

Proposal for Framework of Assurance for Recorded Crime in Scotland

Aim

1. The UK Statistics Authority Assessment Report (AR) on Record Crime in Scotland (RCS) stipulates that the Scottish Government produce a “coherent framework of assurance”:

“working with HMICS or other appropriate bodies, combine existing and new work into a coherent framework of assurance. Most of this material exists, or will be available once HMICS publish their next report examining the integrity of crime recording in Scotland; but it has not been incorporated into a coherent framework”¹.

2. This proposal draws on the assessment report and the Exposure Draft on Quality Assurance and Audit Arrangements for Administrative Datasets (ED) to set out what the Scottish Government will do to deliver a framework of assurance (FoA) that is in line with UKSA guidance.
3. The overarching purpose of the FoA is summed up in the ED as the provision of “evidence to inform judgements by the statistics producers and users on:
 - the suitability of the administrative data for use in producing official statistics
 - factors the statistical producer needs to take into account in producing the official statistics
 - the information that users need to know in order to make informed use of the statistics” (ED paragraph 1.8)
4. The framework of assurance (FoA) is taken to be the sum of all activities that provide confidence that quality requirements of underlying data and the statistics produced from them will be fulfilled. For the purposes of transparency and clarity, this framework should be mapped out in a published report that describes the various components of the framework

Factors taken into consideration

5. The rationale for re-assessment of the National Statistics status of RCS comes, in part, from concerns over the assurance of underlying data used in similar statistics in other parts of the UK.
6. However, in contrast to the situation in England and Wales, the AR does not describe any evidence of data problems at the operational level in Scotland. Yet the authority cautions that this view may change depending on the results of HM Inspectorate of Constabulary in Scotland (HMICS) report. Therefore, a key factor of the FoA will be to address the findings of the HMICS report.

¹ Recorded Crime in Scotland Assessment Report paragraph 1.2.8

7. Further impetus for the assessment came from the judgement that “the creation of a single police force...represented a significant change in the crime recording landscape”². The FoA will seek to address this factor by providing evidence that the framework of inspection and regulation that surrounds Police Scotland provides sufficient assurance of the underlying data.
8. Another factor that will influence the nature of the FoA is the maturity level³ that is deemed appropriate for RCS statistics. The maturity level is determined by a public interest dimension and concern over data quality dimension. The Scottish Government shares the authority’s view that RCS statistics are of high public interest and rank in the “higher” category of the public interest dimension.
9. The ED sets out a number of example criteria that can be used to assess the level of concern over data quality. It is the Scottish Government’s view that RCS satisfies many of the criteria in the ‘lower’ category and a few from the ‘higher’ category and therefore the overall ranking for level of concern over data quality should be ‘medium’.
10. Taking the rankings for the two dimensions together and applying to the ‘data quality concern and public interest profile matrix’ give a suggested maturity level of M2 or M3. It is the Scottish Government’s view that the appropriate overall maturity level for RCS is M2. However, individual practice areas may have maturity levels at M1 or M3.
11. As the description of the FoA is primarily a tool for communication with users, it will be designed to be public facing. Therefore technical terminology and jargon will be kept to minimum to help ensure the FoA is widely accessible.

Structure and outline of report describing FoA

12. To aid transparency and clarity, a report describing the FoA will be produced. The ED describes a conceptual framework for the use of administrative data which in turn forms the basis of the Quality Assurance Matrix⁴. Given that the conceptual framework and the Quality Assurance Matrix are central to the guidance in the ED, it is appropriate that they should be used to define the structure of the description of the FoA. An outline of the section headings based on the M2 and M3 maturity levels of the Quality Assurance Matrix is given below.
13. Each section of the description of the FoA will give an overview of the assurance provided by that component of the framework. Where appropriate, links to more detailed documentation covering that component, for example the Statement of Administrative Sources, will be provided.

² Recorded Crime in Scotland Assessment Report page 1

³ The three tier system for defining the level of assurance appropriate for a particular set of statistics. The maturity level and associated concepts are explained in Part 4 of the ED.

⁴ ED Table 4.4

Table 1 Proposed section headings for description of FoA

A Operational context and administrative data collection
A.1 Description of administrative system and operational context
A.1.1 Process map explaining why data are collected, who by and how
A.1.2 Differences across areas in collections and recording of data
A.1.3 Explanations for classifications and whether data is recorded objectively or subjectively
A.1.4 Design and definition of targets
A.2 Sources of bias and error in the administrative system and implications for accuracy and quality of data
A.3 Safeguards used to minimise risks to data quality
B Communication with data suppliers
B.1 Agreements with suppliers covering:
B.1.1 Roles and responsibilities
B.1.2 Data supply process (timing, form and content)
B.2 Change management process
B.3 Security and confidentiality protection
B.4 Regular communication with suppliers
C Suppliers' QA principles, standards and checks
C.1 Suppliers' QA principles, standards (quality indicators), and checks
C.2 Review of audit and quality reports for the administrative data
C.3 Findings of data audit and investigations (including targets)
C.4 Implications of data quality for the statistics
D Producer's QA investigations and documentation
D.1 Producer QA checks on the administrative data
D.2 General approach and findings for specific quality indicators (give quantitative/qualitative findings for M3)
D.3 Comparisons with other relevant sources
D.4 Possible distortive effects of targets
D.5 Strengths and limitations of the admin data
D.6 Degree of risk to the quality of the admin data provided by the operational context and data collection approach

Populating the description of FoA for Recorded Crime in Scotland

14. A table proposing how the description of the FoA might be populated for recorded crime in Scotland data is shown in the Annex. The table shows the information that would be included under each of the section headings and identifies links between sections. Also shown is where work to meet relevant

requirements from the AR might fit in and other documents relevant to particular section.

15. There are four documents that make-up the main components of the framework:

- Operational context – This brings together all the information relating to the administrative system for collecting the data and the context in which it operates within Police Scotland
- Memorandum of Understanding (MU) and/or Service Level Agreement (SLA) – These documents set out the relationship between Police Scotland and the Scottish Government in terms of statistics production
- Statement of Administrative Sources (SoAS) – The SoAS is used to describe the audit arrangements Police Scotland has in place to give assurance that the administrative data are both validated and their accuracy verified.
- Statement of quality – This describes the Scottish Government’s judgement of the quality of the data and the implications for the use of the statistics.

Annex - Populating the description of FoA for Recorded Crime in Scotland

Section	Description	Relevant documents and assessment requirements
A Operational context and administrative data collection	This section focusses on the environment and processes of Police Scotland as the collector of the data used to produce recorded crime statistics.	
A.1 Description of administrative system and operational context	The information required by this section could be delivered in a single operational context document.	Operational context
A.1.1 Process map explaining why data are collected, who by and how	A clear process map that explains each stage of data collection, processing and quality assurance (see ISD example ED fig C4.1).	Operational context
A.1.2 Differences across areas in collections and recording of data	A description of any differences in data collection processes between different parts of Police Scotland.	Operational context
A.1.3 Explanations for classifications and whether data is recorded objectively or subjectively	A description of the definitions, classifications and codes used in recording the data, including the SG counting rules and SCRS classification system and how this has helped maintain a consistent approach to recording crime (see AR A1.4).Also consideration of objective and subjective information collection.	Operational context
A.1.4 Design and definition of targets	Description of operational targets set by Police Scotland that relate to or impact on data collection (e.g. are there differences in how the targets are interpreted across Police Scotland?) (links to D.4)	Operational context
A.2 Sources of bias and error in the administrative system and implications for accuracy and quality of data	This should include quality indicators for coverage, errors in register variables and an estimate of the rate of unreported events. (links to C.1 and D.5)	Requirement 6 and 12. Statement of quality

A.3 Safeguards used to minimise risks to data quality	Description of the safeguards Police Scotland have in place to mitigate risks to data quality. This could include internal checking and audits (links to sections C.1 and C.2).	Statement of quality
B Communication with data suppliers	This section focusses on the relationship between Police Scotland and the Scottish Government (in terms of statistics production)	
B.1 Agreements with suppliers covering:	These agreements could be in the form of a Memorandum of Understanding (MU) or Service Level Agreement (SLA) between Police Scotland and Scottish Government.	
B.1.1 Roles and responsibilities	Information about how the roles and responsibilities relating to recorded crime statistics are shared between the different stakeholders involved in their production (Police Scotland, SPA, HMICS, Scottish Government, etc.)	Requirement 7. MU/SLA
B.1.2 Data supply process (timing, form and content)	Schedule setting out the arrangements for supply of the data from Police Scotland to Scottish Government, including timing of delivery, form and description of data fields.	MU/SLA
B.2 Change management process	Documentation ensuring that statistical needs are considered when changes are being made to the administrative systems and data supply arrangements.	MU/SLA
B.3 Security and confidentiality protection	Arrangements in place to protect confidentially and ensure secure transfer and storage of data	MU/SLA
B.4 Regular communication with suppliers	Details of meetings and other arrangements that ensure communication is maintained between Police Scotland and Scottish Government.	Requirement 8
C Suppliers' QA principles, standards and checks	This section focuses on the quality assurance procedures that Police Scotland have in place	

C.1 Suppliers' QA principles, standards (quality indicators), and checks	Details of the quality assurance arrangements Police Scotland has in place. Include information on the volume and type of errors or concerns picked up and how errors or concerns are addressed (e.g. who reported to) at each stage of the data collection process.	Statement of Administrative Sources (SoAS)
C.2 Review of audit and quality reports for the administrative data	Description of the what specific audits and investigations have been conducted, how frequently and by whom. The HMICS would be covered here.	Requirements 13 and 21, SoAS
C.3 Findings of data audit and investigations (including targets)	Information on the findings of audits (e.g. by HMICS and NCR) and on actions taken to address any weaknesses identified in audit reports	Requirements 13 and 21, SoAS. Statement of quality
C.4 Implications of data quality for the statistics	An assessment of the impact of identified risks to accuracy of data and an assessment should be made of the safeguards in place to minimise risks.	Requirements 13. Statement of quality
D Producer's QA investigations and documentation		
D.1 Producer QA checks on the administrative data	Details of checks carried out by Scottish Government to verify the validity of Police Scotland data. These should consider whether the derived aggregated statistics are meaningful, and whether changes in trends and discontinuities can be explained.	SoAS. Statement of quality
D.2 General approach and findings for specific quality indicators (give quantitative/qualitative findings for M3)	Report of performance against the six ESS quality dimensions based on quality indicators (see ESS network ('ESSnet') project on administrative data)	Requirement 12. SoAS. Statement of quality
D.3 Comparisons with other relevant sources	Description of how other sources (such as the Scottish Crime and Justice Survey) are used to corroborate the quality assurance findings.	Requirement 10. SoAS. Statement of quality

D.4 Possible distortive effects of targets	As assessment by Scottish Government of the effects on recorded crime statistics of targets, including how any changes in target definitions and their implications for the statistics (Linked to section A.1.4)	Statement of quality
D.5 Strengths and limitations of the administrative data	Published, user-focussed information drawing on the Scottish Government's assessment of the Police Scotland data to identify its strengths and limitations in relation to the anticipated use of the statistics	Requirement 17. Statement of quality
D.6 Degree of risk to the quality of the admin data provided by the operational context and data collection approach	Published, user-focussed information drawing on the Scottish Government's assessment of the operational context and data collection approach by Police Scotland (as detailed in section A) that describes the risks to the quality of the administrative data. (links to all of section A)	Requirement 9 and 12. Statement of quality

