

Revenue Scotland

Data Analysis Strategy

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1. Introduction

Revenue Scotland's Purpose is to efficiently and effectively collect and manage the devolved taxes which fund public services for the benefit of the people of Scotland.

Effective analysis, use and provision of data is a key element of delivering Revenue Scotland's Purpose, and this document sets out our Data Analysis Strategy which supports delivery of the Revenue Scotland Corporate Plan 2018-2021. The Data Analysis Strategy is underpinned annually by a Statistics and Management Information team plan, the key deliverables of which are reflected in the annual business plan.

Data collection and analysis by Revenue Scotland relate directly to its operation as a tax authority, and collection methods aim to allow subsequent analysis to be carried out efficiently.

2. Scope of Data Analysis Strategy

2.1 The Objective

Provide a cost effective and high quality data provision and analysis service to internal and external customers, making best use of Revenue Scotland's resources and data.

2.2 Principles

High level principles that underpin the strategy:

- Taxpayer Confidentiality
- Adam Smith Principles
- Code of Practice for Official Statistics
- Open Government
- Value for Money

2.3 Building expertise

Provision of the analysis service requires the appropriate:

- Analytical (and wider) skills; and
- Staffing level.

The head of the Statistics and Management Information branch is responsible for determining the skill sets required for posts within the branch and agreeing this, and the appropriate staffing level, with the Senior Leadership Team.

For statistical staff, Revenue Scotland is expected to continue to take part in recruitment and managed move exercises co-ordinated by the Scottish Government's Chief Statistician. Staff also have the benefit of developing analytical skills through the training available as part of the Scottish Government Statistician Group.

2.4 Data assets

Analysis may be performed on a number of different datasets. The key datasets are listed below, split into those where Revenue Scotland is the data owner (internal) and those where another organisation is the data owner (external).

2.4.1 Internal data sources

- Scottish Electronic Tax System (SETS)
- SETS Management Information Databases
- Rostrvm call handling system
- Internal manual records (e.g. email trackers)

2.4.2 External data sources

The following external data sources provide information relevant to Revenue Scotland's operations:

- Scottish Government Accounting System – SEAS (administered by Scottish Government but relevant data can be accessed by Revenue Scotland)
- Registers of Scotland administrative data
- SEPA waste data
- HMRC data: Landfill Tax; and Stamp Duty Land Tax

External datasets are often linked or compared by Revenue Scotland to internal datasets, and are used for various purposes including reconciliation of accounts and other financial reports; compliance checks and statistical quality assurance.

2.4.3 Storage of analysis results

The results of analysis (e.g. data extracted from the SETS Management Information databases) are stored in the following secure areas:

- eRDM (electronic Record and Document Management system);
- Revenue Scotland restricted area of the SAS server;
- Revenue Scotland restricted section of datashare (s0429a) area;
- Revenue Scotland restricted area of shared (G:\) drive.

2.4.4 Metadata

Clear descriptions of the contents of datasets (e.g. SETS Data Dictionary) should be maintained to aid efficient analysis and minimise the risk of misunderstandings, and hence errors.

2.5 Analytical software tools

Analytical staff should have access to appropriate software to allow efficient interrogation of databases, and subsequent analysis. Currently the software tools identified are:

- Oracle Discoverer
- SAS; including SAS Visual Analytics
- Excel

In addition to those listed above, other tools should be considered/evaluated where they might provide benefits – for example, the Scottish Government’s planned replacement for Oracle Discoverer.

Where appropriate, access to these tools, and training, should be provided to other Revenue Scotland members of staff – for example, to allow operations colleagues to run daily reports.

2.6 Engagement with data users to understand requirements

To provide a cost effective and high quality data provision and analysis service, it is essential to understand the requirements of data customers, and gain an understanding of why they need the data / analysis that they have requested. Although not exhaustive, the following methods of engagement are used by Revenue Scotland analysts.

2.6.1 Internal data users

- Direct requests;
- Data meetings with Finance colleagues;
- Data meetings with Tax colleagues;
- Participation in Project Teams to gather requirements.

2.6.2 External data users

- Direct requests;
- Scottish Economic Statistics Consultation Group (SESCG) meetings and wider use of the ScotStat network;
- Statistics User Events (e.g. Revenue Scotland Statistics User Day);
- Scottish Government - meetings and other communication;
- Scottish Fiscal Commission - meetings and other communication (based on agreed Memorandum of Understanding);
- Office for Budget Responsibility (OBR) – meetings / correspondence.

2.6.3 Managing stakeholder expectations

Given the resources available, it will not be possible to meet all the data needs of our customers, but we aim to work with them to agree prioritisation. In order to manage expectations, clear communication and dialogue with stakeholders is required to:

- understand the purpose, and importance to stakeholders, of specific data requests;
- communicate the constraints that may affect Revenue Scotland's ability to deliver all their data needs, and reach agreement on the data that Revenue Scotland can reasonably provide;
- explain any decisions relating to Freedom of Information requests.

2.7 Prioritisation of data requests

Since Revenue Scotland started collecting tax in April 2015, the demand for data relating to the devolved taxes has grown. Hence, we have developed procedures for managing requests for data, and guidelines for assessing competing priorities (both internal and external).

Currently we prioritise:

- Internal data requests where there is a clear operational need;

- External data requests where there is a statutory right of access to relevant information (e.g. Scottish Government, Scottish Fiscal Commission, Office for Budget Responsibility).

Where there is clear and regular demand for specific data, we look to add this to existing statistical publications to make it available to all users. For example, Revenue Scotland expanded its Land and Buildings Transaction Tax publication to include data by tax band in response to demand from data customers.

2.8 Publications

2.8.1 Official Statistics

Revenue Scotland currently publishes the following Official Statistics outputs:

- monthly statistics on Land and Building Transaction Tax (LBTT);
- quarterly statistics on Scottish Landfill Tax (SLfT); and
- an Annual Summary of Trends in the Devolved Taxes.

These statistical outputs are produced and published in line with the Code of Practice for Official Statistics and using clearly documented definitions and procedures.

2.8.2 Key Performance Indicators

Key Performance Indicators (KPIs) are defined in the Revenue Scotland Corporate Plan. All KPIs are monitored by Revenue Scotland throughout the year and performance against these indicators is published in the Revenue Scotland Annual Report and Accounts.

2.8.3 Datasets

There is considerable external interest in accessing detailed data held by Revenue Scotland. Any access to (or publication of) datasets has to be clearly evaluated by Revenue Scotland taking into account a number of factors, including:

- protection of taxpayer information;
- Revenue Scotland resources required; and
- benefit to external users.

Within the limits of maintaining tax payer confidentiality, and the resources available to the organisation, Revenue Scotland will aim to make its data freely available to external users in support of the principles of open government. For example, all statistical publications are provided in Excel format, with the option to request the data in .csv format, and much of the Official Statistics data is made available in Open Data format via the statistics.gov.scot website.

2.8.4 Responses to external data requests

Where an external data request has been met (subject to the condition that taxpayer information remains protected), and there may be wider interest in these data, the data is made available on the Revenue Scotland website.

2.8.5 Statistical Disclosure Control

To protect taxpayer information, Disclosure Control checks are carried out on published statistics, and data requests for external customers. The head of the Statistics and Management Information branch is responsible for determining appropriate Disclosure Control methods and these are implemented by member of the Statistics and Management Information branch following documented procedures. For example, Revenue Scotland data are published at aggregate level, and these aggregated data are generally rounded (e.g. to the nearest 10 transactions and nearest £100,000 of tax).

2.9 Revisions and corrections policy for Official Statistics

Changes to published Official Statistics on the devolved taxes produced by Revenue Scotland can occur for two reasons:

- a) Revisions – where further information becomes available, and is reflected in future publications. For example, where the taxpayer amends or voids a tax return. This is most obvious for the Land and Buildings Transaction Tax (LBTT) Additional Dwelling Supplement (ADS) where taxpayers have 18 months to sell their previous main residence and reclaim the ADS they had paid at the time of the original transaction.
- b) Corrections – where an incorrect number, or passage of text, is identified and then corrected in the publication concerned. For example, where an error in statistical calculations, or processing, results in an incorrect figure for tax declared due.

As per the Code of Practice for Official Statistics, scheduled revisions or unscheduled corrections to the statistics should be released as soon as practicable, and the changes should be handled transparently in line with a published policy. Changes should be explained alongside the statistics, being clear on the scale, nature, cause and impact.

The purpose of this section is to make it clear to users of Revenue Scotland's statistics how revisions and corrections are handled.

2.9.1 General revisions and corrections policy

For Revenue Scotland, the role of statistical “Head of Profession” is fulfilled by the Scottish Government’s Chief Statistician and Revenue Scotland adheres to the Scottish Government’s published [Revisions and Corrections Policy](#). As part of that policy, topic areas are expected to publish revisions policies for their specific statistical products, and that is provided for Revenue Scotland’s devolved taxes publications in the sub-sections, below. Also included (section 2.9.5) is a summary of the Corrections Policy.

2.9.2 Revisions policy for LBTT statistics

Revenue Scotland publishes LBTT statistics based on the month the original tax return was received and statistics may be subject to revision where the tax position changes at a later date. There are various reasons this may occur including:

- A taxpayer may revise their tax return (within 12 months of the filing date).
- A taxpayer may void (‘disregard’) their tax return.
- A taxpayer may be eligible to reclaim Additional Dwelling Supplement (ADS) if they initially paid ADS but subsequently sell their previous main residence within 18 months of the effective date of the original transaction.
- The tax position may be changed as a result of an enquiry by Revenue Scotland. Enquiries must be opened and concluded within three years of the filing date or the date the tax return was submitted if after the filing date.
- The tax position may be changed as a result of assessments carried out by Revenue Scotland. In general assessment must be issued with 5 years of the relevant date but can be issued up to twenty years after the filing date in some circumstances.

Analysis of Revenue Scotland’s first 4 years of operation indicate that the main reason for changes to LBTT statistics is due to the reclaim of ADS. The analysis also shows that changes after a period of 2 years have been very rare, with a negligible effect on the published statistics.

Taking this into account, Revenue Scotland will **finalise LBTT statistics for a particular financial year 2 years after the end of the year in question.**

For example, LBTT statistics for 2016-17 will not be subject to revisions after 31 March 2019.

2.9.3 Revisions policy for SLfT statistics

Revenue Scotland publishes quarterly SLfT statistics. Publications are based on the financial quarter to which the tax return relates. There are various reasons why revisions to these statistics may occur including:

- A taxpayer may revise their tax return (within 12 months of the filing date).
- A taxpayer may void ('disregard') their tax return.
- The tax position may be changed as a result of an enquiry by Revenue Scotland. Enquiries must be opened and concluded within three years of the filing date or the date the tax return was submitted if after the filing date.
- The tax position may be changed as a result of assessments carried out by Revenue Scotland.

Revisions to SLfT tax returns within 12 months of the filing date are relatively common and can include increases or decreases (or no change) to the tax position. Revenue Scotland will revise statistics within this 12 month period.

Over 12 months from the filing date, revisions to amounts of SLfT due are far less common, but may be significant in terms of the overall tax revenue for a quarter, and are typically the result of Revenue Scotland enquiries or assessments. Although the tax returns are amended as a result of enquiries, there are potential Statistical Disclosure issues relating to the publication of statistics based on these amendments. For example, if an enquiry for a specific operator results in a significant change dating back 3 years, the revision to the published statistics will potentially reveal information about that enquiry. Enquiries may also be subject to tribunal appeals where the Revenue Scotland decisions may be upheld or revised (in which case the tax return would change again). Completion of this process may take several years.

As well as enquiries, Revenue Scotland can issue assessments. Unlike enquiries, assessments can include a change to the tax position that is not accompanied by a change to the tax return. Hence, the information held in SETS will not match the tax position, or provide any revised additional information (e.g. waste tonnages and contributions to the Scottish Landfill Communities Fund). Similar to enquiries, assessments may be subject to appeal, and arriving at the final tax position may take several years.

Given the data issues and disclosure control issues discussed above, Revenue Scotland will **finalise SLfT statistics 12 months after the filing date** for the quarter in question.

2.9.4 Differences between reporting of statistics and accounts

If the tax position for a transaction changes after the statistics have been finalised, the statistics will not change but the revenue change will still be reflected in Revenue Scotland's Annual Report and Financial Statements (which is prepared in compliance with the requirements of the Government Financial Reporting Manual - FRoM).

Also, in some cases (notably LBTT ADS reclaims), statistics for earlier months can be significantly revised for up to 2 years, whereas accounts are generally closed at 31 May of each year. Hence, where a change in tax position is received before statistics are finalised, the impact of the revision is reflected in the accounts for the current year, whereas the change is reflected in a revision to the statistics for the original year of the transaction.

To aid data users, Revenue Scotland's annual statistics publication (Summary of Trends in the Devolved Taxes) includes explanation of the differences in basis for the statistics and the accounts.

2.9.5 Corrections policy

Errors can seriously undermine trust in statistics, hence systems and statistical processes should be designed to minimise the risk of errors occurring. Where an error does occur, the Revenue Scotland corrections policy (which is in line with the corresponding Scottish Government Statistician Group policy), is followed.

The approach to correcting errors depends on the severity of the mistake.

When deciding on the severity of the error, various factors should be considered, including:

- the size of the mistake, particularly relative to any stated levels of accuracy
- the importance of the statistic e.g. is it a key headline figure or a more minor part of the statistical publication?
- The consequences of the error – does it alter the main message of the statistics or any likely use?

Although each case is treated on its own merits, errors can broadly be categorised as shown in the table, below, which also shows the corresponding actions that should be taken. Categorisation of the error is the responsibility of the Revenue Scotland statistical "Lead Official" who may in certain circumstances choose to consult the Chief Statistician for Scotland for advice.

Severity of error	Actions
Minor	<ul style="list-style-type: none"> • Correct publication as soon as possible • Add text to the publication describing the correction • Make previous version available in archive • Review statistical production processes and amend where required
Medium	<ul style="list-style-type: none"> • Correct publication as soon as possible • Add text to the publication describing the correction • Make previous version available in archive • Review statistical production processes and amend where required • Notify users through appropriate communications channels
Severe	<ul style="list-style-type: none"> • Correct publication as soon as possible • Add text to the publication describing the correction • Make previous version available in archive • Review statistical production processes and amend where required • Notify users through appropriate communications channels • Publish an explanation of the cause of the error and countermeasures taken

2.10 Continuous improvement

As part of continuous improvement, Revenue Scotland aims to:

- Improve data quality (e.g. Quality Assurance procedures; introduction of appropriate data input controls, etc.);
- Make statistical and management information procedures more efficient (e.g. through automation of reports and publication tables);
- Improve the usefulness to stakeholders of our statistics and analysis – for example by publishing additional information (based on feedback from data customers) and improving the presentation of statistics.
- Each year, we intend to publish an annual plan of proposed improvements based on feedback from our data customers (within existing resource constraints).

3. Professional statistics

3.1 Code of Practice for Official Statistics

The UK Code of Practice for Official Statistics (Edition 2.0) was published in December 2017 by the UK Statistics Authority, as required by the Statistics and Registration Service Act 2007. The Code of Practice sets out common standards that should be followed by all UK organisations that produce Official Statistics and covers:

Trustworthiness

- Honesty and integrity
- Independent decision making and leadership
- Orderly release
- Transparent processes and management
- Professional capability
- Data governance

Quality

- Suitable data sources
- Sound methods
- Assured quality

Value

- Relevance to users
- Accessibility
- Clarity and insight
- Innovation and improvement
- Efficiency and proportionality

As part of the Scottish Administration, Revenue Scotland publishes statistics as “Official Statistics”, and follows the principles set out in the Code of Practice for Official Statistics.

In future, Revenue Scotland may seek to have specific statistical products assessed by the UK Statistics Authority for “National Statistics” designation.

Relevant Eurostat requirements are expected to be met at the UK level by the Office for National Statistics. Where applicable, Revenue Scotland will work with the Office for National Statistics to ensure relevant Eurostat requirements are met.

3.2 Engagement with UK Statistics Authority and Chief Statistician

For Non-Ministerial Departments and Arm's-Length Bodies with small numbers of statistical staff, engagement with the UK statistical system is typically via the Government Statistical Service (GSS) Head of Profession of an appropriate department.

For Revenue Scotland the statistical "Lead Official" is the head of the Statistics and Management Information branch at Revenue Scotland, and the role of "Head of Profession" is fulfilled by the Chief Statistician for Scotland.

The Lead Official is responsible for the production of statistical outputs (and compliance with the Code of Practice for Official Statistics and statistical legislation) in Revenue Scotland.

The Head of Profession is responsible for: providing professional guidance and support, where required, on all Official Statistics matters; and acting as the focal point for communication between the National Statistician, the UK Statistics Authority, the Government Statistical Service and Revenue Scotland.

4. Out of Scope - Data Security / Records Management

Data Security and Records Management has not been included in the scope of the Data Analysis Strategy.