

Assessment of compliance with the Code of
Practice for Statistics

Country and regional public sector finances

(produced by Office for National Statistics)

Office for Statistics Regulation

We provide independent regulation of all official statistics produced in the UK. Statistics are an essential public asset. We aim to enhance public confidence in the trustworthiness, quality and value of statistics produced by government.

We do this by setting the standards they must meet in the [Code of Practice for Statistics](#). We ensure that producers of government statistics uphold these standards by conducting assessments against the Code. Those which meet the standards are given National Statistics status, indicating that they meet the highest standards of trustworthiness, quality and value. We also report publicly on system-wide issues and on the way statistics are being used, celebrating when the standards are upheld and challenging publicly when they are not.

Executive Summary

Why we carried out this assessment

- ES.1 [Country and Regional Public Sector Finance](#) (CRPSF) statistics are used widely by policymakers and by analysts in each of the UK's nations' respective treasury departments. As part of government spending reviews, policymakers in central government use CRPSF statistics, along with the Barnett formula and Block Grant Transparency statistics to help determine the level of public spending in England, Scotland, Wales and Northern Ireland. In turn the Scottish, Welsh and Northern Ireland governments use CRPSF statistics to monitor the spending of these funds and to construct budgets that set out their plans for spending on public services.
- ES.2 Our assessment has found widespread good practice in the production of these statistics. We have identified two actions for ONS to fulfil in order for CRPSF statistics to be designated as National Statistics. ONS has committed to implement these for its next output, scheduled for publication in May 2022

Key Findings

- ES.3 ONS publishes CRPSF statistics annually. CRPSF statistics provide users with information on what public sector expenditure has occurred in each of the UK's nations and English regions and what public sector revenues have been raised in each nation or region, as well as the balance between them. The statistical concepts used in CRPSF statistics are consistent with those used in UK [Public Sector Finance](#) statistics.
- ES.4 ONS's engagement with users on all issues relating to CRPSF statistics has and continues to be comprehensive. In 2016, prior to the publication of the first set of CRPSF statistics, ONS ran a consultation with potential users to understand user demand for a single view of Public Sector Finances for the UK's nations and English regions.
- ES.5 In response to a 2019 OSR review, ONS set up the sub-UK Public Sector Finances Working Group to assist with the development of the narrative of CRPSF statistics. It is expected that the UK Government's levelling up strategy could increase the demands on the use of CRPSF statistics. ONS must plan to ensure that the profile and accessibility of CRPSF statistics reflects any increased demand for them.
- ES.6 CRPSF public sector expenditure data are sourced from HMT's Country and Regional Analysis (CRA) statistics. The CRA presents statistical estimates of [identifiable expenditure](#) (spending that can be identified as having been for the benefit of a particular area of the UK) across UK nations and English regions.
- ES.7 Estimates of taxation revenue are built up using data from 37 different data sources. A large proportion of these data sources is supplied by HMRC, ONS and the Department for Business, Energy and Industrial Strategy.
- ES.8 As the estimates for countries and regions are often similar to each other, to assist users' understanding of the use and interpretation of the statistics, it is important that ONS clearly communicates to users the impact that [statistical uncertainty](#) has upon estimates of apportioned country and regional taxation revenue.
- ES.9 The ONS UK Public Sector Finance team has secured funding from ONS's Ambitious Radical Inclusive Economic Statistics (ARIES) development programme to re-develop its statistical production platform.

Public value

- 1.1 The Office for National Statistics (ONS) publishes [Country and Regional Public Sector Finance](#) (CRPSF) annually. CRPSF statistics provide users with information on what public sector expenditure has occurred in each of the UK's nations and English regions and what public sector revenues have been raised in each nation or region, as well as the balance between them. The statistical concepts used in CRPSF statistics are consistent with those used in UK [Public Sector Finance](#) statistics.
- 1.2 CRPSF statistics are used widely by policymakers and by analysts in each of the UK's nations' respective treasury departments. As part of government spending reviews, policymakers in central government use CRPSF statistics, along with the [Barnett formula](#) and [Block Grant Transparency statistics](#) to help determine the level of public spending in England, Scotland, Wales and Northern Ireland. In turn the Scottish, Welsh and Northern Ireland governments use CRPSF statistics to monitor the spending of these funds and to construct budgets that set out their plans for spending on public services.
- 1.3 CRPSF statistics are used by the Office for Budget Responsibility in the preparation of [fiscal sustainability](#) reports and [UK fiscal forecasts](#) and are expected to be used in similar [assessments](#) planned by the Scottish Parliament. The statistics are used, for example, in [public discourse](#) with interested users and the media paying particular attention to comparisons of spending per head and fiscal balance statistics across the English regions and each of the UK's nations. The statistics are used to make the case for further devolution of tax-raising powers and to assess the [effectiveness of public spending](#) across the UK.
- 1.4 The statistics also offer opportunities to researchers and academics to examine the performance of public services across the UK nations. The statistics are used alongside other sources of public finance statistics, such as [HMT's Country and Regional Analysis](#) (CRA) and [Government Expenditure and Revenue Scotland](#) (GERS) by government analysts to brief ministers and officials, and to respond to queries on issues of devolved public finance. The potential of CRPSF statistics is set to increase as ONS develops further disaggregated measures of public finances, allowing, for instance, research on the fiscal position of UK cities and local authority (LA) areas, enabling the further development of evidence-based local social and economic policies.
- 1.5 As the Scottish, Welsh and Northern Ireland governments' tax-raising powers have changed, so has the policy environment for CRPSF statistics. In early February 2022, the UK Government published its strategy for [Levelling Up the United Kingdom](#). This UK Government initiative sets out ambitions to resolve social and economic inequalities across the UK. Funding for this initiative is being made to the English regions and the Scottish, Welsh and Northern Ireland governments via the [Shared Prosperity Fund](#). This fund has been put in place by the UK Government to replace funding previously received from the [EU Structural Funds](#). It is important to note that not all the funding received by UK individuals and businesses under the EU structural funds were recorded in CRPSF statistics as payments from the EU were often made directly to individuals and businesses and not administered centrally. In contrast, however, the Shared Prosperity Fund will be managed centrally and as such all the funds made available to the UK's regions and Scottish, Welsh and Northern Ireland governments will be recorded in CRPSF statistics.

- 1.6 With evidence set at the heart of the UK Government's levelling up strategy, it is important that policymakers and the public can scrutinise the data and statistics underpinning the UK Government's plans to resolve its social and economic inequalities. CRPSF statistics form an important part of the evidence base that will be used to further develop local policies to address these inequalities.
- 1.7 ONS has worked hard with its government partners and through the media to build the profile and accessibility of CRPSF statistics. It is expected that the UK Government's levelling up strategy, however, could increase the demands on the use of CRPSF statistics. It is crucial therefore that ONS reflects on these changes and ensures that CRPSF statistics are promoted and developed to meet users' changing needs.
- 1.8 There are several opportunities to improve the profile and accessibility of CRPSF statistics. ONS should consider working with the Government Statistical Service and the [Economic Statistics Centre of Excellence](#) on promotional activities of the [Sub-national data strategy](#), and work focussed on meeting the demands for more regional data respectively. ONS should also use intelligence about how users access CRPSF statistics, and what use they make of them, to help promote the statistics.

Requirement 1. ONS must plan to ensure that the profile and accessibility of CRPSF statistics reflects any increased demand for them.

User engagement

- 1.9 ONS's engagement with users on all issues relating to CRPSF statistics has been, and continues to be, comprehensive. In 2016, prior to the publication of the first set of statistics, ONS ran a consultation with potential users of CRPSF statistics to understand user demand for a single view of public sector finances for the UK's nations and English regions.
- 1.10 The consultation gathered views on the timeliness and frequency, methodologies, and the presentation of CRPSF statistics. ONS spoke to a wide range of potential users, including representatives from Scottish, Welsh and Northern Ireland governments, LAs, universities, and a charity. The results of the consultation revealed that users welcomed the opportunity that CRPSF statistics could offer to consistently compare the fiscal positions of each of the UK's nations and the English regions. Users noted that these statistics would be useful in the debate around devolution and aid policy analysis, for instance, understanding the profile and efficiency of spending on public services at the country and regional level. Specific feedback from one potential user noted that these data "would improve the economic literacy of local policy officials and wider stakeholders. The availability of this data will encourage stakeholders to consider the tax and revenue implications of local policy decisions."
- 1.11 Users supported ONS's proposal to use comparable methodologies and concepts with those used in similar publications such as GERS, [Northern Ireland Department of Finance net fiscal balance reports](#), HM Treasury's CRA and the now discontinued [Disaggregation of Tax Receipts](#) (DoTR) publication from HM Revenue and Customs (HMRC) to produce CRPSF statistics.
- 1.12 On data presentation, users noted a preference for fiscal balance statistics to be presented as a percentage of regional GDP. Presenting regional fiscal balances as a percentage of regional GDP allows for the size of regional economies to be

accounted for in inter-UK nation and regional comparisons, thereby avoiding potentially spurious comparisons of single fiscal deficit and surplus statistics.

- 1.13 Users expressed preference for CRPSF data to be presented for smaller geographies below [NUTS1](#) level, a split between identifiable and non-identifiable expenditure, a breakdown of [Classification of the Functions of Government](#) (COFOG) category expenditure into centrally administered and locally administered expenditure and a splitting of income tax into devolved and non-devolved proportions. Most of these user requests have been answered by CRPSF statistics, save for the disaggregation of statistics below NUTS1 level, although ONS plans to address this request soon.
- 1.14 One respondent requested that the CRPSF statistical bulletin took the opportunity to explain the fiscal system of the UK for users and “carefully explain what these statistics do and do not show”. Acting on the feedback from users, ONS began publishing CRPSF statistics in 2016.
- 1.15 In 2019, prompted by a changing financial environment for Scottish, Welsh and Northern Ireland governments, including new tax-raising and borrowing powers for Scotland and Wales, OSR conducted a systemic review of the [Public value of statistics on public finances in a devolved UK](#).
- 1.16 In response to the review, ONS set up the sub-UK Public Sector Finances Working Group to assist with the development of the narrative and presentation of CRPSF statistics. The group meets twice a year and is made up of representatives from key data suppliers (HMT and HMRC) and strategic users of CRPSF statistics, including representatives from the devolved nations and the Greater London Authority (GLA).
- 1.17 As part of our assessment, OSR attended a meeting of the working group in January 2022. We found the group worked well together developing the CRPSF narrative, demonstrating best practice on data sharing, collaborative data quality assurance work, and statistical innovation. Each of these activities make clear contributions to the development of the CRPSF narrative, through an exchange of knowledge on CRPSF data and statistics, and other supporting public finance data sources, and through improved confidence in the quality of CRPSF data, achieved through collaborative quality assurance work.
- 1.18 On statistical innovation, the group is working on the development of apportionment methodology for tax revenue data, to answer increased demands for granular economic data at lower geographies (LA-level) arising from the UK Government’s levelling up strategy. Other innovations under consideration include the use of real-time income (RTI) tax data to potentially improve the timeliness of CRPSF statistics. The working group is also discussing the most appropriate measure of economic growth to use in the construction of statistics on the fiscal balance as a proportion of GDP. ONS plans to make the fiscal balance as a proportion of GDP statistic available to users in 2023.
- 1.19 Outside the working group, the CRPSF team attends the monthly Devolved Economic Statistics Co-ordination Group to raise awareness of CRPSF statistics and to build links with a wider community of users interested in regional data.
- 1.20 On a more ad hoc basis, the CRPSF team uses data and production queries as an avenue to develop engagement with data suppliers and users. Recent examples of such work include:

- i. Discussing data needs with the Northern Ireland Fiscal Commission following queries on tax revenue data
- ii. Meeting with HMRC to discuss data production issues and using the opportunity to discuss ONS's future data needs to assist with the production of lower geography PSF statistics.
- iii. Holding curiosity sessions with ONS stakeholders, such as the regional accounts team, to discuss initiatives to improve data quality.

Data sources and quality assurance

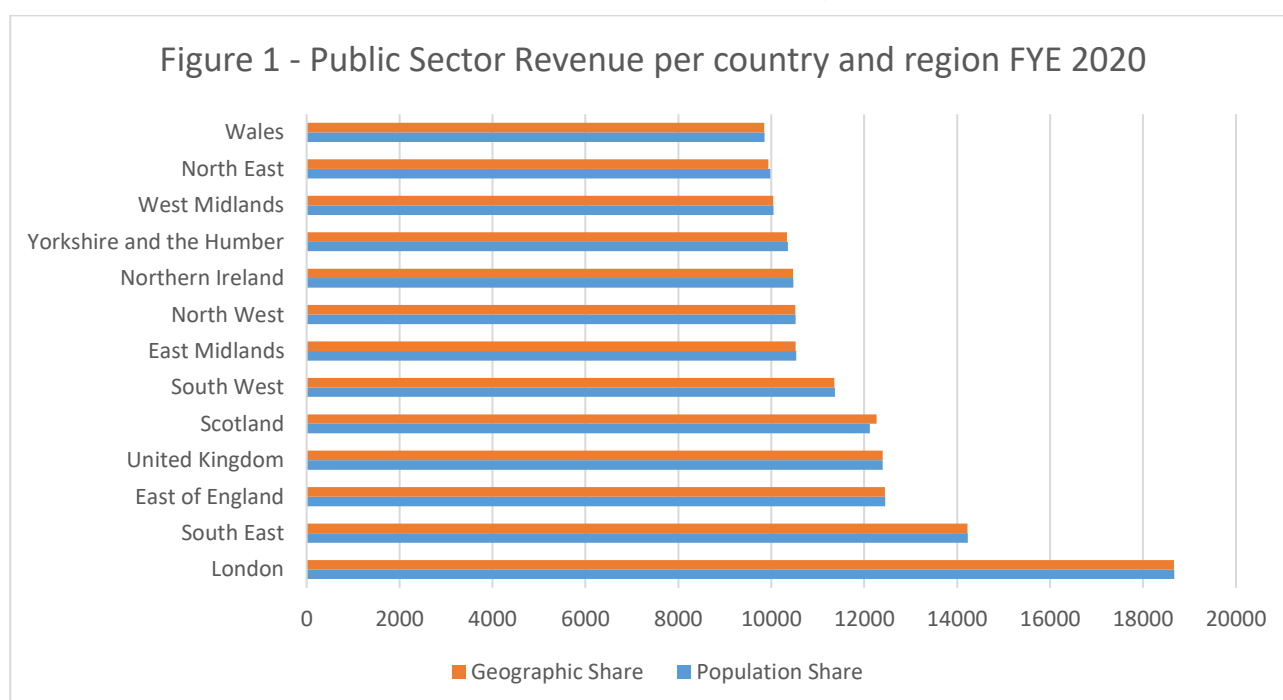
- 1.21 CRPSF public sector expenditure data are sourced from HMT's CRA statistics. The CRA presents statistical estimates of [identifiable expenditure](#) (spending that can be identified as having been for the benefit of a particular area of the UK) across UK nations and English regions. Identifiable expenditure in 2020-21 constituted [92%](#) of public sector expenditure on public services.
- 1.22 CRPSF revenue estimates are based on the "who pays" principle, which identifies the location where the revenue is raised, that is, the location of the individual or enterprise that bears the tax burden. Taxes are not usually collected on a regional basis, which makes it difficult to identify where country or regional tax receipts should be allocated, so modelling assumptions are required to estimate public sector revenue at the country or region level.
- 1.23 The CRPSF published [methodology](#) information outlines the background to each of its revenue data sources, and provides a comparison with data sources used in other public finance statistics including GERS and the DoTR and Northern Ireland Department of Finance net fiscal balance reports. The detail offered in its methodology documentation supports users' understanding of compilation process of CRPSF statistics.
- 1.24 The data used to compile CRPSF statistics are the same as those used to produce UK PSF statistics. This means that the procedures in place to quality assure PSF data sources apply equally to CRPSF statistics. As part of its re-assessment of the National Statistics designation of UKPSF statistics in 2015, OSR focussed on the quality assurance procedures in place for administrative data used in the production of the PSF. The [2015 review](#) noted concerns about the quality assurance arrangements in place for administrative data.
- 1.25 In response ONS reviewed its quality assurance arrangements for administrative data, introducing a [new approach](#) to data assurance in 2017 which focusses on assessing the level of risk and public interest in administrative data, as set out in the [UK Statistics Authority's Quality Assurance of Administrative Data \(QAAD\) Toolkit](#). The identified level of risk is then used to determine the extent of quality assurance dedicated to each administrative dataset.
- 1.26 The quality assurance of each stage of the production process of CRPSF statistics is thorough with numerous data quality checks taking place at all stages of production. For example, checks are made that the correct data sources have been downloaded, that regional data have been correctly collected, and that the English regional totals sum to the total for England and that the nations' totals sum to the UK total.
- 1.27 For quality assurance purposes, preliminary estimates of CRPSF statistics are shared with members of the working group. Each of the group's members offer

different perspectives on estimates of apportioned regional and country data, with HMT quality assuring expenditure estimates and HMRC assuring revenue estimates. Representatives from the Scottish, Welsh and Northern Ireland governments bring local intelligence to bear when reviewing and assuring preliminary estimates of apportioned expenditure and revenue country data.

- 1.28 The activity of sharing data and estimates with statistical producers and users of CRPSF statistics for quality assurance is an example of best practice. ONS’s work with its partners responds directly to the requirements of OSR’s 2019 review of the public value of statistics on public finances in a devolved UK.

Data quality

- 1.29 Estimates of taxation revenue are built up using data from 37 different data sources. A large proportion of these data sources is supplied by HMRC, other areas of ONS and the Department for Business, Energy and Industrial Strategy.
- 1.30 As taxation revenue is not collected on a regional basis, ONS apportions UK revenue totals to the nations and regions. Apportionment is based on several different techniques, including survey-based information, population estimates and model-based assumptions. Each of these approaches to apportioning taxation data introduces some uncertainty into final estimates. It is especially important that ONS describes this uncertainty to enable appropriate use of the statistics given that many estimates are similar to each other, as shown in Figure 1.



Source: ONS 2020 CRPSF Published statistics

- 1.31 Examples of the different approaches to apportioning data that introduce uncertainty are:
- Estimates of Value-Added Tax (VAT) revenue are apportioned to countries and regions using estimates of households’ average weekly expenditure from ONS’s Living Costs and Food Survey (LCF), which is subject to survey error, as noted in OSR’s [review of LCF](#).

- b. Estimates of Corporation Tax are apportioned to countries and regions using the ONS's Inter-Departmental Departmental Register (IDBR). The IDBR contains information from a variety of administrative and survey sources – including the [Business Register Employment Survey \(BRES\)](#) – which cover a range of time periods and definitions. (Concerns over the quality of data held on the IDBR were highlighted in [Bean's 2016 review of economic statistics](#) and latterly in OSR's 2019 assessment of [Business Demography statistics](#)).
- c. Mid-year population estimates are used to apportion Offshore Corporation tax receipts to countries. Statistical uncertainty of population projections increases the further we move away from years when the Census is held. In addition, in OSR's 2021 review of population estimates and projections, OSR noted that *“at the subnational level, it is widely understood by users that the accuracy of the population estimates will be variable due to factors such as the size and mobility of the population in a given area”*.

Requirement 2. ONS must explain to users the statistical uncertainties around CRPSF statistics arising from the choices of data sources and methods, being especially clear on how these uncertainties affect interpretation of statistical estimates that are similar.

Statistical leadership

- 1.32 ONS showed strong statistical leadership in 2019 with the establishment of the working group, discussed earlier, in response to the findings and recommendations of OSR's 2019 review of the accessibility of public finance statistics.
- 1.33 Throughout OSR's assessment process the statistical team has demonstrated sound judgement, been professional and shown that it works collaboratively with partners both within and outside ONS.
- 1.34 Statistical production is supported by robust data governance. Stakeholders involved in quality assurance processes with ONS must sign an early access confidentiality form before quality assurance work can begin. ONS holds detailed records of those with access to the data along with reasons that access is necessary. ONS has a memorandum of understanding with both HMT and HMRC for the secure sharing of data.
- 1.35 The ONS UK Public Sector Finance team has secured funding from ONS's Ambitious Radical Inclusive Economic Statistics (ARIES) development programme to re-develop its statistical production platform. The funding will be used for the re-development of its legacy production systems, moving part of the production process away from the use of excel spreadsheets on to a new production and analytical platform, thereby reducing the possibility of manual errors in data processing.
- 1.36 The new production systems will allow the statistics team to fulfil its commitment to construct [Reproducible Analytical Pipelines](#) (RAPs) for national PSF and CRPSF data. The outputs of the RAPs will help to create more efficient and accurate production processes and increase trust in quality and accuracy of CRPSF statistics. As discussed earlier the new system will allow the CRPSF team the opportunity to examine the feasibility of producing CRPSF statistics at a more disaggregated level, in line with users' requests. It is worth noting that, given our earlier discussion on apportionment of revenue data statistical uncertainties, any new disaggregated measures below NUTS1 level, should be treated with caution.

