



SCOTTISH  
FIRE AND RESCUE SERVICE

Working together for a safer Scotland

# Guidance Notes

## Fire Safety and Organisational Statistics

# 2021-22

An Official Statistics  
publication for Scotland

31 August 2022

Working together for a safer Scotland

# Notes on statistics used in this publication

## Introduction

We publish our annual Fire Safety and Organisational statistics commentary in the main bulletin and our tables in a [downloadable workbook](#).

These notes cover the statistics presented in both documents.

Since the formation of the Scottish Fire and Rescue Service in April 2013 significant changes have taken place to the administrative systems used to record SFRS staffing, fleet information, home fire safety visits, and fire safety activity.

In general, the published statistics at Scotland level are comparable over time, but system changes undertaken since 2013-14 may give rise to some uncertainties if the data is used for long-term comparisons at local-authority level.

Statistics published in this series have been reviewed over the last few years. This has resulted in the introduction of a number of experimental statistics and the withdrawal of statistics which are no longer fit for purpose.

We have been modernising our Extract, Transform and Load (ETL) procedures to streamline statistics production and reduce the chance of human error. This will continue over the next year.

## Consultation and engagement

Currently we send out notifications to those who may use our statistics through the ScotStat service and through internal communication channels in Scottish Fire and Rescue Service. We are looking at other methods of user engagement, including the use of our website to provide news and notifications for our statistics.

We are committed to improving access to our statistics and aim to provide means to keep up to date in the next year.

## Official Statistics

The statistics in this series are now reclassified as 'Official Statistics'. SFRS were named as Producers of Official Statistics in 2019 and so are now able to assign this designation to our statistical series.

This publication formerly published by the Scottish Government and was classed as Official Statistics for that period.

This classification requires that the statistics are produced in compliance with the Code of Practice for Statistics. We had been voluntarily complying with the Code for each publication.

## Reporting Structure

The statistics we publish are grouped into four geographical reporting levels:

- **National (All Scotland)**
- **Service Delivery Areas (East, West and North)**
- **Local Senior Officer Areas (14 areas)**
- **Councils (32 areas)**

We now publish the GSS codes alongside geographic areas. Please note that as geographic boundaries are updated, codes are archived and replaced.

The appropriate codes for each section are based on the geographical boundaries which are in place in that system.

For example fire safety tables are using the 2013 Scottish wards and have the associated GSS codes.

The Reporting Structure table has the most up to date boundaries and associated codes.

Please note that in 2019 two LSO areas were merged to form a new administrative area 'Stirling, Clackmannanshire and Fife'.

In 2021, the two areas of 'Aberdeen City' and 'Aberdeenshire and Moray' merged to form 'Aberdeen City, Aberdeenshire and Moray'. Also, the two areas of 'North Lanarkshire' and 'South Lanarkshire' merged to form 'Lanarkshire'.

In the Reporting Structure section of the Tables and Charts Workbook, we have included additional columns to report the formal LSO areas with GSS codes, as well as the current administrative structure.

## Fire Stations

The data for these statistics comes from the SFRS Estates Management database.

Fire Stations are reported in two ways, according to the primary crewing type at that station (which continues the historic series), and according to the crewing model used.

### Primary Crewing Type

For the primary crewing type, we aggregate from six categories into four for publishing these statistics. The four primary crewing type categories used in these statistics are:

- **Wholetime Station** – this kind of station primarily houses vehicles which are crewed by wholetime operational staff and is staffed 24 hours a day.
- **Retained Duty System (RDS) Station** – this kind of station primarily houses vehicles crewed by retained staff who are contracted to be available at agreed periods of time but are typically not in the station during these hours.
- **Volunteer Station** – this kind of station primarily houses vehicles crewed by people who volunteer their time in a fire-fighting capacity. They tend to be in small rural communities, where the number of incidents are low.
- **Day-Crewed Station** – this kind of station is crewed by wholetime operational staff during the day from Monday to Friday, and by retained staff at night and weekends. There are no fully Day-Crewed stations in Scotland.

The two further categories used by SFRS are:

- **Wholetime/RDS Station** – this kind of station has appliances crewed by Wholetime staff and other appliances crewed by Retained duty staff. Under the CIPFA definitions these stations are counted as wholetime in the published statistics.

- **Community Response Unit (CRU)** – these are counted as Volunteer Stations in the published statistics. The CRU stations were part of the former Highlands and Islands Fire and Rescue Service.
- When SFRS was formed in April 2013 the CRU station type was retained by SFRS to differentiate the Volunteer stations in the North Service Delivery Area from those in the West and East.

### Crewing Model

The crewing model categories go beyond the four primary crewing types defined above to include other crewing types in the station.

Community Response Units are included in Volunteer stations as described above, however Wholetime/RDS stations are counted separately to wholetime and while there is no fully day-crewed station there is a station with day crewing as a secondary crewing type. The five categories we publish are:

- Wholetime Only
- Wholetime and Retained
- Wholetime and Day
- Retained Only
- Volunteer

### Counting rules

Following the user consultation in 2019, we re-included Gordonstoun Volunteer Fire Station in these statistics. We have backdated to ensure the annual totals are comparable.

### Dataset

We have also included details of whether there is a technical or specialist capability there, please see the Station Capabilities table in the Table and Charts Workbook for details of what is included in each category.

# Fire and Rescue Vehicles

## Administrative data and process

The data for these statistics comes from the SFRS National Fleet and Equipment Recording System. An extract of fleet data is taken as near to the end of the financial year as possible for these statistics.

New vehicles are added to the system by fleet staff at a national level while changes to the status and location of vehicles are recorded by the responsible SFRS workshop. As this is a live administrative system used for the maintenance of the fleet and equipment, changes to categories on the live system as a result of ongoing quality improvements requires manual allocation into the categories and totals we publish in these statistics.

Additional quality assurance is completed before publication by the responsible statistician. This entails comparisons with historic datasets to ensure changes are correctly captured and categorised, as well as ensuring historic data quality issues are consistently addressed.

## Categories

For comparability of Vehicle data across the UK we publish in accordance with CIPFA recommendations. These recommendations changed for 2017-18 and so we have amended the tables in our publication.

As we could not forewarn users about this change in 2017-18 we included the previous format also. To preserve the historical series and simplify the interpretation of fleet statistics we have now merged the two table formats.

The vehicle categories used are as follows:

- **Pumping Appliances** – vehicles over 4,500kg which can pump water and are operated by four or more personnel
- **Aerial Appliances** - vehicles with a high reach ladder or rescue cage
- **Other Appliances:**
  - **Fire Boats** - boats used for fighting fires and other water rescue assets
  - **Vehicles for Rescue Work** - vehicles with a light chassis which are used operationally for rescue
  - **Small Firefighting Vehicles** – vehicles used operationally for firefighting but which don't meet the definition of pumping appliance due to weight or number of personnel
- **Other**
  - **Resilience Appliances** - vehicles specifically designed for the largest and most severe incidents such as chemical incidents
  - **Officer Response Vehicles** - vehicles provided for officer response to incidents
  - **Reserve Appliances** - vehicles in an appliance category which are held in reserve
  - **Training Appliances** - vehicles in an appliance category which are used for training
  - **Non-Operational Vehicles** – all other vehicles in the fleet

## Counting Rules

We do not count the following vehicle groups:

- New and not yet operational vehicles
- Decommissioned vehicles
- Vehicles with a Statutory Off Road Notice
- Vehicles which are destroyed and used for demonstration or training purposes

## Retrospective Changes

For practical reasons it is not possible to apply changes in categorisation retrospectively. Accordingly, we cannot provide counts of Officer Response Vehicles or Other Vehicles for previous years.

The inclusion of a Tractor category in the CIPFA guidance for counting vehicles has resulted in a small change to the total number of vehicles recorded for previous years, adding 1 to the total for 2017-18 in the current publication. It has only been possible to backdate this change to 2016-17.

## Fleet summaries at Local Authority level

We provide a Local Authority breakdown of SFRS operational vehicles. Officer Response Vehicles, Fire Boats and Non-Operational Vehicles are not provided at Local Authority level, as the vehicle's location is only loosely related to subsequent usage by local authority area.

The officers who use these vehicles provide response cover for an area extending beyond individual Local Authority boundaries in most cases, and it would be misleading to report counts of such vehicles by Local Authority area when that is not a relevant distinction to apply. Similarly, Reserve and Training Appliances are not reported at Local Authority level as they are available to a larger area.

## Quality Issues

Please note that the SFRS Fleet database is maintained for the purpose of managing the lifecycle and maintenance of vehicles, and while data on the usage of vehicles is included, there are known issues in this area.

Reserve Appliances are maintained to relieve Operational Appliances when necessary and can do so for short periods. Sensible rules are applied to improve the data quality and to ensure the most appropriate classification.

However, these are ultimately approximate and as such the classification as Operational, Reserve or Training should be considered a best estimate. For details of what is available to respond to emergency incidents, please see the tables on Station Capabilities.

Officer Response Vehicles was introduced as a category in 2017-18, and one which did not easily match with internal SFRS fleet categories.

We made a best estimate of the count of Officer Response Vehicles using operational vehicles listed within the SFRS Fleet categories of 'Response Car' and 'Officer Provided Car' though this was a floor value as

flexi-duty officers would have other response vehicles available to them from the SFRS Fleet which we were unable to differentiate.

Since then there have been changes to the categorisation of Officer Response Vehicles in SFRS and it is now possible to provide a better figure although this should still be considered a lower estimate.

There are a number of difficulties in categorising vehicles according to the CIPFA guidelines, some longstanding. Resilience and Other Appliances categories have been particularly challenging for many years. Up to 2014-15 Resilience Vehicles were presented in subcategory form using reporting conventions which varied across Scotland. These are now classed under a single category.

Prime Movers are large vehicles which can be used for a variety of functions through the use of demountable resource pods. Such multi-use vehicles can be difficult to categorise under current CIPFA vehicle categories. In the event of changes to the number and usage of prime movers in the SFRS fleet we will use data derived from our Control systems to help us match prime mover usage to the nearest CIPFA vehicle categories.

## Revisions

The Vehicles data is derived from extracts of SFRS Fleet information which are subsequently quality assured. As each end-year dataset is a unique extract we would not expect to publish routine revisions to vehicle statistics in future years.

## Dataset

A dataset of individual SFRS vehicles and the category conversions applied for constructing these statistics will be published and updated annually.

# Workforce

## Administrative data and process

These statistics are based on data extracts from the SFRS HR and Payroll System. All workforce statistics are based on the workforce in place on the last day of the financial year (31st March).

This administrative data system is maintained through a detailed process of documentation and line manager responsibility. As with any data system there are minor errors which are corrected on an ongoing basis. Staff can make certain changes to their personal details via a self-service portal on the SFRS intranet.

Changes to the details for individual posts, such as the hours of work, the grade of the post and so on, requires formal approval from line managers, and updates to the data on the system can only be carried out by dedicated HR or Payroll staff. We are therefore confident that the error margins on the statistics produced are small. There are, however, a small number of known quality issues, discussed in the quality section below.

Prior to 2017-18 workforce figures were based on data provided by the SFRS HR team from extracts of the HR database collated with other data sources by HR staff. From 2017-18 onwards the statistics have been based on bespoke data extract reports constructed specifically for these statistics which are run by SFRS statistical staff.

The HR data collated by the data extract reports is cross checked against the output of standard HR reports to ensure its accuracy. Comparisons with the data held in previous years are also made to ensure consistency.

For the 2018-19 statistics two new data extract reports have been developed which depend on this cross year consistency. These provide source data for the experimental statistics in the 'Leavers' and 'New Entrant' sections.

The data extract reports are run after a quality assurance period of six weeks which covers two

## Staff Categories

Staff counts are provided at the tier appropriate for the staff type and position in the SFRS working structure. The staff categories used in the statistics are:

- **Wholetime Operational** – staff whose main role is as a firefighter regardless of their position. Full-time equivalent (FTE) staffing is calculated relative to a 42 hour working week.
- **Retained Duty System Staff** – staff contracted to be available and on-call for agreed periods of time for fire-fighting purposes. Full-time equivalent (FTE) staffing is calculated relative to a 120 hour on-call week.
- **Retained Full-time** - staff who work in areas with a cluster of Retained Duty System stations and supplement the local on-call cover as well as conduct local community engagement.
- **Control Staff** – staff who answer emergency calls and deal with the logistics of mobilising and communicating operationally. Full-time equivalent (FTE) staffing is calculated relative to a 42 hour working week.
- **Support Staff** – staff employed in non-uniformed functions such as technical support and administration. Full-time equivalent (FTE) staffing is calculated relative to a 35 hour working week.
- **Volunteers** – staff who volunteer their time attending operational incidents, for which an attendance payment is made but who are not paid a retaining fee and do not have on-call contractual hours.

## Uniformed Staff Categories

Staff types other than Support are collectively known as 'Uniformed' staff. The Uniformed staff categories used for these statistics are as follows:

- **Firefighter**
- **Crew Commander**
- **Watch Commander**
- **Station Commander**
- **Group Commander**
- **Area Commander** (also includes Deputy Assistant Chief Officer posts)
- **Brigade Commander** (includes the Chief Officer, Deputy Chief Officer and Assistant Chief Officer posts)

## Support Staff Categories

The Support staff categories used for these statistics are as follows:

- **Director**
- **Service Manager**
- **Team Leader**
- **Professional**
- **Specialist/Technical**
- **Technical Support**
- **Administration**

The categories used do not imply relative seniority of position for Support Staff. They are used within SFRS as a means of classifying staff roles. There is some overlap in these categories and as a result they may not be consistently applied across the organisation.

## Uniformed Duty Types

- **Wholetime Operational staff** in SFRS are cover a range of functions both for operation response, management and strategic planning. These roles are organised into four duty systems.
- **Operational Crewing** - Scheduled to crew appliances in wholetime stations using a defined watch based duty system
- **Incident Command Officers** - Senior staff who are involved in the management of SFRS and work in a flexible shift duty system which ensures senior incident commanders are continually available for operational incidents
- **Office Duties** - Staff who typically work during office hours and who cover a range of technical and project functions such as fire engineering, fire investigation and response planning.
- **Trainees** - newly recruited staff who are in training to work in Operational Crewing

## Department Categories

SFRS is internally organised by 'directorates' overseen by a director who is a member of the Senior Leadership Team. Each directorate may be subdivided into different units and functions. The structural tiers used by SFRS are not well suited to inform about the body of work that staff are involved with. For these statistics we have constructed an aggregate tier, 'Department', which is designed to aid understanding for statistics users. This tier is experimental for the time being.



Categories used within the Department tier are:

- Asset Management – includes the SFRS fleet, equipment and estates
- Business Support – includes administration staff
- Finance & Procurement – SFRS finance, accounting and procurement of assets and services
- Health, Safety and Organisational Wellbeing – safeguards SFRS staff and works to balance operational risk control measures with firefighter and public safety
- Human Resources Organisational Development – the SFRS human resources department
- Information Communication Technology – the SFRS IT department
- Prevention and Protection – includes community safety work, enforcement of fire safety rules and investigation of fires
- Response and Resilience – coordinates emergency response and national policies and strategies
- Senior Leadership Team – the executive team for SFRS
- Service Delivery – responsible for attending emergency incidents
- Service Transformation – responsible for managing the process of change in SFRS
- Strategic Planning Performance and Communication – responsible for legal services, administration, strategic planning, performance reporting, communication services, and information governance
- Trainees – includes SFRS staff who are in training and not yet working as staff in a department
- Training and Employee Development – provides training for staff to the needs of their role

## Ethnicity and Disability Categories

We count ethnicity according to three categories:

- Not Stated (includes 'Not Recorded' as well as 'Prefer Not to Say')
- White (includes White – Eastern European, White – Irish, White – Other British, White – Other Ethnic Group, White – Polish and White – Scottish)
- Ethnic Minority (includes all other ethnic groups)

We count disability according to three categories:

- Disabled
- Not Disabled
- Not Known (includes 'Not Recorded', 'Prefer Not to Answer' and 'Other')

## Leavers Categories

We have introduced a new table of experimental statistics on staff who have left SFRS. We have used the following categories:

- Dismissal
- End of contract – staff who worked for SFRS on a time-limited contract
- Other
- Resignation
- Retirement - 30 Years' Service
- Retirement – Age
- Retirement – Early
- Retirement – Health
- Transfer - To another F&R Service
- TUPE Transfer (staff whose employment has transferred to another organisation under the Transfer of Undertakings (Protection of Employment) legislation)
- Voluntary Severance

## New Entrants Categories

We have introduced tables of experimental statistics on people who have joined SFRS.

Please note that the difference between those who have left SFRS and those who have joined is not the same as the annual change in headcount. This is in part because staff can move internally between roles and those already in the SFRS HR database are not counted as a new entrant when moving into a new role even in a different staff type.

## Counting Rules

### Headcount

Staff headcount is the total number of filled jobs in the organisation, it is not the total number of people. For example, if a member of staff works both as a Wholetime firefighter and with their time off works as a Retained firefighter then this person would be counted for both jobs.

### Full Time Equivalent (FTE)

Full Time Equivalent (FTE) differs from headcount in that it counts the ratio of a staff member's contracted working hours to the standard contract hours for that staff group. For example if a member of Support staff works a 17.5 hour week then this would be 0.5 FTE as the standard weekly contractual hours for Support staff is 35 hours per week. FTE is not calculated for volunteers.

For FTE and other decimal fractional calculations the published statistics are rounded to one decimal place after they are calculated. This avoids round-up and round-down errors on whole-number totals which had existed in previous publications (for example, rounding of individual percentages preventing totals summing to 100%).

### Persons not counted as SFRS staff

The following persons are not counted as SFRS staff for the purposes of these statistics:

- SFRS Board Members
- Staff on career break
- Staff on secondment to a Union
- Staff from another organisation on secondment to SFRS
- Volunteers in community safety engagement
- Agency temporary staff

These persons have been excluded either as they do not fit with our working definition of SFRS staff (i.e. people who are in active service and who are paid by SFRS) or because they are not included in the SFRS staff database and it is administratively difficult to establish whether the persons concerned are eligible for inclusion under CIPFA<sup>1</sup> guidelines.

Please note that we do count staff on secondment from SFRS to other organisations as this is a simple means to counterbalance being unable to count those from other organisations on secondment with SFRS.

### Geography/Area

The geographic area at which staff are reported is determined based on their staff group, the location of their post in the SFRS organisational structure, and the function budgeted for the post. We report staff at the lowest geographic area appropriate for their role.

## Service Length

Service length counts the number of years a person has worked in public service in their staff type. It is possible for staff to change public service and bring with them their continuous service. As this is not consistently applied for support staff we do not count service length for this group.

Note that a member of staff may leave the SFRS and join again at a later time and their service length will return to 0. Similarly staff who retire and then join SFRS again will have service length return to 0.

This means that some of the retained staff working for SFRS have a longer relationship with firefighting in Scotland than the table reveals. The count applies only within a staff group.

## Quality Concerns

### Ethnicity and Disability data

The Ethnicity and Disability data collected by SFRS has been improving as a result of internal initiatives and deployment of new tools such as an employee digital self-service portal. However, the proportion of staff with unknown Ethnic or Disability status is still high, and accordingly we have retained the relevant tables for reference purposes in the downloadable workbook but have not referred to the summaries in the bulletin.

### Service Length

Support staff who have transferred from another public sector organisation have not consistently had their continuity of service transfer with them. Consequently we cannot provide support staff figures in this area. This had been published experimentally in 2017-18 and has now been withdrawn for this staff type.

### Revisions

Workforce data is derived from extracts of management information and then quality assured. Should any material differences emerge we will follow the guidance in our policy and correct these in due course. However, as each end-year dataset is a unique extract we would not expect to publish routine revisions to workforce statistics in future years.



# Attacks on Fire and Rescue Personnel

## Administrative data and process

The data for these statistics comes from the SFRS Health and Safety at Work database. SFRS implemented a new database system for recording health and safety incidents which has been used for these statistics since 2019-20.

Prior to the 2015-16 release attacks on Fire and Rescue Personnel was based on a substantially different administrative dataset used to capture operational incident information, the step change in methodology means that previously published figures cannot be fairly compared. The previous series is no longer maintained and is not included in the current tables and charts.

There are clear processes in place for the reporting of attacks on SFRS staff. The method for initiating a record in the database system is different depending on whether the attack related to an operational incident or not. The process for completing the record is built into the database system and is overseen by trained staff to assure quality.

## Categories

Attacks against SFRS staff are categorised according to whether the attack was independent of or related to an operational incident. Attacks related to an operational incident includes attacks on the way to, or returning from an incident, and verbal abuse to Control room staff.

We group attacks in the following statistical categories:

- Objects Thrown
- Physical Abuse
- Verbal Abuse
- Other Acts of Aggression

## Counting rules

Incidents reported to the SFRS Health, Safety and Wellbeing team where a member of the public has attacked a member of SFRS personnel are counted. We also count the number of incidents where Fire and Rescue personnel have been injured in an attack. Please note that this is a count of incidents where injuries occurred and not a count of injured people.

## Changes

Statistics were formerly presented on the rate of attacks as a percentage of operational incidents attended both nationally and at a local authority level. We believe this is not an appropriate metric for measuring the variation in the number of attacks at operational incidents either geographically or over time and so have withdrawn this.

## Revisions

In conducting a review of the data in 2017-18 we found that the total number of incidents for previous years had increased on the published figures. This is due to attacks being reported the financial year after the attack took place. In order to keep the published figures as accurate as possible we will revise published figures for two years.

# Home Fire Safety Visits

## Administrative data and process

The data for these statistics comes from an annual snapshot of the data held on the SFRS Community Safety and Engagement Toolkit (CSET) system which manages requests for Home Fire Safety Visits and records the outcomes of these visits as well as other community safety and engagement work.

Partner agencies who are involved in community work are able to refer households for a home fire safety visit by SFRS. People can make a request themselves through the SFRS website which transfers the request into CSET. It is also possible to arrange a visit by telephone, text or through a local fire station. The caseload is then managed by community safety and regional staff.

On completion of a Home Fire Safety Visit SFRS staff complete a form on CSET. While there is some limited quality assurance of the completed data the primary focus of community safety staff is on managing caseload and direct outreach.

## Categories

For these statistics we group Home Fire Safety Visits into two categories:

- Home Fire Safety Visits - Advice Only
- Home Fire Safety Visits - Alarms Installed

In the case of visits with alarms installed the fire safety assessor provides advice to the residents and either installs new alarms or replaces at least one alarm in the home. In visits classed as 'advice only' alarm installations are not needed.

We provide statistics on the number of alarms installed and whether these alarms are new or replacements to existing alarms.

## Distinct visits

A small proportion of Home Fire Safety Visits are to properties which were previously visited within the year; a larger proportion are visited again within a two or three year period.

To present statistics on this we have introduced experimental tables on the number of visits to distinct households over a one year, three year and five year period (financial years).

As well as presenting the percentage of all Scottish households visited based on the average number of households in Scotland over the time period (taken from the National Records for Scotland statistical series<sup>2</sup>). Figures for alarms installed are also presented based on the same methodology.

## Repeat visits

We also introduced a table on the proportion of repeat and non-repeat visits in a financial year, where a repeat visit is defined as a Home Fire Safety Visit to a property which was visited in the previous three financial years.

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<sup>2</sup> National Records for Scotland -

<https://www.nrscotland.gov.uk/statistics-and-data/statistics/>

## Residents

The number of people who received a Home Fire Safety Visit is presented in a new table of experimental statistics. The number of residents in predefined age brackets is captured by SFRS staff during Home Fire Safety Visits.

This information is summarised and rates are produced by aggregating demographic figures published by National Records of Scotland<sup>3</sup> into the same age bands.

This allows us to present statistics on the proportion of the population of Scotland who benefit from Home Fire Safety Visits in each age bracket.

## SIMD and Urban-Rural

In order to tabulate these statistics all home fire safety visits were allocated to datazones. To provide comparable rates, we used the number of occupied dwellings in each datazone which is published by National Records of Scotland in their 'Small Area Statistics on Households and Dwellings'<sup>4</sup> publication.

## Changes

Statistics on the total number of alarms installed were corrected in 2018-19 as an error was found in our interpretation of the Home Fire Safety Visit data recorded on CSET.

The error resulted in an overestimate of the number of alarms installed by an average of 29% since 2013-14. This has been corrected and backdated to all statistics based on this view. Please see the below quality issues section for discussion of the lasting impact.

We have changed the metric used in the rates provided from 'per 1000 dwellings' to 'per 100 households'.

This makes comparisons in percentage terms simpler to achieve. Using a rate for households also removes a small potential bias that a rate for dwellings involves, as the count of dwellings includes properties that are unoccupied, and such properties are out of scope for Home Fire Safety Visits.

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<sup>3</sup> National Records for Scotland -

<https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates>

<sup>4</sup> National Records of Scotland -

<https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/households/household-estimates/small-area-statistics-on-households-and-dwellings>

## Quality issues

For 2021-22 figures, the count for Smoke Alarms and the count for the number of Home Fire Safety Visits where Smoke Alarms were installed should be considered a substantial lower estimate.

In 2021-22, a new system was introduced that required staff to record data on stock values, as well as type and number of alarms installed. Stock figures have been available to quality check data and to track smoke alarms movements.

These quality checks revealed that the number of smoke alarms fitted at properties could be underestimated by up to 32% this year. Further breakdown of this has not been possible due to differing alarm types and missing data. Further investigations over the next year could improve error margin calculations and overall figures, but this issue will affect 2022-23 smoke alarm figures.

For previous year's figures, the count provided for Smoke alarms should be considered a lower estimate as a full audit of smoke alarms installed or provided to the public through other means is not completed and there is some variation of practice in recording the number of smoke alarms installed or replaced in the relevant sections of CSET due to ambiguity in the questions asked.

As a consequence, the methodology used to compute smoke alarms installed provides a best lower estimate, and a small proportion of visits may have more alarms installed than we are able to confidently state.

This also impacts on the calculated average number of alarms installed in a Home Fire Safety Visit which may be slightly lower than the true value, although with rounding taken into consideration we don't believe that the true value will be much different.

## Risk

We have withdrawn the risk tables formerly presented due to concerns around the methodology used both relating to the base data and then in converting to banding of risk from 'Well Below Average' to 'Well Above Average'.

It has not yet been possible to provide alternative statistics on this topic.

To determine higher-risk households which may benefit from home fire safety visits, SFRS use a heuristic method based on weighted scores against defined factors, but this method is not robust enough for use in the statistics publication.

The method used internally by SFRS is under review.

# Non-domestic Fire Safety

## Administrative data and process

The data for these statistics comes from the Prevention and Protection Enforcement Database and the Prevention and Protection Formal Notices spreadsheet. The data used to derive the statistics for 2018-19 came from the system in use up to the end of the 2018-19 financial year.

SFRS has subsequently implemented a new database system for recording non-domestic fire safety activity, and that system will be the primary source of the data used for these statistics from 2019-20 onwards.

The database system records staff activity, manages the audits workflow and provides a due list of audits requiring completion. Enforcement officers record both the results of their work and the time spent on completion in this system.

On completion of audits the workflow is passed on to a reviewing manager for approval before the workflow can be closed. Audits with a particularly poor score are reviewed by line management then directorate staff before being passed to the legal team before enforcement action is taken. Where an enforcement notice is a possible outcome the process and outcome is recorded on the Formal Notices spreadsheet.

Where enforcement officers become aware of violations of fire safety rules without having completed an audit a similar process is followed in coordinating between line management, directorate staff and the legal team before a prohibition notice can be issued in a site visit. Where a prohibition notice is a possible outcome the process and outcome is recorded on the Formal Notices spreadsheet.

The data recorded in both locations are reconciled before the production of these statistics to ensure accuracy. Other quality assurance is undertaken to ensure that premises are recorded under the correct category and to ensure that there are no instances of double counting.

## Workflows

We publish figures on the three primary types of work undertaken by the SFRS Fire Safety Enforcement team:

- **Audits** – these involve a comprehensive on-site assessment of a non-domestic property which may result in specific fire safety advice, work on an action plan for improvements, or in extreme cases enforcement action against the owners to mandate improvements.
- **Post Fire Short Audits** - these take place when a premises which has been fully audited in the last year has a fire incident.
- **Site Visits** – these are on-site visits which don't involve an audit. For example, this could be a visit to a construction site.
- **Consultations** – these are advisory discussions generally by telephone or email to advise best practice in Fire Safety.
- **Fire Engineering Consultation** - A specialist team of Fire Engineers advise on new constructions to improve fire safety in buildings

For these statistics we use the word 'workflow' to refer to all of the work involved in an audit, site visit or consultation, including preparation, travel and follow up action. We report on workflows according to the financial year in which they were fully concluded.

If any work is outstanding at the end of the financial year then that workflow is considered 'open' and will not be reported in that year. For example, an audit which took place in February 2018 and required follow up advice in April 2018 would not be included in the 2017-18 statistics, however provided all work for this audit was finished before the end of March 2019, it would be included in the 2018-19 statistics.

In this way there is a lag in the reporting of workflows after the date of the primary visit or consultation.



## Categories

Audits are subdivided into two categories for these statistics, they were formerly called 'Type A' and 'Type B' audits and are now renamed as 'Audits – broadly compliant' and 'Audits – notable deficiencies' respectively. 'Audits – broadly compliant' count audits of non-domestic properties where the fire safety steps taken are broadly compliant with good practice, with perhaps some area for improvement.

Conversely 'Audits – notable deficiencies' are not broadly compliant and result in the owner being formally notified of deficiencies.

Non-domestic premises are reported according to categories derived from the historic FSEC risk model. While the model is no longer used, the categories used by FSEC for non-domestic properties (known as Other Buildings in the FSEC model) remain relevant and still in active use. They are as follows:

- Hospital / Prison
- Care Home
- Houses in Multiple Occupation (HMO)
- Hostel
- Hotel
- Other Sleeping Accommodation
- Further Education
- Public Building
- Licensed Premises
- School
- Shop
- Other Premises Open to Public
- Factory or Warehouse
- Office
- Other Workplace

Houses in Multiple Occupation are properties rented out to three or more people who are unrelated. While each house in multiple occupancy can be classed as private sleeping accommodation, it is a legal requirement for the owner of the premises to obtain a license from the relevant local authority before they can rent out the accommodation.

Accordingly, for Fire Safety Enforcement purposes HMOs are counted as non-domestic property types and form a large part of the audit work undertaken by SFRS each year.

## Rates of Audits

There is no all-Scotland register of non-domestic properties which can be used to determine audit rates per area. SFRS maintains its own database of non-domestic properties known to the Service. Each year SFRS completes an audit of all statutory premises (hospitals, prisons etc.) and undertakes to conduct an audit within a year at all new premises for which requests are received. Other premises are prioritised based on the risk rating of the last audit.

## Multi Storey Flats

There have been 105 partial audits in Multi Storey Flats over 2017-18, 2018-19 and 2019-20.

Although these are domestic buildings the audits were conducted on the non-residential parts of the buildings in the interest of public and firefighter safety.

Such partial audits are excluded from these statistics, as including domestic premises in the non-domestic section of these statistics would affect the comparability of current totals against those of previous years.

## Notices Issued

There are three types of Formal Notice which can be issued by Fire Enforcement Officers. These are:

- **Enforcement Notices** – these mandate that specified actions be taken by the owners of a non-domestic property in the interests of fire safety and are issued under Audit workflows when serious deficiencies have been found.
- **Prohibition Notices** – these prevent or restrict the use of part or all of a non-domestic property until specified risks have been made safe and are issued under Specific Visit workflows.
- **Alterations Notices** – these require that the owner of a non-domestic property informs SFRS before making specified changes to a property.

While Prohibition Notices are issued on Specific Visit workflows and don't require an audit, they are reported next to Enforcement Notices in audit tables for user interest. Alterations Notices have not been included as they are rare.

Workflows which involve the issuing of a Formal Notice may take significantly longer to resolve fully than others; it is common for these workflows to remain open for multiple years.

In 2018-19 we introduced a new table to list the number of Formal Notices issued each financial year. This provides a more meaningful year-to-year comparator. We were able to backdate the table to 2014-15.

## Risk

In 2018-19, we changed the methodology used for risk statistics in non-domestic premises. In previous years we presented banded risk ratings ranging from Well Below Average to Well Above Average based on a conversion of the SFRS risk heuristic score.

However on review we believe this conversion to be inappropriate as it loses information and becomes misleading. While it would be valuable for users to discuss risk relative to an average value, the previous methodology was not successful in doing this and it is not possible to discuss risk in such a way for non-domestic properties at present.

We have instead presented the results of the SFRS risk heuristic directly using the five risk bands which are used by SFRS ranging from Very Low Risk to Very High Risk.

The heuristic calculates a relative risk for non-domestic premises based in part on the former FSEC categories which identified building types by sleeping risk category, modified by a scoring system which then bands the result.

These bands summarise what is believed to be the case about the premises that has been audited in comparison to other properties of that building type.

It is not reasonable to compare risks between categories, i.e. a medium risk hotel does not contain the same fire or injury risk as a medium risk shop.

## Revisions

We do not expect to publish routine revisions to these statistics.

# A Statistics Publication from the Scottish Fire and Rescue Service

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