

Scotland's Census 2022 Outputs Consultation







- Why we are consulting
- Overview of consultation documents
- Census output products
- New questions for 2022
- Changes to 2011 question
- Census geography
- Population bases
- Scotland's Census website
- Questions



# Why are we consulting **>**

We have a number of key objectives for Scotland's Census 2022 which include:

- □ to produce high quality results
- □ to generate outputs that meet the needs of users
- □ to produce timely outputs to maximise benefits

This consultation covers several aspects of our plans for publishing census data. We are asking users to give us their views on:

- □ the order and sequencing of topics published
- □ the tools we use to publish data
- □ the geographical levels that data are published at
- how changes to census questions impact users' planned work/research
- □ what users need from the new census questions



# **Overview of consultation documents**



About the census 2011 results Case studies

News and events Q

#### Scotland's Census 2022 outputs consultation launched

**2022 census outputs** Give us your views on how we should publish census results

Census outputs consultation

Census outputs consultation | Scotland's Census (scotlandscensus.gov.uk)





<u>Home</u> > <u>About</u> > <u>2022 census</u> > Census outputs consultation

Last updated 14 Oct 2022

#### **Census outputs consultation**

In this section	Census Outputs Consultation					
Census Outputs Consultation	We have launched our consultation on census outputs.					
Census Outputs Consultation Census outputs consultation questionnaire How we use your data	This consultation covers a number of aspects of our plans for publishing census results following the data collection phases.					
How we use your data	We are asking users to give us their views on:					
	<ul> <li>the order and sequencing of topics published</li> </ul>					
	<ul> <li>the tools we use to publish data</li> </ul>					
	<ul> <li>the geographical levels that data is published at</li> </ul>					
	<ul> <li>how changes to census questions impact users' planned work/research</li> </ul>					
	<ul> <li>what they need from the new census questions</li> </ul>					

Scotland's Census 2022: Census Outputs Consultation

Scotland's Census 2022: Outputs Consultation spreadsheet



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#### **SDC and Outputs - Outputs Consultation Questionnaire**

This questionnaire asks about the Scotland's Census 2022 outputs consultation.

This consultation covers a number of aspects of our plans for publishing census data. We are asking users to give us their views on: -

- the order and sequencing of topics published
- the tools we use to publish data
- the geographical levels that data are published at
- how changes to census questions impact users' planned work/research
- what users need from the new census questions

This survey will save your progress if you decide to leave and come back later. This won't work if you use an incognito or private window.



#### SDC and Outputs - Outputs Consultation Questionnaire Survey (surveymonkey.co.uk)



If you wish to respond to this consultation via email or on paper, please complete a <u>consultation questionnaire</u> and send to one of the following:

e-mail: OutputsConsultation@nrscotland.gov.uk

post: Scotland's Census 2022 Outputs Consultation Ladywell House Ladywell Road Edinburgh EH12 7TF

Scotland's Census 2022: Outputs Consultation questionnaire



### Census Outputs products

- Release Schedule
- □ Flexible Table Builder
- Statistical Disclosure Control
- Phase 1 Population and Household estimates
- Phase 2 Univariate topics
- Phase 3 Multivariate data
- Phase 4 Microdata and Origin destination data
- □ Phase 5 Workplace and daytime data
- Analytical reports
- Proposed new variables
- Additional data needs



### Census Outputs products: Release Schedule

Dhase 1	Summary rounded non-ulation table by ago, say and Local Authority
Phase 1	Summary rounded population table by age, sex and Local Authority.
Population &	Unrounded estimates of usually resident population of Scotland by single year of age and sex published down to Output Area.
Household	
estimates	Unrounded estimates of the number of households in each Local Authority, by size of households published down to Output Area.
	Unrounded estimates of the usually resident population of Scotland and each Local Authority on Census day, by whether living in a household or communal establishment.
Phase 2	Phased release of unrounded population statistics by a range of topics for all geographies down to Output Area.
1 Induced at a	Demography and migration
Univariate topics	Ethnic group, national identity, language & religion Sexual orientation and trans status or history
topics	Health, disability and unpaid care
	Housing
	Labour market and travel to work
	Education
	Veterans
Phase 3	Predefined tables by topic, age and sex for unchanged/largely unchanged questions for all standard geographies down to output area.
Crosstabs	Final predefined outputs for new questions by topic, age and sex for all standard geographies down to output area.
	Tania analysis nublished and "At a glance" symmetry statistics undated
	Topic analysis published and "At a glance" summary statistics updated.
Phase 4	Microdata and Origin destination data.
Phase 5	Workplace and daytime Scotland's Census
	Shaping our future

A' dealbhadh ar n-àm ri teachd

### Census Outputs products: Flexible Table Builder

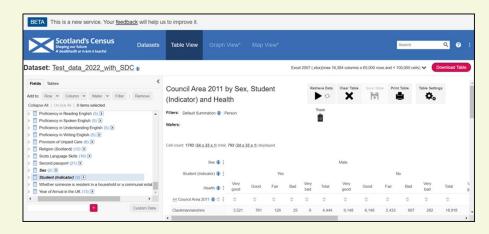
The Flexible Table builder will be the primary dissemination tool for Scotland's Census 2022 outputs

Census outputs users will be able to create their own tables or edit 'pre-defined tables published by NRS

We will offer user's the option to sign up for an account. There will be no charge for this

Users will have access to more features such as the ability to save tables they build or geography groupings

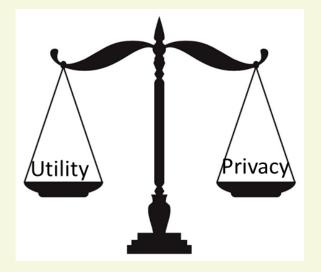
Due to Statistical Disclosure Control, we may restrict variable detail or the most detailed level of geographies to those with accounts. We will only do this if necessary







### Census Outputs products: Statistical Disclosure Control



Maximise accuracy while protecting individual privacy

Methodology:

- □ Built on 2011 success
- Broadly same as other UK censuses
- Peer review and <u>external assurance</u>







### Census Outputs products: Statistical Disclosure Control

#### **Targeted record swapping**

- □ Used in 2011
- Swap a small number of households with other demographically similar households in nearby areas
- □ All households have a chance to be swapped
- □ Households containing individuals with rare characteristics: much more likely to be swapped

#### **Cell Key Perturbation**

- □ New used in all UK censuses for 2022
- □ Changes value of some table cells by a small, bounded amount
- □ No negative numbers
- □ Table/row/column totals perturbed in same way as interior cells
- Perturbations are reproducible and consistent



### Census Outputs products: Phase 1 - Population & Household estimates **>**

The first phase of Scotland's Census 2022 outputs will focus on population and household estimates

The first publication will be rounded population estimates by age and sex.

This will include updating content on the website including commentary and analysis, metadata and quality assurance reports

The following publications in this phase will include

- Unrounded estimates of usually resident population of Scotland by single year of age and sex published down to Output Area.
- Unrounded estimates of the number of households in each Local Authority, by size of households published down to Output Area.
- Unrounded estimates of the usually resident population of Scotland and each Local Authority on Census day, by whether living in a household or communal establishment.



### Census Outputs products: Phase 2 – Topic summaries **>**

#### The second phase of census outputs will focus on topic summaries

We will Topic summary tables for the following topics

- Demography and migration
- Ethnic group, national identity, language & religion
- Sexual orientation and trans status or history
- □ Health, disability and unpaid care
- Housing
- Labour market and travel to work
- Education
- Veterans

The variables under these topics will also be added to the Flexible Table Builder

We will produce new content for the website including updating the At a glance and Area Overviews with the new topic data



### Census Outputs products: Phase 3 - Cross tabulations

During this phase we will publish multivariate 'pre-defined tables' and lift restrictions on the table builder allowing users to create their own tables.

This phase will be published in two releases:

- Predefined tables by topic, age and sex for unchanged/largely unchanged questions for all standard geographies down to output area
- Predefined tables for new questions by topic, age and sex for all standard geographies down to output area

Topic Analysis published and "At a glance" summary statistics updated

In a change to 2011 we only plan to publish one set of multivariate tables. We will not use the Detailed Characteristics and Local Characteristics convention used in 2011

This is due to the Flexible Table Builder allowing users to create their own tables or add additional variables to pre-defined tables



### Census Outputs products: Phase 4 - Microdata

#### **Public Microdata File**

□ Teaching file with random anonymous sample of 1% of Scotland's Population

#### **Safeguarded Microdata Samples**

- Regional Individual sample random sample of 5% of Scotland's population available at Scotland level
- Grouped Local Authority sample random sample of 5% of Scotland's population available for grouped council areas

□ Safeguarded household file – new for 2022

#### **Secure Microdata**

- Individual file random sample of 10% of Scotland's Population available down to Council Area level
- □ Household file random sample of 10% of all households available down to Council Area level

# Census Outputs products:<br/> Phase 4 - Origin-Destination >

#### **Special Migration Statistics (SMS)**

Migration patterns (both internal and international) of those who lived at a different address one year before Census Day (20 March 2022).

#### **Special Workplace Statistics (SWS)**

Commuting flows between usual residence and place of work or study for people aged 16 and over in employment or education in the week before the census.

#### **Special Student Statistics (SSS)**

□ Flows of people who lived at a different term time/boarding school address one year before Census Day (20 March 2022).



### Census Outputs products: Phase 5 - Workplace and daytime

#### Workplace

□ An estimate of the population working in a given area on Census day. This includes all people aged 16 to 74 whose main place of work is in a given area.

#### Daytime

An estimate of the population of an area during the working day. Includes everybody who works or studies in the area, wherever they usually live, and all respondents who live in the area but do not work or study.



### Census Outputs products: Proposed new variables

We're currently investigating new derived variables such as:

- Adult Students
- □ Not in employment, education or training (NEET)
- □ Key or critical worker

We are keen to understand user need around these proposed variables



### Census Outputs products: Additional data needs

There is a section to identify any new derived variables you require that have not been discussed in this consultation

In responding to the question describe the derived variable you require, including:

- Providing definitions where possible
- The additional analysis that you plan to do using this variable and the value of undertaking this research
- U Where relevant, the tables you require and what geography
- U What planning or policy decisions could this analysis feeds into

We also ask users about any additional requirements in response to emerging data needs.

The census will provide detailed statistics after periods of change including the EU Exit and the coronavirus pandemic. This will provide an opportunity for users to produce analysis on these changes.



### Census Outputs products: Data user need for UK data

The information provided will be used when deciding if and how to present data for Scotland, England, Wales and Northern Ireland together.

Do you plan to use UK level data or comparable data for small areas across the UK?



### Census Outputs products: Analytical reports

Analytical reports are stand-alone topic reports which allow us to publish more detail than other output products (Pre-defined tables and Flexible Table Builder)

We have identified the following topics for analytical reports using 2022 census data

- Inhabited islands
- Gaelic language
- Sexual orientation
- □ Trans status or history
- □ Analysis of Census Equality data
- UK Armed Forces veterans

The consultation asks users if there are any other topics that they would like to see analytical reports published for





# New questions for 2022

- □ Trans Status or history
- Sexual Orientation
- Veterans
- Passports
- British Sign Language
- Bedrooms



# New questions for 2022

Aggregate classifications

- □ Feedback on categorisation
- Feedback on classification of terminology (esp. Trans status or history)

Derived variables (Example – Passports)
UK citizenship indicator;
Dual citizenship indicator;
UK/EU/European/Non-European;
and more...

See <u>variables spreadsheet</u> and <u>consultation document</u> for details



### New questions for 2022: Questions with higher level of security

More sensitive questions, smaller populations:

- Trans status or history
- Sexual Orientation
- UK Armed Forces veterans

Data may need to be restricted to stand-alone topic reports

May need to limit detail – priorities?

Cross-tabulations, e.g. with equality outcome markers, (other) protected characteristics

- Level of detail in classification
- Geography level



#### New questions for 2022: **Trans Status or history** & Sexual orientation

- Do you consider yourself to be trans, or have a trans history?

- This question is voluntary
   Answer only if you are aged 16 or over
   Trans is a term used to describe people whose gender is not the same as the sex they were registered at birth
- Tick one box only

No

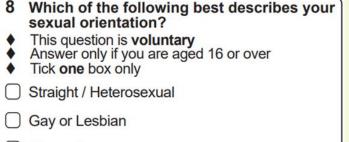
Yes, please describe your trans status (for example, non-binary, trans man, trans woman):

#### **High-level:**

- No: No trans status or history
- Yes: Has a trans status or history
- Prefer not to say or invalid

#### Lower-level:

- No trans status or history
- Trans man
- Trans woman
- Non-binary person
- Trans status or history: Not otherwise specified
- Prefer not to say or invalid



Bisexual

Other sexual orientation, please write in:

#### High-level:

- Straight / heterosexual
- Lesbian, gay, bisexual or another sexual orientation
- Prefer not to say or invalid

#### Lower-level:

- Straight / heterosexual
- Gay or Lesbian
- Bisexual or pansexual
- Another sexual orientation
- Prefer not to say or invalid



# New questions for 2022: British Sign Language (BSL)

 15 Can you use British Sign Language (BSL)?

 Yes

 No

□ 2011: "Do you use a language other than English at home?"

- □ 2022 question development: strong user need for BSL ability
- □ Policy development, equality monitoring, legislative work.

#### Variables

**User feedback** 

- □ Can use BSL (Y/N)
- □ BSL user's main language: BSL? (Y/N) (Main language question)
- BSL users in household (Y/N)
- Number of BSL users in household
- □ BSL users & hearing impairment (Long term health conditions question)



# New questions for 2022: Bedrooms

#### **User feedback**

- Previously: Number of rooms in household
- □ Census 2022 question development: Bedrooms
  - □ Calculations of overcrowding/under-occupancy
  - Estimating property size
  - □ Informing housing property and strategy

#### Variables

- Number of bedrooms
- Number of persons per bedroom
- Estimated number of bedrooms required based on the number & type of residents
- Difference between the actual number and the required number of bedrooms for the household.

Include all rooms built or converted for use as bedrooms

Number of bedrooms



### New questions for 2022: Veterans

#### **User requested information**

□ Number and location of veterans and their dependents

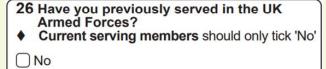
Understand employment, education and health outcomes

#### Variables

- UK Armed Forces veteran (Y/N)
- □ Household Reference Person (HRP): UK Armed Forces veteran (Y/N)
- UK Armed Forces veterans in household (Y/N)

#### Publishing

Flexible table builder, but might need to be an analytical report to allow for more detailed analysis



Yes, previously served in **Regular** Armed Forces

Yes, previously served in Reserve Armed Forces



### New questions for 2022: Passports

#### **User feedback**

□ More relevant as a proxy question to citizenship

Capture information about the diversity of the Scottish population

#### Variables

- □ Has a passport (Y/N)
- □ UK passport (Y/N/no passport)
- □ Passports by region (UK, Ireland, EU, other Europe, other continents)
- □ UK citizenship (Y/N/no passport)
- Citizenship: Has UK, Irish, Europe, non-European passport
- □ UK citizenship & Born in/outside UK
- Citizenship: Single, dual, no passport
- Dual citizenship: Passports by region
- Mixed citizenship within household

Category details in variables spreadsheet

20 What pass ♦ Tick all that	ports do you hold? apply
United King	dom
Ireland	
Other, pleas	se write in:
None	



# Changes to the 2011 questions 🕨

- Some changes, but largely the same as 2011
- These changes do not include questions where the wording has changed but the output classifications remain the same

Question	Change
Central heating	Responses and in question guidance added Removal of the text box
Household tenure	Response added
Landlord	Responses removed and regrouped
Religion	Response added
Ethnic group	Responses added
Long-term conditions	Response added
Have you ever done any paid work	Format change



### Geography: Standard geographies **>**

Previous stakeholder engagement identified user need for the following geographies.

As 'standard' geographies we plan to make these available for all outputs and be available within the Flexible Table Builder

- Scotland
- Electoral Ward
- Output Area
- Scottish Parliamentary Constituencies
- Settlement and Localities
- □ Island groups
- Community Health Partnerships

- □ Local Authority/Council Area
- Data Zones
- Civil Parish
- Health Board Areas
- □ United Kingdom Parliamentary Constituencies
- Scottish Parliamentary Regions
- National Parks

During this stakeholder engagement we did not identify enough evidence that the Detailed and Local Characteristic geographies were widely used so have proposed to not use these alongside Scotland's Census 2022 outputs



### Geography Non-standard geographies **>**

These geographies are referred to as non-standard geographies as they were not included in standard outputs for 2011.

These geographies include:

- Intermediate zones
- Travel to work areas
- Workplace zones
- Grid squares
- UK International Territorial Levels

#### Lookups in the Flexible Table Builder

National Records of Scotland are proposing where we identify a clear user need and it is appropriate it is proposed that these are added to the census dataset by the outputs team, and included in the flexible table builder for users to access.

### Scotland's Census Website 🕨

- Search Census data
- □ Flexible Table Builder
- Area Overviews
- Case studies
- Metadata
- □ At a glance



# Scotland's Census Website: 🕨

In preparation for publishing 2022 census outputs, we developed a new census outputs website

This ensured that we have an accessible and usable platform for publishing census data

Extensive user testing was completed as part of this work.

The website was assessed against the Scottish Digital First assessment

We continue to continually improve the website based on user feedback

This is a new service. Your feedback will help us to improve it.	Dark mo	de 💼	
Scotland's Census Drog an Horn Final Andre Stande	About the census 2011 results Case studies News and events	٩	
Scotland's Census 2022 outputs consulta launched	tion 2022 census outputs Give us your views on how we should publish census results Creare sight conductor		
What happens next? Read about t after the census has closed →			
Discovery	Alpha	Beta	Live
Focus groups • 7 participants • Professional users User interviews • 7 participants • Citizen users Co-design workshop • Storm ID and NRS colleagues from multi-disciplinary teams Usability testing • 11 participants • Professional and citizen users Accessibility review • Review and feedback on prototypes based on best practice	Focus groups 10 participants NRS users from across the organization Usability testing 19 Japarticipants NRS, professional and citizen users incl. users with hearing impairments Accessibility testing 6 participants Citizen users incl. users with visual, cognitive and motor impairments using Dolphin Supernova, Zoom text, dark mode, tinted glasses, JAWS and Dragon speech to text Assisted digital interviews	Unmoderated remote usability testing • 44 participants from unknown persona types recruited through social channels Usability testing • 15 participants • Professional and citizen users incl. 6 with low digital skills Accessibility testing • 11 participants • Citizen and professional user incl. users with hearing, visual, cognitive and motor impairments using Read & Write Gold, Narrator, VoiceOver, Joystick navigation and JAWS	Accessibility auditing Continuous auditing to prepare fo Jaunch Auditing using following: Chrome, Safari, IE11, Edge Mobile, Tablet, Windows and MacOS Laptop NVDA, VoiceOver, WAVE Usability testing 18 participants Professional and citizen users incl. users with low digital skill Accessibility testing 9 participants Citizen users incl. users with visual, cognitive and motor impairments using JAWS, VO and physical magnifier
	<ul> <li>3 citizen participants with low to no digital skills</li> <li>Accessibility audit</li> <li>Chrome, Safari, IE11, Edge</li> <li>Mobile, Tablet, Windows and MacOS Laptop</li> <li>NVDA, VoiceOver, WAVE</li> </ul>	Accessibility audit Chrome, Safari, IE11, Edge Mobile, Tablet, Windows and MacOS Laptop NVDA, VoiceOver, WAVE	

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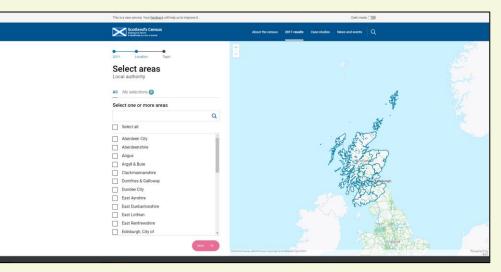
### Scotland's Census Website: Accessing Census data

To ensure that we meet a range of users needs there are multiple ways to access census data

- Search Census data
- Area overviews
- □ At a glance
- Download data

For 2022 this will also include the Flexible Table Builder and data access through an API

There is also a commissioned table service which allows users to request new census tables to be produced by NRS



Scotland's Census Designer Ader Addition or Sale Floated		About the census	2011 results	Case studies	News and events	٩
Home > Census results > Area over	views					
Start again						
Highland: 1	2011 overview					
Compare census years Add another year to compare	statistics OR + Add up to 2 further are	as to compare statist	ics.			
Population Household	identity Health Education	Labour Market				
General health	All people Highland 2011					
View as text	232,132					
	Highland 2001					
	208,914					=
	100					
	82					
	Tung good Good	Nur Bighland 2011 Bild	ighland 2001	Red.	Very task	
	<ul> <li>What does this mean?</li> <li>A self-assessment of a person's general state of</li> </ul>	health.				
	See full definitions					

### Scotland's Census Website: Supporting information

It is important that users can find supporting information on the census data

There is integrated metadata for the census outputs and papers on previous engagement and methodology are published in the "About the census section"

There are also examples of how census data has been used to inform campaigns and decisions from users

We will continue to update users as we continue to develop our plans. Including our findings from this consultation

heal	th						
Applicability Person	<sup>Type</sup> Primary variable						
General health is a self-assessment of a person's general state of health. People were asked to assess whether their health was very good, good, fair, bad or very bad. This assessment is not based on a person's health based over any specified period of time.							
	-						
	1	Very good					
	2	Good					
	3	Fair					
	4	Bad					
	5	Very bad					
ariables	19: How is your health i	n general?					
	<ul> <li>Very good</li> </ul>						
	Applicability Person	Person Primary variable General health is a self- assess whether their he based on a person's her Total number of catego Code 1 2 3 4 5 ariables 19: How is your health i	Applicability Person     Type Primary variable       General health is a self-assessment of a person's gener assess whether their health was very good, good, fair, b based on a person's health based over any specified per Code       Total number of categories 5 Code     Name       1     Very good       2     Good       3     Fair       4     Bad       5     Very bad	Applicability Person     Type Primary variable       General health is a self-assessment of a person's general state of heal assess whether their health was very good, good, fair, bad or very bad based on a person's health based over any specified period of time.       Total number of categories 5 Code     Name       1     Very good       2     Good       3     Fair       4     Bad       5     Very bad	Applicability Person     Type Primary variable       General health is a self-assessment of a person's general state of health. People wer assess whether their health was very good, good, fair, bad or very bad. This assessme based on a person's health based over any specified period of time.       Total number of categories 5 Code     Name       Code     Name       1     Very good       2     Good       3     Fair       4     Bad       5     Very bad	Applicability Person     Type Primary variable       General health is a self-assessment of a person's general state of health. People were asked to assess whether their health was very good, good, fair, bad or very bad. This assessment is not based on a person's health based over any specified period of time.       Total number of categories 5 Code     Name       1     Very good       2     Good       3     Fair       4     Bad       5     Very bad	









Thank you for coming along to today's session. If you have any questions on the consultation or need any help while responding, please get in touch:

OutputsConsultation@nrscotland.gov.uk

You can also sign up for our newsletter to stay updated on the Scotland's Census 2022

