

Article

Assessing the benefits of Census 2021, England and Wales

How the Office for National Statistics (ONS) plans to assess the benefits of Census 2021 data for users to understand the value of Census 2021.

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1 . Overview of assessment of benefits

- It is important to understand and quantify the benefits of census data for users; an assessment will provide an understanding of the value of the data, compared with the cost of delivering the census.
- The benefits of the census for users are only realised when they use the results to improve the decisions they make.
- The Office for National Statistics (ONS) assessed the benefits following the 2011 Census and other national statistical organisations have done similar exercises.
- The benefits to users forecast in the business case for Census 2021 totalled £5.5 billion over the 10-year appraisal period.
- Representatives from central government departments, five local authorities and relevant businesses provided the evidence used in making this forecast.
- The benefits assessment project will collect evidence from users of Census 2021 data, including central and local government, and private sector users, revisiting those who helped produce the original benefits forecast.
- We will also seek to expand the stakeholder base to include other sectors and capture additional benefits.
- For comparison, we will replicate the methodology used in the forecasts, unless the internal and external reviews of our detailed methodology and assumptions indicate a change of method is required.

2 . Why we need to understand benefits

We can describe the uses of statistics and their logical and qualitative benefits, but for governments to decide spending priorities we need to go a step further and quantify these benefits.

The census is the largest statistical exercise in England and Wales, governed in legislation and used to inform decisions about how billions of pounds are spent on public services such as school places, emergency services and hospital beds. It is therefore important to provide robust evidence to justify its cost. Following the 2001 Census, the House of Commons Treasury Select Committee recommended that this justification should be in cost-benefit terms, aligning to best practice for large government projects.

Understanding the benefits of Census 2021 is also useful in considering recommendations for [the future of the census beyond 2021](#) and our [transformation of population statistics](#). We need to fully understand how census data are used and valued to help inform our future approach.

3 . Previous assessments of the benefits of census data

2011 Census benefits assessment

To estimate the benefits, we engaged with users to obtain direct value estimates, willingness to pay and estimates of costs saved. We also asked users to consider the extent to which the value identified in the exercise could be attributed to census statistics. Based on this, we estimated the quantifiable [benefits of the 2011 Census](#) to local authorities, central government departments and the private sector to be £500 million per year.

International assessments

Statistics New Zealand (Stats NZ) and the Australian Bureau of Statistics (ABS) have published assessments of the benefits realised by their censuses. Both take broadly similar approaches to our methods in 2011. Benefits were assessed assuming that, in the absence of new census data, the next best data currently available would be used.

Stats NZ reported [an overall benefit in 2013 of five dollars for every dollar spent](#), reducing to [four dollars for every dollar spent when refreshed in 2021](#). For ABS, the [published benefits in 2019 were six dollars for every dollar cost](#). This included an estimate of the "long tail" of minor quantifiable benefits, at 25% of the value of the major benefits calculated.

4 . Forecast benefits of Census 2021

Expected benefits

In the [Census 2021 white paper \(PDF, 968KB\)](#), we stated that we expected to realise around £5 of benefit in the wider economy for every £1 spent on Census 2021. The total benefits to central government, local government and private sector users were expected to be £5.5 billion over the 10-year appraisal period (for ease of comparison with 2011 figures, this would be approximately £550 million on average per year, not accounting for the decay in value over time). This was based on evidence from the assessment of benefits from the 2011 Census, reviewed and refreshed between 2017 and 2018.

Categories of forecast benefits and how they were estimated

The methods and approach to quantifying the forecast benefits were signed off by HM Treasury in 2017.

Central government

Funding allocation

Government departments used their modelling to assess the misallocation that would result from using the next best available data to inform funding allocations. We used this to calculate net welfare loss, that is, what is the welfare loss of a pound being spent where it is not needed, compared with where it is needed.

Policy research

We took the value of research to be at least the amount spent on it.

Evidence-based investments

We assessed the delay expected to projects such as major transport schemes as a result of not having census data and estimated the associated costs for the delay.

Local government

Informing spending decisions

Five local authorities were asked to identify areas of spend where census data were relevant. They then ranked these areas of spend according to how reliant they were on these data. We calculated an initial estimate for each area of spend. This took account of the value of big data to local government spending, the total spend for each area, and reliance on census data.

Private sector

Informing business decisions, marketing and advertising

We engaged with one representative from each industry (insurance, leisure, advertising, real estate, utilities, geo-demographic resellers, direct marketing, banking, management consultancy, retail and market research) drawn from a membership organisation of commercial users of government demographic datasets. Each representative identified a percentage value of data in relation to each relevant decision or activity. They then identified the portion of data attributable to census and geodemographic segmentation systems. We used this to calculate an initial benefit estimate for the representative organisation and scaled this up for their sector, taking account of how homogenous the sector is.

Intermediate input to geo-demographic resellers

We assumed, based on information collected from the sector, that 20% of any benefit generated from using commercial software can be allocated to census data.

A membership organisation of commercial users endorsed these estimates.

How forecast benefits may have changed

Everyone benefits from the census (population and household) estimates because they help councils, charities and businesses plan and fund the local and national services we all rely on in our local area (wherever we live) across England and Wales. The forecasts developed between 2017 and 2018 used evidence from these decision-makers about how they used census data to quantify the total benefits.

We are mindful that the research and data environment today is different to 2018 and the uses and benefits of census data may have changed too. Increased localism in decision-making and the growing green economy are just two examples where census data may now have increased value. In our engagement with stakeholders, we will be checking the assumptions underlying the benefit forecast calculations to make sure they still apply.

We will be engaging with the users who contributed to the benefits forecast exercise and also widening our stakeholder base. This will help us to capture the anticipated uses, any changes, and previously unquantified benefits.

We are aware that world events such as coronavirus, Brexit and Russia's invasion of Ukraine have impacted on the fiscal environment. Cuts to budgets may mean spending is reduced and that some projects expecting to use Census 2021 data may not go ahead. They may also impact on the capacity of stakeholders to engage with us and provide data. To reduce the impact of this, we will engage with stakeholders to identify barriers and plan our data collection to be as efficient as possible. By widening our stakeholder base, we will also reduce the risk of collecting insufficient data to inform our benefits assessment.

The census gives us the best possible picture of all the people and households in England and Wales. Because we are using a variety of data sources to provide more frequent, relevant and timely statistics, it may be that the degree to which value is attributed solely to census data has changed since forecasts were made. Our conversations with users will help us to understand and reflect this.

5 . Scope of the Census 2021 benefits assessment project

In scope

The benefits assessment project will collect evidence (directly and indirectly) from users of Census 2021 data, to understand the value and benefits the census has to them. We will revisit the central government, local government and private sector stakeholders that we engaged with to produce the benefits forecast. We will also seek to expand the stakeholder base to include other users and sectors, and capture additional benefits.

The main focus of the benefits assessment project will be to provide an estimate of the total benefit (in monetary terms) of Census 2021 data. This will validate the forecast benefits. We know from our [census consultations](#) and engagement with users that the uses of census data are extensive and varied. Many of these uses will generate important benefits that are not easily monetised. Where our engagement enables us to identify these benefits, we will seek to highlight and describe them.

Out of scope

There are many benefits associated with Census 2021 in relation to reusable functionality, from census collection through to dissemination. The census benefits project will be specifically considering the benefits to users of Census 2021 outputs. We expect to undertake exercises outside of this project to understand how users accessed the data and whether it met their needs.

6 . Data collection

We will engage with users to collect evidence through:

- in-person meetings
- focus groups
- surveys
- emails and correspondence channels
- desk research

We will finalise these engagement methods and channels as part of the design approach to collecting data to assess census benefits. The methods will be tailored to the type of stakeholder or stakeholder group.

7 . Timeline for engagement and evidence collection

We will begin general awareness-raising about the census benefits assessment project in 2022. We expect to start initial engagement with our primary stakeholders (those who engaged with the 2017 to 2018 benefits forecast exercise) in autumn and winter 2022. This will be to introduce the project and share our planned approach, to prepare for the first phase of evidence collection. We intend to collect evidence from users in three main phases.

Phase 1 (spring to summer 2023)

Initial data collection from users who provided evidence, which informed the 2017 to 2018 benefits forecast. We intend to report on our initial findings from this phase in a publication before we commence later phases of evidence collection.

Phase 2 (autumn to winter 2023)

Evidence collection from a widened base of users. The primary focus of this phase will still be to capture quantifiable benefits.

Phase 3 (early 2024)

In this phase we intend to follow up with users who provided evidence in Phase 2, where more detailed exploration of the benefits is needed. We also expect to collect evidence of the benefits of Census 2021 data that we cannot quantify.

We will publish a final report of our findings after the completion of Phase 3.

8 . Methods for calculating benefits

We intend to replicate the methods used in the 2017 to 2018 benefits forecast exercise, unless there is evidence to suggest that they are no longer appropriate. This will help us to compare the realised benefits with forecast benefits. These methods were approved by HM Treasury in 2017.

We will validate all assumptions with stakeholders and adjust them as needed. As per the previous exercise, we intend to engage with representative organisations to develop rough orders of magnitude, which we will then scale up.

Where values were drawn from external reports and publications, we will seek updated values from more recent versions. Our detailed methods and assumptions will be reviewed internally and externally.

The primary focus of the project is to quantify benefits. However, while we are engaging with users it is likely that we will also identify benefits that it is not possible to quantify. We are keen to capture and summarise these benefits.

9 . Working with devolved administrations

The project will consider the benefits of Census 2021 for England and Wales. We are working with colleagues in Welsh Government to ensure we capture all relevant stakeholders and uses of census data in Wales. Welsh Government colleagues will also be included in our review and governance processes.

We will continue to engage with counterparts in Scotland and Northern Ireland to share our approach and understand and support any comparable work they undertake.

10 . Future developments

We are developing our detailed plans for collecting evidence and calculating benefits. We will publish these once they have been internally and externally reviewed. We will publish all reports on our website and promote them via our stakeholder groups, newsletters and social media as appropriate. If you would like to receive future updates and communications, or if you have any queries about the project, please contact Census.benefits@ons.gov.uk

11 . Related links

[About the census](#)

Article | Released 19 July 2022

What the census is and why it is important for us.

[Release plans](#)

Article | Released 19 July 2022

Our plans for the release of Census 2021 data and analysis, including first results, topic summaries, multivariate data and specialist data.

[Population and household estimates, England and Wales: Census 2021](#)

Dataset | Released 28 June 2022

Census 2021 rounded population and household estimates for local authorities in England and Wales, by sex and five-year age group.

12 . Cite this article

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