

Scotland's Census 2022

SRA Event 24 Feb 2021

Esta Clark

Head of Statistical
Design

Larissa Baines

Head of Census
Business Design

What is Scotland's Census?

- **It's unique!** A household survey of everyone in Scotland, every ten years
- Paints a picture of the characteristics of our population
- **Planning is well underway for 2022**
- It's a huge exercise
- **We have one chance to get it right!**

Scotland's Census Background

- Next Census has been moved to 2022 due to COVID-19
- Every 10 years since 1801 (except 1941)
- Managed in Scotland since 1861
- Responsibility of the Registrar General for Scotland
- Scottish Parliament must approve content of Scotland's Census
- Separate but harmonised with other censuses in the UK
- Security and confidentiality are of critical importance
- The individual returns are kept closed for 100 years and then released

Users of the Data

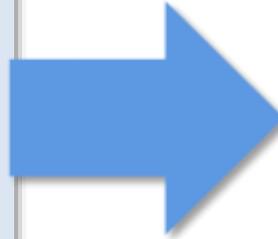
- Wide variety of users:
 - Councils (e.g. education, transport, housing and equality monitoring)
 - Health Boards
 - Charity/third sector
 - Commercial/private sector
 - Government
 - Parliament
 - Media
 - Public



So What's Changing with the Census?

2011

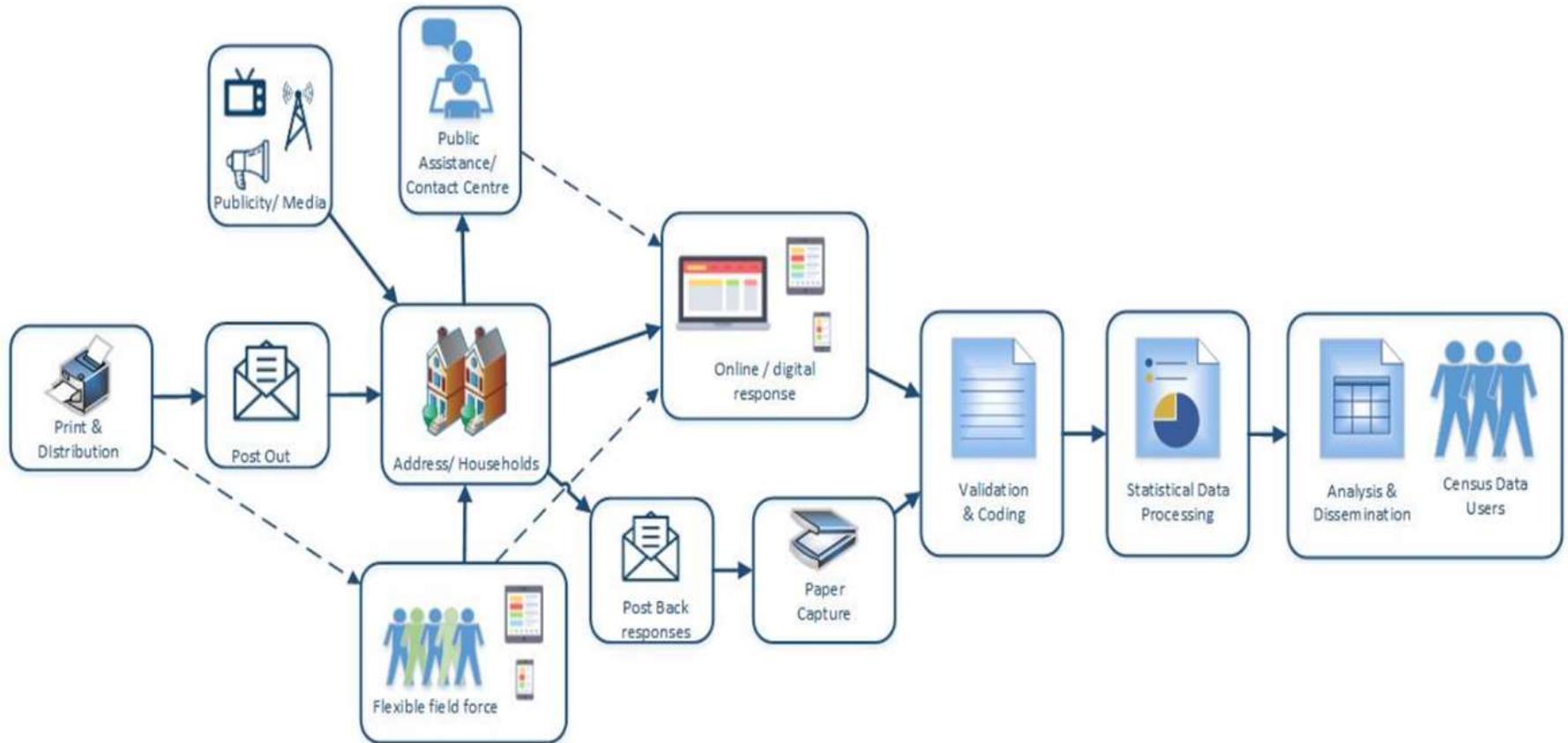
- 80% on paper - 20% online
- 7,000 temporary field staff with pre-assigned areas
- They worked 480,000 hours
- 17,500,000+ pieces of printed material
- 140,000 telephone enquiries
- 4,500,000 web page views
- Most focussed around a single day – “Census Day”
- Resulting in publication of close to 6,000 tables of data (many broken-down to over 56,000 geographies)



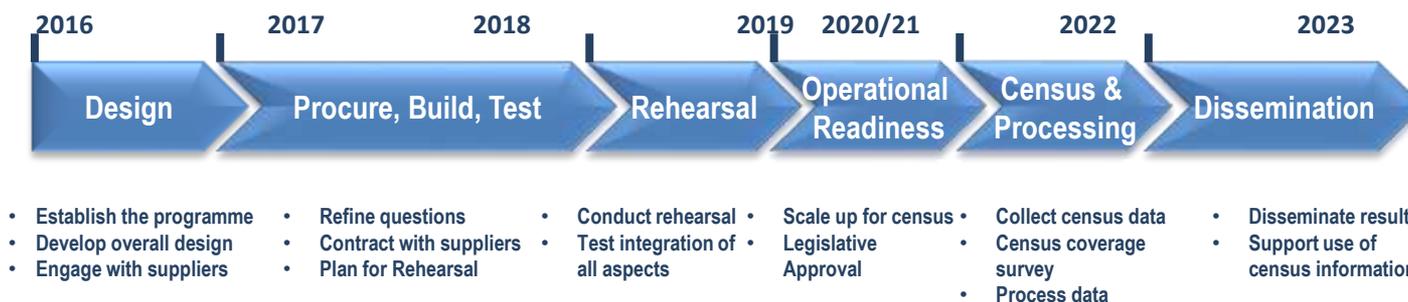
2022

- 20% on paper – 80% online (at least 70%)
- Around 3,000- 4,000 temporary field staff who will work across larger geographies
- Fewer working hours as no hand delivery of paper questionnaires
- Significant print reduction of paper questionnaires
- Online support will reduce telephone calls
- Increase in web based services
- Outputs more flexibility and focus on user needs
- Increased use and benefit of census data

High Level Design



Scotland Census 2022 Programme – High level timeline



Question and Questionnaire Design (online and paper)



- Topic Consultation 2015/2016
- Stakeholder engagement
- Involvement of Users
 - Public acceptability, cognitive and quantitative testing
 - Topic focus groups
 - Usability and accessibility testing
 - Rehearsal
- Legal and Ministerial
- National Statistics Accreditation



Topic Consultation



2011 Census questions were the starting point. Changes were considered where:

- Question did not work well in 2011 e.g. Long term health conditions
- There is a new or emerging policy requirement for which there are no alternative sources e.g. user need for data on trans population
- There are changes in international guidelines or legislation e.g. marital status
- The 2021 Census Topic Consultation Report was the first significant stakeholder engagement, in order to understand user need.
- http://www.scotlandscensus.gov.uk/documents/census2021/Scotlands_Census_2021_Topic_Consultation_Report_August_2016.pdf

Stakeholder engagement



Working with stakeholders is essential to develop questions that meet user need.

There has been a series of [stakeholder events and meetings](#) with stakeholders to:

- Understand user needs
- To understand the key priorities of data users
- Discuss what the Census could reasonably produce
- How user needs could be met through improved outputs or alternative sources
- To listen to a broad range of interests to fully understand the concerns of all stakeholders

Question development and testing



Question testing provides the evidence that questions are acceptable to the public, easy to complete, and provide good quality data that meets user needs.

NRS have tested new and significantly changed questions. There are three key steps in testing:

- (1) cognitive testing
- (2) quantitative testing
- (3) public acceptability testing

Questions will collect the same information online and on paper.

Design is for digital first. Question format online may therefore differ to paper format. Where this is the case, testing has been conducted to understand any effects on the data of the different collection modes.

Question testing



- Jointly with ONS and NISRA on public acceptability testing for new questions (IPSOS Mori)
- Engaged ScotCen – to conduct cognitive and quantitative testing in Scotland
- Harmonised with ONS and NISRA on questions and online and paper questionnaire development, shared all research findings. Also shared learning with International Census Forum
- Results of all testing and focus groups included in Topic reports published on the census website

Public Acceptability (example)

The survey methodology, questionnaire, and subsequent analysis, were designed to address a number of specific research questions, see below for illustrative example.

1. Would participants answer a question on sexual orientation if it was included in the 2022 (then 2021) Census for usual residents aged 16 and over living in households?
2. Would they answer the amended national harmonised standard question?
3. Specifically, would participants be willing:
 1. To answer on their own behalf?
 2. To answer on behalf of any other household members aged 16 and over?
 3. For any other household members aged 16 and over to answer on their behalf?
 4. If the question included a 'Prefer not to say' response option would this affect respondents' behaviour (i.e. make it any more acceptable)?
 5. What are the reasons for not answering, for those who would not answer questions?

Figure 1: The amended national harmonised standard question, as presented in the sexual orientation public acceptability testing questionnaire

16 If you are aged 16 or over → Go to 17
If you are aged 15 or under → Go to 19

17 Which of the following options best describes how you think of yourself?

This question is voluntary

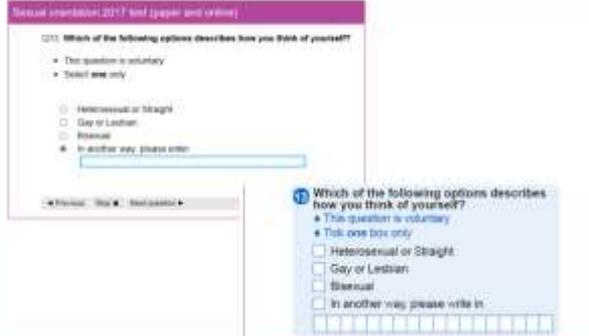
Heterosexual or Straight

Gay or Lesbian

Bisexual

Other, write in

Quantitative testing (example)

<p>The aims of testing this question were:</p> <ol style="list-style-type: none"> 1. To look at the distribution of responses, including similarities and differences in distribution, by mode, age and non-binary sex; 2. To look at uptake of 'In another way' as a response to sexual orientation; 3. To look at item non-response rates as a measure of acceptability. It should be noted that the question on sexual orientation was voluntary, and, as such, non-response is considered a valid response; 4. To measure item non-response rates by age, non-binary sex and mode; 5. To analyse invalid response by multi-ticks, as a measure of data quality; 6. To review feedback response to the sexual orientation question as a measure of acceptability. 	
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The question development process identified that overall a sexual orientation question is acceptable and the majority of respondents would provide a valid response.

- Acceptability of the question decreased with age and some respondents in testing said that they would skip the question but would continue to complete the census.
- There were also some concerns around question ambiguity as the question stem does not mention the term 'sexual orientation'. This was amended for the final version of the question.

8 Which of the following best describes your sexual orientation?

- ◆ This question is **voluntary**
- ◆ Answer only if you are aged 16 or over
- ◆ Tick **one** box only

Straight / Heterosexual

Gay or Lesbian

Bisexual

Other sexual orientation, please write in:

Topic focus group (example)

Published on website:

Sexual Orientation and Gender Identity - Stakeholder Meeting | Scotland's Census



The screenshot shows the Scotland's Census website interface. The header includes the Scotland's Census logo with the tagline 'Shaping our future' and the Gaelic phrase 'A' dealbhadh ar n-àm ri teachd'. A navigation menu contains links for '1991-2011 Census Results', 'Census Data Explorer', 'Supporting Information', 'Using Census Data', 'News', and 'Help'. A search bar and social media sharing options are also present. The main content area is titled 'Sexual Orientation and Gender Identity - Stakeholder Meeting' and includes sections for 'Date and Location' (Tuesday 24 January, 2017, New Register House Edinburgh), 'Presentations and handouts' (with links to presentations and minutes), and 'Event outline' (describing the purpose of the event).

Scotland's Census
Shaping our future
A' dealbhadh ar n-àm ri teachd

1991-2011 Census Results | Census Data Explorer | Supporting Information | Using Census Data | News | Help

Sexual Orientation and Gender Identity - Stakeholder Meeting

Date and Location
Tuesday 24 January, 2017 New Register House Edinburgh

Presentations and handouts

- [Sexual Orientation and Gender Identity - Ceia Macpherson \(National Records of Scotland\) - presentation](#)
- [Taking the Gender Identity work forward - Michelle Mookman \(Office of National Statistics\) - presentation](#)
- [Sexual Orientation and Gender Identity - Stakeholder Meeting - minutes](#)

Event outline

The purpose of the stakeholder event was to provide an opportunity for (potential) sexual orientation and gender identity data users to explore data needs together with National Records of Scotland (NRS) and the Scottish Government (SG).

The event also provided the opportunity for participants to hear about research and testing plans being developed by NRS and the Office for National Statistics (ONS).

Legislation



- Published '[Plans for Scotland's Census 2021](#)' in Sep 2018
- Census Amendment Scotland Act 2019 – allows for voluntary questions to be asked on sexual orientation and trans gender status and history. Received Royal Assent in July 2019
- Census Order and Census Regulations have been laid in Scottish Parliament.
- [Scotland's Census 2022 Question Set](#)

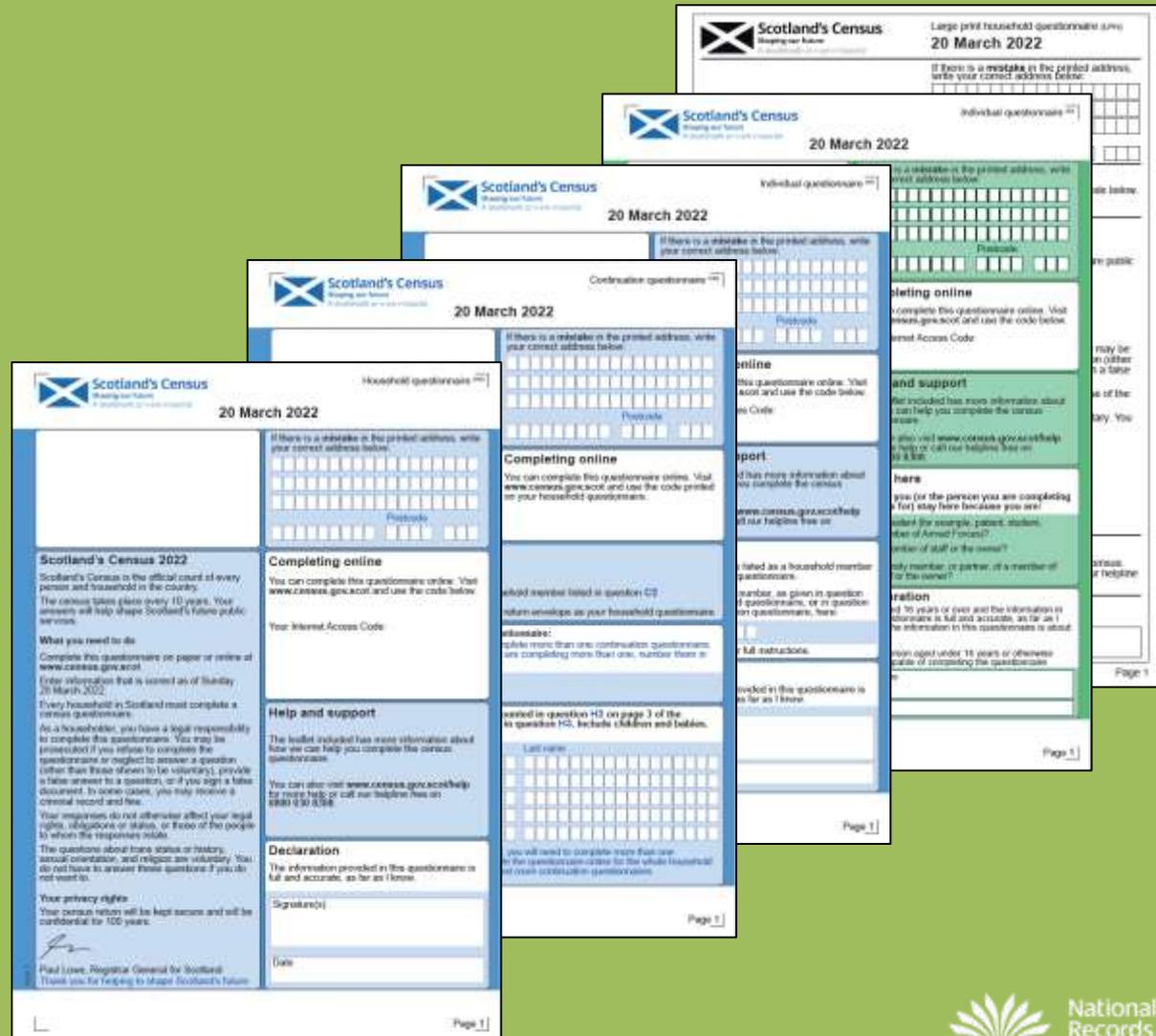
Paper questionnaire design



Main paper questionnaire types for Census



- Household
- Individual
- Continuation
- CE Manager
- CE Individual



Approach to questionnaire design



- The Census 2011 paper questionnaire provided the basis for development of the Paper Collection Instrument (PCI) for Scotland's Census 2022.
- Cognitive question testing of the whole questionnaire was carried out by Ipsos MORI Scotland in 2008 and 2009 in preparation for the 2011 Census. The published document [2011 Census Question Testing - The Whole Questionnaire](#).
- This report focuses on the question development mostly, however, some elements are relevant to the paper questionnaire design, such as:
 - different background for the text boxes in respondents' view seemed to indicate "important" and "less important" information. Thus, they were more likely to pay attention to reading text in the darker background boxes, rather than lighter coloured boxes
 - titles for paragraphs acted as signposts for respondents to choose the section relevant to them
 - use of bold text encouraged respondents to pay attention to this text

2011 research and desk based research



These include best practice guidelines for print products were drawn from the following resources:

- General guidelines on dos and don'ts of designing for accessibility are provided by the gov.uk website: [Accessibility in government](#)
- Scottish Government publication on [Principles of Inclusive Communication: An information and self-assessment tool for public authorities](#). The publication contains a number of references that are useful for further research into specific print document accessibility.
- Sight Advice FAQ – [How to create accessible documents, including spreadsheets and forms?](#)
- The European Blind Union (EBU) website contains [publications and resources](#) for best practice, including [EBU Clear Print guidelines](#)
- UK Association for Accessible Formats (UKAAF) – [Creating clear print and large print document](#) (PDF)
- Scottish Accessible Information Forum (SAIF) www.saifscotland.org.uk provides practical guidance on making printed and electronic information more accessible – [Making Information Accessible: Guidelines for producing accessible printed and electronic information](#)
- RNIB provides a comprehensive guide on using colours and contrast: [How to choose colour and contrast for printed materials that benefits people with sight problems](#)
- A guide from [British Dyslexia Association](#) on creating a dyslexia friendly workplace
- [Guidelines for Good Practice](#) developed for teachers as a guide to creating accessible learning resources. The guide has been developed by [CALL Scotland](#), University of Edinburgh, in 2010. Many points still stand today and the guide can be used as a good starting point to understand why the materials need to be accessible and how to meet the minimum accessibility requirements.

Currently the best practice for accessibility used in the PCIs for Scotland's Census 2022 includes:



- Font: Arial 12 point or Arial 16 point for large print
- Consistent line spacing
- No italics, underlining, simulated handwriting, unusual shaped letters or decorative typefaces
- Do not use uneven stroke widths
- Text is left aligned
- Uncluttered design
- Allow for space, especially make write-in text boxes and tick boxes as large as possible
- Short paragraphs
- The space between the columns of text is set out to clearly separates them

The current best practice for self-completing surveys in the PCIs for Scotland's Census 2022 includes:



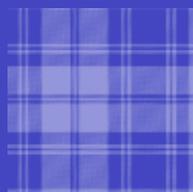
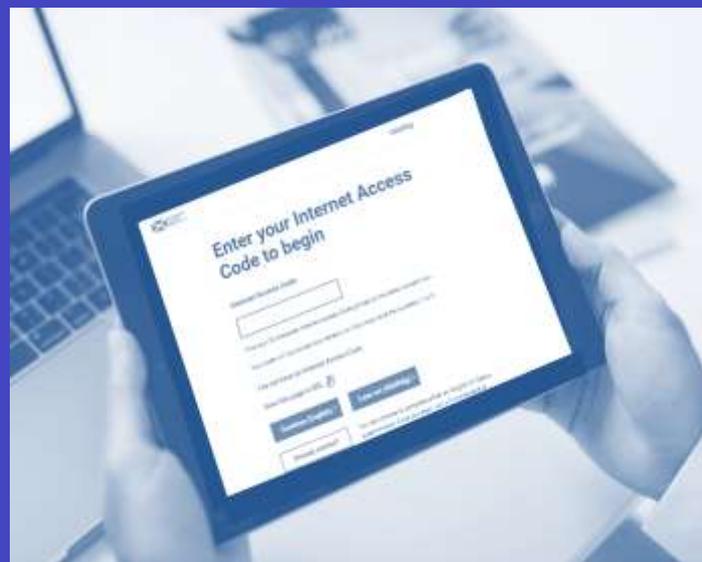
- Clear structure throughout the questionnaire
- Bold text to encourage respondent to read the important guidance
- Clear section titles to guide the respondents through the questionnaire
- Separate colours for the question stem and response options, to draw respondents' attention and provide structure to the questionnaire for the respondents – this technique is encouraged by the social research and is mirrored from the ONS
- Not using 'double banked' presentation of the response options – general guidance from social research, and feedback from Census 2011
- Using clear routing instruction with distinct and visible symbols (arrows) – general guidance from social research, and a recommendation from Census 2011 research
- Clear distinct borders around tick boxes and write-in boxes – feedback from Census 2011 results
- Consistent style throughout the questionnaire

Things to consider in design



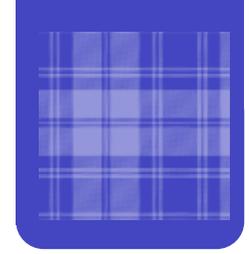
- Questions and responses (in legislation)
- Drop-out colour – text box border and tick box
- Layout and routing/order of questions and position of boxes – have been tested with users and also from supplier perspective.
- Number of pages fixed.
- Questionnaires are not stand alone, they will get letters and context with them. Vast majority will have actively requested a paper questionnaire. Question help available.
- Statistical document, legal requirement.

Online questionnaire design



Online questionnaire design

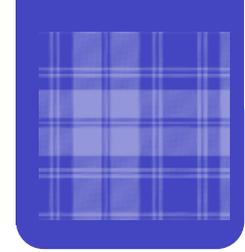
Digital First



A number of advantages for data quality:

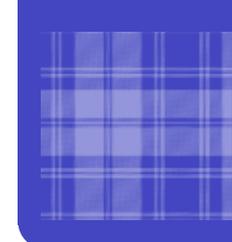
- Automatic routing of questions e.g. by name, age etc
- Coding up front
- Multi and single tick questions enforced
- Soft and hard validation
- Type a head functionality, pick from a list (need to consider statistical bias)

Online design considerations



- Starting point user research
- Learning from ONS and NISRA and internationally
- SG website standards/templates and D1
- Huge advantages for complicated questions, e.g. ethnicity and qualifications, multi step online
- User testing, including rehearsal

Innovations example – relationship matrix



- Historically the question on relationships within a household badly completed
- Being able to route people through using name a huge innovation

Paper

Name of Person 1	Name of Person 2	Name of Person 3	Name of Person 4	Name of Person 5
First name(s)	First name(s)	First name(s)	First name(s)	First name(s)
Last name	Last name	Last name	Last name	Last name
Relationship of Person 2 to Person: 1	Relationship of Person 3 to Persons: 1 2	Relationship of Person 4 to Persons: 1 2 3	Relationship of Person 5 to Persons: 1 2 3 4	
Husband or wife <input type="checkbox"/>	Husband or wife <input type="checkbox"/>	Husband or wife <input type="checkbox"/>	Husband or wife <input type="checkbox"/>	Husband or wife <input type="checkbox"/>
Registered civil partner <input type="checkbox"/>	Registered civil partner <input type="checkbox"/>	Registered civil partner <input type="checkbox"/>	Registered civil partner <input type="checkbox"/>	Registered civil partner <input type="checkbox"/>
Partner <input type="checkbox"/>	Partner <input type="checkbox"/>	Partner <input type="checkbox"/>	Partner <input type="checkbox"/>	Partner <input type="checkbox"/>
Son or daughter <input type="checkbox"/>				
Step-child <input type="checkbox"/>				
Brother or sister <input type="checkbox"/>				
Step-brother or step-sister <input type="checkbox"/>				
Mother or father <input type="checkbox"/>				
Step-mother or step-father <input type="checkbox"/>				
Grandchild <input type="checkbox"/>				
Grandparent <input type="checkbox"/>				
Other relation (including in-laws) <input type="checkbox"/>				
Unrelated (including foster child) <input type="checkbox"/>				

Online

Question ref: H6

What are Stephen Smith's relationships to the following people?

Select an option

Stephen Smith is the son or daughter of Amy Smith [Edit](#)

Stephen Smith is the son or daughter of Ross Smith [Edit](#)

Stephen Smith is Please select [▼](#) Mary Smith

- the husband or wife of
- the registered civil partner of
- the partner of
- the son or daughter of
- a step-child of
- a brother or sister of

[Next question](#)

Enumeration Strategy

Introduction to Enumeration

What is Enumeration?

Enumeration is the process of collecting data from the people of Scotland during the census.

This includes the operational aspects of census data collection, such as

- Direct contact
- Encouragement of self-response (including digital self-response), and
- Follow-up

Enumeration Strategy

Our enumeration strategy and approach has been informed by a number of key inputs, and we have continued to iterate and refine this approach over time.



Introduction to Enumeration

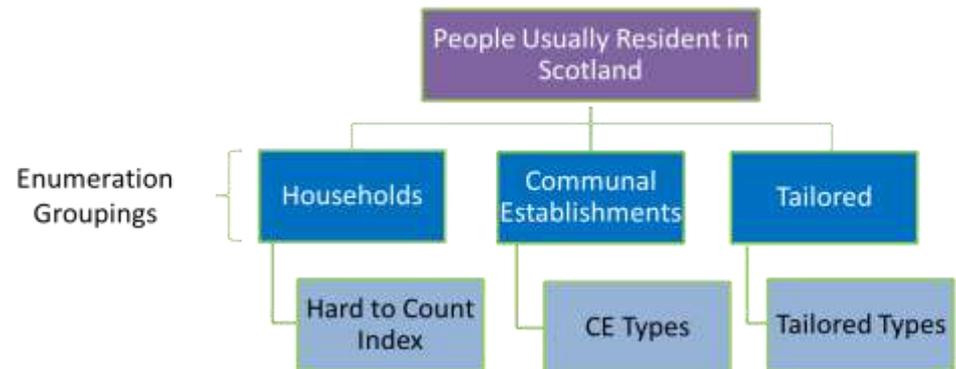
Who do we enumerate?

Scotland's census will collect information on everyone **usually resident** within Scotland on census day. Information on visitors will be collected similar to 2011.

Enumeration Groupings

To ensure the proposed approaches are fit for purpose, Scotland's population will be split into three main groups of respondents:

- 1) **Standard households**
- 2) **Communal establishments**
- 3) **Population groups which require a tailored approach**



Household Enumeration

Standard Households

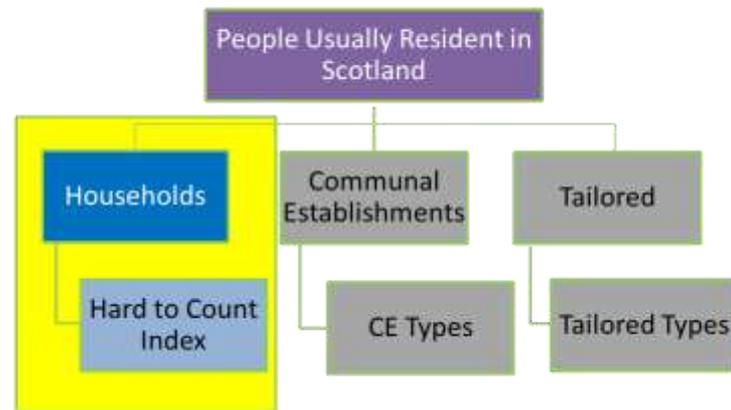
A household is defined as (main definition):

- A person living alone, or
- A group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area.

There was a total of **2,473,881 households in 2011**

Hard to Count (HTC) Index

- The index predicts how difficult it will be to count households in an area based upon demographic factors associated with low levels of response to the 2011 Census, and other, more recent surveys.



Communal Establishments (CEs)

Definition of Communal Establishments

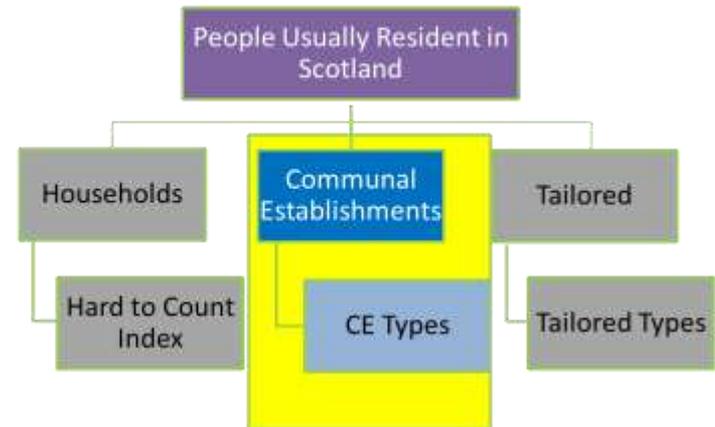
A communal establishment (CE) is defined as:

- A typically managed residential accommodation where there is full time or part time supervision of the accommodation

2011 - Number of Communal Establishments (CEs)	5,425
2011 - No. residents in CEs	99,017

Communal Establishment Groupings

We have 4 Communal Establishment (CE) Groupings, that allow us to consider the strategies and tactics that will be required to maximise response with these different segments.

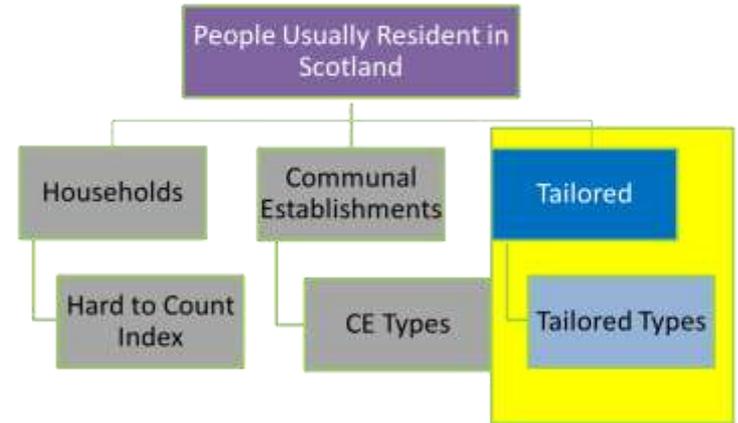


Tailored Enumeration

Definition of Tailored Enumeration

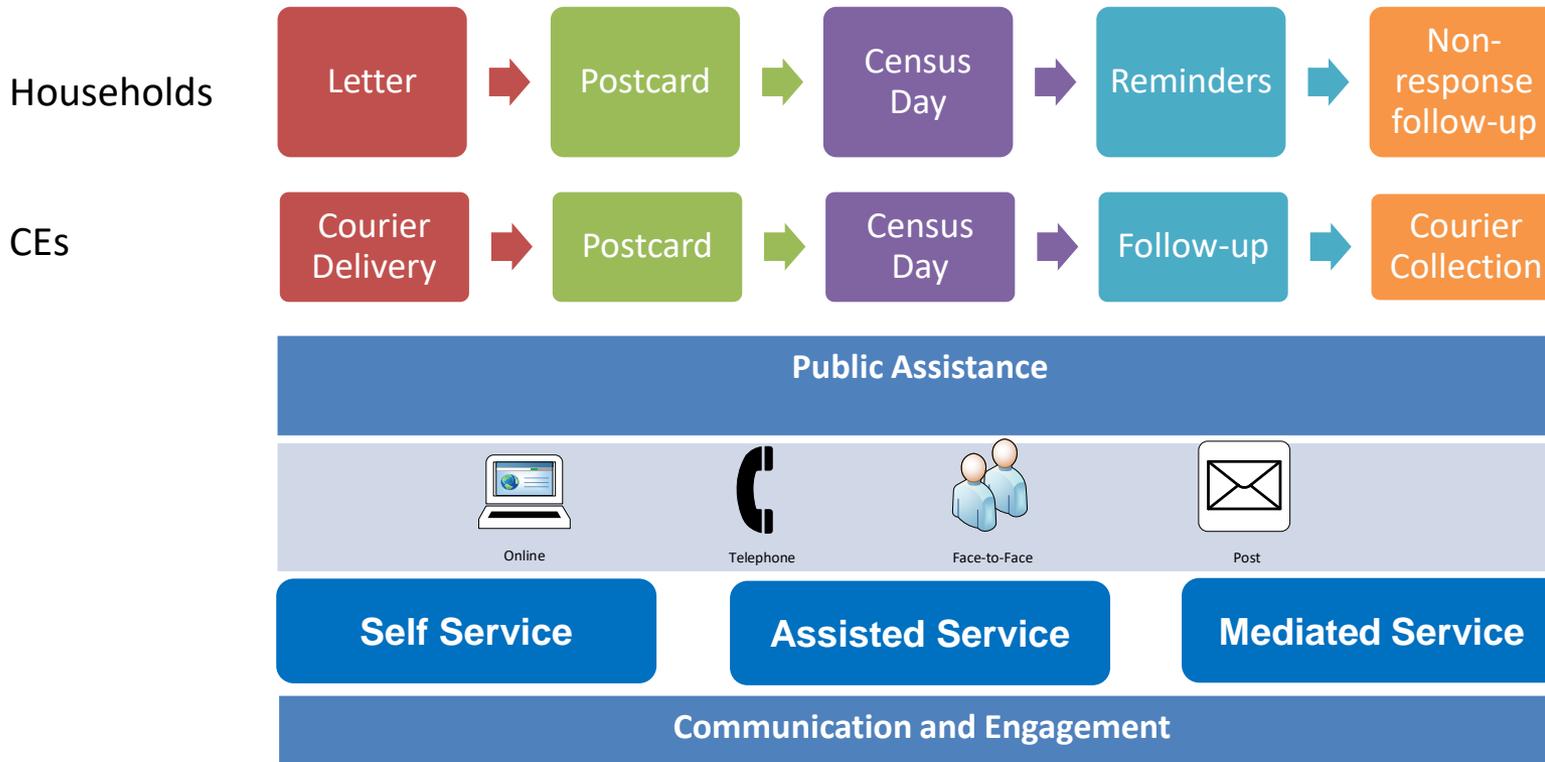
Tailored enumeration is defined as:

- A bespoke approach to maximise census returns from identified population groups, with specific characteristics or corresponding lifestyles which do not allow enumeration to take place using standard design models (household or communal establishment).
- Difficult to get numbers on some of these groups as they were just included in the household figures from 2011
- Major challenge is identifying these addresses in the first place



Enumeration Approach

We have defined Enumeration Approaches for each of the groupings and segments.



Get Involved

<http://www.scotlandscensus.gov.uk/>

Newsletter

- Subscribe to [Scotland's Census Mailchimp newsletter](#)

Consultations

- Detail of current and previous consultations are available from the [Consultation](#) section.

Events and workshops

- Further information on Events and Seminars are available on our [Events and workshops](#) section.

Procurement

- [The Procurement section](#) highlights the products and services that we require to procure and support the delivery of Scotland's next census and raise awareness amongst potential suppliers.

Want to talk to us?

- If you have an enquiry that relates to Scotland's Census 2022, then please email us at: scotlandscensus@nrscotland.gov.uk

Questions?

