



Office for
Statistics Regulation

Office for Statistics Regulation Research
Programme



Research Programme Overview

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Understanding the Public Good of Statistics Research Programme: what are we trying to achieve?

Background

The Office for Statistics Regulation (OSR) established a research programme in 2019 to better understand the public good of statistics. To deliver on our vision of statistics that serve the public good we must develop a full and complete understanding of what this means.

We have mapped out some of the challenges facing this work and the issues it needs to address. These include:

- defining, measuring, and communicating the public good of statistics
- understanding how statistics are currently used, what users want from statistics, and how to ensure these are reflected in both the regulation and production of statistics
- identifying how best to work with statistics producers to agree common goals and deliver on these

Drawing on Vogel's (2012) guide to applying Theory of Change principles to research projects, this paper sets out the changes we want to see to happen and how this research will contribute to that process.

The current state of the problem

We have identified five areas that capture the current state of the problem we are trying to address. The research programme's priorities will be to address and gather evidence on the following:

- there are challenges defining and measuring the 'public good'
- there are information gaps about how statistics are used
- statistics can seem geared towards institutional users rather than the public audience
- statistics may not represent the wider social context
- there are information gaps about how to best communicate statistics



There are challenges defining and measuring the 'public good'

- although the public good of statistics is defined in legislation, it is unclear whether this is well understood by the public
- there are gaps in understanding how to measure and communicate the public good of statistics
- we cannot quantify the 'value' of statistics as comprehensive and quantified economic estimates do not yet exist

There are information gaps about how statistics are used

- we know very little about how people use statistics in their daily lives
- it is unclear how much users need to interact with statistics for it to be seen as 'serving the public good'

Statistics can seem geared towards institutional users rather than the public audience

- institutional users' needs are easier to identify therefore their needs can seem prioritised over the public's needs
- intermediaries whose needs are met may be able to respond to the needs of the public audience, but this relationship is not well understood

- the public don't appear to "own" statistics despite the fact we describe them as an asset
- producers may have limited resources to address the potentially contradictory needs of different types of users

Statistics may not represent the wider social context

- there can be a perceived disconnect between people's lived experiences and interests and the statistics that are produced
- the decisions that lead to data being collected and statistics being produced are rooted in the social contexts which they attempt to describe; this is not always well understood by the statisticians overseeing their production
- some statistics outputs that exist have limited or no value

There are information gaps about how best to communicate statistics

- it is unclear what is included in the term 'statistics' and whether this relates to raw data, dashboards, and bulletins with commentary. It is also unclear what the demand is for these items
- there can be – or is perceived to be – a tension between insightful and neutral commentary
- it is unclear how to communicate statistics most effectively to a diverse audience of experts and non-experts, and to what extent it is producers or intermediaries who are responsible for communication

Context for this work

We have identified five areas that provide a foundation for this work:

- the legislation setting out the public good of statistics
- the wider environment where statistics are consumed and used
- how people use statistical information to inform decisions
- how producers and intermediaries expect others to use statistical information
- official statistics producers' capacity to change how they function



The legislation setting out the public good of statistics

- the [Statistics and Registration Service Act 2007](#) defines statistics that serve the public good as those which: inform the public about social and economic matters or assist in the development and evaluation of public policy
- projects seeking to use the data sharing provisions of the [Digital Economy Act 2017](#) for statistical research must demonstrate that their work serves the public interest. This enhances the public good offered by statistical research

The wider environment where statistics are consumed and used

- the challenges to improve the public good of statistics raised by the 2019 Public Administration and Constitutional Affairs Committee (PACAC) [inquiry into the governance of official statistics in the UK](#)
- statistics serve a wide range of audiences and users – official statistics are only one among many other sources
- statistics have played a central and vital role in understanding the Covid-19 pandemic
- the social media environment where statistics are often shared is largely unregulated

- statistics appear to be available at the touch of a button, often masking their complex production journey
- the relationship between how statistics are communicated, used, and understood is complex

How people use statistical information to inform decisions

- decision-making is complex – humans use a range of information, past experiences, feelings, and judgements to arrive at decisions. Statistics have a place here, but they are not alone

How statistics producers and intermediaries expect others to use statistical information

- there is an expectation that government policy decisions are – or should be – evidence based
- there are perceived and real problematic uses of statistics by politicians and others, which has given rise to the era of fact-checking

Official statistics producers' capacity to change how they function

- statistics producers face many competing priorities; they may have strong aspirations to innovate but face other constraints
- current public health measures put in place to combat the Covid-19 pandemic have led to changes which will be felt for months, if not years, to come. Some analytical staff have moved to frontline service delivery roles and some data supplies have been halted. Statistics producers are currently working under pressure to deliver timely, relevant statistics to help policy makers and the public understand the pandemic

Who else can influence change?

We are not alone in wanting statistics to serve the public good. By gathering evidence about the public good of statistics we will be better able to target our regulatory activities towards this goal. However, we will need to work collaboratively and influence others if we want to see this happen. The kinds of people we will need to work with are:

- Statistics producers
- Permanent Secretaries and other senior civil servants
- Government communications professionals
- Influential commentators and organisations
- Academics
- Politicians and other public users of statistics
- The public



What is the long-term change we want to support and who will benefit from this?

Long-term change

Our ultimate goal is to see statistics serving the public good. The research programme will support this in two ways. Firstly, by helping us to understand the extent to which this currently happens. Secondly, it will use the evidence gathered about the public good of statistics at present to identify what kinds of changes are needed, by whom, to ensure that statistics are fully serving the public good. As the next section discusses, this goal needs to be supported by tangible, measurable impacts that demonstrate what it means for statistics to serve the public good.

Beneficiaries

The ultimate beneficiary of statistics that serve the public good is society as a whole. Research, public debate, and democracy will be enhanced. The public will be in a stronger position to make decisions about their lives and understand their communities and fellow citizens. Institutional users of statistics, including companies, third sector organisations, journalists and politicians will be in a better position to hold government to account and to make decisions relevant to their operational work. In the longer-term, future historians will have access to enhanced statistical resources to help interpret the way we live now. The research programme's direct beneficiaries are OSR's regulators, whose work it aims to support and extend, and the statistics producers whose work it aims to influence.

What steps will need to be taken to lead to long-term change?

Following Vogel's (2012) guide to applying Theory of Change principles to research projects, we have set out the sequence for this work using the following stages:

- research questions – what it is we are trying to find out
- activities – the projects that will help to answer our research questions
- outputs – the direct deliverables arising from those activities
- outcomes – the likely medium to longer-term outcomes from the outputs
- direct impacts – the broader, long-term difference that the outputs contribute to
- indirect impacts – long-term spin-offs resulting from the direct impacts

The diagram below illustrates the sequence of events we envisage.

The five research questions will be addressed by the research activities listed, each of which will be scoped and developed in more detail. Further activities will be added as the programme develops and it becomes clearer where more work is needed to answer the questions, or more questions are needed to address the overarching aim to understand the public good of statistics.

The collected outputs arising from that research activity will form outputs such as written reports, presentations, and events to communicate our learning. The outputs will then be used to refine our regulatory work which, in turn, should support statistics producers to increase the public good of their statistics.

The direct impacts we are seeking will be identifiable when we can judge that a broad range of needs are being met and that statistics are available in the formats that users want. The desired indirect consequences of this sequence of events include greater public confidence in statistics and the use of public data for their production, statistics are judged to be trustworthy and, by virtue of them being seen as directly relevant and useful to people's lives, that they are a public asset.

Our research questions

- whose needs are served by existing statistics?
- how are statistics used in policy making?
- how do organisations and the public use statistics?
- what statistics do the public want?
- do people understand statistics as currently presented?



Our activities (inputs)

- OSR synthesis of existing work about the public good of statistics
- OSR study of how public good is demonstrated in statistical research
- OSR synthesis of how existing regulatory work has addressed the public good of statistics
- OSR study of statistics use in government policy making
- OSR commissioned research and engagement with the public (e.g. ethnography, PCOS survey)
- primary research with the public by others (e.g. Winton centre, ESCoE)
- other activities will be created as the programme develops



Outputs

Reports, events, guidance outlining what we have learnt about;

- whose needs statistics currently meet
- how statistics are currently used in policy making
- how the public use statistics
- what kinds of statistics the public want
- how the public want to access and use statistics
- how to communicate statistics well



Longer-term outcomes

- OSR is in a better position to identify where statistics do and do not serve the public good
- statistics producers use this knowledge to identify changes that would increase the public good of their statistics



Direct impacts

- statistics and statistical research meet policy and public needs
- statistics and data are published in formats that the public want and understand



Indirect impacts

- the public support their data being used in statistics production
- Official Statistics are seen as a trustworthy, valued source
- statistics are seen as a public asset

What are our assumptions about how change will happen and the context in which it will happen?

The research questions address a range of statistics users: policy makers, companies, third sector organisations, journalists, and the public. Our regulatory work of course spans all these interests. But the research programme has a particular interest in understanding more about the latter group – how the public use statistics and whether their needs are being met. We feel less well informed as regulators about this issue and therefore our assumption is that, for statistics to fully serve the public good, this is where we need to focus our efforts.

We are not necessarily starting from a presumption that we know there are fundamental problems with the public good of statistics, rather we have identified knowledge gaps and we want to build an evidence base to address them.

Not every planned activity will add value so we will need to adapt our approach and stop activities where they are not contributing sufficient useful information.

We are not aiming to do this work by ourselves. We will collaborate with a range of stakeholders, including our research advisory group, to develop shared plans. We will also draw on other work happening that is of related interest. We will also work with others, such as the Government Statistical Service Good Practice Team, to translate what we learn into useful materials for statistics producers and others.

We will not rely solely on published reports to bring about change. We know we will need to be imaginative with our outputs to support knowledge translation.

Change will not happen everywhere, overnight. It will require pilots and time to establish what works.

What needs to change will differ between and within producers – pockets of good practice can co-exist with less good practice for many different reasons (resources, legacy issues, different operational pressures).

We work on the assumption that statistics producers will, in most cases, share our analysis of the situation and proposals for change (as we will be working closely with them to draw out that learning and to pilot innovations).