

**Scotland's Census 2021:  
Question Design and Inclusion Evaluation Criteria –  
Existing questions: Changes to response options**

**April 2018**

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## 1. Introduction

This framework is designed by National Records of Scotland to evaluate the effectiveness of question design of tick box response options for existing, alternative or new questions.

The framework consists of five main themes against which the effectiveness of questions and response options can be evaluated: strength of user need; lack of alternative sources; acceptability, clarity and data quality; comparability; and operational considerations.

The framework will be applied to the tick box options, and not the question as a whole. There is an alternative tailored evaluation framework for considering whole questions.

### Strength of user need

- ✓ Data collected by the census must meet a user need for equality monitoring, policy development, resource allocation and/or service planning and delivery.

### Suitability of alternative sources

- ✓ Data collected by the census must meet a user need that cannot be met elsewhere.

### Acceptability, clarity and data quality

- ✓ Questions asked in the census must be acceptable to the majority of the public, clear and be designed with minimal respondent burden in order to obtain good quality data quality that meets user need.

### Comparability

- ✓ Data collected by the census should be comparable over time where possible, and harmonised across the UK where reasonable.

### Operational considerations

- ✓ Census questions and response options must be considered as part of the census as a whole, where effective digital and paper design, space and financial constraints must be considered. Additionally, some questions may be required for operational purposes in the process of conducting the census.

Each theme contains a number of principle criteria. The requirement for a response option is scored as high, medium, or low against each principle in the main themes, where 'high' scores are given for question designs that meet the principle criteria fully and, where relevant, exceed the effectiveness of the 2011 question; 'medium' scores are given for question designs that partially meet the principle criteria; and 'low' scores are given for question designs that do not meet the principle criteria.

Whilst the first four of the five themes are directly about the individual question and response options, theme five, operational considerations, takes into account a number of other considerations made when evaluating question design. These criteria may only be applicable to particular questions, but are equally important in evaluating question and questionnaire design.

Principles are not equally important in the decision making process about question design or inclusion.



Some principles are of very high priority, and scoring a high score in one of more of these principles can give a question design a very high priority score regardless of scoring in other areas, for example, where the data is required to meet legislative requirements and there are no alternative sources, or for operational purposes in the process of conducting the census. These principles are marked with a star.

How the themes and principles are scored against one another is explained in [Section 2: Evaluation Themes](#).

The principle criteria in each theme, the rationale behind including the principle, a description of the evidence for the principle and where evidence is obtained, and how principles are individually scored as high, medium or low are described in [Section 3: Evaluation Criteria Grid](#).

## 2. Evaluation Themes

### Strength of user need

- ✓ Data collected by the census must meet a user need for equality monitoring, policy development, resource allocation and/or service planning and delivery.

Strong user need, identified primarily by the purpose it serves, is central to the evaluation process and is therefore critical in the assessment of whether data should be collected by the census.

The case for inclusion is strengthened if evidence is presented to show that the information is being, or would be used for important purposes such as equality monitoring, policy development, resource allocation and/or service planning and delivery.

Prime importance is given to information that is required to meet national needs. In defining national needs, the full range of national needs (e.g. policy, administration and research) and national users (e.g. national and local government, academic / other researchers and the private sector) are considered. Additionally, requirements arising from national or international legislation also strengthen the case for inclusion.

The volume of supportive responses for a topic is another indication of strength of user need, and is considered in the evaluation process.

### Suitability of alternative sources

- ✓ Data collected by the census must meet a user need that cannot be met elsewhere.

For data to be collected by the census, there must be a requirement for the information to be available at low level, detailed geographies and/or for small population sub-groups. Where a response indicated that this was a requirement, the case for inclusion is strengthened.

A key benefit of census data is the ability to analyse it in conjunction with other variables. A requirement to undertake multivariate analysis will affect whether suitable alternative sources exist and can strengthen the case for inclusion, particularly when the purpose is related to meeting national or international needs.

If there are no suitable alternative sources which can meet the need for information on a topic, the case for inclusion is strengthened.

## Acceptability, clarity and data quality

- ✓ Questions asked in the census must be clear, acceptable to the majority of the public and designed to incur minimal respondent burden in order to obtain good quality data that meets user needs.

There are a number of factors that need to be taken into account when making decisions about, and designing the content of the census questionnaire. These criteria, in conjunction with user requirements, steer the development of the questionnaire. Issues identified by these criteria may mean data are not collected despite a known user or operational need - for example, if we cannot develop a question that respondents can accurately answer, a question negatively impacts census response rates, or if confidentiality concerns prevent data release.

We use this information to help shape our plans for question testing and research in planning the census questionnaire. For example, if a question does not provide good quality data, work may be required to re-design the question in an attempt to make it easier for respondents to understand and/or provide accurate information.

## Comparability

- ✓ Data collected by the census should be comparable over time where possible, and harmonised across the UK where reasonable.

The need for comparison with previous censuses can be an important aspect of census analysis. Where appropriate, Scotland's Census will collect the same information as was collected in the previous census. However, changes in user need may mean that the detail of the information gathered has to change over time, and so full comparability may not be achievable.


A requirement to obtain comparable data at UK level is also considered. However, given that the census is conducted by separate agencies in different parts of the UK, the extent to which this need can be met is determined by user needs being the same or similar across the UK.

## Operational considerations

- ✓ Individual questions must be considered in the context of the census as a whole, where effective digital and paper design, space and financial constraints must be considered. Additionally, some questions may be required for operational purposes in the process of conducting the census.

Some of the data collected in the census helps to serve operational purposes in carrying out the census, as well as meeting information requirements. Hence where data serves an operational purpose, the case for its collection is strengthened. The most important of these is improving coverage of the population, as the primary aim of the census is to provide a robust count of the population of Scotland.

### 3. Evaluation Criteria Grid

1. Strength of user need					
Principle	Rationale	Evidence	High score	Medium score	Low score
 Required for equality monitoring or to meet requirements arising from legislation (Scottish Government, UK Government, and EU) <sup>1</sup>	The census needs to provide data in line with the Equality Act, and be used for identifying and monitoring inequality in accordance with the Act. The census can provide data to meet legislative requirements.	Qualitative evidence from the Topic Consultation, and engagement with relevant stakeholders, including those representing groups with protected characteristics.	There is strong evidence of legislative need or that groups with protected characteristics are experiencing significant disadvantage in one or more areas.	There is some evidence of legislative need or that groups with protected characteristics are experiencing some disadvantage in one or more areas.	There is little or no evidence of legislative need or that groups with protected characteristics are experiencing disadvantage.
Required for policy development, monitoring and/or research	The census needs to provide data for policy development, monitoring and/or research.	Qualitative evidence from the Topic Consultation, and engagement with relevant stakeholders.	Strong evidence there is a specific policy interest, either now or highly likely by 2021, particularly at a national level.	Some evidence there is policy interest, particularly at a national level.	Little evidence there is policy interest, or policy interest is not at a national level.
Required for resource allocation and/or targeting investment	The census can provide information for resource allocation, at national or local level.	Qualitative evidence from the Topic Consultation, and further engagement with Scottish Government and relevant stakeholders.	Strong evidence that particular groups are of interest for resource allocation.	Some evidence that particular groups are of interest for resource allocation.	Little evidence particular groups are of interest for resource allocation.

<sup>1</sup> Current legislation, or legislation that is likely to be in place in 2021 or soon after.

Required for service planning and delivery	The census can provide information to allow service need to be identified and tailored.	Qualitative evidence from the Topic Consultation, and further engagement with Scottish Government and relevant stakeholders.	Strong evidence that particular groups are of interest for service planning and delivery. Alternative sources do not meet need.	Some evidence that particular groups are of interest for service planning and delivery. Alternative sources provide partial evidence to meet need.	Little evidence particular groups are of interest for service planning and delivery, or alternative sources meet need.
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## 2. Suitability of alternative sources

Principle	Rationale	Evidence	High score	Medium score	Low score
Write-in answers are not adequate for measuring this group	If the majority of the group wrote in answers in a consistent manner in 2011, data could be analysed to provide evidence without the need for a tick box.	Quantitative evidence from 2011 Census.	Without a tick box, very few respondents are likely to write in consistently, to a degree write in responses could not be used for analysis.	Without a tick box, low response rates and inconsistency in response(s) or response locations mean that write in responses could be used, but with some margin of error.	Without a tick box, the majority of the group are likely to write in the same (or similar enough) responses in the same location.
Other census questions are inadequate as a suitable proxy	If one or more other census questions provided similar information there is less of a need to include a separate question.	Quantitative evidence from the 2011 Census. Qualitative evidence from the Topic Consultation, and further engagement with Scottish Government and relevant stakeholders.	No other census question(s) could be used as a proxy.	A large proportion of the relevant group could be captured in another question or set of questions, offering proxy data.	The group will be captured almost entirely by proxy using a single alternative census question.



### 3. Acceptability, clarity and data quality

Principle	Rationale	Evidence	High score	Medium score	Low score
Does not have a negative impact on public acceptability	<p>Response options</p> <ul style="list-style-type: none"> <li>• should be acceptable to the majority of the public, maximise response rates to the question and census as a whole, and</li> <li>• result in responses of acceptable data quality (there should be no false responses resulting from acceptability).</li> </ul>	Quantitative and qualitative question testing.	<p>Response options</p> <ul style="list-style-type: none"> <li>• are acceptable to the majority of the public,</li> <li>• have a minimal impact on question and census completion, and</li> <li>• there is no evidence of false response resulting from acceptability issues.</li> </ul>	<p>Response options</p> <ul style="list-style-type: none"> <li>• are within the agreed public acceptability levels,</li> <li>• have some impact on question and/or census completion, but within the agreed levels, and</li> <li>• there is no evidence of false response resulting from acceptability issues.</li> </ul>	<p>Response options</p> <ul style="list-style-type: none"> <li>• are not acceptable to the majority of the public, and/or</li> <li>• have a negative impact on the completion of the census and/or</li> <li>• there is evidence of false responses resulting from acceptability issues.</li> </ul>
Does not have a negative impact on respondent burden	<p>Census questions and their response options should not impose an excess respondent burden.</p> <p>Attributes contributing to respondent burden include</p> <ul style="list-style-type: none"> <li>• lengthy instructions or explanations,</li> <li>• large numbers of question response options</li> <li>• topics requiring a large number of individual questions to meet need</li> </ul>	Quantitative and qualitative question testing. Stakeholder discussions. Respondent burden testing.	Response burden is acceptable	Response burden has a small negative impact	Response burden has moderate to significant negative impact.

<p>The question is clear and the data collected is expected to be of acceptable quality</p>	<p>Response options should be easily interpreted by respondents, so that consistent and good quality data can be collected. For example, if a tick box is left out, respondents that would have ticked it may end up responding inconsistently as there may not be an obvious response option available. Consistent response is required to maximise data quality.</p>	<p>Analysis of write in options from 2011. Question testing. Collaborative working across ONS, NRS and NISRA to share evidence.</p>	<p>There is no obvious alternative response for this group. Evidence suggests the group wrote in a number of places/responses. Ticking alternative options would reduce the quality of those options.</p>	<p>The majority of this group selected a single alternative.</p>	<p>A single alternative response option (including 'other') is available for this group.</p>
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#### 4. Comparability

Principle	Rationale	Evidence	High score	Medium score	Low score
Comparability across time	Consultation and stakeholder engagement revealed a strong need for comparability with 2011 and earlier census data, allowing monitoring over time.	Qualitative evidence from the Topic Consultation and follow up discussions and events. Quantitative evidence from 2011 census.	Inclusion will not affect comparisons over time, for example when this population mainly used 'other' write in options.  Or, stakeholder engagement has revealed a need for new or different information as more important than comparability over time.	Inclusion will affect comparisons over time to some extent, but the effect can be reliably estimated.	Inclusion will have major effects on comparability over time.
Harmonisation across the UK	Consultation and stakeholder engagement identified a strong need for UK level data.	Qualitative evidence from the Topic Consultation and follow up discussions and events. Collaboration with ONS and NISRA through the topic and working groups, including the harmonisation group.	Inclusion will allow harmonisation across the UK and the question is directly comparable to ONS and NISRA.	Inclusion will allow harmonisation across the UK and the question is comparable enough to ONS and NISRA to allow harmonisation.	Inclusion will not allow harmonisation across the UK as the question is different to ONS and NISRA, meaning the data is not comparable and aggregation is not possible.

5. Operational considerations					
Principle	Rationale	Evidence	High score	Medium score	Low score
Does not have a negative impact on financial or processing concerns for Scotland's Census 2021	Question design should not present major coding problems, require extensive processing, or significantly add to the cost of the census.	Working across NRS census areas, including budget evaluation and monitoring, based on 2011 census evaluation.	Minimal impact on financial or processing costs or system development or efficiency.	Moderate impact on financial or processing costs or system development or efficiency.	High impact on financial or processing costs or system development or efficiency.
Space constraints	Limits on length of the full form impact on the space available for individual questions and how the individual questions sit together across the full form.	Quantitative and qualitative question testing, respondent burden testing.  Collaboration across ONS, NRS, and NISRA through working groups and topic groups.	Inclusion has little or no impact on the design and length of the full Census form.	Inclusion has some impact on the design and length of the full Census form.	Inclusion has significant impact on the design and length of the full Census form.
Impact on financial or processing concerns for other organisations	<ul style="list-style-type: none"> <li>Will the response options be used by other organisations?</li> <li>Is the cost to organisations of changing their systems to collect new/revised options significant?</li> <li>Are the response options likely to be adopted by other surveys?</li> </ul>	As the census is 10 yearly, often providing baseline data, other sources of information are required to meet user need between censuses. To provide a good framework for evidence, consistency in data collection is important, to allow timely and relevant evidence.	Organisations are likely to adapt systems to collect the same (or equivalently similar) data.	Organisations may adapt systems to collect the same (or equivalently similar) data.	Organisations are unlikely to adapt systems to collect the same (or equivalently similar) data.