

7<sup>th</sup> July 2010

Dear Scotstat member, SHCS ad hoc service user and LA representative

**Scottish House Condition Survey Design for the 2012 - 2015 procurement cycle.**

1. I am the manager of the Scottish House Condition Survey (SHCS) and, prior to going out to tender, I am seeking your views on:
  - a. Continuing with the present design of the SHCS; and
  - b. (for Local Authorities) Augmenting the survey by integrating local house condition surveys into the national survey
2. I am not seeking your views on SHCS content as that will be part of a separate exercise looking at harmonisation across the 4 major surveys of the Scottish Government. However, the SHCS does have important outputs including Fuel Poverty, Scottish Housing Quality Standards, Barrier-free housing, health and housing, Energy efficiency, fuel costs and energy emissions. For a full content list please see the SHCS website<sup>1</sup>.
3. The Scottish Government will also separately seek views about the core and module design of the Scottish Household Survey (SHS) and the provision of an LA module within that design.

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<sup>1</sup> <http://www.shcs.gov.uk/>

## Background

4. The current SHCS contract runs until December 2011 so the next contract should start in January 2012 and run for 4 years - although this is subject to financial considerations.
5. The current survey design includes the following key elements:
  - a. A social interview with the household paired with a physical survey of the dwelling;
  - b. A sample size of 3,000 occupied dwellings each year;
  - c. The sample is stratified by Local Authority. Table 1 (Annex) shows the achieved sample size for the 3 year period 2005/06, 2007 and 2008;
  - d. The sample is random within each local authority.
6. The default position is to retain the current SHCS size and design - unless other organisations committed support to the SHCS either for the inclusion of a specialist module or for increased sample size in a Local Authority. Local Authorities would have to meet the direct costs of local boosts.
7. Also we also do not expect to raise or lower the target response rates as they have been achieved narrowly across all Local Authorities. The SHCS has no evidence of a trend of falling response rates in Scotland since the year 2000. These are the targets set in the previous ITT:

The interviewers should achieve an adjusted response rate to the social survey of no less than 70% overall, with a minimum adjusted response rate of 60% in any unitary authority. The sample of dwellings issued for a physical survey should be all dwellings at which a social survey was achieved and all dwellings identified as vacant. The surveyors should achieve a full survey in 83% of dwellings where a social survey has taken place and a dwelling description survey should be carried out on the remainder of eligible dwellings. There should be a minimum of 75% full physical survey response in any unitary authority.

8. Sample stratification entails a 'design effect' which broadens the confidence intervals by about 10%. The design effect varies but generally falls between 1.10 and 1.15. We do not expect to rebalance the weighting between Local Authorities and so that is the size of design effect expected. The average 3 year LA sample size was 287.
9. The social interview length is contractually around 45 minutes but not longer than 1 hour. We do not expect to alter the length of the interview.
10. The survey sample size constrains analysis. While weighted estimates could be provided based on even single cases, the SHCS norm is to provide a national picture each year using 1 year's data and to provide estimates at Local Authority level using 3 years combined data.

11. This means that national data is about 15 months out of date when we publish and Local Authority data is, given that it is centred on July of the middle of 3 years, is about 27 months out of date as we publish, but in 39 months out of date just before the next year's figures are published.
12. The confidence intervals associated with a sample size and a proportionate result are shown in Table 2 (Annex). Thus a sample of about 300 (e.g. 3-yr LA combined sample) with a 10%/90% result has a confidence interval of about +/-3.4%, while a sample with a size of 3,000 (Annual national sample) with a similar result has a confidence interval of about +/- 1.1%.
13. In an ideal world, I would raise the sample size in order to be able to provide robust estimates at Local Authority level on an annual basis, i.e. raising the sample size by 3 times to about 9,000 paired households and dwellings. However, that may mean overcoming various constraints
  - a. Smaller Local Authorities would each get about 300 surveys a year - which may prove difficult to achieve year-on-year for island groups;
  - b. Some of the field force may well become more-or-less permanently employed or we find the professional workforce availability a constraint;
  - c. The two phase nature of the survey makes it a relatively expensive operation and finances are tight;
  - d. There may be pressure on current quality assurance standards of validation and call-back of about 5% of properties;
  - e. There would no doubt be a need for extra staff at the Scottish Government and so SG may have to de-prioritise other work.
14. Having said all that, I think there is an opportunity which must be considered and I welcome views on this. Local Authorities from time-to-time do carry out Local House Condition Surveys. From a central government view point (which is not all seeing and all wise):
  - a. LAs start afresh for each survey if only for some elements of such surveys;
  - b. Successive surveys may be inconsistent in design and content;
  - c. Surveys may not comparable between LAs;
  - d. LAs may have more problems focussing on the private sector stock which is by now the majority stock in Scotland;
  - e. Outputs may be inflexible – in the form of a report rather than a dataset;
  - f. Some LAs may not have the expertise or resources to create and analyse datasets;
  - g. Comparison against a national picture may be difficult.

15. Therefore, a distinct option is to include Local Authority inputs into the procurement process and into the management of a National House Condition Survey alongside some resource commitment to increase the sample size over the period 2012 to 2015 and to direct the sample to particular tenures or areas.
16. While resources are tight, there is potentially a cost saving with little in the way of management overheads and some costs savings where:
  - a. Processing activities are covered by Central Government;
  - b. Software training and analytical codes provided by the SHCS SG Team;
  - c. Surveyor training could largely be covered by SG.
  - d. The LA main gain better information for investment and deploy its resources more effectively;
  - e. LAs will have annual national and inter-LA comparisons.
17. There are distinct managerial problems associated with stop-go surveys so any option to cover an LA or other bodies' needs in more detail would, I feel, have to be based on some commitment over the 4 year period.
18. No commitment would be required until the ITT stage of the procurement which I estimate to be in about October 2010. However, it may be possible for the ITT to contain options which would put back the commitment date.

## Conclusion

19. I look forward to your response to these proposals and would be pleased to hear about design issues as well as about meeting Local Authority and other organisations' needs through boosts.
20. The SHCS will require evidence to support a business case for the survey so I would also be pleased to hear from you with ***brief*** confirmation of your continuing use and the importance you attach to the SHCS data.
21. I would appreciate responses on the design by the end of July.

Ian Máté

## Annex

Table 1: SHCS LA Sample Sizes: 2005/06, 2007 and 2008 combined

<b>Local authority</b>	<b>Frequency</b>	<b>Percent</b>
Aberdeen City	215	2.3
Aberdeenshire	261	2.8
Angus	242	2.6
Argyll and Bute	246	2.7
Clackmannanshire	278	3.0
Dumfries and Galloway	271	2.9
Dundee City	234	2.5
East Ayrshire	272	3.0
East Dunbartonshire	264	2.9
East Lothian	266	2.9
East Renfrewshire	264	2.9
City of Edinburgh	526	5.7
Eilean Siar	233	2.5
Falkirk	251	2.7
Fife	361	3.9
Glasgow City	763	8.3
Highland	238	2.6
Inverclyde	272	3.0
Midlothian	235	2.6
Moray	206	2.2
North Ayrshire	276	3.0
North Lanarkshire	364	4.0
Orkney Islands	269	2.9
Perth and Kinross	254	2.8
Renfrewshire	278	3.0
Scottish Borders	247	2.7
Shetland Islands	272	3.0
South Ayrshire	251	2.7
South Lanarkshire	315	3.4
Stirling	270	2.9
West Dunbartonshire	273	3.0
West Lothian	228	2.5
Scotland	9,195	100.0

**Table 2: Table of Confidence intervals by Sample size of % sample estimate**

		Sample size																		
		30	50	75	100	200	300	400	500	600	800	1,000	1,500	2,000	3,000	4,000	5,000	6,000	8,000	10,000
Sample Estimate (lookup to nearest multiple of 5%)	1%	3.6	2.8	2.3	2.0	1.4	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2
	2%	5.0	3.9	3.2	2.7	1.9	1.6	1.4	1.2	1.1	1.0	0.9	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.3
	5%	7.8	6.0	4.9	4.3	3.0	2.5	2.1	1.9	1.7	1.5	1.4	1.1	1.0	0.8	0.7	0.6	0.6	0.5	0.4
	10%	10.7	8.3	6.8	5.9	4.2	3.4	2.9	2.6	2.4	2.1	1.9	1.5	1.3	1.1	0.9	0.8	0.8	0.7	0.6
	15%	12.8	9.9	8.1	7.0	4.9	4.0	3.5	3.1	2.9	2.5	2.2	1.8	1.6	1.3	1.1	1.0	0.9	0.8	0.7
	20%	14.3	11.1	9.1	7.8	5.5	4.5	3.9	3.5	3.2	2.8	2.5	2.0	1.8	1.4	1.2	1.1	1.0	0.9	0.8
	25%	15.5	12.0	9.8	8.5	6.0	4.9	4.2	3.8	3.5	3.0	2.7	2.2	1.9	1.5	1.3	1.2	1.1	0.9	0.8
	30%	16.4	12.7	10.4	9.0	6.4	5.2	4.5	4.0	3.7	3.2	2.8	2.3	2.0	1.6	1.4	1.3	1.2	1.0	0.9
	35%	17.1	13.2	10.8	9.3	6.6	5.4	4.7	4.2	3.8	3.3	3.0	2.4	2.1	1.7	1.5	1.3	1.2	1.0	0.9
	40%	17.5	13.6	11.1	9.6	6.8	5.5	4.8	4.3	3.9	3.4	3.0	2.5	2.1	1.8	1.5	1.4	1.2	1.1	1.0
	45%	17.8	13.8	11.3	9.8	6.9	5.6	4.9	4.4	4.0	3.4	3.1	2.5	2.2	1.8	1.5	1.4	1.3	1.1	1.0
	50%	17.9	13.9	11.3	9.8	6.9	5.7	4.9	4.4	4.0	3.5	3.1	2.5	2.2	1.8	1.5	1.4	1.3	1.1	1.0
	55%	17.8	13.8	11.3	9.8	6.9	5.6	4.9	4.4	4.0	3.4	3.1	2.5	2.2	1.8	1.5	1.4	1.3	1.1	1.0
	60%	17.5	13.6	11.1	9.6	6.8	5.5	4.8	4.3	3.9	3.4	3.0	2.5	2.1	1.8	1.5	1.4	1.2	1.1	1.0
	65%	17.1	13.2	10.8	9.3	6.6	5.4	4.7	4.2	3.8	3.3	3.0	2.4	2.1	1.7	1.5	1.3	1.2	1.0	0.9
	70%	16.4	12.7	10.4	9.0	6.4	5.2	4.5	4.0	3.7	3.2	2.8	2.3	2.0	1.6	1.4	1.3	1.2	1.0	0.9
	75%	15.5	12.0	9.8	8.5	6.0	4.9	4.2	3.8	3.5	3.0	2.7	2.2	1.9	1.5	1.3	1.2	1.1	0.9	0.8
	80%	14.3	11.1	9.1	7.8	5.5	4.5	3.9	3.5	3.2	2.8	2.5	2.0	1.8	1.4	1.2	1.1	1.0	0.9	0.8
	85%	12.8	9.9	8.1	7.0	4.9	4.0	3.5	3.1	2.9	2.5	2.2	1.8	1.6	1.3	1.1	1.0	0.9	0.8	0.7
	90%	10.7	8.3	6.8	5.9	4.2	3.4	2.9	2.6	2.4	2.1	1.9	1.5	1.3	1.1	0.9	0.8	0.8	0.7	0.6
95%	7.8	6.0	4.9	4.3	3.0	2.5	2.1	1.9	1.7	1.5	1.4	1.1	1.0	0.8	0.7	0.6	0.6	0.5	0.4	
98%	5.0	3.9	3.2	2.7	1.9	1.6	1.4	1.2	1.1	1.0	0.9	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.3	
99%	3.6	2.8	2.3	2.0	1.4	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	