

# Draft Framework of Assurance for Recorded Crime in Scotland

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## Purpose

1. This document presents, for development and discussion, the initial draft Framework of Assurance (called the 'framework' throughout this document) to which SG will work to produce RCS statistics. This framework will be developed and finalised in collaboration with UKSA and other stakeholders.
2. The purpose of the Framework is summed up 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<sup>1</sup>

## Aim

3. The aim of this strategic framework is to provide both suppliers and users with continuous and reliable assurance around the quality and reliability of the production, use and presentation of Recorded Crime in Scotland statistics (RCS) and the nature and management of risk associated with them.
4. As the producer of RCS statistics, Scottish Government will provide users and suppliers in this framework:
  - the limitations and risks of the underlying data, and
  - assurance that the data are of sufficient quality to meet the statistics users' needs.
  - The systematic, published audit of the underlying data to increase both the quality of, and public confidence in, RCS statistics
  - Demonstrate the range of current activity to deliver the highest quality data for users in the most proportionate way.
  - Identify areas for continuous improvements activity
5. We will use the framework to obtain and provide :
  - sufficient information about the quality of the police recorded crime *data*,
  - sufficient evidence to be able to provide reassurance about the quality of the *statistics*,
  - a coherent structure for considering the quality of the underlying data at all stages,

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<sup>1</sup> ED paragraph 1.8

- Clear descriptions and explanations of any potential limitations of the recorded crime statistics,
- A coherent structure to identify areas for continuous improvement activity.

## **Introduction**

6. RCS statistics are of significant interest and importance to a range of users including Police Scotland, Scottish Police Authority, policymakers, academics and the wider public. Users lie at the core of the framework.
7. The framework provides a clear map of the assurance that is carried out at all stages of the statistical process, including the design and the data compilation stage. It will bring together the producers and suppliers quality assurance checks and produce a coherent landscape of data collection, assurance and production. It will thus produce a shared picture of quality assurance between producers, and a shared view of areas for continuous improvements, which will be communicated to users.
8. This Framework will be subject to ongoing change and review in order to ensure it remains both up-to-date and fit for purpose, It is also expected to change in response to key inputs e.g. findings from the results of HM Inspectorate of Constabulary in Scotland (HMICS) report due in October/November 2014.
9. The framework contains the assurance that is carried out at all stages of the statistical process, including the design and the data compilation stage. It covers the quality checks that are carried out on the data and will explain to users how these affect the final statistics. This will help Scottish Government, as statistical producers, to communicate to user's the quality assurance applied to administrative data for statistical purposes and to support their correct application in analysis.
10. The framework covers how we recognise and deal with the inherent challenges in the recorded crime system, such as the effect of definitions changing over time and potential biases.
11. The Framework considers all activities that provide confidence that the underlying data and the statistics produced from fulfil strict and robust quality requirements. For the purposes of transparency and clarity, this framework will be described in a published report.

## **Background**

12. On 31 July 2014, the UK Statistics Authority published an Exposure Draft Report 'Quality Assurance and Audit Arrangements for Administrative Data' (ED)<sup>2</sup>. In

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<sup>2</sup> Quality Assurance and Audit Arrangements for Administrative Data - Exposure draft - <http://www.statisticsauthority.gov.uk/assessment/monitoring/administrative-data-and-official-statistics/index.html>

this, the UKSA proposed a new conceptual approach that they expect statistical producers to take in using administrative data; and a clearer guide to how producers use them to make related key judgments.

13. In Scottish Government we have worked to robust and stringent quality standards and practices, but have taken this opportunity to adopt the UKSA guidance, building our existing quality practices and information into this structured framework and describing how we will maintain and improve our good practice.
14. In considering this framework we have also taken the UK Statistics Authority Assessment Report (AR) on Recorded Crime in Scotland into consideration<sup>3</sup>. This stipulated that the Scottish Government should produce a “coherent framework of assurance”<sup>4</sup>.
15. RCS data is sourced from administrative data, which is a by-product of administrative systems developed primarily for operational purposes, i.e. it is not collected primarily for statistical purposes. Using it for the production of official statistics is an efficient means of collating data while reducing costs to the statistical producers and to others.
16. Using the ‘Maturity matrix’ in the ED, RCS statistics have been initially assessed by Scottish Government as being **maturity level 3**, i.e. statistics of high data quality concern and high public interest. The reasons for deciding on this level are explained in Appendix A. However, UKSA did not express strong concerns around quality in Scotland<sup>5</sup>, and in future reviews, and after the implementation of the framework and the introduction of updated data collection systems in Police Scotland (PS), we will review the maturity level
17. For the moment, the consequence of the M3 risk level is that, as the statistical producer, Scottish Government carry out all proportionate mitigating activities to reduce the risk that this implies.

## **Structure and outline of the framework**

18. The structure of the framework contains the sections as shown below and proposed in the ED. The contents and deliverable products of these sections are shown in more detail in Table 1 on page 6 of this document.

### **Operational context and administrative data collection**

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<sup>3</sup> Assessment of compliance with the Code of Practice for Official Statistics, Assessment Report 288 July 2014, Statistics on Recorded Crime in Scotland (AR) - <http://www.statisticsauthority.gov.uk/assessment/monitoring/administrative-data-and-official-statistics/index.html>

<sup>4</sup> AR paragraph 1.2.3

<sup>5</sup> AR page 1, “In Scotland, there is less direct evidence of data problems at the operational level, although this view may change depending on the results of the forthcoming Her Majesty’s Inspectorate of Constabulary in Scotland (HMICS) report.”

As statistical producers, we will demonstrate and describe for users how we understand the environment and processes in which Recorded Crime in Scotland data are compiled and the factors which might affect the quality of the data. This will include, for example, the effects of targets and performance management regimes, and the information governance arrangements. We will describe, identifying definitions, classifications and codes used in recording the data, any variations across data suppliers; and whether items are objective or also include subjective information. The ways in which these risks are mitigated (i.e. the safeguards) will be identified and their effectiveness evaluated.

A process map will help all stakeholders to identify and understand the risks and also to help develop safeguards.

### **Communication with data suppliers**

The framework demonstrates how Scottish Government will maintain and develop strong and effective relationships with Police Scotland and SPA as data suppliers and how we formalise the working relationships in written agreements (a service level agreement and memorandum of understanding). The framework also shows how we communicate change management processes, and how we ensure that statistical needs are considered when changes are being made to systems and data supply arrangements. It provides the clarity and structure to enable us to maintain a good understanding of the approaches adopted by PS and SPA to ensure consistency in recording and quality levels.

### **Suppliers' quality assurance principles, standards and quality checks**

The framework will ensure that we describe the validation checks that are conducted by the PS and SPA, and the results of the checks and will set out how all players will act on the results to ensure continuous improvement of the statistics. PS and SPA systems will also be inspected by HMICS and potentially other independent auditors. These audits and their outcomes will be identified and acted upon. A supplier may have established its own quality assurance plans or guidelines to determine what it regards as acceptable data quality. It may also have undertaken actions to address weaknesses and conducted or commissioned investigations to assess compliance with quality standards. We will clearly set out any steps taken to determine the accuracy of the data, that is, the closeness of computations or estimates to the true values, as well as its validity.

### **The producer's quality assurance investigations and documentation**

Scottish Government conduct our own quality assurance and this activity, outputs and consequences will be required and signposted by the framework. However, since the checks cannot, by themselves, verify the accuracy of the RCS data, we will also work with partners to obtain additional information. We will corroborate quality assurance findings against data from other sources, such as the Scottish Crime and Justice Survey, and in the framework we will require details of the checks that are carried out. As with the suppliers' quality assurance checks, we will also review any investigations undertaken by, or on behalf of, external bodies such as HMICS or Audit Scotland.

The framework will set out how the findings from the Scottish Government's quality assurance checks will be supplemented by the knowledge gained through reviewing the other practice areas outlined above, to inform a published statement that sets out the basis of the producer's judgment about the quality of the administrative data.

## Content of the Framework

Area Of The Framework	Current Activity	Main Limitations to be aware of.	Main Risks	Mitigating Action For These Risks;	Areas For Continuous Improvement.
<b>A: Operational context and administrative data collection</b>	This section focusses on the environment and processes of Police Scotland as the collector of the data used to produce recorded crime statistics.				
<b>A1.</b> Detailed description of administrative system and operational context: <ul style="list-style-type: none"> <li>- why the data are collected, who by and how</li> <li>- the differences across areas in collection and recording of the data</li> <li>- the issues with individual data items - whether objective or based on subjective recording</li> <li>- the issues in</li> </ul>					

Area Of The Framework	Current Activity	Main Limitations to be aware of.	Main Risks	Mitigating Action For These Risks;	Areas For Continuous Improvement.
design, definition of targets					
<b>A2.</b> Detailed and specific description of the implications for accuracy and quality of the data					
<b>A3.</b> Safeguards used to minimise the risks to data quality					
<b>B: Communication with data suppliers</b>	<b><i>This section focusses on the relationship between Police Scotland and the Scottish Government (in terms of statistics production)</i></b>				
<b>B1.</b> Establish/maintain cooperative relationship					
<b>B2.</b> Written agreement specifying: <ul style="list-style-type: none"> <li>- roles and responsibilities,</li> <li>- data supply process,</li> <li>- schedule,</li> <li>- content specification</li> </ul>					
<b>B3.</b> Establish change management process;					

Area Of The Framework	Current Activity	Main Limitations to be aware of.	Main Risks	Mitigating Action For These Risks;	Areas For Continuous Improvement.
<b>B4.</b> Communicate regularly, e.g. through meetings, newsletters, conferences					
- Attend data supplier group meetings					
- Secondments					
<b>C: Suppliers' QA principles, standards and checks</b>	<b><i>This section focuses on the quality assurance procedures that Police Scotland have in place</i></b>				
<b>C1.</b> Describe the data suppliers' principles, standards (quality indicators) and quality checks;					
<b>C2.</b> Identify and review quality reports for the data;					
<b>C3.</b> Identify and document the findings of investigations and audits conducted on the admin data and associated targets					
<b>C4.</b> Describe the implications for the statistics and data					



Area Of The Framework	Current Activity	Main Limitations to be aware of.	Main Risks	Mitigating Action For These Risks;	Areas For Continuous Improvement.
collection approach					
<b><i>D: Producer's QA investigations and documentation</i></b>	<b><i>Producer's checks to consider whether the derived aggregated statistics are meaningful and seem correct</i></b>				
<b>D1.</b> Provide a detailed description of own QA checks on the admin data,					
<b>D2.</b> Give quantitative (and where appropriate qualitative) findings for specific quality indicators;					
<b>D3.</b> Undertake comparisons with other relevant data sources (such as survey or other admin data);					
<b>D4.</b> Identify possible distortive effects of targets					
<b>D5.</b> Identify the strengths and limitations of the admin data and any constraints on use for producing statistics;					
<b>D6.</b> Explain the likely					

<b>Area Of The Framework</b>	<b>Current Activity</b>	<b>Main Limitations to be aware of.</b>	<b>Main Risks</b>	<b>Mitigating Action For These Risks;</b>	<b>Areas For Continuous Improvement.</b>
degree of risk to the quality of the admin data provided by the operational context and data collection approach.					

## **Conclusion**

19. Once the framework is fully developed and agreed, all stakeholders in the RCS arena can be confident that quality assurance and audit has been completed. While it is accepted that no dataset will be perfect, we will be able to demonstrate that all that all proportionate activity has been undertaken and that users are aware of risks and limitations of the data. We can use the framework to review activity and ensure we are achieving continuous improvement

# Appendix A – Maturity Level

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20. This section describe the analysis behind the decision to set the maturity level<sup>6</sup> of RCS as M3.
21. The maturity level fundamentally influences the nature of the activities required in the FoA. Generating the maturity level is described in Part 4 of the ED. The level is determined by considering the public interest profile of the statistics and the degree of concern about the data quality.
22. RCS statistics are of high public interest and rank in the “higher” category of the public interest dimension.
23. In terms of the data quality dimension, UKSA have noted that “in Scotland, there is less direct evidence of data problems at the operational level<sup>7</sup>”, and so the *data quality* concerns may be considered to be medium level. Nonetheless, in the current climate of concern around police recorded data throughout the UK, for the purposes of this FoA, they have been rated as higher level of concern.
24. Taking these rankings for the two dimensions together and applying to the ‘data quality concern and public interest profile matrix’ give an initial suggested maturity level of M3. However, individual practice areas may have maturity levels at M1, M2 or M3.
25. Given the UKSA lower levels of concern around data quality in Scotland, and the improvements that are planned through the application of the FoA, it is the Scottish Government’s view that the longer-term appropriate maturity level for RCS is M2. It will be valuable to monitor the situation in coming years and potentially the maturity matrix could be changed to M2.

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<sup>6</sup> 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.

<sup>7</sup> UKSA AR

## Appendix B - Glossary

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AR	UKSA Recorded Crime in Scotland Assessment Report	<a href="http://www.statisticsauthority.gov.uk/assessment/monitoring/administrative-data-and-official-statistics/index.html">http://www.statisticsauthority.gov.uk/assessment/monitoring/administrative-data-and-official-statistics/index.html</a>
ED	Exposure Draft on Quality Assurance and Audit Arrangements for Administrative Datasets	<a href="http://www.statisticsauthority.gov.uk/assessment/monitoring/administrative-data-and-official-statistics/index.html">http://www.statisticsauthority.gov.uk/assessment/monitoring/administrative-data-and-official-statistics/index.html</a>
ESS Net	Quality Assurance Framework of the European Statistical System	<a href="http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/QAF_2012/EN/QAF_2012-EN.PDF">http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/QAF_2012/EN/QAF_2012-EN.PDF</a>
FoA or 'the framework'	Framework of Assurance	
HMICS	HM Inspectorate of Constabulary in Scotland	
JAS	Justice Analytical Service (of Scottish Government)	
MoU	Memorandum of Understanding	
OCSP	Office of the Chief Statistician and Performance	
PS	Police Scotland	
RCS	Recorded Crime in Scotland	
SCRS	Scottish Crime Recording Standards	
SCJS	Scottish Crime and Justice Survey	
SG	Scottish Government	
SLA	Service Level Agreement	
SoAS	Statement of Administrative Sources	
SPA	Scottish Police Authority	
UKSA	UK Statistics Authority	<a href="http://www.statisticsauthority.gov.uk/">http://www.statisticsauthority.gov.uk/</a>