Review of SCJS and Recorded Crime Comparison Papers

Purpose

Regarding Requirement 10, while there is now more information about the quality of the respective sources, there is little that would help the user to really extract maximum value from using the sources together, or to reduce the confusion and lack of clarity that you mention in section 1.3 of the stand-alone paper. In considering Requirement 10, you might consider reviewing these documents from the following point of view. Imagine you're interested in trends in recent years in acquisitive crime – for example you might simply want to know whether the prevalence of such crime has gone up or down, and by how much. Estimates from the PRC suggest a drop of one-fifth, whereas estimates from the SCJS suggest a rise of one-sixth. What information would you need to make sense of all of this, and to answer your question about trends? I'd want to know the strengths and limitations of looking at either figure (not just in terms of general strengths and weaknesses of each source, but how much confidence I can put in the two respective estimates), actual or possible explanations of the divergence in the series, and some indication of the statisticians' judgment about the best single estimate of acquisitive crime. It wasn't clear to me how the material presented answers these questions.

Specifically regarding Requirement 11, the fundamental issue at the heart of this is to lead with presenting a picture about crime in Scotland informed by both sources, rather than including information about the alternative source as an adjunct. Without seeing the chapter that you provided in the context of the whole publication it's difficult to see whether this has really been achieved. However, the sense that the chapter portrays is not one of the Scottish Government presenting what is known about crime from two complementary sources in a way that both maximises value added and minimises the risk of misinterpretation and confusion. I believe that achieving this would negate the need to publish the stand-alone analysis which was the subject of Requirement 10.

Taking all this together in considering Requirements 10 and 11 from the Assessment Report, I think more work is needed before we can say that these have been met.

Overall tone and structure

While it is clear that much work has gone into enhancing the documents, overall I found that the positive opening statements about drawing maximum public value from the use of two complementary sets of statistics together didn't flow through to the rest of the document, which seemed overly caveatted. Of course we understand – and promote – the importance of spelling out limitations in relation to use. However I found the way the documents detailed at great length some limitations didn't reflect the fact that you have a rich resource of data for analysis, and I felt could be making much more positive indications about what could be done with the data, rather than what can't be done. You might consider whether the documents would make a more compelling read if they started with the main messages that can be gleaned from a comparative analysis, followed by some appropriate cautionary text, compared with your existing presentation.

Along a similar vein, you might consider whether the documents might be made more concise to make the key messages accessible. For example, in the draft chapter that you presented, it is halfway down page 5 of 10 before any results are presented. The stand-alone document also felt overloaded with background information that might be presented more neatly as annexes or footnotes, with appropriate summary material in the main body of the report. Similarly, although section 2 of the stand-alone document describes some of the

results of each of the sources together, it is page 25 of 37 before any comparative analysis is presented.

Content

At various points in the documents, you describe survey estimates of the change over time as being statistically significant or not. While this is interesting in itself, I don't regard it as germane to the comparisons between the statistics from the two sources. As an example, take the change over four years in vandalism (pages 9 and 10 or the chapter, page 30 of the stand-alone report) – you've addressed one issue which is that the change of -37% from the SCJS is significantly different from zero, but you haven't addressed whether the estimated change of -37% from the survey is significantly different from the -46% change estimated from the PRC data. It is the latter issue that is germane to the comparison between the sources.

Essentially the question that this type of analysis should be addressing is whether the trends shown by the survey and the administrative data are significantly different from each other (or not), not whether they are significantly different from zero (or not). I accept that you will have to make some assumptions about the PRC estimate in calculating the significance level, but I think that with the appropriate caveats that would be a reasonable thing to try to do, acknowledging that the science of estimating and interpreting survey errors is itself imprecise. I note that at certain points you identify some of the trends as being consistent with each other (for example at the top of page 30 in respect of violent crime you described the trends as 'consistent') but it was not clear to me whether you have determined using statistical tests that the two trend estimates are statistically similar to each other.

I felt that the section on reporting to the police (pages 31 to 34 of the stand-alone report) was a good start in as far as it went, but more could be made of it. In theory this subset of the data allows the better and more insightful analysis. I think that the presentation of the comparison between PRC-based statistics and SCJS-based reported statistics could be clearer, for example by focusing on that comparison, and separating out (or removing) the analysis of the proportion of crimes reported, which is entirely based on SCJS data. You give no possible explanations for any of the trends shown, either of the ratio of PRC to SCJS reported crimes, or of the change in this proportion over time, so the reader is left uninformed about what the figures mean. And while I understand the logic for your two methods of integrating PRC data into the analysis, there was no guidance on which of the methods is to be preferred for any particular use. Furthermore, I'd be expecting to see the analysis broken down into the separate crime groups.

I have a few more detailed points too (this is not a comprehensive list):

- at various points you describe SCJS as being continuous, but that time periods don't match with PRC data. I think that if the SCJS is truly continuous, you should be able to take any year's cut and produce estimates for that time period, as ONS does from the CSEW. I suspect that since the move to biennial, the SCJS isn't actually continuous any longer, so perhaps its description needs to be amended.
- there seemed to be too much emphasis on the comparisons for the previous year, these generally having a higher billing than the four-year trend. Given the caveats around the comparisons, it would seem more appropriate to focus on the longer-term picture.
- relatedly, it wasn't clear to me why you have so readily dismissed the data pre-2008/9 from the analysis. In section 2.1, you report that the previous estimates would be subject to more uncertainty, and in section 3.3 you talk more about the various

changes to methods. However, it's not clear what the extent of the impact on the comparative analysis of these is, or whether adjustments (even approximate) could be made to pre-2008 data to enable more comparisons to be made.