Scotland's Census 2022 Fairer Scotland Duty Impact Assessment v5.0

December 2021

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Scotland's Census 2022.

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What is the census?

The census is the official count of every person and household in Scotland. It is usually held every 10 years and provides the most complete statistical picture of the nation available. It also provides information that central and local governments need, in order to develop policies and to plan, fund and run public services.

Scotland's Census is taken by the National Records of Scotland on behalf of the Registrar General for Scotland. The National Records of Scotland (NRS) is a non-ministerial department of the Scottish Administration, established on 1 April 2011, following the merger of the General Register Office for Scotland (GROS) and the National Archives of Scotland (NAS).

The main purpose of NRS is to collect, preserve and produce information about Scotland's people and history and make it available to inform current and future generations. It holds records of the census of the population of Scotland from 1841 and every 10 years after that. The one exception to date was the wartime year of 1941 when no census was taken. Census records are closed for 100 years under the Freedom of Information (Scotland) Act 2002.

Scotland's Census moved to 2022

On 17 July 2020 the Scottish Government announced the decision to move Scotland's Census to 2022 following the impact of the COVID-19 pandemic.

The census collection is a huge logistical operation involving the recruitment and deployment of thousands of staff, including a large field force team who engage with the public on their doorstep. The 12 months leading up to a census are vital in planning and testing the effectiveness and safety and security of census systems and collection processes to ensure these are ready. COVID-19 restrictions during 2020 prevented these key activities from progressing. These impacts occurred in a number of areas, from progressing recruitment to being able to undertake comprehensive testing, from contacting care homes and hospitals to establish their requirements for questionnaires to engaging with third sector and community groups to encourage participation from everyone in Scotland.

The priority and responsibility of NRS is to put in place a census that enables everyone across Scotland to participate, so that information collected can be used to produce high quality outputs and deliver the benefits required by the people of Scotland. We had been monitoring the impacts of COVID-19 on the

delivery of the 2021 census and explored a number of options to preserve this census date. The conclusion by NRS was that the only option in which there was confidence around securing the high response rate required was to move the census to 2022. Following the recommendation, Scottish Ministers decided to move Scotland's Census to March 2022 to ensure that a full and successful census is undertaken.

The census in March 2022 will follow the same model and question set as planned for March 2021. We will work closely with our stakeholders and partners to ensure that appropriate data is available to support work that was expecting to make use of Census 2021 data. We will also continue to work closely with our colleagues in the Office for National Statistics (ONS) and Northern Ireland Statistics and Research Agency (NISRA) to ensure the needs of data users in Scotland and across the rest of the UK will be met.

Census legislation

The Census Act 1920 ("the 1920 Act") provides for a census to be taken not less than five years after the previous census. The 1920 Act applies to England, Wales and Scotland. In Scotland it is the duty of the Registrar General to undertake the census, in accordance with the 1920 Act and any Order in Council or regulations made in terms of the 1920 Act, under the direction of Scottish Ministers.

Section 1 of the 1920 Act provides the enabling power which underpins the taking of the census. It allows the making of an Order in Council ("the Census Order") which directs that the census be taken; the date on which it is to be taken; the persons by, and in respect of whom, returns are to be made; and the particulars which are to be stated in the returns. The questionnaire (or questionnaires) used in the census are prescribed in regulations ("the Census Regulations") under section 3 of the 1920 Act. This is where the census questions, as they will be seen by individuals completing the questionnaires, are legally set out. The questions must, of course, solicit the particulars set out in the Census Order.

All of the legislation required for a census in 2022 is now in force.

Non-compliance

There is a legal requirement to complete the census. Those householders who do not make a census return may be prosecuted and could receive a criminal record and / or fine. It is also a criminal offence for a person to refuse to answer a census question, or give a false answer. The only exceptions to this are the voluntary questions on religion, sexual orientation and on trans status or history, as enabled by the Census (Amendment) (Scotland) Act 2000 and Census (Amendment) (Scotland) Act 2019 respectively. Together, both Acts specifically exclude penalising non-response to these questions.

Why have a census?

For over 200 years, Scotland has relied on the census to underpin local and national decision making. Around 200 countries worldwide now undertake a regular census under the UN census programme. The census is the only survey to ask everyone in Scotland the same questions at the same time. It is unique in the provision of comprehensive population statistics. It is used by central and local governments, health boards, the education sector, the private sector, and the voluntary sector to plan and distribute resources that match people's needs. The information collected must be "authoritative, accurate and comparable" for all parts of Scotland, and down to very small levels of geography. Only the census can consistently provide such information.

Basic information on population size, age, sex and location are crucial to work on pensions, migration, economic growth and labour supply. Other information gathered helps governments to:
- identify housing demand and create housing supply including information on household size and family make-up which are crucial to policies on local housing demand and planning, and poor housing and overcrowding
- identify areas of deprivation, enabling them to target services
- gather data on equality groups, enabling them to tackle discrimination
- gather information on housing.

Census information is also used for a range of social and economic indicators:
- population estimates
- employment and unemployment rates
- birth, death, mortality, and fertility rates
- equalities data, such as age, sex, ethnicity, religion/belief and disability.

Census data are also used by local public services to meet local needs in health, education, transport, planning, and community care services.

NRS calculated the cost to health board funding allocations if the census was not carried out in 2011. If census figures from 2001 had been used to make population estimates and allocate funding to health boards, in 2014/15 there would have been misallocations of between £30m and £40m. Some health boards would have received more, some less, than their appropriate share.[1]

Following the 2011 Census, NRS, in conjunction with the other UK Census offices, explored alternative ways to produce population statistics. NRS identified potential options and examined and compared various approaches

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[1]Scotland's Census 2011 General Report

to counting the population, both here and overseas, engaged with a diverse group of users, commentators and public bodies, and undertook qualitative and quantitative research into attitudes to the census and population statistics. More information on the work which was done can be found in the Beyond 2011 section of the NRS website.

Having considered all the evidence, in March 2014, NRS recommended that a modernised 'traditional' census was the best way to meet users' needs. Specifically, NRS announced its intention to focus on planning for a census in 2021, which would be primarily online, while offering alternative modes of completion where necessary, and also aiming to make best use of technology and administrative data in its design, building on the online approach used successfully in the 2011 census.

The main objectives of Scotland's Census 2022 are to:

- produce high-quality results;
- generate outputs that meet the needs of our users;
- maximise online response rates for the census;
- produce timely outputs to maximise benefits;
- protect, and be seen to protect, confidential information;
- do so in a cost effective way; and
- make recommendations for the approach to future censuses in Scotland.

Learning from census rehearsal

As part of our preparations for Scotland's Census 2022, NRS undertook a public rehearsal in parts of Scotland. The rehearsal took place during October and November 2019. People living in households in parts of Glasgow City, and Dumfries and Galloway, and Na h-Eileanan Siar were asked to help by taking part, and received a letter in early October with more information about the rehearsal and how to participate.

Unlike the census itself, participation in the rehearsal was not a legal requirement. Householders in these areas were asked to take part on a purely voluntary basis to help ensure things go smoothly for the main Census in 2022. Field force and communal establishment enumeration operations were not included in the rehearsal activities and a temporary contact centre was created internally within NRS for the purpose of supporting the rehearsal.

The rehearsal also provided reassurance that our chosen approaches in many respects worked well. For example, initial contact materials and reminder letters were effective in encouraging returns, elements of our local engagement and marketing strategy tested strongly, and the overall design and functionality of the online and paper questionnaires allowed the public to complete returns and deliver usable data for our systems.

The rehearsal did importantly identify some new areas of improvement for NRS to take forward. These included the need to:

* make improvements to how we collect address information;
* make improvements to some online question routing;
* review the timing and tailoring of reminder letters; and
* improve the provision of management information.

The rehearsal evaluation report can be found on the Scotland's Census website.

Barriers to participation

The numerous uses made of census data outlined above represent a key benefit and the positive impact of the census. However it is recognised that there are a number of barriers and challenges, which can potentially limit or hinder participation in the census. These include lack of awareness, lack of understanding, privacy concerns, language, mistrust in/lack of engagement with officialdom, impairments such as physical or learning disabilities, and known limitations around the 'reachability' of communities and groups. Some relate specifically to digital participation, such as digital access or connectivity issues, lack of digital skills or confidence, data security concerns and mistrust of digital systems. User research and testing from 2018, 2019 and 2021 has helped us understand the user experience of people who may face barriers to completing the census.

Significant market research was also undertaken in 2021, focussing on attitudes and knowledge towards the census and potential barriers to completion. More information is provided in the communications and engagement section below.

Digital participation

The public sector in Scotland is committed to respond to the changing expectations of customers by realising the opportunities that technology provides and delivering an increasing proportion of services online. Part of the Scottish Government's Digital Strategy is to increase digital participation in order to enable social mobility and tackle persistent inequalities. The online delivery of public services will also provide services which are easier, quicker and more convenient for people to use, and at a lower cost than other methods allow. The UK Government's Digital Efficiency Report suggests that transactions online are 20 times cheaper than by phone, 30 times cheaper than by post and as much as 50 times cheaper than face-to-face.

In general terms Scotland can be considered a digital nation. The 2019 Scottish Household Survey (SHS) reports that home internet access has increased steadily over time, reaching an all-time high of 88% of households in 2019. Previously, other sources have shown that 40% of people are reported

to have a tablet computer (SCVO, 2015) and 63% use a smartphone (Ofcom, 2015a).

While this information is a useful indicator of internet availability, it is not necessarily indicative of potential response to a requirement to use the internet for a specific task such as completing a census form. A report published by the Carnegie UK Trust (Carnegie UK, 2014) highlights this fact noting that the barriers to getting online are multiple, varied and complex. They state that "being digitally connected is not the same as being digitally included". The same point was also made in a report outlining research looking at links between digital and social disengagement (Helsper, 2008) which notes "simply providing access to these platforms is not enough – digital disengagement is a complex compound problem involving cultural, social and attitudinal factors and in some cases informed 'digital choice'".

It is important therefore to have a full understanding of all factors influencing internet use before any assessment of potential digital participation can be made.

Everybody has their own individual set of circumstances and their own reasons for not being online. The four main kinds of challenge people face are:
- access (accessibility, location, cost, technology, infrastructure, language);
- skills (literacy, digital, security, confidence);
- motivation (risks, necessity, financial benefits, social benefits, health and wellbeing benefits); and
- trust (identity, security, standards, reputation).

The first two, a lack of access or skills, result in 'Digital Exclusion' while the latter two, lack of motivation or trust, may be best grouped with those situations where individuals have access and make use of the internet but will choose not to complete an online census as 'digital choice'.

Both digital exclusion and digital choice could have a significant impact on online response rates. Therefore, it is important that a focus for Scotland's Census 2022 is on promoting online participation and not just tackling digital exclusion.

We are also keenly aware of the demographics and infrastructural aspects of the digital connectivity landscape in Scotland. Households with higher income are more likely to have internet access. Households with lower incomes and households in Scotland's most deprived areas are less likely to have home internet access., but the gap has narrowed in recent years. Internet access varies by tenure. In 2019, 79% of those in social rented housing had internet access compared with 91% of households who owned their home.[2]

[2] Scottish Household Survey 2019: Annual Report

The option of submitting census questionnaires online was introduced for the first time in 2011 to those living in households; those living in communal establishments were only able to complete on paper. Around 20% of all returns were submitted online. The 2022 Census is being designed under the principle of 'Digital First' with a target online completion ratio of at least 70%.

Online services will be promoted through a number of different routes, such as community engagement activity, publicity initiatives, websites, contact materials and information leaflets. To reflect the steep rise in the use of social media in recent years, there will be a much greater emphasis on the use of social media as part of the programme's marketing and publicity activity, to satisfy increased customer demand and expectation.

The move to a primarily online census, including a change in enumeration strategy (e.g. post out of contact materials instead of enumerator hand delivery), will reduce the direct contact between householders and field staff. Public assistance channels and services together with publicity and marketing will have a critical role in compensating for this and encouraging and enabling maximum response.

We are monitoring broadband roll-out initiatives overseen by the Scottish Government and Highlands and Islands Enterprise which have set ambitious targets for broadband coverage across Scotland. We will continue to track progress against such initiatives to develop and maintain knowledge of those localities where digital access presents the biggest challenge, so we can best channel our support and assistance efforts.

3. Delivering Scotland's Census 2022

Communications and engagement

A detailed integrated communications and engagement strategy has been developed focussing on those groups most at risk of non-participation, identified by market research.

Initial market research was conducted over four phases to understand more about public knowledge about the census, what their motivations would be to help them complete the census and what messages resonate best to help promote the census. We then conducted and completed further public research in November 2020 to assess the impact of the coronavirus pandemic on public perception and knowledge of the census.

Eight key groups have been identified as potentially being less likely or able to complete the census. While we aim to reach all of Scotland through our marketing and advertising campaigns, messaging will be tailored to these key audiences using a range of platforms, including social media, PR, marketing and community and stakeholder engagement.

All communications and engagement material will be aligned to contact activity with the public.

Marketing and PR campaign

A three-phased approach has been developed aiming to reach all of Scotland, covering awareness, persuasion and action. Media will be targeted for each of the marginalised audiences, particularly in the persuasion and action phases. This will include television, radio, out of home posters and digital ads.

The creative concepts have gone through two rounds of public testing with our key audiences both in group sessions and in one to one in-depth sessions.

The marketing activity will be supported by the PR campaign which will also incorporate the three phases and again focus on those hard to reach groups. This activity will include media relations and social media.

Stakeholder and community engagement:

NRS is engaging with key stakeholders, including Scottish Government, local authorities and key organisations and partners across the Third Sector, to ensure messaging about the census and its value reaches those at most risk of non-participation. This engagement will be supported by a 'field and partnerships' campaign to develop in-depth partnerships with stakeholders with reach to our key groups.

Online Collection Instrument:

The Scotland's Census 2022 Online Collection Instrument will be made-up of three public-facing systems: the online questionnaire, a website and a request system for ordering products. The website will provide access to the online questionnaire and will feature a wide range of help and guidance, including accessible videos and access to web-chat.

To inform the design and iterative development of the online experience, we have performed the following User Research/User Testing:

- Accessibility Testing with Users (Dec 2018 – March 2019)
- Audience Discovery Research (Dec 2018 – March 2019)
- Information Needs User Research (Dec 2018 – March 2019)
- Tree-Testing – (June 2021 – August 2021)
- Usability testing (June 2021 – Sept 2021)

Other activities that have been performed to support the usability and accessibility of the online experience include:

- OCI Accessibility Audit (3rd Party) – March 2020

- Content review (3rd Party) – May 2020

Further accessibility testing/audit will be conducted by the end of 2021. You can find further information about our User Research/User Testing in Annex A.

This work has provided valuable insights into the needs and motivations of different groups and communities. These include people with digital skills limitations, low literacy, reading impairments, English language limitations, people from ethnic minorities and marginalised groups.

Scotland's Census website

In preparation for Scotland's Census 2022, we have developed a new website to host census results and supporting information.

The website was developed using the Digital First Service Standard, a core part of the Scottish Government assurance framework. This is a set of 22 criteria that aims to make sure that services across Scotland are continually improving, and that services are being designed with users. NRS successfully completed an assessment against this criteria before the website was launched in May 2021.

Throughout the development of the website we completed a number of user testing sessions. This included users with a variety of education levels, occupations, digital skills, locations, ages and levels of awareness of NRS and census. These sessions ensured that the service was useable and accessible for users of census data.

Alongside the website we are developing a plan to provide assisted digital support to users who require assistance accessing the census results offline.

The period between launch of the website (May 2021) and new data being released is being used to iterate and continuously improve the offline support provided by NRS.

Public assistance

A Digital First census

In-line with the Scottish Government's "Programme for Government 2021-2022: A Fairer-Greener Scotland" – Scotland's Census 2022 seeks to support a digitally inclusive and connected Scotland.

> *"Over the past 18 months, the Coronavirus pandemic has changed our way of life fundamentally. Many of us have worked successfully from home and we have come to rely on home shopping, online education and new and creative ways of using digital technology to keep in touch with family and friends.*
>
> *But, it has also demonstrated the problems that come from digital exclusion. It has reminded us that whilst technology can transform lives for the better, it is essential we ensure no-one is left behind."*

Scotland's Census 2022 is intended to be a predominantly Digital First census, with paper questionnaires only being made available on-request. We have been working with our digital delivery partner(s) to assure that the online census questionnaire is a modern, usable and accessible digital platform that meets citizen expectations of a government service.

The same standards of usability and accessibility have also been used when developing the www.scotlandscensus.gov.uk (Outputs) website.

Both digital platforms have been tested to work on different browsers and devices, and have met the criteria of the Digital First Service Standard.

Provisions have also been made to offer alternative options for census completion for those who choose not to complete online, or who cannot complete online.

Digital exclusion

Despite the pandemic resulting in an increase in digital participation and adoption - it is considered that digital exclusion may still apply to:
- older generations and those who have poor digital access or IT connectivity issues,
- those that may lack the digital skills or confidence to complete an online form; or,
- those who simply do not have a device or have data security concerns about submitting a census form.

We continue to work with public sector organisations across Scotland to understand what else can be done to support these audiences who are digitally excluded.

Other barriers to participation

In addition to digital exclusion there are a number of other barriers and challenges that may limit or hinder individual participation in a digital census. This includes lack of understanding, language difficulties, public mistrust or lack of interest and engagement with officialdom, visual impairments, physical or learning disabilities and/or other known barriers around 'reachability' of communities and marginalised audiences.

Under the banner of "Public Assistance" the census programme has developed a number of Help and Support strategies for these audiences.

Public assistance delivery model

On account of the coronavirus pandemic, the programme has had to adapt its original Public Assistance Delivery Model and Plans.

Originally there had been the intent to create a national network of support hubs via libraries and using the physical estate of other public sector organisations, but it has been considered that this may not offer Value for Money (VfM) at this time when COVID-19 restrictions may be reintroduced preventing the effective promotion and participation at these support hubs.

Based on the lessons-learnt of what has "worked-well" from ONS and NISRA around their Census 2021 experience we are investing in our:
- Language and Accessibility support products; we are,
- Increasing the capacity of our contact centre operation; and we are,
- Leveraging our stakeholder networks and community engagement activity.

Support	Description
Central services and support	Centrally, we will offer 2 primary routes for accessing Public Assistance • Online at www.census.gov.scot and via the, • Free Helpline on 0800 030 8308
Decentralised services and support	Our Field Force and Enumeration teams will provide a decentralised Public Assistance offer (i.e. support and encouragement to complete your census with sign-posting to other help and support available).
Language and Accessibility Support Products	We will offer help and support in different languages and accessible formats.
Translated Guidance	Translated questionnaire guidance will be available in 16 languages to download from the website at www.census.gov.scot/languages. These

	translations are intended to help users complete the paper questionnaire in English. In addition to accessing the translated questionnaire guidance online, users can contact the free Helpline number on 0800 030 8308 if they would like a printed version posted to their home. They will also be able to request a paper copy of the English language questionnaire if they do not already have one.
Language Support Line	Support will be available in most languages over the phone, and a dedicated language helpline (0800 030 8333) has been set up to provide language support and translation services. This service will be promoted via the Household Information Leaflet to all Households.
Gaelic (Ghàidhlig)	Individuals will be able to complete their census online by switching to Gaelic before they start to complete. This functionality will offer translations of the census questions and question help. Key parts of the website will also be translated in Gaelic, and the following products will be available to download: • A 'Gaelic Guidance Booklet' (PDF) • A Gaelic translation of the Contact Letter (PDF)
Accessibility Products	Individuals will be able access help in British Sign Language, Easy Read, braille, audio and large print – to help complete their census.
British Sign Language (BSL) support	The online questionnaire has BSL translations for each question to help BSL users to complete the census, and the website also contains BSL translations for all primary pages. A text relay service is also available on **18001 0800 030 8308** and BSL users can also contact us by using **contactSCOTLAND-BSL.org,** Scotland's national BSL interpreting video relay (IVR) service.
Large Print	If you have a visual impairment or struggle to read regular print, users will be able to order a large print version of the household questionnaire. This product will also include additional guidance for completing the questionnaire in large print.

Braille	Individuals will be able to order a translation of the household paper questionnaire in braille.
Easy Read	An Easy Read guide (PDF) can be downloaded from the website, or alternatively individuals can request that a printed version be sent to them via post. The guide tells you about the census and how to complete it in 'plain English'
BSL, audio and subtitled question help on DVD or USB	Individuals will also be able to request • British Sign Language translations of the paper questionnaire on USB or DVD • an audio CD of the paper questionnaire questions To order these products, you will need to let the contact centre know: • your name • address and postcode • how many you need
Audio CD	Individuals will be able to order an audio CD version of the household paper questionnaire.

Contact centre

Our Contact Centre will open on 28 February 2022. This will provide individuals with a free, dedicated Helpline that can be used for Help or Support when completing your census.

Our contact centre team will be trained to deal with common queries, print product requests and complaints.

The hours of operation will be:
- Monday to Friday: 8am to 8pm
- Saturday and Sunday: 9am to 4pm
- 19 and 20 March: 8am to 8pm

Calls are free-of-charge from UK landlines and mobile phones.

The Contact Centre will deal with queries via social media, e-mail, webchat and IVR. They will provide basic IT technical support helping users with their login difficulties and support users with the completion of telephone captured questionnaires via the online process.

The Contact Centre will also be able to request replacement Internet Access Codes to be issued to respondents. These codes will be sent by paper, text or email.

Contact Centre and field force staff will be able to provide assistance to support completion, as well as Telephone Data Capture (TDC). This includes assistance for those seeking to complete an individual questionnaire as part of a household. In addition, the census questionnaire can be completed on behalf of the householder by a family member/friend/carer.

Field operations and recruitment

The field force which supported Scotland's Census 2011 was in the region of around 7,500 staff who were responsible for hand-delivery of paper census questionnaires to the vast majority of Scotland's households. In 2022 initial contact with households will be by letter and field force responsibilities will focus on following up non-response. The field force will be around half the size of that in 2011.

Field force staff will be recruited across the country and we will seek to best represent the people of Scotland within our workforce, in full compliance with relevant employment legislation.

Data collection

Respondents will be able to complete the census questionnaire online, or can request a paper questionnaire for return by post. Enumeration processes include the use of a robust address list to ensure every household receives instructions on how to make a census return. This is complemented by deployment of a field force who will seek to ensure every household and communal establishment is able to participate in the census. The Census Coverage Survey, which follows up a sample of the main operation, assesses the extent of coverage across the whole population.

Data processing and statistical outputs

Statistical data processing, and the methodology underpinning it, will seek to ensure that all data captured by the census are processed appropriately and consistently to best meet the identified user needs, and are considered throughout the data lifecycle. Statistical Disclosure Control policies and processes protect individuals, particularly those who hold less prevalent protected characteristics, from being identifiable from census outputs.

4. Summary of evidence and assessment findings

Statistical Outputs

Evidence from the Scottish Household Survey 2019 indicates that household internet access increased with net annual household income. Home internet access for households with a net annual income of £10,000 or less was 65% in 2019, compared with almost all households (99%) with a net annual income of over £40,000. Access differed by area of deprivation: 82% of

households in the 20% most deprived areas in Scotland had internet access at home compared with 96% of households in the 20% least deprived areas.[3] As such, socio-economically disadvantaged individuals may be more likely to have difficulties in accessing census outputs that are made available online.

Census outputs will be made available in a variety of accessible formats both online and in hard copies on request. This will ensure that all data users, regardless of their internet access or proficiency will have access to census data.

Evidence from the Scottish Government's Scottish Social Attitudes 2017[4] survey indicates that those in the most deprived areas of Scotland have lower confidence in the Scottish Government and Scottish Local Authorities generally than those in the least deprived areas. This suggests that those from socio-economically disadvantaged backgrounds may be more distrustful of outputs from Scotland's Census 2022. There is therefore a risk that non-completion may be higher amongst these groups. The consequence of this scenario is two-fold. Firstly there is a higher likelihood of those in the most deprived areas and from socio-economically disadvantaged backgrounds incurring non-compliance penalties, and secondly the quality of data collected could be impacted resulting in under-representation of inequality levels, arguably in those very areas where there is a greater need for quality and accuracy of data.

This risk drives the need for enumeration and fieldwork policies to take steps to build public confidence and maximise response from these groups and areas.

As in previous censuses, data[5] from Scotland's Census 2022 will be used to derive the National Statistics Socio-economic Classification (NS-SEC) which provides an indicator of socio-economic position based on occupation. Stakeholder engagement revealed a strong user need for the NS-SEC and related census outputs, particularly in relation to service planning/provision for socio-economically disadvantaged groups and equality monitoring.

During the Beyond 2011 programme consultation process, evidence was received from many users of alternative and supplementary data sources which included outputs derived from the census., such as Scottish Neighbourhood Statistics (SNS) (now superseded by the Open Data Platform) and the Scottish Index of Multiple Deprivation (SIMD)emphasised[6] how useful these sources had been for their purposes. SNS, formerly, and SIMD are

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[3] Scottish Household Survey 2019: Annual Report
[4] https://www.gov.scot/publications/scottish-social-attitudes-attitudes-government-economy-public-services-2017/
[5]https://www.scotlandscensus.gov.uk/documents/census2021/Labour_Market_Topic_Report.pdf
[6] https://www.nrscotland.gov.uk/statistics-and-data/beyond-2011-the-future-of-census-statistics/reports-and-research

considered by some to be the main drivers for planning in council areas, and particularly useful for investment regeneration.

SIMD, which is available on the Scottish Government website, is extensively used by a range of stakeholders for in depth analysis of the underlying causes of deprivation and targeting areas for support and intervention. SIMD has used census data[7], in addition to a range of other sources of information, to calculate a measure of deprivation within small data zone areas. Each data zone area has roughly the same population. Local authorities use SIMD to identify small area concentrations of multiple deprivation.

There is recognition amongst users that the SIMD[8] has issues in areas with a low population density. For instance, in the Highland area, because of the population density being low, often there are two or three areas with completely different demographics joined together. This can result in a data zone that can skew the apparent deprivation and 'hide' very deprived areas.

SNS was the Scottish Government's on-going programme to improve the availability, consistency and accessibility of small area statistics in Scotland. SNS developed the systems to enable statistics across policy areas including information about benefits, education, health and the labour market to be brought together across a range of geography levels, and has since been superseded by the Scottish Government's Open Data Platform, which enables users to explore, visualise and download over 250 datasets from a range of official statistics producers.

Digital Exclusion

There are a number of barriers and challenges which can potentially limit or hinder participation in the census, particularly given the Digital First approach for Scotland's Census 2022. These include lack of awareness, lack of understanding, privacy concerns, language, mistrust in/lack of engagement with officialdom, impairments such as physical or learning disabilit ies, and known limitations around the 'reachability' of communities and groups. Some issues relate specifically to digital participation, such as digital access or connectivity issues, lack of digital skills or confidence, data security concerns and mistru st of digital systems. It is recognised that socio -economic factors can significantly influence many of these barriers and challenges. In support of its objectives the programme is taking steps to address and mitigate these challenges.

Whilst the 2022 census will be predominantly online, paper questionnaires and materials will also be available. This represents a significant mitigation against the risk of negative impact through digital exclusion. Paper

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[7] https://www2.gov.scot/Resource/0050/00504822.pdf
[8] https://www.nrscotland.gov.uk/files//census/2021-census/Stakeholder-Engagement/user-require-analysis-report.pdf

questionnaires will be available via the Contact Centre which can be contacted free of charge, as well as from field staff following up non-responding households. Initial contact materials will clearly highlight the paper option and direct respondents accordingly, as will the census website and publicity content. Paper questionnaires requested via these channels will be sent by post and returnable by post, free of charge. All of these measures carry a cost to the public purse but the benefits of enabling free access to facilitate participation for all considerably outweigh that cost, whilst supporting the principle of fairness and reflecting the mandatory nature of the census.

The term "digitally excluded" refers to people who are not capable of using the internet, either because they lack digital skills or confidence in using a computer and online services and/or they do not have access to the internet[9]. Non-use of the internet could be due to many factors including:
- lack of digital skills to safely and competently use online services
- lack of confidence or interest in using a computer or online services
- no or slow access to an internet connection
- no access to devices or assistive technologies necessary to use the internet.

Digitally excluded groups are more likely to be:
- Those over 65 years of age[10]
- Economically inactive working age adults, lower income households, lone adult households, people in communal establishments or other non-private housing[11]
- Disabled people[12]
- People on lower incomes and households in locations without fibre broadband internet access.[13]

[9] ONS, 'Exploring the digital divide'
https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04
[10] Exploring the UK's digital divide - Office for National Statistics (ons.gov.uk)
https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04#how-does-digital-exclusion-vary-with-age
[11] Exploring the UK's digital divide - Office for National Statistics (ons.gov.uk)
https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04#what-other-patterns-are-there-in-internet-usage
[12] Exploring the UK's digital divide - Office for National Statistics (ons.gov.uk)
https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04#what-is-the-pattern-of-internet-usage-among-disabled-people
[13] The Digital Divide: What does the research tell us? Cambridge Centre for Housing and Planning Research, 2020
https://www.cchpr.landecon.cam.ac.uk/system/files/documents/digital_divide_research.pdf

These are the groups where greater encouragement to complete online may be needed or greater awareness of support available and alternative methods of making a return may need to be generated.

Digitally excluded people will need assistance to respond to the census. NRS must determine who these people are and which areas of Scotland they live in, to enable appropriate services to be targeted towards areas that are most affected.

Those with a high income are likely to have more money to spend on services like the internet, while those on lower incomes might forego the cost of an internet connection and the associated costs of computer equipment.

Working-age adults in DE socio-economic group[14] households are more than three times as likely as those in non-DE households to be non-users of the internet (14% vs. 4%).

The gap in home internet access between households in Scotland's 20% most and 20% least deprived areas has decreased gradually over time from 36 percentage points in 2006 to 14 percentage points in 2019. 18% of adults living in the 20% most deprived areas in Scotland reported not using the internet in 2019 compared to 6% in the 20% least deprived areas. 21% of adults in social rented housing reported not using the internet in 2019, compared to only 5% of those in private rented housing and 10% of those that owned their own homes.

In 2019, 76% of households with an income of less than £6,000 had internet access at home. In comparison, almost all (99%) households with an income of £40,000 and over had home internet access. Since 2003, the gap in home internet access between the lowest income group (£0 - £6,000) and the highest income group (over £40,000), has decreased from 69 percentage points to 23 percentage points in 2019. Among those that have internet access, a lower proportion of adults in social housing were confident in their ability to use the internet than those in private rented housing and those who own their own homes.

In 2019, around 88% of households had home internet access. This figure reveals that about an eighth of all households would not be able to complete online in their own home.

Some of these people will be able to complete without broadband, via smartphone or using public or a friend's internet access. However, there will also be people with home internet access who do not have the capability or inclination to complete online. Cost has been identified as a barrier. In 2018

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[14] https://www.ofcom.org.uk/__data/assets/pdf_file/0024/149253/online-nation-summary.pdf
The DE social grades comprise semi-skilled and unskilled manual workers (D) and state pensioners, casual and lowest grade workers, unemployed with state benefits only

about three in ten households (31%) with an income less than £10,000 per annum did not have home access to internet compared the national average of 13%[15].

We are exploring what assisted digital support can be provided to the public to enable them to get online and complete their census questionnaire.

The Scottish Government has committed over £48 million to Connecting Scotland, a collaboration between public, private and third sector organisations, which aims to provide a national approach to reducing rates of digital exclusion and digital marginalisation due to low income. By the end of 2021 Connecting Scotland aims to have reached the target of bringing 60,000 households online.

Scotland's Census has undertaken research around the production of a Digital Exclusion Index (DEI) to identify and analyse those communities and localities in Scotland most at risk of non-participation in census due to digital exclusion factors. Although the DEI was produced before the coronavirus pandemic, in its current form it is likely to still have high predictive power, as the demographic factors on which it is based still predict likely barriers to digital participation. This work will provide valuable background on a range of operational aspects and help us better support people who face barriers to completing the census questionnaire online.

Field Operations and Data Collection

The DEI will provide a valuable evidence base to develop public assistance and field force policies, including resourcing, logistics and potentially reactive interventions during live operations.

People on low incomes are most vulnerable to the financial impact of any penalty imposed in respect of non-compliance with the census.

Contact Centre and Field Force staff will be able to provide assistance to respondents to support completion of the questionnaire, including scripts to help best respond to enquiries appropriately.

People from some ethnic groups may require information to be available in a range of community languages. Translated guidance will be available in 16 community languages, including Gaelic, and a language sheet will be sent with all contact letters offering details on how to get support in 24 community languages. Our public assistance channels will also ensure that live interpreting advice is available and respondents will be able to talk to an

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[15] https://www.ofcom.org.uk/__data/assets/pdf_file/0011/113222/Adults-Media-Use-and-Attitudes-Report-2018.pdf

advisor in their own language through an interpretation service covering over 200 languages to help answer any questions they might have.

During follow up activity field force enumerators will carry a language card covering the top 24 community language translations, and signposting to where assistance is available.

All staff will receive equality and diversity training and all operations will align to the provisions of the Equality Act 2010.

Many groups who may experience socio-economic disadvantage may be resident in communal establishments such as care homes, halls of residence, detention and asylum establishments. This can include older people, people with disabilities, students, prisoners, refugees and asylum seekers.

There have been recent changes to the communal establishment approaches to simplify the operational process. The new approaches are similar to 2011 from a completion perspective. Most establishments will be given paper questionnaires as first contact, but where online participation is expected to be the preferred and most likely method of completion for residents, initial contact letters will be given to encourage self-response online as the first method of completion. All paper questionnaires (with the exception of prison individual questionnaires) will contain an Internet Access Code should the respondent be willing and able to complete online instead of paper.

This is a change from the original design where field staff would attend care homes and similar establishments for 1 day to sit with residents and capture their census response on a mobile device.

While this was less respondent burden for the manager, the burden on vulnerable and elderly residents was agreed to be too high to be considered an effective method of collecting census data.

With this change, the manager of the establishment will be involved similarly to 2011, where they will be asked to issue, encourage completion and collect completed paper questionnaires from residents. As provided for by the Census Order and Regulations, establishment managers will have a legal responsibility to carry out distribution and collection activities, and to make a return for any person aged 16 or under or otherwise incapable of completing themselves (and where no other assistance can be sought).

5. Conclusion

NRS has considered all relevant impacts around socio-economic disadvantage in the design of Scotland's Census 2022 and as discussed throughout the document, mitigations are in place to reduce impacts wherever possible. We are very grateful to all of our stakeholders who have informed planning and design of Scotland's Census 2022.

6. Sign off

Signature:

Name: Paul Lowe

Job title: Registrar General

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

Annex A - Online Collection Instrument: Research

Accessibility Testing Research Summary

The Online Collection Instrument (OCI) delivers the core question set for the census. There was a need to conduct some initial accessibility testing on the early version of the site to identify any early issues. We conducted a round of accessibility testing with 10 participants with a variety of disabilities from December 2018 – March 2019.

Around half of the participants were visited in their home in order to allow for the use of any specific assistive technology such as screen readers and magnifiers and to help make them more comfortable.

From the OCI, we tested:
- On-boarding – entering Internet Access Code (IAC), setting up a password and password recovery.
- Questions H1-5 – details of who is in the household

Participants ranged from 20 to 61 years of age and had a range of disabilities and assistive technology needs, including dyslexia, dyspraxia, autism, blindness, arthritis, detached retina, macular degeneration, Friedreich's ataxia.

Key findings

The majority of participants found it relatively straightforward to get through the on-boarding and H1-5 sections of the prototype. They were very positive about the idea of completing the census online as it meant they would be able to complete it in a format best suited to them, save progress and complete it in their own time.

However, there were a number of overarching issues that affected all types of users. These were predominantly usability issues, but some assistive technology specific issues were encountered as well. Usability issues will cause problems for all users, but they are heightened for people with disabilities and users of assistive technology. Causing confusion, frustration and being slowed down can have a significant impact on these users. In some situations it can cause stress/anxiety and lead them to seek support with completion or make them feel like they don't wish to continue. Many of the participants had to stop to ask the moderator what was meant or required and some needed to be told how to progress to the next step.

Additionally, while the questions in this version of the prototype were not the final 2022 question set, a number of usability issues were uncovered that will be important to consider independent of the question content and can be worked on and resolved for subsequent rounds of usability testing.

The key issues identified included:

- Unclear error messaging when creating a password
- 'Set up password recovery' usability and error messaging
- Users having difficulty understanding what's being asked for in the 'temporarily away' question

- Users having difficulty understanding what is being asked for in the 'visitors' question
- Confusion caused by the 'dashboard' when users land on it for the first time
- Unclear or missing instructions or supporting text – e.g. needing to use capitals and hyphens in the IAC code
- The IAC code was challenging for many

Findings specific to assistive technology were identified:
- Zoomtext issues: participants who used screen magnifiers appreciated the amount of space on each page and having single questions per page. However, a number of issues specific to using ZoomTextScreen reader issues: participants who used screen readers had very different experiences. This could be for a number of reasons such as version of software, device used or level of users' experience with assistive technology.

Additional findings:
- Some users may not be able to read the letter, the service needs to consider how blind people living on their own can be supported.
- Some users will require a large print letter to be able to read the IAC number, consider how they can be easily identified and provided with the right information. Is there any way of knowing about this need before sending the letters out.
- When the initial letter will be sent out to give citizens enough time to get right version of information that they need, and also how any reminder services may come through to them (i.e. reminder letters are inappropriate for a person that is blind).
- Some users will misplace or lose the letter and so how they can still access online without the IAC code will need to be considered and made clear to users.

Information Needs User Research Summary

This research, to understand whether the digital version of the 2022 Census meets the needs of citizens, comprised of usability and accessibility testing from December 2018 – March 2019, conducted by the Scottish Government Digital Transformation Division. While these sessions predominantly focussed on the use of the digital components (i.e. the website portal and the 'online collection instrument' (OCI)), we also discussed what information participants expected or felt they would need in order to take part in the census at various points, including showing a version of the letter to set context.

The main findings from these sessions are regarding usability and accessibility, which have been reported via the 'OCI User Testing' strand of work, but broader insight around information needs have also been uncovered. In order to further understand information needs for citizens we utilised a number of sessions to explore the following objectives:

- Understand what information is required by a user to support them in their census experience.

- Understand what channels users expect to be able to access information to support them in their census experience
- Review of the current language and terminology to determine whether it supports the user's understanding of the information they need in order to complete the census
- Understand how the user's need for information changes over their census collect experience.

Key findings:
- Standard patterns for question pages: reduces cognitive load which may quicken response.
- Explanation and narrative to set expectations and orientation users within the form would benefit some users.
- In a small number of cases there was misunderstanding of the questions
- Type ahead functionality for industry and occupation questions caused particular problems in choosing an answer.
- Hard validation meant users got stuck in a loop where they could not answer a question and so could not submit their census response.
- Problems accessing Help and Support while in the questionnaire
- Age related question routing meant some questions are asked of children within the household that are not relevant for a child.
- Misunderstanding of questions or uncertainty about how to answer.

Findings are informing further development of OCI and the question engine to maximise respondent ease and minimise respondent burden.

Audience Discovery Research - Qualitative research among 'seldom heard' audiences

- To investigate their needs and inform the design of the process and website for Scotland's Census 2022.

- Research to provide a deep and robust understanding of user needs– with a specific focus on those users who have specific situations for census collection or who require Assisted Digital support.

- The purpose is to ensure that these users' needs are accurately represented in the design of the OCI:-

  - Flat / House Sharers
  - Communal Establishments
  - Communities with Reduced Links
  - Ethnic Communities (sample included Somali, Roma, African, Romanian, Kurdish)
  - Religious Communities (sample included Sikh, Muslim)
  - Other Communities (Camphill)
  - Skill Limitations
  - Digital Disengagement
  - Low Literacy Skills
  - Reading Impairment
  - Supported Applications

- o English Language Limitations
- o Gaelic Speakers

With a focus on exploration and discovery, the detailed research objectives were: -
- Develop a deep knowledge of who the service users are in terms of their circumstances, situations, attitudes, skills, abilities (as appropriate)
- In relation to officialdom generally; in relation to the census specifically
- To what extent information and support are/are not accessed
- Understand motivators and barriers to completing the census
- Comprehension of the census; its (perceived) importance
- Personal obligations
- Identify the support and interventions that would facilitate participation in the online census
- Information needed, support needed, enumeration needs
- Explore perceptions of and reactions to the OCI design
- Aspects that help and hinder completion
- Identify how the above should be reflected in the OCI, and in general, to ensure a successful census

Situations and skills
- Broad spectrum of situations: some people have thrived in Scotland, some have struggled.
  - o Positive experiences can inspire appreciation of Scotland / its government, and willingness to comply with officialdom.
  - o But some feel let down by the system and less willing to comply.
  - o Others fear the authorities and sharing personal information.
- Broad spectrum of skills and skill levels across Digital, English Language, Reading Impairment, Literacy.
  - o Low skills don't seem to necessarily correlate with a less positive life experience.
  - o Key factor seems to be whether the family or household unit perceives it's 'doing well'.
  - o Possible exception: low Literacy Skills might have a stronger correlation with feeling let down by the system, that life has been impoverished (unnecessarily).

Support
- People with lower skills tend to have an established support network
  - o Family, friends, Community Leaders and Organisations etc they trust and turn to for help / advice.
  - o Many need 'hands-on' support with officialdom in general, English translation, reading and writing, or digital activity.
- Hands-on support is likely one of the most important success factors for the census
  - o Providing the skills that are missing...and also overcoming low motivation / mistrust / scepticism.
- Reaching out to Community Leaders and Organisations is vital
  - o They are close to their communities, strong advocates of the census, and very keen to help.
- Like the general population, some people have stronger skills and will do well with 'self-serve' support available from their network or on the website.

Attitudes to the census
- A spectrum of engagement with the census.
  - A few 'evangelists', e.g. Community Leaders and Managers of Community Establishments.
  - Some people are mistrustful or resistant, likely due to personal experience.
  - Most seem to be around the mid-point: willing to carry out their legal obligation, but might not perceive the value of the census.
- Opportunity to improve engagement for the greater success of the census – quality of experience for the public as well as quality and accuracy of information.
  - Many simply don't know much about it – what it's for, what it stands for, the difference it can make.
  - Improving understanding tends to improve engagement.

The letter
- The letter presents significant difficulties for people with lower skills
  - What's it about? What does it mean? What do I need to do? Do I have to?
- Indeed, for many, the letter is 'daunting' to read – many won't see it through to the second page and will seek help.
- It conditions expectations that participating in the census will be difficult – too difficult to attempt.

The website
- By contrast, when people see the design for the website, confidence builds.
- Some now feel they will 'have a go' under their own steam, seeking help if needed, and look forward to a sense of achievement.
  - So, it's important to make the process (seem) easy in order to optimise autonomous participation.
- The website design creates a pleasing and reassuring atmosphere.
  - Excellent use of colour, space, imagery (people), and nuggets of text to increase engagement and reduce cognitive effort – and suggest it's easy.
  - Wears its official credentials lightly.
  - Surprisingly and positively different from the letter and much official communication; should play a central role in shaping engagement.

User testing – August/September 2021

A further round of user testing was performed across August and September 2021. The testing was designed to test the end-to-end user journey across six key audience groups:

- Single-family households
- Multiple-family households
- First-time census completion
- Low digital literacy
- Marginalised groups
- Low trust in government

The testing was conducted completely online due to the COVID-19 pandemic.

Results from the testing provided NRS with:

- insights into completion challenges
- user expectations versus the reality of online experience
- potential content and help refinements

As a result of the testing, there have been:

- updates to content to provide more clarity to users
- new content commissioned to support users understand and use the service
- refinements to some layout and design to improve usability

A further accessibility audit will be conducted on the online system in November 2021. This will identify any further refinements needed to ensure the online experience is as accessible as possible.