



Statement of Compliance with the Code of Practice for statistics 2.0

August 2019

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Introduction

Compliance with the Code of Practice for Statistics

The [Code of Practice for Statistics](#) (henceforth ‘the Code’) plays an essential role in ensuring that statistics published by government command public confidence through demonstrating trustworthiness and providing high-quality statistics that enhance public value.

As a producer of official statistics, the Office of Rail and Road (ORR) must comply with this Code through our commitments to transparency, coherence, accountability and public focus. We must:

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- Demonstrate that we do not simply publish a set of numbers, but explain how our statistics relate to other data on the topic, and combine with other statistics to better explain the part of the world they describe;
 - Explain what judgements we have made about the data, methods, and their strengths and limitations, as well as what the statistics tell us about the world;
 - Show we comply with the Code by holding ourselves accountable to adherence to clear publication policies – for example, to pre-announce official statistics and to stick to the date; and by notifying users promptly of errors and revisions, and
 - Show we comply when we communicate clearly to the public what questions the statistics address and what the statistics show about the world they describe and why.
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Purpose of the document

1. This document aims to demonstrate our compliance with the Code through a series of short statements within the pillars of Trustworthiness, Quality and Value.

‘The need to focus on the interests of users of statistics sits at the heart of the Code. The beneficiaries of the Code therefore are users of statistics and citizens more broadly.’

2. Annex A includes a list of our four supporting compliance documents.

ORR's role as a publisher of official statistics

3. [*The Future of Rail – White Paper*](#) specified that ORR act as a single repository for rail industry data. It required that data storage and information be brought together to ensure that there is one set of consistent data for use by Government and the industry, and enable decisions to be based on robust data. It was envisioned that this would also reduce the bureaucratic burden on organisations within the rail industry, resulting from the need to provide information separately to a number of different public sector bodies.
4. The Information and Analysis team within ORR, who are responsible for producing official statistics, is comprised of two groups. The first consists of business intelligence analysts who manage data collection; load, validate and quality assure data; produce data tables; manage publications on the ORR data portal; disseminate management information across the organisation using internal dashboards and weekly reports, and work with Independent Reporters to quality assure the data received from Network Rail.
5. The second group is comprised of Government Statistical Service 'badged' statisticians. In addition to preparing and publishing a range of Official and National Statistics publications, they conduct research and analysis for internal and external audiences. They assist colleagues monitoring the performance of Network Rail and HS1 Ltd, and train operating companies' (TOCs) delivery of their obligations to consumers; supply data to satisfy European reporting requirements; and assist with performance investigations.
6. Our data collection is typically for the purposes of regulatory monitoring, the production of official statistics publications or to meet European reporting obligations. The majority of the data ORR uses to publish statistics is sourced from Network Rail. Data for our Health & Safety statistics and reporting are gathered using a web form on the ORR website, or sourced from the Rail Standards and Safety Board (RSSB) and London Underground. ORR also produce statistics using data from freight and train operating companies, the Department for Transport, Transport Scotland and Welsh Government.
7. Data is disseminated through our [data portal](#), i.e. statistical releases, factsheets, compendia, data tables, interactive dashboards. The new data portal went live in July 2019. Social media (typically Twitter or LinkedIn) is also used to publicise our statistics. The main statistical publications include four quarterly and five annual National Statistics releases.
8. ORR statisticians regularly engage with their users. The team responds to approximately 350 queries each year, largely via email. User surveys are conducted

every few years to capture views and better understand user needs. The team also engages with specialist users through the [Rail Statistics Management Group](#) (RSMG) which ORR hosts and chairs every quarter, and meets with key stakeholders and data suppliers on a monthly or quarterly basis.

9. Many of our official statistics were assessed and [designated as National Statistics in June 2012](#). This assessment was based on the set of statistics reported in [National Rail Trends quarterly summary](#). We have since split this publication into ‘themed’ statistical releases to allow for more timely release of each theme and provision of more contextual commentary across a common topic to aid the user in interpreting the statistics, e.g. performance, usage, safety. Improvements to the overall format, including new charts and infographics have also been implemented. These changes reflected user feedback.
10. ORR also published a range of other official statistics. These have not been assessed by the Office for Statistics Regulation but do follow the Code, e.g. are included in our pre-announced [publication schedule](#). The most popular of these are the annual [Estimates of Station Usage](#).

1. Trustworthiness

Confidence in the people and organisations that produce statistics and data

Trustworthiness is about the processes, people and systems of government organisations. An organisation must provide testable evidence to demonstrate that they have the interests of the public at heart, by demonstrating competence, honesty and openness.

T1 Honesty and integrity

- People in organisations that release statistics should be truthful, impartial and independent, and meet consistent standards of behaviour that reflect the wider public good.

T2 Independent decision making and leadership

- Organisations should assign a Chief Statistician/Head of Profession for Statistics who upholds and advocates the standards of the Code, strives to improve statistics and data for the public good, and challenges their inappropriate use.

T3 Orderly release

- Organisations should commit to releasing their statistics in an open and transparent manner that promotes confidence.

T4 Transparent processes and management

- Organisations should have effective business processes and appropriate resources to support their statistical functions and be open about their plans, priorities and progress.

T5 Professional capability

- People producing statistics should be appropriately skilled, trained and supported in their roles and professional development.

T6 Data governance

- Organisations should look after people's information securely and manage data in ways that are consistent with relevant legislation and serve the public good

- 1.1 ORR's production of official statistics is distinct from its role as a regulator. Our statistical releases do not compare results against targets, or make judgements about how Network Rail, operators, or other entities should be performing.

- 1.2 The principles of the Code and the working practices used to produce our statistics are explained to all ORR staff involved in the production of statistics upon induction: both statisticians and business intelligence analysts. The Information & Analysis team ensure that clear handling instructions are provided to those who access the statistics before they are published as management information, or in the production or pre-release stages. The ORR communications team have a clear understanding of how the Code applies to their activities, and new joiners are briefed by a senior statistician.
- 1.3 Some of the data ORR uses to publish statistics is also used as management information to support our ongoing regulatory monitoring of Network Rail through a series of internal dashboards. These are provided to users with specific instructions that they are provided for internal monitoring purposes only, and must not be disclosed to third parties:

‘These are internal ORR statistics to which you have privileged access. Please prevent inappropriate use by treating this information as restricted since this document is intended as briefing data for internal ORR use and should not be distributed. This is a requirement under the National Statistics Code of Practice and any breach of this will be reported to ORR’s Head of Profession for Statistics.’

- 1.4 The Head of Profession for Statistics is the sole authority for decisions about methods, standards and procedures, and the content and timing of the release of official statistics. The Head of Profession for Statistics reports to the National Statistician. They advocate the use of statistics and the Code within the organisation, and ensure that ORR collaborates professionally with the GSS committees to maintain and harmonise methods, standards and competences, identify opportunities for innovation and develop people policies.
- 1.5 ORR complies fully with the principles and practices of Orderly release. Our [Orderly Release and Revisions Policy statement](#) is available on our data portal.
- 1.6 All statisticians and business intelligence analysts are recruited through fair and open competition in accordance with civil service practices. Our statisticians are recruited in line with GSS standards using competency based interviews aligned with the Statistical Competency Framework and Civil Service Success Profiles (previously the Civil Service Competency Framework). Promotion panels include an independent member of the GSS to ensure fair recruitment. ORR was also one of the first government organisations to create a GSS Data Analyst Apprenticeship opportunity in partnership with the Office for National Statistics’ GSS careers team.

- 1.7 All staff involved in the production of official statistics have clear and well-defined objectives. The two sub-teams within the Information and Analysis team each have a business plan that sets out each person's responsibilities and all roles are supported by detailed desk notes that describe the processes they use to produce the statistics. Staff undertake regular personal and professional development and use professional networks and memberships to broaden their skills base.
- 1.8 ORR handle data in accordance with best practice and legislative requirements. A detailed statement on our [Data Governance and Confidentiality](#) is available on our data portal. All enquiries received in the rail stats email inbox are stored there in accordance with ORR's email retention policy. These – and any enquiries sent to named individuals - are automatically archived after six months and deleted from our systems after one year. For monitoring purposes, the nature and volume of enquires are logged, but this file does not record any personal information.
- 1.9 The RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) safety data often contains personal information about an injury, accident or health condition. A [privacy notice](#) about how ORR process and use personal data in accordance with the General Data Protection Regulation (GDPR) and Data Protection Act 2018 may be found on our website. The notice also addresses how ORR and our consultant (as joint data controllers) process data from CCTV images captured at stations for the purpose of estimating station usage for the annual official statistics.

2. Quality

Data and methods that produce assured statistics

Quality is about the data, and how they are processed into statistics. Independence of production is not, on its own, enough to guarantee worthwhile statistics. The statistics must be the best available estimate of what they aim to measure and should not mislead. To achieve this the data must be relevant, the methods must be sound and the assurance around the outputs must be clear.

Q1 Suitable data sources

- Statistics should be based on the most appropriate data to meet intended uses. The impact of any data limitations for use should be assessed, minimised and explained.

Q2 Sound methods

- Producers of statistics and data should use the best available methods and recognised standards, and be open about their decisions.

Q3 Assured quality

- Producers of statistics and data should explain clearly how they assure themselves that statistics and data are accurate, reliable, coherent and timely. People in organisations that release statistics should be truthful, impartial and independent, and meet consistent standards of behaviour that reflect the wider public good.

2.1 Owing to the structure of the rail industry, ORR statistics are based on data from a relatively small number of sources, much of which is required under legislation for regulatory purposes:

- Our rail network data is sourced from Network Rail – the sole owner and infrastructure manager of most of the GB railway network. This data is supplied to ORR according to section 80 of the Railways Act 1993 (as amended by the Railways Act 2005) and Sections 8 and 10 of [Network Rail's network licence](#). Failure to provide ORR with the information required within a reasonable time would constitute a licence breach.
- Our data on consumer complaints and delay compensation is sourced directly from train operating companies (TOCs). This data is supplied to ORR as a requirement of condition 6 of the operator's licence on complaints handling procedures. ORR also receives information on complaint appeals from [Transport Focus](#) and [London TravelWatch](#) as the statutory appeal bodies for GB rail passenger services; and from the Rail Delivery Group (RDG) who supply data to ORR on their National Rail

Enquiries Service (NRES) calls. RDG also supply data on disabled persons' railcards and, on behalf of TOCs, data on the passenger assist bookings.

- Our safety data is sourced from London Underground Limited, the Rail Safety Standards Board (RSSB) or collected directly from our website using a web form according to jurisdiction. This information is required of duty holders under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR).
 - We license data from LENNON: the rail industry's 'Latest Earnings Network Nationally Over Night' ticketing and revenue database to produce our passenger usage statistics and rail fares index. This is owned and operated by Worldline for RDG.
 - Our *Estimates of Station Usage* are produced for us by consultants Steer using data produced for the MOIRA2.2 rail planning tool (derived from LENNON), data from Transport for London and other Passenger Transport Executives (PTEs), and selected manual station counts.
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- 2.2 ORR's Information and Analysis team have a long-established relationship with all of the parties who supply ORR with data. We meet directly with RSSB on a monthly basis. The team maintain an open and ongoing conversation about data management via correspondence with Network Rail and London Underground, and further engage with Network Rail and HS1 Ltd through regular meetings at which regulatory concerns are discussed. Less frequent meetings are conducted with TOCs but include an annual workshop to update and clarify data requirements and guidance. Quarterly liaison meetings are held with DfT and RDG. Other organisations, Transport Focus and London TravelWatch, are members of our Rail Statistics Management Group which meets quarterly.
- 2.3 ORR has a Memorandum of Understanding (MoU) with each data supplier, which is reviewed on an annual basis. These specify the timing, definitions and format of data requirements and record the named responsible officers for both parties, contact details and where applicable, supplementary guidance.
- 2.4 In preparation for Control Period 6 (starting on 1 April 2019) ORR expanded the MoU with Network Rail to a Data Protocol that covers all data and information supplied to ORR on a regular basis. In addition to the quantitative data supplied to the Information and Analysis team for statistical purposes, this encompasses data used by teams across the organisation and documents containing qualitative information.

2.5 Our quality and methodology reports accompanying each statistical publication provide detailed information on:

- Definitions, concepts and data sources
 - The methodology used to compile the statistics
 - The historical background
 - The relevance of the data to users of the statistics, and details of our engagement with users
 - The accuracy and reliability of the statistics
 - The timeliness and punctuality of the production of the statistics
 - The quality assurance of the statistics
 - The format of our statistics and where they can be found
 - The strengths and limitations of statistics
 - The comparability to similar statistics.
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2.6 All but one of our data sources are administrative rather than survey based and thereby involve little use of formal statistical techniques. However, our methods and processes are based on good practice.

2.7 ORR use a data warehouse to process and validate data. The warehouse was upgraded to SQL Server 2017 in June 2019. Using a data warehouse reduces the risk of manual error and ensures that there is only one live version of the data. Data is loaded into the warehouse via an Extract Transform and Load (ETL) process from files sent to us by email, loaded onto the Network Rail Sharepoint; or directly from our web forms depending on the specific data series. The structure and format of all data is standardised in the data warehouse. This makes it easier to interrogate and ensures that long term time series analyses can be conducted efficiently.

2.8 ORR is committed to continually improving processes and products. In addition to the recent work to upgrade our data warehouse and data portal, our work programme for 2019/20 includes a Quality Assessment of Administrative Data (QAAD) of the health and safety statistics received from RSSB and an independent reporter assessment of Network Rail's data assurance.

- 2.9 Independent reporters are technical contractors used to assure the quality and processes of the data that Network Rail provide to ORR to support our regulatory monitoring activities and deliver on the commitments in their five-year business plan, so that ORR has confidence in this data. The reporter may be asked to undertake critical analysis of the reliability, quality, consistency, completeness and accuracy of data, and that it appropriately explains the performance of Network Rail. [Reports produced by independent reporters](#) are published on the ORR website and relevant information is included in the quality and methodology report accompanying the statistical release.
- 2.10 This is further complemented by our internal audit schedule. In spring 2018/19 our internal auditors assessed the processes and controls over the quality and robustness of consumer data used by ORR in external publications. In 2018/19 internal auditors assessed the handling of market sensitive information, and the production of our rail performance statistics. Best practice was identified and where relevant implemented across other outputs too, and any recommendations were actioned.
- 2.11 An example of where we have acted on a recommendation was to produce an overview document of our end-to-end quality assurance process where previously different steps of the process were in separate documents.
- 2.12 All team members maintain detailed desk notes. This includes our business intelligence analysts who record how data is loaded and processed to ensure that the coding analysts employ is professional and consistent. This strengthens the resilience of the storage, collation and publication of statistics.
- 2.13 Our *Statement on User Engagement* sets out how ORR will provide and consult with users about changes to methods and ensure that a consistent back series will be made available where necessary and possible. Our *Statement on Orderly Release and Revisions Policy* sets out our revisions policy.

3. Value

Statistics that support society's needs for information

Value defines what statistics must provide for the public. This includes a coherent picture, a focus on users, an emphasis on what questions the statistics answer, and a focus on innovation as the world changes. Trustworthy processes to create high-quality data may not be useful to the public if the statistics are not accessible, do not address key questions, are inefficiently produced, and do not add value or provide insight.

Producers of statistics and data should explain clearly how they assure themselves that statistics and data are accurate, reliable, coherent and timely. People in organisations that release statistics should be truthful, impartial and independent, and meet consistent standards of behaviour that reflect the wider public good.

V1 Relevance to users

- Users of statistics and data should be at the centre of statistical production; their needs should be understood, their views sought and acted upon, and their use of statistics supported.

V2 Accessibility

- Statistics and data should be equally available to all, not given to some people before others. They should be published at a sufficient level of detail and remain publicly available.

V3 Clarity and insight

- Statistics and data should be presented clearly, explained meaningfully and provide authoritative insights that serve the public good.

V4 Innovation and improvement

- Statistics producers should be creative and motivated to improve statistics and data, recognising the potential to harness technological advances for the development of all parts of the production and dissemination process.

V5 Efficiency and proportionality

- Statistics and data should be published in forms that enable their reuse. Producers should use existing data wherever possible and only ask for more where justified.

3.1 Our *Statement on User Engagement* sets out how ORR put the users of statistics and data at the centre of our statistical production.

- 3.2 User surveys are conducted every few years to capture views and better understand user needs. The most recent of these undertaken in 2017, received nearly 200 responses, informed a set of user profiles and determined that users wanted greater access to the data underpinning our statistics. The team also engages with specialist users through the [Rail Statistics Management Group](#) (RSMG) which ORR hosts every quarter, and meets with key stakeholders and data suppliers on a monthly or quarterly basis.
- 3.3 Our *Statement on Orderly Release and Revisions Policy* explains how ORR complies with release practices. ORR is also an active member of the [GSS Presentation and Dissemination Committee](#).
- 3.4 ORR data and statistics are available in a range of recognised editable formats. Our statistical releases contain relevant commentary, which are supplemented with charts, infographics and data tables. The team ensure that the charts presented in statistical releases are linked to the specific data table on the data portal, which can be downloaded into Excel.
- 3.5 In July 2019 ORR launched a new data portal. This includes the use of Power BI to show innovative and interactive dashboards to enable both internal and external users to access data more effectively and tailor it to their needs. Our business intelligence analysts have engaged with several Presentation & Dissemination Committee (PDC) events and digital teams from ONS, and other government departments to promote use of data warehousing and learn more about what other organisations are doing with dashboards and Power BI. The team also make microdata for selected products available where possible subject to access agreements on the handling of commercially sensitive or the removal of personal data.
- 3.6 ORR is represented at the [Joint Rail Data Action Plan](#) task force. This group will deliver the Department for Transport mandated actions for the rail industry and government to help optimise and open-up more data by addressing barriers that inhibit it from being shared. ORR has already engaged with the industry to encourage organisations to catalogue their data systems and make more open data available to enable potential users to create new and innovative tools for the industry.
- 3.7 ORR are committed to continual improvement and innovating our products. Recent examples of the work that ORR have undertaken to innovate and improve the user experience, include:

- Developing a series of [popular statistics dashboards](#) for the ORR webpages (which have now been transferred to the new data portal) and introducing the wide-scale application of Power BI to each of our themed outputs;
 - Assessing the data held by the RDG Knowledge Base that underpins the National Rail Enquiries station information pages for use as a statistical source to inform a market study, and joining this to our existing data on accessibility to create an interactive map to identifying stations with accessibility issues;
 - Using Python to automate the production of the annual Rail Fares Index statistics;
 - Identifying opportunities to use oyster, other emerging smartcard data and gate data to improve the accuracy of our annual Estimates of Station Usage.
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- 3.8 ORR statisticians work closely with the Communications team to fully exploit media opportunities to publicise our statistics and reach a wide user base. Tweets are now standard for all our releases, and ORR has successfully used blogs and online webcasts to explain some of the technical aspects of our work more fully. On publication day of our annual Estimates of Station Usage the lead statistician with a member of the Communications team host a Twitter Q&A session.
- 3.9 ORR staff have attended GSS 'scrums' to identify improvements in statistical releases and held in-house team development sessions to discuss learning points and ideas, and roll these out across our publication portfolio.
- 3.10 Section 2.1 gave details of the sources of data ORR use to produce official statistics. There are limited opportunities to seek cost effective alternatives to these data. Any primary data collection would be additional to these administrative sources and may in some cases be wholly unfeasible. For example, it would be difficult to replicate the data sourced from Network Rail's infrastructure systems, and proxy data for measures such as train punctuality would be less accurate.

Annex A

Links to other ORR compliance documents

- [Statement on Data Governance and Confidentiality](#)
 - [Statement on Orderly Release and Revisions Policy](#)
 - [Statement on User Engagement](#)
 - [Pre-release list: ORR official statistics](#)
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