

# **Initial View on 2021 Census Outputs Strategy for Northern Ireland**

**Response to Consultation**

**February 2021**

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# Introduction

The Northern Ireland Statistics and Research Agency (NISRA) published their proposal for the “2021 Census Outputs Strategy” in October 2018. NISRA invited views on this proposal through a public consultation that was launched on the 18 October 2018 and ran for a period of 12 weeks ending on 9 January 2019. This consultation allowed NISRA to gather the views of users on the proposed strategy for producing and disseminating 2021 Census results, including specialist products and census microdata.

This report presents the views expressed in response to the 2021 Census Outputs Strategy Consultation and the results of NISRA’s assessment of those responses. It is important to note that the consultation was to inform a proposed way forward. The final design of output content will be subject to further research, resources, feasibility, UK/Ireland harmonisation considerations, availability of administrative data, testing and feedback from users.

## Responses

There were 52 valid responses to the consultation, with slightly less than half of responses (46%) received from representatives from Central or Local Government. Responses were primarily received from the consultation hub hosted on citizenspace (n=40) with the remaining responses received via email.

It is important to note that each of the percentages illustrated below exclude those who did not respond to that particular question. This approach was taken due to the different ways in which responses were provided to the consultation with some organisations simply providing a written response in place of a completed questionnaire.

## Evaluation Strategy

We’ve considered the responses users provided against the following criteria: **accessibility and flexibility, timeliness, user acceptability** and **public confidence**. This report will examine these areas in relation to each of the sections within the consultation questionnaire. While this report contains a summary of findings from this consultation, an annex has been created that will allow you to review the full results from the 2021 Census Outputs Strategy Consultation. This annex will also provide further information on criteria used to evaluate each qualitative response.

Overall, users agreed with our proposed output content and approach for disseminating 2021 Census data, however there was a lot of debate around the level of geography to which results will be published, particularly around the need for a review of Super Output Areas (SOA) and Small Areas (SA) and our strategy for statistical disclosure control.

# 1. Accessibility and Flexibility

## Flexible Dissemination System

For 2021, NISRA are considering providing census data through a flexible dissemination system. This will allow users to access data to build customised tables that meet their specific needs. This approach will facilitate a quicker turnaround of standard outputs than was seen in 2011. While this will allow service users to generate their own tables, NISRA still aim to provide a number of standard tables alongside the dissemination system for those who may not be familiar with the technology and to ensure access to all.

The majority of respondents (85%) agreed that they would prefer to access data earlier via an online flexible dissemination system rather than waiting for tables to be developed by NISRA with 67% of respondents indicating that being able to define their own tables was more useful than using pre-defined tables. It was noted, however, that 75% of respondents would find it useful to be provided with a small number of univariate tables alongside those they can generate through the flexible dissemination system. NISRA also wanted to identify if users would find it useful to access 2021 Census data through an application programming interface (API) alongside the flexible dissemination system. The majority of respondents (76%) indicated that an API to access 2021 Census data would be useful.

The comments received in relation to the flexible dissemination system and associated API were mostly positive, however, some concerns were expressed about the complexity of the system as this may act as a barrier for certain service users. Respondents stressed the need for the system to be accessible and understandable to all and suggested that guidance on how to use the system would be required.

**Way forward:** NISRA will continue to consider how best to deliver a flexible dissemination system, bearing in mind this feedback.

## Supporting Information

Following the 2011 Census, NISRA provided a range of documentation about the information contained within the data tables, and supporting documentation, for example, about the quality of outputs and definitions used. This information provides context to the data, for example, how they were collected and the coverage of the data, publication dates, descriptions and search keywords. Results indicated that 57% of respondents had used supporting information from the 2011 Census and the most frequent supporting information accessed included definitions and output classifications (n=37), and information on the comparability of 2001 and 2011 information (n=33). Respondents indicated that they would prefer this information to be provided by a link next to the table (n=35) or in the data tables themselves (n=25) if they were to be provided again in 2021.

Responses to the consultation indicated that the most useful accompanying commentary was a statistical bulletin describing key outputs (n=38). Interactive data visualisations (n=31), and infographics (n=30) were other formats that users find

most useful when supporting census data. Further qualitative responses also expressed a preference for supporting information to take the form of a commentary and analysis to be provided in statistical bulletins, press releases and infographics.

**Way forward:** based upon the feedback received NISRA will continue to include a range of supporting material with data releases.

## 2. Timeliness of Release

We recognise the importance of the timely release of 2021 Census data. Census Office are currently considering the publication of Population and Household estimates in the first release by Summer 2022, with all other planned releases being published by Summer 2023.

While results indicated that the respondents to the consultation were mostly in favour of the proposed release schedule (77%), a small number of additional comments (n=4) stressed the need to publish as quickly as possible.

**Way forward:** NISRA will endeavour to publish results as soon as they are available and robustly quality assured. The provision of a flexible dissemination tool may also speed up the release of 2021 Census data, however, it is important to note that the COVID-19 pandemic may impact our ability to release according to the originally proposed timescale.

## 3. Public Confidence

### Statistical disclosure control

Statistical Disclosure Control (SDC) refers to a range of methods that aim to protect individuals, households and businesses from being identified whilst minimising impact on the quality and utility of results. For the 2021 Census, NISRA is considering two strategies of SDC – targeted record swapping and cell key perturbation. The SDC methodologies will be co-ordinated across the UK Census Offices, where it is practicable to do so, as set out in the Statement of Agreement between the National Statistician and the Registrars General.

The majority of respondents were in favour of the proposed SDC methodologies with a greater proportion of respondents in favour of targeted record swapping (96%) than cell key perturbation (84%). This difference between the methodologies was the cause of some concerns around inconsistencies in relation to totals, some felt it may cause some confusion in the interpretation of results.

While accuracy of the data was a key concern for respondents it was noted that 80% of respondents indicated that they would be content with slightly inconsistent table totals in support of the use of cell key perturbation as an additional form of Statistical Disclosure control, in order to facilitate the development of a flexible dissemination system.

**Way forward:** In the interest of data protection and the protection of individual responses to the census, NISRA will continue to develop this dual approach to statistical disclosure control.

## 4. User Acceptability

### UK Harmonisation and Statistics

NISRA, ONS and NRS have been working together to facilitate the harmonisation of output content, where possible. The flexible dissemination system and statistical disclosure control methodology, for example, will be a major focus of harmonisation across the UK with focus given to adopting common population bases, geography, metadata and output formats. As such, we are interested in establishing the value of UK-level statistics and the detail required.

Results highlighted that 77% of respondents indicated that they used UK data from the 2011 Census with 72% of respondents claiming that it was important for them to be able to access and compare data for England, Scotland, Wales and Northern Ireland. When asked, a greater number of respondents expressed an interest in Small area statistics for different geographies across England, Scotland, Wales and Northern Ireland (n=37) than those who wanted to see UK statistics totals (n=28). The majority of respondents (n=33) would expect to see this data thorough a single website for example, through the NISRA website. Comments seemed supporting of this approach however concerns were raised about how comparable this data would be.

**Way forward:** NISRA will continue to work with other Census Offices across the UK to try to deliver harmonised outputs and will continue to support the development of UK wide outputs. It is important to note that the COVID-19 pandemic has resulted in the delay of the census in Scotland until 2022 and as such there may be a delay to the production and publication of these statistics.

### Ireland and Northern Ireland Harmonisation and Statistics

As has been the case for the last two censuses, NISRA will continue to work closely with the Central Statistics Office (CSO), Ireland, to ensure where possible consistency and comparability of 2021 Census Key Statistics across the island of Ireland and are considering the production of an Ireland and Northern Ireland 2021 Census report, similar to the published report on the 2011 Census.

While only 42% of respondents who answered the question stated that they had used the joint CSO report, 58% stated that it was important for them to be able to access and compare data for Ireland and Northern Ireland for their work. This was supported by the comments made expressing the respondents need for cross border data or comparisons to assist with their work.

**Way forward:** NISRA will continue to work with the Central Statistics Office, to provide joint statistics from both offices, however, it is important to note that the

COVID-19 pandemic has resulted in the delay of the census in Ireland until 2022 and as such there may be a delay to the production and publication of these statistics.

## Geography

In 2001, NISRA released census outputs for a range of administrative and statistical geographies. This included geographies known as Census Output Areas (SA) and Super Output Areas (SOA) which, due to their hierarchical nature, were used to create larger geographies such as Wards and Local Government Districts. These same geographies were used again in 2011, however, in 2015, following the revision of local government boundaries, a new set of Local Government Districts, District Electoral Areas and Electoral Wards were introduced. To date a number of 2001 and 2011 Census outputs have been produced using these new geographical areas, however, outputs could not be produced for the new lower level Electoral Wards due to increased risk of disclosure. NISRA had devised two options to deal with this issue; option 1; keep SA/SOA as they are to allow for comparisons to continue, or create new SA/SOA that align with the new electoral boundaries.

Results showed that a small majority of respondents preferred option 2 to create new geographies for 2021 (n=27). The comments received, particularly from representatives of local government, appeared to support this result as it would be beneficial for their work, however, a number of comments highlighted the need for consistency and comparability over time.

**Way forward:** Due to the split result of the consultation we are planning to investigate a dual geography outputs approach, further engagement with service users can be expected when this work is progressed.

## Grid Square Product

In order to permit the examination of trends over time for consistent spatial units, NISRA has made available grid square statistics for every census since 1971. The geographic base for these outputs is the Irish Grid, and census statistics are produced for 100m and 1km grids. It is the intention of NISRA to continue this time series and produce a 2021 grid square product. It was interesting to note that 66% of respondents who answered the question claimed that they had not previously used the 2011 Census grid square product, yet 60% of respondents who answered the question claimed that they would use a 2021 Census grid square product if it were made available and 37% stated that it was important for them to have a 2021 Census grid square product for their work.

**Way forward;** NISRA will continue to offer a Grid square product as part of the outputs from the 2021 Census

## 5. 2021 Specialist Products

### Origin and Destination Data

Origin and destination (flow) data produced following the 2011 Census shows the flows of people from one place to another. A large number of the origin and

destination outputs were produced at the UK level, providing flows for usual residents within and between England, Scotland, Wales and Northern Ireland. Fifty five percent of respondents stated that they did not use the 2011 Census origin and destination data but 70% stated that they would use 2021 Census origin and destination data if it were made available.

### **Alternative Populations**

In 2011, statistics were made available for three alternative populations including: short-term residents, daytime population and workplace population. NISRA are currently reviewing whether these data should be produced as part of the 2021 Census outputs. Just under 50% of respondents who had answered this question indicated that they had used daytime populations (n=24) and workplace populations (n=24) from the 2011 Census data while only 13 respondents indicated that they had used short-term resident information. It was interesting to note however that 71% of respondents stated that they would use 2021 Census alternative population data if they were made available.

### **Bulk Download**

In 2001 and 2011 NISRA provided a facility to download all released tables through a bulk download. It is the intention of NISRA to continue the provision of this bulk download facility. As with a number of our other specialist products, the majority of respondents (63%) indicated that they had not used this product from the 2011 Census data, but 72% of respondents stated that they would use a 2021 Census bulk download facility if it were made available.

### **Microdata**

Microdata products are small samples of data for whole households and individuals, which include some associated census characteristics but no information that could identify a household or individual. Microdata products enable researchers to look at combinations of characteristics that are not generally available from the standard census tables, and to perform different types of analyses not possible from standard tabulations.

In 2011, NISRA produced three microdata products: microdata teaching file, secure microdata and safeguarded microdata. The vast majority of respondents who had answered this question stated that they had not used any of our previous microdata products (n=38) and yet 62% of respondents (N=26) stated that they would use 2021 microdata products if they were made available.

Respondents then had the opportunity to provide additional comments about any of our specialist products. Two comments were made around service users difficulties in accessing the supporting information, particularly the micro data products. All remaining comments related to additional data that respondents would like to see published, including: greater access to historical census material from 1926-1991, market segmentation data, and combined variables such as deprivation and qualification.



**Way forward:** based upon the feedback received, NISRA will continue to offer all identified specialist products as part of the outputs from the 2021 Census.

## 6. Final Comments

At the end of the consultation, respondents were invited to provide any final comments about the proposed 2021 Census Outputs Strategy. A varied mix of additional comments were provided but each will be reviewed in relation to the categories identified within our evaluation strategy, however, very little was commented in relation to the timeliness of release.

### Accessibility and Flexibility

A number of positive comments were received in relation to the data that is made available from the census and our work to try and make this data accessible and fit for purpose. Some respondents even identified some additional data that they would like to see included as part of our 2021 Census results including coding the place of work, school or college and the digitisation and publication of a range of historical census data.

### User Acceptability

Several respondents took this opportunity to stress again their need for data at certain geographical levels with particular reference to LGD2014 and grid square products. It was also noted within one of these comments that the data must be understandable to all.

### Public Confidence

A mixture of comments were received in relation to public confidence with one respondent stating that we ask too many questions within the census while another respondent reflected the benefits of gaining access to census data. It should be noted however that questions were being asked as to whether input could be provided in relation to the topics being asked within the census even though a topic consultation was carried out in 2015/16.