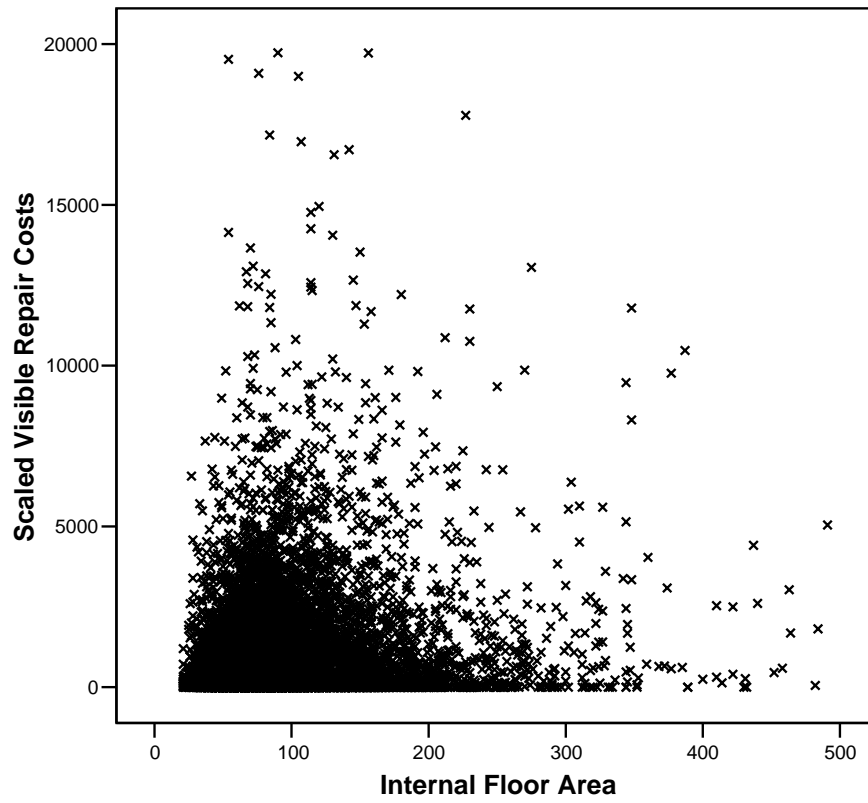
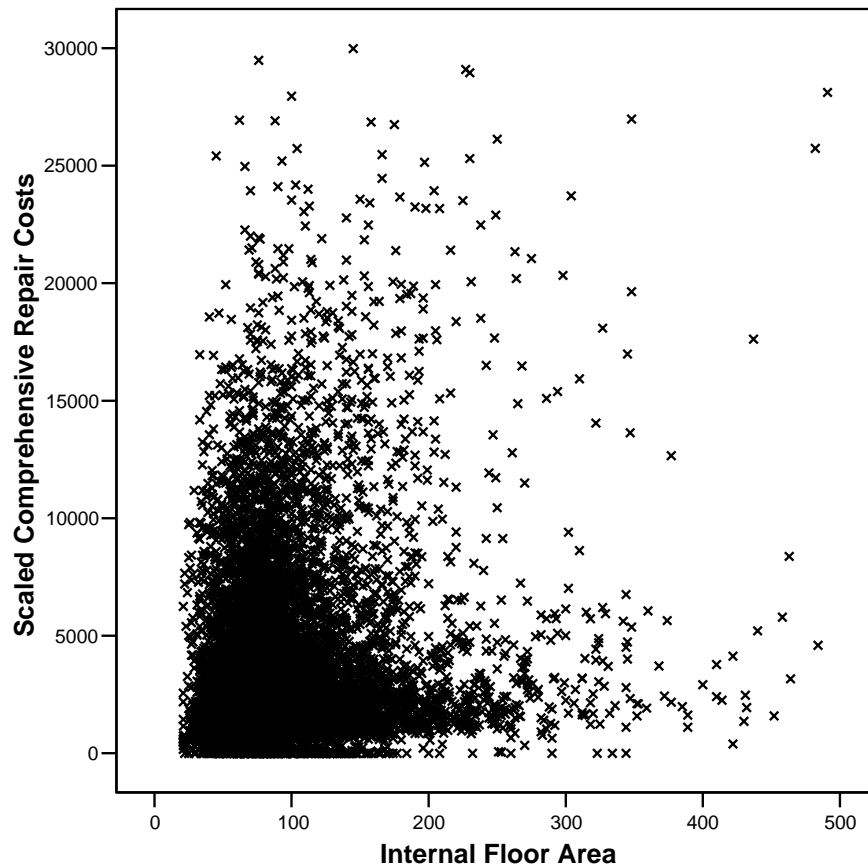


Figure 5.2.3: Scatter graph of area of dwelling (m^2) by comprehensive disrepair cost (£).



5.3 Standardised repair scores

A significant factor in the accuracy of the repair costs methodology for the 2002 SHCS is that repair costs rates are adjusted for variations in tenure and location. This approach takes into consideration the differential costs involved in repairing dwellings in different parts of the country. For example, repairs are likely to be more expensive in rural areas where the supply of materials and suitable contractors is less than in urban areas. Costs are likewise adjusted for tenure differences, reflecting the view that economies of scale can be achieved by local authorities or housing associations who may undertake work to a large number of their properties simultaneously. This approach ensures that the repair costs represent, as far as possible, a true reflection of the cost of making good the disrepair of the dwelling. By removing these adjustments it is possible to obtain standardised repair costs for all dwellings which can be used as a measure of disrepair and allow for comparisons between groups to be made. By standardising the costs however they are no longer the best estimate of the actual cost that would likely be incurred if repairs were undertaken. Therefore, the resulting estimates are called 'standardised scores' rather than 'costs'.

Tables 5.3.1 and 5.3.2 show the distribution of non-standardised repair costs by dwelling type, date of construction and tenure are shown in 5.3.1 alongside the standardised scores. The tables show that standardising scores generally has very little effect on the distributions and so the relationship between the groups remains the same. Nevertheless it is possible to compare levels of comprehensive disrepair levels using the standardised scores while this would not be valid using the non-standardised costs.

Table 5.3.1: Scaled visible repair costs and standardised visible repair scores by dwelling type, date of construction and tenure.

	Scaled visible repair costs			Standardised visible repair scores		
	25 th percentile	50 th percentile	75 th percentile	25 th percentile	50 th percentile	75 th percentile
Dwelling type						
detached houses	0	240	1020	0	250	1010
semi-detached houses	60	370	1100	50	380	1140
terraced houses	50	360	980	50	370	990
tenement	80	390	1020	90	400	1020
4-in-block	100	420	970	100	430	990
flat in converted building	130	590	1630	130	600	1580
tower/slab	60	260	670	60	280	720
Date of construction						
pre-1919	220	760	1970	210	750	1960
1919-1944	160	500	1130	160	520	1160
1945-1964	120	450	1030	130	460	1070
1965-1982	30	300	850	40	310	870
post-1982	0	0	230	0	0	230
Tenure						
owner-occupier	30	320	970	30	310	950
LA/Other public	120	450	1060	140	490	1140
HA/Housing co-op	0	110	490	0	120	530
private renter	170	650	1840	170	650	1790

Table 5.3.2: Scaled comprehensive repair costs and standardised comprehensive repair scores by dwelling type, date of construction and tenure.

	Scaled comprehensive repair costs			Standardised comprehensive repair scores		
	25 th percentile	50 th percentile	75 th percentile	25 th percentile	50 th percentile	75 th percentile
Dwelling type						
detached houses	1150	1900	4070	1160	1880	4130
semi-detached houses	1190	1770	3490	1200	1800	3540
terraced houses	930	1510	3120	950	1530	3220
tenement	1290	1940	4070	1320	1990	4150
4-in-block	900	1460	3000	900	1490	3070
flat in converted building	1370	2480	4820	1370	2400	4560
tower/slab	1010	1520	2970	1080	1550	3190
Date of construction						
pre-1919	1690	3120	7180	1690	3080	7140
1919-1944	1260	1920	3730	1280	1960	3850
1945-1964	1150	1730	3330	1200	1780	3500
1965-1982	1090	1660	3040	1090	1690	3150
post-1982	770	1030	1520	780	1040	1500
Tenure						
owner-occupier	1120	1760	3570	1110	1740	3520
LA/Other public	1060	1670	3250	1150	1820	3510
HA/Housing co-op	830	1260	2350	900	1350	2540
private renter	1450	2740	6780	1440	2670	6820

5.5 Relative repair costs

It is not possible to directly compare the levels of disrepair in the Scottish housing stock between 1996 and 2002 due to changes in the methodological approach to gathering the data. Surveyors in 2002 had the opportunity to record instances of very low levels of disrepair which those in 1996 did not. It is, however possible to compare the condition of different groups of dwellings by comparing the standardised scores shown in the previous section. The benefits of doing so could be greater if one further step were taken and the scores for different groups were presented as a percentage of the median score for the entire stock. This would make it possible to see at first glance the relative levels of disrepair between groups of dwellings.

The median standardised visible repair score for the total stock in 2002 is 364. All relative scores are calculated as a percentage of this. For example, the median standardised visible repair score for the owner occupied stock is 310. The relative score would then be calculated as $(310 / 364) * 100 = 85$.

Tables 5.5.1 to 5.5.3 show the relative standardised repair scores by dwelling type, date of construction and tenure. While the same information can be gleaned from the standardised scores before being converted into percentages, this form of reporting does make it easier to see the relative levels of disrepair, for example that flats in converted buildings tend to be in the most disrepair, while detached houses and tower/slab flats tend to have the least disrepair. On the other hand, because this form of reporting concentrates only on the median disrepair score, information about the distribution of the scores is lost.

Table 5.5.1 Median standardised visible repair scores by dwelling type as a percentage of the total stock.

	Cost (£)	Repair score relative to Scotland (%)
detached houses	250	69
semi-detached houses	380	104
terraced houses	370	102
tenement	400	110
4-in-block	430	118
flat in converted building	600	165
tower/slab	280	77
Scotland	364	100

Table 5.5.2 Median standardised visible repair scores by date of construction as a percentage of the total stock.

	Cost (£)	Repair score relative to Scotland (%)
pre-1919	750	206
1919-1944	520	143
1945-1964	460	126
1965-1982	310	85
post 1982	0	0
Scotland	364	100

Table 5.5.3 Median standardised visible repair scores by tenure as a percentage of the total stock.

	Cost (£)	Repair score relative to Scotland (%)
owner-occupier	310	85
LA/public	490	135
HA/Housing co-op	120	33
private renter	650	179
Scotland	364	100

5.5 Summary

The main reason for presenting repair costs by metre squared was to remove the potentially confounding effect of dwelling size. However, analysis shows that dwelling size is not a confounding effect, and thus there is little to be gained by presenting repair scores in this way.

Standardising repair costs makes it possible to make comparisons between groups, although standardised repair scores give less indication about how much it would cost to make good disrepair than non-standardised costs do.

Presenting standardised repair scores as relative to Scotland as a whole further increases the ease of comparing the levels of disrepair between groups, but has the disadvantage of losing information.

Chapter 6: Revised disrepair cost estimates

6.1 Introduction

Subsequent to the publication of the National and Local Authority SHCS reports, errors were detected in the program used to calculate the disrepair costs. The errors were of a technical nature in the program syntax, rather than an error in the logic or understanding of the model.

The revised program has been corrected and externally validated. An overview of the model is given in Appendix A.

This chapter provides revised figures which should be understood to supersede all those previously published. Section 6.2 provides revised national estimates, and section 6.3 provides revised local authority estimates.

6.2 Revised national cost estimates

Table 6.2.1: Distribution of scaled visible repair costs, scaled comprehensive costs, visible and BTS costs, visible, BTS and improvement costs (£).

	percentile								
	10	20	30	40	50 median	60	70	80	90
scaled visible repair costs	0	10	90	210	360	550	830	1260	2150
scaled comprehensive repair costs	760	1000	1210	1450	1740	2190	2980	4420	7200
visible + BTS costs	0	10	90	210	360	550	830	1260	2160
visible + BTS + improvement costs	160	340	510	700	920	1230	1690	2420	3880

Table 6.2.2: Total scaled visible repair costs, scaled comprehensive costs, visible and BTS costs, visible, BTS and improvement costs (£m).

	estimate (£m)	95% confidence interval	
		lower	upper
scaled visible repair costs	1798	1746	1850
scaled comprehensive repair costs	6717	6581	6853
visible + BTS costs	1812	1759	1865
visible + BTS + improvement costs	3574	3488	3660

Table 6.2.3: Distribution of scaled visible repair costs by date of construction, type of dwelling, tenure and location (£).

	percentile								
	10	20	30	40	50 median	60	70	80	90
Date of construction									
pre-1919	20	140	300	490	760	1130	1580	2430	3960
1919-1944	20	90	220	350	500	680	970	1410	2150
1945-1964	0	80	180	290	450	630	870	1220	1940
1965-1982	0	0	70	170	300	490	690	1030	1720
post-1982	0	0	0	0	0	50	170	310	670
Type of dwelling									
detached houses	0	0	0	110	240	490	790	1340	2790
semi-detached houses	0	20	100	230	370	570	900	1400	2220
terraced houses	0	20	90	210	360	550	810	1180	2010
tenement	0	40	120	240	390	560	830	1240	1900
4-in-block	0	60	160	280	420	600	810	1130	1870
flat conversion	0	80	190	370	590	790	1260	1900	2850
tower/slab	0	30	90	170	260	380	580	840	1330
Tenure									
owner-occupier	0	0	70	190	320	520	790	1220	2140
LA/other public	0	80	180	300	450	630	880	1270	1960
HA/housing co-op	0	0	0	40	110	220	380	630	1210
private renter	0	90	230	440	650	1000	1360	2400	3930
Location									
rural	0	10	120	260	470	720	1130	1780	3220
urban	0	10	90	210	340	530	780	1180	1980

Table 6.2.4: Distribution of scaled comprehensive repair costs by date of construction, type of dwelling, tenure and location (£).

	percentile								
	10	20	30	40	50 median	60	70	80	90
Date of construction									
pre-1919	1160	1520	1890	2360	3120	4270	5940	8900	13030
1919-1944	880	1160	1370	1630	1920	2400	3160	4600	7480
1945-1964	810	1050	1250	1470	1730	2130	2840	4110	6120
1965-1982	790	990	1190	1400	1660	2020	2640	3610	5600
post-1982	570	710	830	940	1030	1160	1370	1730	3040
Dwelling type									
detached houses	820	1040	1250	1580	1900	2350	3250	5160	8770
semi-detached houses	890	1090	1280	1500	1770	2190	2890	4190	6550
terraced houses	670	840	1020	1240	1510	1920	2600	3940	6270
tenement	930	1170	1400	1610	1940	2470	3400	5040	8740
4-in-block	640	790	990	1180	1460	1790	2510	3690	5750
flat conversion	990	1310	1580	1820	2480	3200	4130	5230	9560
tower/slab	720	970	1060	1220	1520	1860	2640	3800	5980
Tenure									
owner-occupier	800	1020	1230	1470	1760	2190	2950	4430	7290
LA/other public	720	960	1150	1380	1670	2070	2790	3840	5850
HA/housing co-op	570	730	940	1070	1260	1550	1870	2830	5400
private renter	890	1300	1580	2090	2740	3800	5520	8390	12420
Location									
rural	840	1120	1370	1670	2070	2740	3740	5440	9330
urban	750	980	1180	1410	1680	2110	2840	4220	6780

Table 6.2.5: Distribution of visible + BTS costs by date of construction, type of dwelling, tenure and location.

	percentile								
	10	20	30	40	50 median	60	70	80	90
Date of construction									
pre-1919	20	140	300	500	770	1140	1590	2440	4070
1919-1944	20	90	220	350	500	690	970	1420	2150
1945-1964	0	80	180	290	450	630	870	1220	1940
1965-1982	0	0	70	170	300	490	690	1030	1720
post-1982	0	0	0	0	0	50	170	310	680
Type of dwelling									
detached houses	0	0	0	110	240	490	790	1360	2800
semi-detached houses	0	20	100	230	370	570	900	1400	2230
terraced houses	0	20	90	210	360	560	810	1190	2010
tenement	0	40	120	240	390	560	840	1240	1970
4-in-block	0	60	160	280	420	600	810	1130	1880
flat conversion	0	80	210	370	590	790	1270	1900	2880
tower/slab	0	30	90	170	260	380	580	840	1330
Tenure									
owner-occupier	0	0	70	190	320	520	790	1220	2150
LA/other public	0	80	180	300	450	630	880	1270	1960
HA/housing co-op	0	0	0	40	110	220	380	630	1230
private renter	0	90	230	440	650	1000	1360	2400	3960
Location									
rural	0	10	120	260	470	720	1140	1780	3250
urban	0	10	90	210	340	530	790	1190	1990

Table 6.2.6: Distribution of visible + BTS + improvement costs by date of construction, type of dwelling, tenure and location.

	percentile								
	10	20	30	40	50 median	60	70	80	90
Date of construction									
pre-1919	90	340	690	1080	1540	2260	3160	4490	7190
1919-1944	250	430	610	840	1120	1490	1970	2670	4060
1945-1964	230	390	550	750	980	1270	1660	2240	3270
1965-1982	170	320	450	610	810	1080	1410	1960	2970
post-1982	140	250	370	540	650	790	940	1240	2020
Dwelling type									
detached houses	390	580	680	800	960	1210	1650	2360	4010
semi-detached houses	260	370	480	640	850	1140	1520	2100	3050
terraced houses	130	260	370	550	770	1030	1370	1940	2920
tenement	120	250	460	750	1130	1600	2280	3250	5180
4-in-block	210	330	530	750	1030	1360	1880	2600	4130
flat conversion	0	230	420	720	1100	1650	2340	3740	6300
tower/slab	110	250	380	590	890	1140	1670	3020	5020
Tenure									
owner-occupier	180	360	520	690	890	1160	1590	2260	3640
LA/other public	180	320	520	750	1020	1330	1770	2420	3620
HA/housing co-op	100	150	260	370	530	800	1150	1740	3150
private renter	190	460	710	1130	1520	2230	3200	4480	6770
Location									
rural	150	370	580	760	990	1370	1940	2770	4610
urban	170	330	500	680	910	1220	1660	2350	3710

Table 6.2.7: Total scaled visible repair cost estimates by date of construction, dwelling type, tenure and location.

	estimate (£m)	95% confidence interval	
		lower	upper
Date of construction			
pre-1919	689	643	734
1919-1944	269	250	288
1945-1964	406	385	427
1965-1982	347	328	366
post-1982	87	76	97
Dwelling type			
detached	403	370	435
semi-detached	395	369	422
terrace	378	354	402
tenement	380	353	406
4-in-block	166	151	181
flat conversion	43	33	53
tower/slab	33	26	40
Tenure			
owner-occupier	1094	1050	1137
LA/other public	404	383	426
HA/co-op	53	46	61
private rented	247	218	276
Location			
urban	1374	1331	1417
rural	424	392	456

Table 6.2.8 Total scaled comprehensive repair cost estimates by date of construction, dwelling type, tenure and location.

	estimate (£m)	95% confidence interval	
		lower	upper
Date of construction			
pre-1919	2358	2232	2485
1919-1944	1000	936	1063
1945-1964	1448	1385	1512
1965-1982	1374	1315	1433
post-1982	537	503	571
Dwelling type			
detached	1465	1381	1549
semi-detached	1363	1294	1432
terrace	1326	1258	1394
tenement	1708	1614	1801
4-in-block	546	505	587
flat conversion	153	122	185
tower/slab	157	131	182
Tenure			
owner-occupier	4241	4120	4363
LA/other public	1370	1308	1432
HA/co-op	281	252	311
private rented	825	744	905
Location			
urban	5368	5244	5492
rural	1349	1275	1423

Table 6.2.9: Total visible + BTS cost estimates by date of construction, dwelling type, tenure and location.

	estimate (£m)	95% confidence interval	
		lower	upper
Date of construction			
pre-1919	700	654	747
1919-1944	270	251	289
1945-1964	406	385	428
1965-1982	348	329	368
post-1982	87	76	97
Dwelling type			
detached	408	375	441
semi-detached	396	369	423
terrace	379	355	403
tenement	383	356	410
4-in-block	167	152	181
flat conversion	46	34	58
tower/slab	33	26	40
Tenure			
owner-occupier	1103	1059	1147
LA/other public	405	383	427
HA/co-op	54	46	61
private rented	250	221	279
Location			
urban	1383	1340	1427
rural	428	396	461

Table 6.2.10: Total visible + BTS cost + improvement cost estimates by date of construction, dwelling type, tenure and location.

	estimate (£m)	95% confidence interval	
		lower	upper
Date of construction			
pre-1919	1243	1164	1321
1919-1944	540	505	576
1945-1964	759	725	794
1965-1982	694	660	728
post-1982	338	313	363
Dwelling type			
detached	731	687	774
semi-detached	639	604	674
terrace	616	583	648
tenement	1018	953	1083
4-in-block	376	346	407
flat conversion	90	68	113
tower/slab	104	85	124
Tenure			
owner-occupier	2139	2068	2211
LA/other public	803	764	841
HA/co-op	157	136	177
private rented	475	425	526
Location			
urban	2890	2812	2968
rural	684	641	727

6.3 Revised local authority cost estimates

Table 6.3.1: Distribution of scaled visible repair costs (£) by local authority

	percentile								
	10	20	30	40	50 median	60	70	80	90
Aberdeen City	0	20	110	220	320	480	640	920	1620
Aberdeenshire	0	0	0	120	250	540	940	1560	2960
Angus	0	0	50	130	250	400	630	930	1570
Argyll & Bute	0	20	150	260	510	750	1090	1770	2940
Borders	0	0	60	180	350	600	870	1410	2360
Clackmannanshire	0	0	10	40	110	250	410	630	1220
Dumfries & Galloway	0	20	140	260	430	580	840	1280	2340
Dundee City	0	0	50	170	300	460	750	1070	1680
East Ayrshire	0	140	290	540	780	1020	1410	1990	2850
East Dunbartonshire	0	60	180	370	560	780	1090	1610	2410
East Lothian	0	0	20	90	180	320	570	1000	1890
East Renfrewshire	0	0	0	100	220	360	620	910	1650
Edinburgh City	0	30	110	220	400	600	890	1310	2150
Falkirk	0	0	70	150	270	400	630	1000	1430
Fife	0	0	20	120	220	400	610	930	1800
Glasgow City	0	40	120	250	400	580	850	1330	2380
Highland	0	50	170	260	420	610	960	1440	2270
Inverclyde	0	50	150	250	410	570	830	1350	2180
Midlothian	0	20	100	260	380	550	860	1300	2100
Moray	0	0	30	90	210	420	630	1120	2770
North Ayrshire	0	20	110	220	370	550	760	1110	1920
North Lanarkshire	0	60	160	310	460	650	940	1290	2100
Orkney	0	70	220	350	660	1120	1510	2490	4650
Perthshire & Kinross	0	0	50	180	340	600	860	1330	2500
Renfrewshire	0	20	70	190	280	390	640	1040	1730
Shetland	0	0	50	200	400	640	1030	1720	3380
South Ayrshire	0	50	120	240	420	670	1000	1660	2570
South Lanarkshire	0	20	120	270	440	660	970	1450	2230
Stirling	0	0	40	140	270	380	560	870	1570
West Dunbartonshire	0	20	100	200	320	470	690	1030	1620
West Lothian	0	0	100	250	400	630	930	1340	2370
Western Isles	0	60	210	390	690	990	1500	2310	3720

Table 6.3.2: Distribution of scaled comprehensive repair costs (£) by local authority

	percentile								
	10	20	30	40	50 median	60	70	80	90
Aberdeen City	800	1040	1220	1450	1800	2210	3050	4390	6920
Aberdeenshire	780	980	1230	1580	1970	2750	3890	5010	9040
Angus	690	940	1150	1340	1650	2000	2730	3750	6240
Argyll & Bute	930	1140	1400	1620	2030	2550	3490	5450	9340
Borders	730	1030	1170	1420	1700	2080	2640	3650	6590
Clackmannanshire	570	760	920	1120	1330	1550	1980	2740	4220
Dumfries & Galloway	890	1100	1340	1650	2040	2700	4270	6030	10440
Dundee City	730	970	1190	1370	1740	2210	3260	6220	10880
East Ayrshire	970	1220	1590	2010	2770	3630	4630	6040	8870
East Dunbartonshire	960	1190	1450	1650	1890	2170	2630	3310	4870
East Lothian	760	980	1260	1540	2270	3730	5830	8070	10480
East Renfrewshire	550	1000	1230	1440	1650	1960	2380	3370	5920
Edinburgh City	960	1300	1570	1880	2370	3050	4200	6030	9580
Falkirk	770	970	1120	1260	1480	1730	2130	3080	4350
Fife	690	890	1030	1180	1390	1650	2140	3350	5650
Glasgow City	810	1030	1230	1480	1790	2260	3260	5020	9240
Highland	830	1100	1290	1510	1860	2260	2920	4180	6390
Inverclyde	580	830	1000	1190	1430	1640	2080	2720	3710
Midlothian	890	1030	1160	1310	1540	1800	2320	3270	5150
Moray	710	930	1120	1360	1740	2580	3740	5380	8400
North Ayrshire	360	780	990	1270	1580	1970	2510	4170	5750
North Lanarkshire	740	960	1140	1390	1650	2030	2520	3370	5450
Orkney	960	1320	1740	2190	2700	3480	4960	9410	16450
Perthshire & Kinross	690	940	1130	1360	1590	1900	2520	3760	6920
Renfrewshire	610	840	990	1150	1340	1560	1900	2420	3450
Shetland	830	1110	1310	1570	1800	2160	2890	4000	7850
South Ayrshire	730	950	1160	1550	1900	2350	3270	4670	7190
South Lanarkshire	810	1030	1250	1520	1890	2610	3540	5200	7440
Stirling	810	1030	1210	1370	1600	1870	2270	3060	5040
West Dunbartonshire	710	890	1080	1240	1440	1650	1940	2540	3920
West Lothian	760	980	1190	1460	1750	2230	2940	4120	5960
Western Isles	770	1040	1340	1720	2060	2670	3430	4630	7310

Table 6.3.3: Distribution of visible + BTS + improvement costs (£) by local authority

	percentile								
	10	20	30	40	50 median	60	70	80	90
Aberdeen City	170	320	500	760	1010	1300	1710	2250	3410
Aberdeenshire	170	320	490	650	880	1160	1820	2380	4190
Angus	140	320	570	720	870	1090	1580	2200	3560
Argyll & Bute	180	380	620	810	1130	1570	2040	3000	4930
Borders	170	370	510	710	890	1220	1700	2400	4180
Clackmannanshire	70	190	290	410	530	740	910	1210	2430
Dumfries & Galloway	160	360	520	640	840	1210	1540	2130	3250
Dundee City	80	190	320	520	770	1110	1520	2270	3840
East Ayrshire	370	580	780	1050	1350	1780	2380	3080	4410
East Dunbartonshire	390	590	780	970	1210	1390	1790	2250	3190
East Lothian	150	280	400	560	670	880	1170	1680	2960
East Renfrewshire	190	330	490	670	820	1060	1370	1860	2770
Edinburgh City	160	320	530	790	1160	1540	2080	2990	4870
Falkirk	210	320	430	560	710	930	1240	1700	2430
Fife	130	260	380	540	710	950	1260	1840	2910
Glasgow City	140	300	510	780	1110	1580	2430	3370	5220
Highland	220	430	590	730	960	1210	1670	2320	3710
Inverclyde	200	380	570	850	1120	1490	1900	2500	4030
Midlothian	180	370	510	650	860	1090	1430	1890	3430
Moray	90	230	350	520	660	840	1180	1930	3750
North Ayrshire	210	350	530	670	850	1020	1440	1890	3050
North Lanarkshire	220	410	540	690	910	1190	1620	2290	3580
Orkney	310	640	870	1210	1640	2210	2950	4370	6930
Perthshire & Kinross	130	320	470	650	860	1150	1630	2410	4260
Renfrewshire	210	340	470	650	870	1130	1590	2220	3270
Shetland	270	510	730	890	1140	1420	1890	2940	5720
South Ayrshire	260	410	620	850	1210	1540	2020	2720	4210
South Lanarkshire	170	360	570	760	1000	1220	1650	2250	3190
Stirling	110	310	440	560	740	870	1070	1610	2690
West Dunbartonshire	220	360	490	670	850	1160	1500	2100	3230
West Lothian	190	330	490	690	860	1100	1390	2160	3340
Western Isles	290	500	750	1020	1460	1980	2550	3480	5170

Table 6.3.4: Total repair cost estimates by local authority

	Scaled visible repair cost total			Scaled comprehensive repair cost totals			Visible + BTS + improvement costs		
	estimate (£m)	95% confidence interval		estimate (£m)	95% confidence interval		estimate (£m)	95% confidence interval	
		lower	upper		lower	upper		lower	upper
Aberdeen City	60	51	69	283	254	313	143	127	159
Aberdeenshire	93	76	109	330	294	367	153	133	174
Angus	29	24	34	133	117	148	70	61	79
Argyll & Bute	44	37	50	149	131	166	82	70	95
Borders	44	37	52	145	127	163	80	69	90
Clackmannanshire	9	7	11	41	37	45	21	17	25
Dumfries & Galloway	60	49	70	253	224	283	95	82	108
Dundee City	45	37	53	248	216	280	107	88	126
East Ayrshire	66	56	75	207	184	230	103	90	116
East Dunbartonshire	41	36	46	111	101	121	68	62	74
East Lothian	27	21	32	169	153	186	52	44	60
East Renfrewshire	22	18	25	96	85	107	45	40	49
Edinburgh City	163	146	180	778	728	828	389	354	424
Falkirk	34	30	39	136	123	149	68	62	75
Fife	85	74	95	343	312	374	185	163	207
Glasgow City	224	207	242	926	865	987	561	520	602
Highland	81	69	92	272	239	305	143	125	161
Inverclyde	36	28	45	82	71	94	74	61	86
Midlothian	28	23	32	85	75	96	47	41	53
Moray	34	26	43	126	110	141	54	43	65
North Ayrshire	41	35	47	143	128	158	78	68	87
North Lanarkshire	106	94	117	304	283	325	189	172	207
Orkney	18	14	21	53	46	59	31	26	36
Perthshire & Kinross	59	47	70	170	146	195	105	88	121
Renfrewshire	49	41	58	137	122	152	107	95	119
Shetland	13	10	15	33	29	38	23	19	27
South Ayrshire	52	41	63	158	137	180	93	80	106
South Lanarkshire	115	100	129	416	384	449	190	172	209
Stirling	21	17	25	89	79	98	44	37	50
West Dunbartonshire	28	24	33	85	76	93	59	52	66
West Lothian	55	47	63	173	156	190	88	78	98
Western Isles	18	14	22	42	35	48	28	24	33

6.4 Summary

The revised cost estimates are slightly higher than those reported previously. In the 2002 Main Report the total visible repair cost for all stock was estimated at approximately £1.75 billion, it is now estimated to be approximately £1.80 billion. This represents an increase of 3%. The total comprehensive repair cost was previously estimated to be £6.50 billion, the revised figure is approximately £6.72 billion.

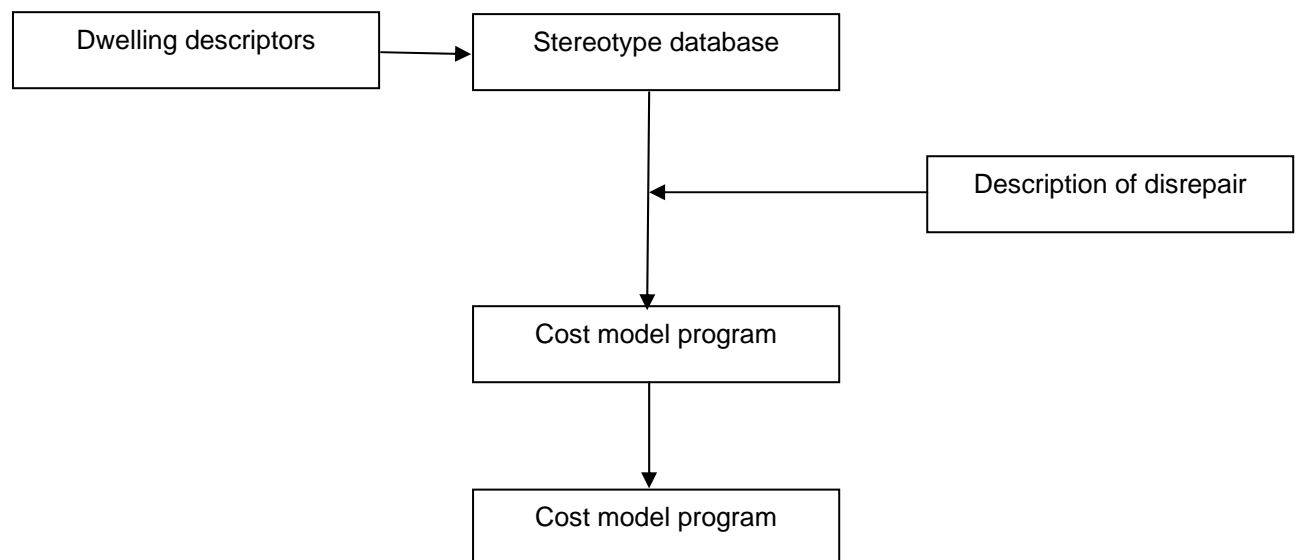
The cost estimate distributions have remained very similar; they are still very skewed as the majority of dwellings have very small disrepair costs and a few have extremely high costs. Some of the median costs have gone down very slightly. This is because the revisions mainly involved very high cost items, subsequently the total costs have risen and the median has been reduced.

At local authority level, most the figures reported in the Local Authority Report are within the confidence intervals of the revised estimates. This indicates that most of the changes are not statistically significant.

Appendix A: Calculating repair costs

Figure A1 is a simplified representation of the cost generating process. As can be seen the process relies upon two types of input from the survey fieldwork – the dwelling descriptors (such as age and type) and the repair scores profile. The descriptor information is used to assign each dwelling to one of a database of stereotypes and the repair scores are used to generate a series of costs which are then aggregated to produce the cost.

Figure A1: Diagram of the cost generating process.



There are seven steps in the process of generating the patch or visible repair costs.

Step 1 – Assign dwelling to stereotype

Nine of the items collected during the course of the survey are used to assign each dwelling to one of 172 'stereotypes' on which the costs are based. Five of these generate the 'core stereotype':

- Type of dwelling (e.g. semi-detached house, tenement flat).
- Date of construction.
- Number of storeys in the dwelling.
- Quality of dwelling (i.e. basic/better than basic/of superior quality).

The remaining four items relate to variations which further refine the choice of a particular stereotype within the 'core' group to which the dwelling has been assigned. These are:

- Type of common block (e.g. corner / mid terrace).
- Number of storeys within the common block.
- Type of common access (e.g. deck / access balcony).
- Amount of exposure of flank walls.

The first three of these relate to flats with common access and define the particular flat type. The information about the amount of exposure of the flank walls determines whether an adjustment to the basic shape of any of the types is required.

Step 2 – Incorporate the repair score and generate a cost

At this stage the raw information collected by the surveyors for each element assessed, is incorporated into the program. Most of the elements (40) are measured on a 10 point scale with most of the remainder (18) measured on a four-point scale.

One question (concerning dry or wet rot) is measured on a two-point scale which simply records the presence or absence of that particular defect. Table A1 below shows how the score links to the proportion of the element which is assessed as being in disrepair.

Table A1: Relationship between the 10 point and 4 point scales.

10 point scale	% element in disrepair	4 point scale
0	0	0
55	<5	1
1	5 < 15	2
2	15 <25	
3	25 <35	3
4	35 <45	
5	45 <55	
6	55 <65	
7	65 <75	4
8	75 <85	
9	85 <95	
10	95 – 100	

Once the information about which stereotype is to be applied and how much disrepair there is to a particular element is known a repair cost can be read off the pricing database. The 10 most expensive elements are listed below in Table A2 which gives the cost of replacement (i.e. the maximum repair costs) of the item using both the most expensive and the least expensive stereotypes. The base costs used to construct the cost models used in this analysis were re-priced by Thomas and Adamson in spring 2003 using costs as at Q1 2002. This defines the base index date. The cost date is taken as Q3 2002 when the median number of surveys took place.

Note that the most expensive and least expensive stereotypes vary from element to element. For wall structure for example the most expensive stereotype relates to a pre-1919 three-storey detached house whilst the least expensive relates to a post-1982 single storey mid-terrace tenement.

Table A2: Least and most expensive replacement costs for various items.

Item	Replacement cost (£)	
	Least expensive stereotype	Most expensive stereotype
Wall structure	1542	85667
Internal structure/partitions	3034	16586
Foundations	1064	11978
Internal floor structure	3434	16263
Internal floor finish	2146	10922
windows	647	21200
Internal floor finish	1640	16682
Roof structure (pitched)	730	15013
Common staircase	486	9545
Underground drainage	1627	9863

Step 3 – Regional variation factor tenure adjustments and scaling for rooms to base costs

An intermediate 'adjusted base cost' table is produced for every dwelling and the relevant cost adjustments are applied at this stage.

- Regional variation and indexing. The regional variation factor takes account of the differences in levels of pricing between local authority areas. Costs are also adjusted to the HTPI Q3 2002 at this stage. Building Cost Bulletins are produced by the Construction and Building Control Group at the Scottish Executive.
- Tenure adjustment. A tenure factor is applied in recognition of the fact that works carried out in the public sector or by housing associations are generally part of larger contracts which benefit from economies of scale. The reduction in costs for public sector and housing association works is taken to be 90% of the single dwelling cost based on an assumption of a 30-dwelling contract.
- Scaling for rooms. Each stereotype is associated with a particular number of rooms. If the actual number of rooms in the dwelling differs any replacement costs which relate to the number of rooms in the dwelling are rescaled on a pro rata basis. This enables the cost to match more closely the actual replacement costs for that dwelling. For example the stereotype for a pre-1919 basic quality mid-terrace tenement flat has four rooms and the cost of replacing the principal roof cover is £1464. If the dwelling was located in Glasgow this would increase the cost to £1508. If the actual dwelling had five rooms then this replacement cost would be increased to £1885. If the dwelling was owned by a housing association then the final adjusted base cost for the element cost would be £1696.

Step 4 – Calculate a proportional repair cost for each element

Repairs are subject to economies of scale: smaller individual jobs can be more expensive due to repeated set up costs. Table A3 sets out for the 10-point and four-point scales the small repair enhancement factors which are applied to account for this. Note that in the case of internal room by room repair scores the sliding scale is applied to each individual room and then averaged out over the total number of rooms in that dwelling. In large dwellings surveyors only inspect the kitchen bathroom hall/landing and a representative sample of five other rooms. The room scores in these circumstances

are deemed to be representative of all the rooms in that dwelling and the averaging still applies. Having applied the small repair enhancement factor it is now possible to generate a proportional repair cost for the element. For example if 20% of the principal roof cover in a four-room pre-1919 basic quality mid-terrace tenement flat is in disrepair then the cost assigned would be £1464 x 0.35 = £512.40.

Table A3: Repair enhancement factors applied to account for economies of scale.

10 point scale	Adjusted score	4 point scale	Adjusted score
0	0.00	0	0.000
55	0.08	1	0.080
1	0.20	2	0.165
2	0.35		
3	0.45	3	0.420
4	0.50		
5	0.55		
6	0.63		
7	0.70	4	1.000
8	0.80		
9	0.90		
10	1.00		

Step 5 – Aggregating individual costs to a summary cost

In the next stage the individual costs for each item are aggregated to form five summary costs for each of the main groups of elements: Internal Amenities and services Common parts (where applicable) External and External environment. The five summary costs are then added together to produce a gross total cost.

Step 6 – Apply the scaling factor to produce visible repair cost

A scaling factor is then applied to the gross cost generated using Steps 1-7 above in recognition of the fact that there will be some savings if a 'package' of works is carried out at the same time. This is essentially a factor reflecting the economies of scale to be expected on larger jobs. If the gross cost of the works is less than £1000 then no adjustment is made. If the gross cost is more than £1000 then a factor (which is a linear function of the cost) is applied. Table A4 illustrates the magnitude of these scaling factors.

Table A4: Scaling factor.

Gross cost of works	Scaling factor
<£1000	1.000
£2000	0.994
£5000	0.976
£10000	0.947
£20000	0.888
£30000	0.829
>£35000	0.800

Step 7 – Apply the scaling factor to summary components

Finally the same scaling factor as applied to the gross cost is then applied to the five summary components which comprise the total. This ensures that the sum of the five individual summary costs equals the total immediate repair cost.

Comprehensive repair costs

To obtain the comprehensive repair costs the same procedure as described above to generate the visible repair cost is applied to two of the element groups namely the Internal and the Services and Amenities groups. For the other three groups namely External, External Environment and Common Parts information from the 10-point and four-point repair scores is included only if the residual life of the component is greater than 10 years. If it is less than 10 years then the replacement cost for that item is invoked. Otherwise the methodology proceeds as above.

