



HM Government

# Help Shape Our Future

The 2021 Census of Population and Housing  
in England and Wales

December 2018





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The 2021 Census of Population and Housing  
in England and Wales

Presented to Parliament by the  
Minister for the Constitution,  
by Command of Her Majesty

Laid before the National Assembly for Wales by the  
Cabinet Secretary for Finance

December 2018

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## Preface (by Chloe Smith, MP, Minister for the Constitution)



The twenty-second national census will be conducted in March 2021, across the United Kingdom. It will be vital in ensuring that support gets to those who need it; for investment in the public services, health care, homes and schools that people need. The information the census provides on the population, their characteristics, education, religion, ethnicity, working life and health gives decision-makers in national and local government, community groups, charities and business the opportunity to better serve communities and individuals in the United Kingdom. It enables a wide range of services and future planning to be supported.

The 2021 Census is about collecting information to help build a country that works for everyone, and the results will reflect everyone in our society. To build a stronger, fairer and more caring society and to tackle injustices, we need reliable information on the number and characteristics of people and households.

This White Paper sets out the independent UK Statistics Authority's proposals for the 2021 Census for England and Wales, which the Government is pleased to present to Parliament. After consultation with Welsh Ministers, the Government will lay before Parliament an Order in Council for approval in accordance with the Census Act 1920. The Office for National Statistics (ONS) has worked and consulted extensively with community groups, charities, governmental bodies and business in preparation for this census, to make sure the statistics it produces are of benefit to all communities. This census will not only shed light on long-term trends, but will also reflect the society in which we live today, with a mixture of traditional and new questions, to make a United Kingdom that is fit for the future.

For the first time, it will be a primarily online census, and so more convenient to complete for most of the population, but with provision made for those unable to fill in the census online. To ensure that this census will be as inclusive as possible for all, ONS will offer a full range of support services, including face-to-face assistance, a contact centre that will provide guidance and help via telephone and digital services such as web chat and social media, census questionnaires in Braille and British Sign Language, and targeted supporting materials.

This paper lays out the direction of the production of official statistics in the future, with administrative data at the heart of the system. This will mean better use of data held across government and more up-to-date statistics as we will not have to wait every ten years for crucial census information.

This White Paper sets out the proposals for a census in England and Wales. The proposed date for the census has been considered collectively across the three census offices in the UK (in England and Wales, Scotland and Northern Ireland). The statistical offices of England, Wales, Scotland and Northern Ireland are working together to ensure the production of harmonised statistics.

Most importantly of all, the census relies on the willing support, co-operation and participation of the general public on whose behalf the information is collected. The 2021 Census invites everyone to help shape our future.

A handwritten signature in black ink, appearing to read 'Chloe Smith', with a horizontal line underneath it.

Chloe Smith MP, Minister for the Constitution

## Foreword (by Sir David Norgrove, Chair of the UK Statistics Authority)



Population statistics are vital to our country, nationally, locally and within communities. Once every ten years the census provides an opportunity to build a detailed and comprehensive picture of the nation. The census is for everyone. The whole population has the chance to provide the information which can help to ensure their communities are well served.

Only the census provides consistent statistics for both small areas and small population groups across England and Wales. When combined with data from similar censuses taken in Scotland and Northern Ireland it provides a picture for the United Kingdom.

All this information is the foundation for national and local policy, for planning and for targeting resources. Without this national and local information on the population, people's characteristics, education, working life and health, our public services and businesses cannot properly serve our communities. Decision-makers (national and local government, community groups, charities, employers and planners) need information to identify areas of unfairness and inequality in our society by recognising the needs of communities, enabling them to meet their duties under the Equality Act 2010. In Wales, the introduction of the Well-being of Future Generations (Wales) Act 2015 has increased the need amongst public bodies to use data to understand the well-being of their local areas.

The political context has changed substantially since the last census in 2011, including through the decision for the UK to withdraw from the European Union, and this has strengthened the need for a deeper understanding of the communities we live in and how they are changing.

The 2021 Census will be the second to be conducted under the authority of the UK Statistics Authority. The Authority has accepted the advice of the National Statistician on the conduct and content of the census as set out in this White Paper, and on behalf of the Authority I am pleased to submit the proposals to Parliament through the Cabinet Office.

The 2021 Census for England and Wales - the proposals for which are set out in this White Paper – will be predominantly online for the first time. We recognise, though, that some people may struggle with this, and we propose comprehensive arrangements to make sure that everyone can complete their form, whether online, on paper or even by telephone. We will do all we can to make sure no one is missed

out. Our aim is to deliver better quality, to make it easier for people to fill in the forms and all the while being more efficient.

In making recommendations for the content of the census the National Statistician and the Office for National Statistics (ONS) consulted widely with users and others who have an interest in particular aspects. One result among other things is a proposal to include new questions on sexual orientation and gender identity, only for those who are aged 16 and over, to help decision-makers monitor their service provision in line with the Equality Act 2010, although nobody will need to tell us their sexual orientation or gender identity if they don't want to. The UK Statistics Authority and the government will consider how to ensure this is the case. In addition, a new question on past service in the UK Armed Forces is proposed to help service providers and others to support veterans in line with the Armed Forces Covenant.

It takes time to process the vast amounts of data that result from the census, but new approaches and investment should allow quicker results than in the past. The aim is to release all the initial findings within 12 months, and all data within 24 months. The output will also change so that as well as standard tables users will be able easily to create their own, with the information they want.

Yet however the technology changes, protecting the confidentiality of every individual's personal information is and will continue to be of paramount importance to the UK Statistics Authority and to ONS. Every person's identity will be protected, not only through secure handling and storage of their data, but also by ensuring that our statistical publications do not identify individuals. Strong sanctions are in place to deter anyone from disclosing or seeking to disclose personal information.

Looking to the future, society is changing fast and users are telling us that they need more frequent and granular information than that provided by a decennial census. ONS and the wider Government Statistical Service (GSS) are developing their use of administrative data – information already collected by the public sector – so that information about the population and housing can be made available more richly and more often.

Alongside that development for the future, the Authority and ONS will continue to plan and prepare for the 2021 Census to be fully inclusive and more informative than ever.

A handwritten signature in black ink that reads "David Norman". The signature is written in a cursive, slightly slanted style.

Chair of the UK Statistics Authority

1



# 1 Introduction

## Understanding the population and the need for data to support decision-making

- 1.1 This document sets out the UK Statistics Authority's recommendations for the 22nd decennial census in England and Wales, to be carried out by the Office for National Statistics (ONS). As the UK's independent national statistical institute, ONS provides data to help understanding and decision making through surveys of the population, administrative data and, since 1801, a national census. An understanding of the population is vital to our country, nationally, locally and within differing communities. Without national and local information on the population, their characteristics, education, working life and health, our public services and businesses cannot serve our communities as well as possible.
- 1.2 This document contains a large number of statistical terms, and where possible these are explained or illustrated. A glossary defining these terms is available on the ONS website<sup>1</sup>.

### Shaping government policy

- 1.3 Decision-makers in central and local government increasingly need better local data on the size and characteristics of their population to build better services, transport links, schools, hospitals, adult social care and housing. They need to understand the changing dynamics of the population nationally and locally so they can make decisions using the best available evidence.

### Equalities monitoring

- 1.4 At the same time, decision-makers need to be able to address unfairness and inequality in society. For example, in 2017 'Ethnicity Facts and Figures'<sup>2</sup> showed that monitoring of ethnicity across public services does not happen consistently and in some areas does not happen at all. Data on religion are rarely collected. Many communities are concerned about ensuring that the needs of their communities should be understood and met on an ongoing basis. ONS will use the new possibilities provided by the Digital Economy Act 2017 to address these needs (see Chapter 3, para 3.183 for details). The census also provides information that is of fundamental importance for planning to meet these needs.

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<sup>1</sup> <https://www.ons.gov.uk/census/2011census/2011censusdata/2011censususerguide/glossary>

<sup>2</sup> <https://www.ethnicity-facts-figures.service.gov.uk>

## The decision on the census

- 1.5 Every decade there has been a review to establish what population information is needed, and whether a 10-yearly census is the best way to meet those requirements. In 2014, the National Statistician recommended (see Chapter 2 para 2.7) that these needs be met through the conduct of a predominantly online census in 2021, and alongside this the use of administrative data from across government be fully explored to produce more timely estimates.
- 1.6 The UK Government welcomed these recommendations in a letter from the Minister for the Cabinet Office on 18 July 2014<sup>3</sup>. The Welsh Government confirmed its support for the proposed census approach in a statement published on 27 March 2014 by the Minister for Finance<sup>4</sup>.

## Success criteria for the 2021 Census and beyond

- 1.7 The strategic aims for the 2021 Census are based around the following success criteria. The census supports decision-makers throughout the country, with:
- results that reflect the country we live in today by meeting quality targets which are as in 2011:
    - nationally accurate as measured by a confidence interval of +/-0.2%, with bias less than 0.5% for England and Wales
    - high-quality locally with 95% confidence intervals for all local authorities of +/-3%
    - minimal variation within local authority area
    - response rate targets of 94% nationally and 80% locally in all local authorities, to support these quality levels
  - outputs that are timely and easy to use (first results within a year)
- 1.8 The census is designed with respondents at the heart to meet the needs of high-quality data for decision-makers, so that:
- the census is easy to complete, and rewarding for respondents, so 70% provide data without follow-up

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<sup>3</sup> <https://www.statisticsauthority.gov.uk/archive/reports---correspondence/correspondence/letter-from-rt-hon-francis-maude-mp-to-sir-andrew-dilnot---180714.pdf>

<sup>4</sup> <http://gov.wales/about/cabinet/cabinetstatements/previous-administration/2014/census/?lang=en>

- ONS protects respondents' data, ensuring the data are used for statistical purposes only, and is seen to protect respondents' data in everything it does
  - census data reflect the needs of today's society
  - the census will be predominantly online with 75% of responses provided online, and assistance provided to those who need it, to make this the most inclusive census ever
- 1.9 The Census and Data Collection Transformation Programme will deliver value for money by:
- delivering benefits of at least five times the cost of the business case
  - delivering the widest possible transformation of the capabilities of ONS through transformation of its digital and data capabilities, use of integrated data and modernised collection of business and social survey data where it is needed
  - developing new skills and capabilities to support new ways of working, ensuring ONS can, through surveys, collect the data that surveys are best suited for

## Summary of key census design features for 2021

### Ensuring the census is inclusive

- 1.10 It is vital that the census is inclusive, serving the whole of the population. The online completion system will enable communities to be recognised through smart type-in options and the ability simply to type the community the respondent wants to be identified with. This will be supplemented with publicity and communications that support all communities to provide high-quality data.
- 1.11 Online completion will be easier for many individuals, and is much more cost-effective than completion and return of a paper form. Members of the public are increasingly familiar with receiving online services, not only from the private sector but also from government.
- 1.12 In 2021, ONS has a target to achieve a 75% online return rate. ONS will provide a wide range of assistance to the public to encourage online completion, including a dedicated census contact centre, work with community groups, and work by census field staff on the doorstep. ONS will also make full use of the opportunities to deliver help that are offered by the technology itself.



- 1.13 To enable this, the initial contact with the majority of households will consist of an invitation to complete the form online, providing a unique access code (UAC) and website address. Nevertheless, it is recognised that there will be some people who prefer, or need, a paper questionnaire in order to supply their response to the census, so paper forms will be available to everyone who asks for them. In some areas of England and Wales, where it is thought more likely to be successful in generating returns, the initial contact will be a paper questionnaire, delivered by post. It will be made clear to those receiving the paper questionnaire that they still have the option to complete the census online, and the unique access code will be included on the paper form. Rigorous procedures will be put in place to ensure that receipt of questionnaires, whether online or paper, is promptly logged, so that follow-up activity can be focused on those who have not yet made a return.
- 1.14 For those who need help, face-to-face assistance will be offered through an “assisted digital” service to those who want to complete the census questionnaire online. This help will be sourced from trusted suppliers who have the staff, premises and technology available to provide respondents with the help they need. All those involved in providing the assisted digital service will receive training, guidance and materials from ONS. These suppliers will be bound by the same legislation and sanctions regarding the protection of personal data as all those who are employed by ONS or who provide services to ONS. ONS will also be providing help with completion at organised completion events.
- 1.15 ONS will ensure that those who wish to complete the census in Welsh are supported in doing so by making appropriate arrangements for its activities in Wales, and meeting all the requirements related to the Welsh language (see Chapter 4 para 4.55). Welsh and English language versions of both the online and paper questionnaires and all other key communications to the public will be provided, and it will be just as easy to fill out a questionnaire in Welsh as it will be in English. There will be a dedicated Welsh telephone helpline and online help facilities in the Welsh language.

## Data protection and privacy

- 1.16 The proposals for the 2021 Census ensure that the personal data captured electronically will at all times be handled on systems securely managed to UK government security specifications, and within ONS control. Paper forms will be securely scanned and passed to ONS by a contractor meeting ONS security requirements. Contractors will also be used in recruiting the field force and providing services such as the operation of the contact centre. These operations will also be overseen by ONS.

- 1.17 ONS is particularly aware of the need to protect individuals not only through very secure handling of their data. ONS is equally concerned to ensure that legitimate statistical enquiries do not inadvertently enable individuals to be identified because they are the only person, or one of a very small number, who hold a particular characteristic in a small area. Details on arrangements for confidentiality and data protection are in Chapter 6. Strong sanctions, including criminal penalties, are in place to deter anyone from disclosing or seeking to disclose personal information.
- 1.18 ONS will work closely with the Information Commissioner’s Office while developing its proposals, and, in accordance with previous census practice, the security and confidentiality arrangements put in place will be subject to independent review. ONS will publish the outcome of such reviews before the census and publish any associated reports on the ONS website<sup>5</sup>.

## **The role of the Office for National Statistics and the UK Statistics Authority**

- 1.19 The Census Act 1920<sup>6</sup> governs the conduct of the census, making provision for the taking of a census for obtaining statistical information with respect to the population. Secondary legislation in the form of a Census Order and Census Regulations is required before the taking of a census. The Statistics and Registration Service Act 2007<sup>7</sup> made the UK Statistics Authority and its executive office, ONS, responsible for carrying out the census in England and Wales.
- 1.20 The design and statistical integrity of the census are matters for which sole responsibility rests with the UK Statistics Authority and the National Statistician. Approval of the questionnaire, operation and content of the census is a matter for the UK Parliament and the National Assembly for Wales.

## **Role of the Welsh Government**

- 1.21 ONS is working co-operatively with Welsh Government officials and the Welsh Government on plans for the 2021 Census. Although the UK Statistics Authority retains statutory responsibility for the census in England and Wales, following the 2001 Census the UK government made a commitment to give Welsh ministers a formal role in determining the conduct and

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<sup>5</sup> ONS’s approach to security is set out at <https://www.ons.gov.uk/aboutus/transparencyandgovernance/onsdatapolicies/howwekeepdatasecure>

<sup>6</sup> <https://www.legislation.gov.uk/ukpga/Geo5/10-11/41/contents>

<sup>7</sup> <https://www.legislation.gov.uk/ukpga/2007/18>

content of the census in Wales. Moreover, the legislative process necessary for taking the census in Wales differs from that in England. These processes are described more fully in Chapter 7.

- 1.22 Where the arrangements for carrying out the census in Wales differ from those in England, these are noted in the relevant sections of this White Paper.

## The choice of date

- 1.23 The choice of the date for the census is central to the planning that surrounds the event, and directly affects the quality of the data collected. The date of the census needs to be determined well in advance. Although the census does not have to take place on a specific day of the week, all censuses in England and Wales have had a reference date of a Sunday. In selecting the date, a number of factors were taken into consideration including:
- maximising the number of people present at their usual residence
  - maximising the number of students present at their term-time address
  - avoiding local and devolved elections (when publicity messages may get confused)
  - allowing sufficient hours of daylight for field work
  - avoiding holiday periods in order to maximise recruitment and retention of field staff
  - managing anticipated volumes of online traffic
- 1.24 Since the census is a matter for the Northern Irish and Scottish governments in their respective jurisdictions (see below), the proposed date for the census was considered collectively across the three census offices in the UK (in England and Wales, Scotland, and Northern Ireland), to take account of the differences in each region while seeking a common date to avoid any confusion.
- 1.25 The recommended date for the census in England and Wales is Sunday 21 March 2021. In order to spread out online traffic and to help with field force planning, ONS will concentrate on a wider census period around this date and encourage people to respond as soon as they are able after receiving a letter inviting them to complete the census.

## Separate consideration of the proposals for the censuses in England and Wales, in Scotland and in Northern Ireland

- 1.26 A census is taken by the Registrar General for Scotland under the Census Act 1920 and by the Registrar General for Northern Ireland under the provisions of the Census (Northern Ireland) Act 1969. The arrangements described in this White Paper where they refer to the conduct of the censuses in Scotland and Northern Ireland will in all cases be subject to the consideration of the respective devolved administrations.
- 1.27 The UK Statistics Authority welcomes the detailed planning and preparations already in progress for the conduct of the censuses in Scotland and Northern Ireland. The National Statistician and the Registrars General for Scotland and Northern Ireland are working co-operatively on the development and harmonisation of plans across the UK. They have published a statement of agreement<sup>8</sup> outlining the approach that will be taken.
- 1.28 The three offices aim to conduct censuses simultaneously throughout the UK in 2021. The government understands that the Registrars General for Scotland and Northern Ireland plan to proceed on a similar timetable to that proposed for England and Wales.

## International perspective

- 1.29 The need for internationally comparable information means that the census in England and Wales aims to align with international standards set at global and regional level. The United Nations (UN) reviews and sets standards for censuses every 10 years. These international standards aim to ensure consistency. The UK has committed to providing non-disclosive information (information that does not allow any individual to be identified) from the 2021 Census to the UN for international comparisons.

## Census content

- 1.30 Continuity of data over time is very important to users, who need to be able to track changes over time to evaluate the effectiveness of policies and improve planning. The majority of topics to be covered by the census will therefore remain unchanged from 2011. The census has previously included a mixture of questions which are asked of the whole population

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<sup>8</sup> <https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/legislationandpolicy/theconductofthe2021censusesintheuk.pdf>

and questions which are only asked of those aged 16 and over, in line with international statistical best practice. The 2021 Census continues this practice. There are however some proposed changes of particular note.

## Changes to topics

- 1.31 The consultations ONS has held (see Chapter 2) have shown a particular need for data to be gathered on some topics not previously covered by the census. After careful consideration based on evidence from research and stakeholder engagement ONS proposes to collect, for the first time, information on three new topics. Gathering data on past service in the UK Armed Forces will help service providers and others to support veterans in accordance with the Armed Forces Covenant. ONS also proposes questions on gender identity (while keeping the existing question on sex) and sexual orientation. As with the question on religious affiliation introduced in the 2001 Census, we believe these new questions (on sexual orientation and gender identity) should be voluntary and no individual should be forced to answer these questions who does not want to. The Government and UK Statistics Authority will now consider the appropriate mechanism to ensure this is the case. The new topics will all help government bodies by meeting the need for better quality information for monitoring equality impacts on communities.

Consideration was also given to adding questions on volunteering and income, but ONS does not propose including these in the 2021 Census (see Chapter 3 paras 3.170 to 3.178).

- 1.32 Just as new topics must from time to time be added to the census to reflect changes in society, so some must be removed. This time it is recommended that the census does not have questions on the number of rooms for each household, or on the last year worked by respondents. For number of rooms, ONS intends to use alternative sources for the data, and for year last worked ONS intends to gather the data by adapting another census question (the “ever worked” question).
- 1.33 In addition to these main changes, ONS has been looking at possible improvements in the way some questions are asked in the census. Subject to ongoing testing and stakeholder engagement, ONS intends to base the question on long-term health and disability on the Government Statistical Service (GSS) harmonised standard. The suite of questions on educational qualifications will be simplified. ONS has also been reviewing the question on marital and civil partnerships in the light of the passage of the Marriage (Same Sex Couples) Act 2013 to ensure it remains up to date, and will seek to ensure that all legally recognised statuses are covered.

- 1.34 There are also a number of topics, such as ethnicity, national identity and religion, where ONS has been considering which response options will be available as specific selections. It is not possible to provide a specific response option for all the groups that would like one. However, the 2021 Census will use “search-as-you-type” capability, together with provision of communications, community engagement, and advice and help from field force and contact centre staff, to ensure people can tell us how they wish to identify themselves. This is supported by the write-in option in the paper form. In addition, ONS will offer those communities strong publicity and communications especially in areas of a large local need, to encourage participation and raise awareness of how to tell us their chosen identity. These measures enable people of all communities to be sure they are included in the 2021 Census.
- 1.35 ONS will also, for the first time, provide analysis rather than just data tables to support communities in understanding their needs. ONS will build on previous analytical products and will provide more detailed analysis and insight. The aims of this further analysis are to provide the most relevant and insightful commentary for these communities, to better understand their needs and inform policy and service delivery. This will be done through analysing the full range of census topics alongside other relevant data sources to comment on particular themes such as health.
- 1.36 Details of the proposed content and topics not recommended for inclusion are set out in Chapter 3.

# 2



# 2 Consultation, census tests and wider engagement

## Introduction

- 2.1 The design and content of the 2021 Census has been shaped by:
- requirements from the user community about the types, quality, frequency and detail of outputs required
  - changes in technology, in particular, the opportunities offered by the online census and the willingness, and ability, of the public to use government online systems
  - improvements in the quality of, and access to, data already held by government and other sources giving potential for increased use in the production of statistics
  - the continued and ongoing need to make the most effective use of public money
  - successes and lessons learned from the 2011 Census<sup>9</sup>
  - developments and lessons learned in international census taking
- 2.2 To develop the proposed census design ONS has undertaken extensive engagement with interested parties, users and members of the public. This has taken place through international liaison, formal advisory committees, topic-related working groups and via channels such as formal ONS consultations and the census pages of the ONS website.

## Consultations

- 2.3 As part of the planning and design for the 2021 Census, ONS held a number of formal public consultations, supported by roadshows and open meetings. These consultations, detailed below, have been open to all and ONS has welcomed views and submissions on the census from all sources.

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<sup>9</sup> <https://www.ons.gov.uk/census/2011census/howourcensusworks/howdidwedoin2011/2011censusgeneralreport>



## Consultation on the census and the future provision of population statistics in England and Wales<sup>10</sup>

- 2.4 In 2010, the UK Statistics Authority asked the National Statistician and ONS to review the future provision of population statistics in England and Wales in order to inform the government and Parliament about the options for the next census. For the following three years, ONS researched new ways of counting the population, reviewed practices in other countries, engaged with a wide range of users, commissioned an independent review of methodology and completed a three-month public consultation.
- 2.5 The consultation ran from 23 September to 13 December 2013. It received over 700 responses – 444 from individuals and 271 from organisations – and more than 500 people attended supporting events. It proposed two future approaches to census taking in England and Wales. These were:
- once a decade, like that conducted in 2011, but primarily online
  - using existing government data and compulsory annual surveys
- 2.6 The consultation reported that:
- there was continuing demand from government, local authorities, public bodies, business, the voluntary sector and individual citizens for detailed information about small areas and small populations offered by the decennial census
  - there was a strong concern that an annual survey of 4% of households (to support the use of existing administrative data) would not meet these needs, nor deliver the required small-area and small population statistics offered by the decennial census
  - the more frequent statistics that could be provided between censuses by the use of administrative data and annual surveys would be welcomed, but not at the expense of the detailed statistics
  - whilst the methods using administrative data and surveys show considerable potential, there was concern that these were not yet mature enough to replace the decennial census
  - many respondents proposed a hybrid approach, making the best of both approaches, with an online census in 2021 enhanced by administrative data and household surveys

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<sup>10</sup> <http://webarchive.nationalarchives.gov.uk/20160105225506/http://www.ons.gov.uk/ons/about-ons/who-ons-are/programmes-and-projects/beyond-2011/beyond-2011-consultation/index.html>

2.7 After reviewing ONS' extensive programme of research and having considered all the available options and evidence (including international comparisons, responses to a public consultation, cost/benefit analysis and an independent review led by Professor Chris Skinner in March 2014) the then National Statistician recommended:

*"an online census of all households and communal establishments in England and Wales in 2021 as a modern successor to the traditional, paper-based decennial census....."*

*"increased use of administrative data and surveys in order to enhance the statistics from the 2021 Census and improve annual statistics between censuses."*

*"This would make the best use of all available data to provide the population statistics which England and Wales require and offer a springboard to the greater use of administrative data and annual surveys in the future....[It] may offer a future Government and Parliament the possibility of moving further away from the traditional decennial census to annual population statistics provided by the use of administrative data and annual surveys." <sup>11</sup>*

2.8 The approach was endorsed by the then Minister for the Cabinet Office in the Government's formal response to the recommendation:

*"The Government welcomes the recommendation for a predominantly online census in 2021 supplemented by further use of administrative and survey data. Government recognises the value of the census. ... We welcome the increased use of administrative data in producing the census in 2021 and other population statistics, and to improve statistics between censuses, since this would make the best use of all available data and provide a sound basis for the greater use of administrative data and surveys in the future." <sup>12</sup>*

2.9 Similarly, the Welsh Government endorsed the proposed census approach in a statement published on 27 March 2014 by the Minister for Finance.

2.10 Full details of the recommendation and the Government's response are available on the ONS website <sup>13</sup>.

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<sup>11</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/beyond2011censustransformationprogramme/thecensusandfutureprovisionofpopulationstatisticsinenglandandwalesrecommendationfromthenationalstatisticianandchiefexecutiveoftheukstatisticsauthorityandthegovernmentsresponse>

<sup>12</sup> Letter from the Rt Hon Francis Maude MP, Minister for the Cabinet Office, Paymaster General to Sir Andrew Dilnot CBE, Chairman of the UK Statistics Authority, 18 July 2014

<sup>13</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/beyond2011census transformationprogramme/thecensusandfutureprovisionofpopulationstatisticsin englandandwalesrecommendationfromthenationalstatisticianandchiefexecutiveof theukstatisticsauthorityandthegovernmentsresponse>

## Consultations on census topics

2.11 Further details on the proposed topics can be found in Chapter 3.

### Census topic consultation

2.12 In June 2015, ONS launched a 12-week public consultation<sup>14</sup> asking census users for their views and evidence on the topics that were required in the questionnaire in England and Wales for the 2021 Census. Anyone could take part in this consultation and the resulting feedback informed further research which contributed to the development and testing of proposed census questions.

2.13 There were 1,095 responses to the consultation: 279 from organisations and 816 from individuals.

2.14 ONS's full response to the consultation was published in May 2016, setting out the evaluation criteria used and updating the initial view (of ONS) on content for England and Wales. Individual topic reports were also published, each setting out the evaluation of that topic against the set criteria, the updated view for that topic, equality implications and the next steps to be taken.

2.15 In June 2015 and July 2016 ONS held regional roadshows<sup>15</sup> to share the latest news on the proposed content for the 2021 Census questionnaire.

### Consultation on topics with interested parties

2.16 In addition to the main consultation, ONS also worked with a number of interested parties to understand detailed needs for specific questions and definitions (for example on types of communal establishment) to be included. Parties consulted included:

- government departments who were consulted, for example, on a bilateral basis and collectively through the Heads of Profession of the Government Statistical Service (GSS) and inter-departmental committees, and through liaison with GSS topic experts
- local authorities, the health service, the academic community, the business sector and local community groups, who were consulted through the long-standing Census Advisory Groups and other bespoke groups
- topic experts and methodologists within GSS, who were regularly consulted for their in-depth, specialist knowledge

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<sup>14</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/consultations/the2021censusinitialviewoncontentforenglandandwales>

<sup>15</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/newsandevents>

## Wider engagement

- 2.17 ONS is working with the UK Parliament and the National Assembly for Wales through the forums of select committees, National Assembly for Wales committees, All-Party Parliamentary Groups, and with individual MPs and Assembly Members. This engagement is intended to ensure a fuller understanding of the importance of, and support for, the aims and objectives of the census in 2021.
- 2.18 Liaison with community groups, charities and other third-sector bodies will help ONS to ensure that, as well as meeting the statistical needs of users, the census is supported, and completed, by all segments of the community.
- 2.19 Census Advisory Groups represent the interests of central government departments, local authorities, and the health service. As well as the public sector they represent the academic community, business and professional associations, users and other interested parties in Wales, and third-sector bodies representing the interests of local communities, minority population groups, people with disabilities and faith organisations. These advisory groups meet twice a year and provide a forum for discussion on aspects of the census, covering:
- the population base
  - topic content
  - definitions and classifications
  - test and rehearsal plans and outcomes
  - data collection methodology
  - quality assurance plans
  - community liaison
  - outputs, including geography and methods of dissemination
  - statistical methodologies and disclosure control

Advisory groups form a key component of user advice and consultation and will continue to meet up to, and after, the census date.

- 2.20 ONS will work in partnership with local authorities throughout the planning for the census. This will be of particular importance in developing the field operation with the overall aim of maximising response, particularly in those areas where some population groups are difficult to enumerate. A Local Authority Operational Management Group already meets regularly to consider the operational requirements of the census. See Chapter 4 for more details on the relationships between ONS and local authorities.

## Engagement with Wales and devolved administrations

- 2.21 ONS is working closely with the Welsh Government and the National Assembly for Wales to ensure that the specific user requirements relating to Wales are understood and will be included in the 2021 Census.
- 2.22 ONS has consulted with the Welsh Government on topics to be included, questions to be asked, and the arrangements for carrying out the census in Wales, to ensure it meets the needs of Wales (for example the provision of census questionnaires in Welsh and bilingual publicity material). See Chapter 7 for more details on carrying out the census in Wales.
- 2.23 Interested parties in Wales are represented on the Census Advisory Group for Wales. ONS also regularly engages with the Welsh Government's other statistical networks such as the Welsh Statistical Liaison Committee and Third Sector User Panel.
- 2.24 ONS meets quarterly with National Records of Scotland, the Northern Ireland Statistics and Research Agency and the Welsh Government at the UK Census Committee meetings. This enables each agency to keep abreast of plans and progress, to discuss ideas and risks, and to support work on harmonising censuses in the UK. These meetings are complemented by regular discussions at an operational level.

## Census tests

- 2.25 A comprehensive programme of research and testing has underpinned the UK Statistics Authority's proposals for the 2021 Census. Early planning, testing and evaluation are essential for a successful census and a continuous testing, integration and delivery approach will be adopted.
- 2.26 The programme includes both large- and small-scale tests and quantitative and qualitative research. ONS conducts these voluntary tests and research prior to a census in order to ensure that all questions included meet user requirements and are publicly acceptable; to trial new technology; to test procedures and processes; to plan dissemination; and to test different facets of the whole census operation.
- 2.27 The ever-changing nature of society determines that user needs for census data are regularly refined. This necessitates change to each census operation and, for 2021, ONS will utilise developments in technology to support this.

The technology must be thoroughly tested before being adopted, allowing time to make changes and then to retest where necessary. In particular, the 2021 Census aims to adopt:

- a primarily online-first design
- new technologies to improve the efficiency and timeliness of the data collection and processing operations
- more flexible dissemination of statistical outputs to maximise benefit

2.28 Public participation in the census tests is voluntary and ONS is grateful to the members of the public and the organisations who have taken part in these essential trials.

## Testing to validate the 2021 Census design

2.29 Iterative testing is being conducted as part of a comprehensive testing strategy to enable an effective overall 2021 Census design. This has included user research into acceptability and behaviours, statistical modelling and technology options analysis.

## Major census tests

### 2017 Test

2.30 ONS conducted a large-scale, voluntary census test in England and Wales in March, April and May 2017<sup>16</sup>. The aims included:

- evaluating ways of maximising “self-response” (the number of responses before field follow-up commences)
- assessing online response and assistance for the digitally excluded
- assessing the feasibility of some major innovations in operational procedures, such as the use of technology in the field operation
- evaluation of the effect on the level and quality of response of the inclusion of a question on sexual orientation

The test involved a total of 208,000 households, split across two components.

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<sup>16</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/2017censustest>

## Testing questionnaire content and field follow-up

2.31 This first component involved inviting 100,000 households across seven local authorities in England and Wales to fill in a test questionnaire online. The seven local authorities were Barnsley, Blackpool, selected areas in the north of Powys, Sheffield, South Somerset, Southwark and West Dorset.

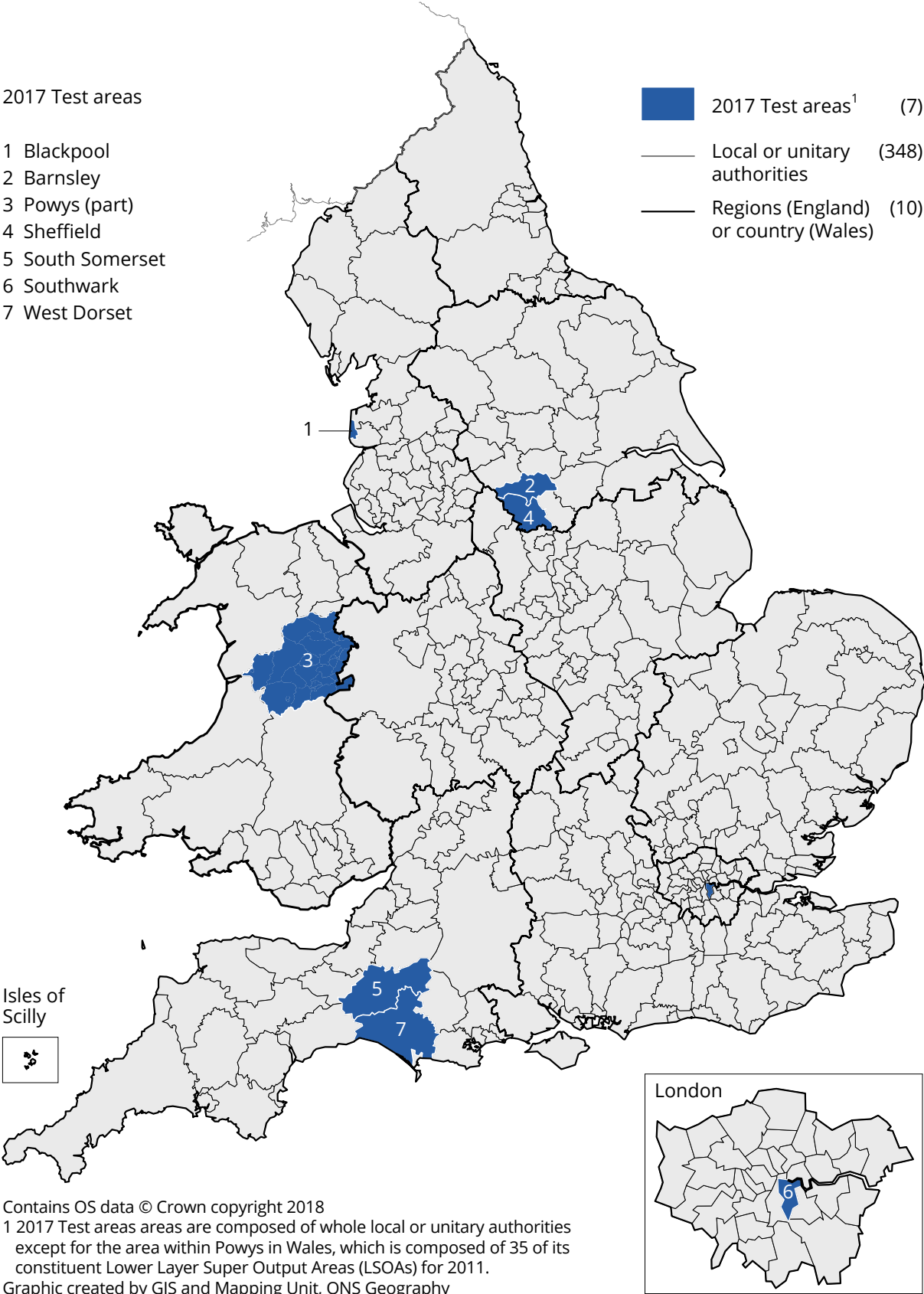
These areas were chosen because collectively they included:

- urban and rural locations
- places with lower broadband and mobile coverage
- a high proportion of short-term migrants
- a variety of ethnic groups and range of languages
- a high level of over 65s
- a subset of communal establishments, including sheltered accommodation, hotels and university halls of residence
- areas with recent housing development

2.32 A field force of more than 400 census officers, working across the seven main test areas, supported this test. They visited households that hadn't completed the questionnaire to offer help and to encourage people to make a return (preferably online).

**Figure 1: Map of main 2017 Test areas**

**2017 Test areas, local or unitary authority, England and Wales**





## Testing materials

- 2.33 In the second component, invitations to participate were sent to a random sample (of 100,000 households) across England and Wales. The aim was to provide understanding on how different types of materials (questionnaires, reminder letters, etc) might drive up response. There was no follow-up by field staff, but households which had not returned the questionnaire received reminder letters sent by mail. Additionally, a further sample (8,000 households) on the Isle of Wight was selected for specific testing of digital assistance for those who might be considered digitally excluded.

## Results from the 2017 Test

- 2.34 The overall response to the voluntary 2017 Test enabled us to draw conclusions from the statistical and operational processes tests.

### *Operation of the census*

- 2.35 To help its understanding of the characteristics of people who cannot complete the questionnaire online without help, or at all, ONS compared the effect on response of sending paper questionnaires to some households with sending invitations to respond online. Requests for paper questionnaires from households that were initially sent invitations to respond online were monitored. This helped us to understand the impact on response rates of different approaches.
- 2.36 Table 1 shows the percentage response rates for the different treatment groups of the 2017 Test and the percentage completed online. ONS achieved sufficient response from each of the groups to enable statistical conclusions to be drawn from the results.

**Table 1: Percentage response rate and online response under each component in the 2017 Test, England and Wales**

	Response rate (%)	Of which online response (%)
Online first, paper available on request or given in field	43	84
Paper first, no field follow-up	39	30
Online first, paper not available, no field follow-up	23	100
Online first, paper not available on request, but sent as 3rd reminder, no field follow-up	33	55

Source: Office for National Statistics

These results have given ONS a better understanding of how people respond, providing the evidence needed to target paper at those who need it most whilst maximising online response. This gives ONS confidence that it can achieve the expected online response rate of 75%.

- 2.37 The field work management tool proved to be successful and was a good source of management information. This tool enabled field staff to upload their lists of non-responding households to visit, and transmit the outcome of each visit back to census HQ on a daily basis.
- 2.38 For the first component (100,000 households with field follow-up), treatments were designed to test whether starting field follow-up earlier was a cost-effective way of improving response rates. ONS started field follow-up either 4 days or 10 days following the 2017 Test reference day (9 April 2017) to see whether starting earlier could increase final response rates. The results demonstrated that starting field follow-up earlier increases response, but suggested that it may be most cost effective to start early in certain areas that are characterised by harder-to-reach populations.

### ***Assisted digital***

- 2.39 In the Test ONS tried out an “assisted digital” service that was designed to help people fill in the questionnaire online. The assisted digital service was trialled on the Isle of Wight, where 8,000 households were invited to take part. Feedback was overwhelmingly positive. Of the 2,653 responses, 139 were completed in libraries, raising the response rate by 1.7 percentage points. Further research has been undertaken, and is continuing, to establish where people are happiest to go to get help, what ONS could do to take help to them, and to explore more innovative and “easy to reach” ways to provide face-to-face help where necessary.

### ***Sexual orientation***

- 2.40 One of the objectives of the 2017 Test was to find out the effect on response, and the quality of response, of including a question on sexual orientation in the census questionnaire. There were two separate components of the test where the question was tested and half of the households in these components had questionnaires that included the sexual orientation question.
- 2.41 A significant impact on overall response would drive up costs if ONS were to try to recoup the drop in response, and would affect the overall quality of the census. ONS decided that, consistently with thresholds set for testing of new sensitive questions in previous censuses, a maximum of 2 percentage points difference would be the highest drop in response that

could be tolerated (which is consistent with previous censuses). The overall response rate for those who received the sexual orientation question in either component of the test was 38.6%. It was 39.0% for people whose questionnaire did not include the sexual orientation question. This is a difference of 0.4 percentage points, well within the maximum tolerance of 2 percentage points, suggesting that in terms of impact on response rates it is safe to include a question.

- 2.42 It is also critical to develop a question that works, and facilitates the collection of good-quality data to meet user needs. Quality of response here is defined as the level of item non-response (those that responded to the 2017 Test but didn't complete the question), comparability with other sources (namely the Annual Population Survey (APS)), and agreement rates with the Census Test Evaluation Survey.
- 2.43 The level of non-response for the sexual orientation question itself was 8.4% overall. This was 4.8% for those who responded online and 20.2% for those who responded on paper. This difference is likely due to an age bias in the mode of response. The predefined threshold for this was less than 10%, which was set at roughly the level we'd expect for a voluntary question.
- 2.44 Table 2 compares the distribution of the population by their sexual orientation in the test and the APS. The population identifying as gay, lesbian or bisexual in the test (2.4%) was similar to the estimate in the APS (2.0%). The proportion of missing responses was higher in the test (8.4%) compared with the APS (4.1%). If the "don't know" and "missing" options are excluded then the distributions are very similar. Since the 2017 Test ONS has undertaken further development (see Chapter 3 for further details).

**Table 2: Sexual orientation estimates in the 2017 Test and Annual Population Survey, 2016**

	2017 Test (%)	APS (%)
Heterosexual or straight	88.7	93.4
Gay or lesbian	1.8	1.2
Bisexual	0.6	0.8
Other	0.5	0.5
Don't know or refuse (APS)/Missing (2017 Test)	8.4	4.1

Source: Office for National Statistics 2017 Test in England and Wales and Annual Population Survey

## Census rehearsal (2019)

- 2.45 A rehearsal for the 2021 Census in England and Wales will take place in the autumn of 2019. The aim of the rehearsal will be to ensure that the procedures for delivery and collection of the census forms will be effective and scalable, including the assessment that all the necessary systems and services will work well together.
- 2.46 The rehearsal is currently being planned to simulate actual census-type conditions by including a cross-section of the population and types of housing. Criteria for choosing the rehearsal areas include for example, areas with high levels of multi-occupancy, particularly rapid growth and population movement, student accommodation, hotels and holiday accommodation, hospitals and other large communal establishments, and various ethnic minority communities. The rehearsal areas are currently under consideration.
- 2.47 There are plans to hold complementary rehearsals of the census operation in Scotland and Northern Ireland in 2019.

# 3



# 3 Population and topics to be covered by the census

## The population base

- 3.1 The enumeration base represents the way in which the population of England and Wales is counted in the census. The decision on which base to use is informed by the need to collect information on families and households as well as specific population groups such as students and armed forces personnel.
- 3.2 ONS proposes to collect information on all usual residents and all persons present at an address on the census date. Persons present would include short-term residents and visitors. This will not only provide continuity of measurement of the population but also take account of internationally recognised standards.
- 3.3 The “usually resident” population refers to anyone who, on the census date, is in the UK and has stayed or intends to stay in the UK for a period of 12 months or more. Anyone temporarily away from their usual residence for less than 12 months will be counted as a usual resident.
- 3.4 ONS is proposing to retain the “household” definition used for the 2011 Census for consistency with previous censuses. This means a household will continue to be defined as “one 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”. This will provide consistency with international standards<sup>17</sup>.
- 3.5 The census will collect information on each household and each person usually resident in the household. The returns will need to include anyone usually resident (including short-term residents) at each address who happens to be away on the census date, whether elsewhere in the UK or abroad. Households where no one is present on that date will need to complete the census on their return to their usual residence, if this is within six months of the census date. In addition, ONS plans to ask householders to record the number of visitors present at the address on the census date together with some basic demographic details such as age, sex and usual address. Any visitors usually resident elsewhere in the UK will be required

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<sup>17</sup> <https://unstats.un.org/unsd/demographic-social/sconcerns/family/#docs> and [https://www.unece.org/fileadmin/DAM/stats/publications/2015/ECECES41\\_EN.pdf](https://www.unece.org/fileadmin/DAM/stats/publications/2015/ECECES41_EN.pdf)

to complete a census questionnaire when they return to their place of usual residence. This will enable ONS to ensure that they are correctly allocated to, and counted at, their usual residence.

- 3.6 In accordance with standard practice, students and children at boarding school will be regarded as being resident at their term-time address irrespective of where they may be on the census date. This will ensure that the census population base is consistent with the base that is used for estimates of the size of the population in between censuses known as the mid-year population estimates.
- 3.7 The census will also enumerate all people resident on the census date in communal establishments such as hospitals, nursing and residential homes, and hotels. Special arrangements will be made to enumerate residents in prison service establishments and immigration detention centres, on ships in ports and in military camps, and other population groups not resident in private households, such as persons travelling with fairs.

## Evaluation of requirements for topics

- 3.8 The topics proposed for the census are those that have a strong and clearly-defined user need and where questions have been devised that can be expected to produce reliable and accurate data. Moreover, in each case there is no other comparable and accessible source of the information able to meet the need.
- 3.9 ONS works with users and other interested parties to ensure that it has a clear and up-to-date understanding of their information requirements. As part of this work ONS carried out a public consultation in 2015 asking users for their views and evidence on the topics that they felt needed to be covered in the 2021 Census (see Chapter 2). This was supported by the publication of a document setting out an 'Initial view on the content of the 2021 Census'<sup>18</sup> which aimed to promote discussion and encourage the development of strong cases for topics to be included. The consultation resulted in demands for many more questions than it would be possible to accommodate on the census questionnaire or would be reasonable to expect any household to complete.
- 3.10 Users indicated an ongoing need for the vast majority of topics covered in the 2011 Census as well as a range of requirements for additional topics including information on the armed forces community, gender identity, health conditions, place of birth, reason for migration, sexual orientation,

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<sup>18</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/consultations/the2021censusinitialviewoncontentforenglandandwales>

income, and volunteering. The differing needs were balanced against increasing the burden on the public. A stated aim of the consultation was not to increase the burden from the previous census and the length of time to complete the census (not more than 20 minutes for a four-person household).

- 3.11 Three sets of evaluation criteria were used to assess the evidence put forward by users. While these are broadly the same as those used successfully to determine the questions asked in the 2011 Census, some changes have been made. The changes were designed to make the criteria stronger and more transparent and to reflect proposals for a predominantly online census in 2021.
- 3.12 These three sets of criteria cover user requirements, other considerations, and operational requirements.

### **Evaluation criteria for user requirement**

- 3.13 Any topic proposed for inclusion in the 2021 Census must have a strong and clearly-defined user need. The user requirement criteria covered a number of interrelated factors including purpose, the need for information at small-area level or for small groups of the population, continuity and comparability. Further details are available from table 3.



**Table 3: Evaluation criteria for user requirement**

Criterion	Description
Purpose	How the data will be used and the impact that they have is central to the evaluation process. Purposes include, but are not restricted to, resource allocation, service planning, policy evaluation, and diversity monitoring. It is also important to consider the implications if the data are not collected, for example, increased financial costs or reduced quality of data available for planning or other purposes. Relevance of the data to considerations of equality or human rights would strengthen the case for inclusion.
Small geographies or populations	There must be a need for information at detailed geographical levels and/or about small population groups. Information that is only required for broad geographic areas or large population groups might be better obtained from other statistical sources.
Alternative sources	The census in 2021 will only collect information if there is no other means of obtaining the required data. Consideration was given to whether or not suitable information is available from other sources, for example administrative records or sample surveys.
Multivariate analysis	A key benefit of census data is the ability to analyse particular topics against one another. A requirement to undertake multivariate analysis (for example looking at general health by economic activity to understand any relationship between health and economic status) will strengthen the case for inclusion in the census. This is because detailed multivariate analysis may not exist in alternative sources.
Continuity and comparability	Continuity and comparability with previous censuses and censuses beyond England and Wales are important aspects of census analysis. Where appropriate, the questions asked in 2021 will be the same as those asked in the 2011 Census (or the 2021 Census will collect the same information as the 2011 Census) and/or enable comparisons with results from censuses in Scotland, Northern Ireland or internationally.

## Evaluation criteria linked to other considerations

- 3.14 There were other considerations that ONS needed to take into account when evaluating the information to be collected from the census in 2021 and assessing the priorities for topics. These included the consideration of the impact of factors such as data quality, public acceptability and respondent burden.

### Impact on data quality and public acceptability

- 3.15 The data collected in the 2021 Census should be shown in tests to be of sufficient quality for outputs to be useful. As a result, the information required to answer questions should be readily available or easy to remember. Additionally, the census should not ask sensitive or potentially intrusive questions that could have a negative impact on response or lead to respondents giving socially acceptable rather than accurate answers. It should not enquire about opinions or attitudes.

### Impact on respondent burden

- 3.16 The inclusion of questions on a topic should not impose an excessive burden on respondents. Burden could, for example, result from lengthy instructions or explanations, large numbers of response categories or large numbers of questions on a single topic.

## Evaluation criteria linked to operational requirements

- 3.17 ONS uses some of the census data operationally to support the conduct of the census. The most important of these requirements is to maximise coverage as the primary aim of the census is to provide a robust estimate of the usually resident population of England and Wales. Other operational concerns include cost considerations and the coding of derived variables and validation.

## Question development testing

- 3.18 Testing and development of proposed new census questions, or amendment of existing census questions, follows a similar path for each question:
- ONS identifies the strength of user need and the specific uses to which the information will be put to guide the type and development of question wording and appropriate response options
  - If it is a new question, ONS may start with a large survey to assess public acceptability of the question before proceeding with further development

- Cognitive testing through focus groups and smaller, often individual, interviews may be undertaken to help understand how the respondent understands the question
  - This step is likely to require a number of iterations and is used to test, and refine, question wording (and often associated guidance) and to ensure that response options work, are acceptable and understood amongst these small groups of respondents
  - The questions that have changed since 2011 Census, or are being newly included, have undergone cognitive testing in the Welsh language
- Finally, if a question works in cognitive testing, the question is then tested on a larger sample of the population as a self-response survey to explore whether the question will work in census type conditions

3.19 This evidence is then considered alongside overall strength of user need, overall respondent burden, space constraints in the paper form, and legal duties to make a recommendation on whether to include a question in the 2021 Census.

## Selected topics

### Summary of topics

3.20 The UK Statistics Authority proposes that the 2021 Census will collect information on:

- address, including the postcode, for all properties occupied by households, for all unoccupied household accommodation, and for all communal establishments
- names of all residents, whether present or temporarily absent on the census date, and all visitors

3.21 These details will be complemented by information on specific topics. In some cases, one topic will be covered by several questions. While some questions will need to be answered by everyone resident in a household or a communal establishment (for example age and sex), other questions will only be relevant to specific groups of the population. For example, the questions relating to sexual orientation, gender identity, qualifications, economic activity, occupation and industry will only be asked of those aged 16 years and over. In addition, the question on Welsh language will only be asked in Wales and some questions on migration will only be asked of those not born in the UK.

- 3.22 Part of the plans for engaging with communities and the wider public is to ensure that the purely statistical purpose and confidentiality of the census is made clear to respondents. As part of the planning for the 2021 Census, ONS will closely monitor public debate around particular topics to ensure ONS is able to respond appropriately to communities' concerns.
- 3.23 A summary of the type of information that will be collected from households, communal establishments, residents in households and communal establishments and visitors, or derived from the information they provide, is set out below.

#### **For households**

- Relationship within the household
- Type of accommodation
- Self-containment of accommodation
- Number of bedrooms
- Type of central heating
- Tenure and type of landlord (if renting)
- Number of cars or vans

#### **For communal establishments**

- Type of establishment (including who it caters for and who is responsible for managing it)

#### **For residents in communal establishments**

- Position within the establishment

#### **For residents in households and communal establishments**

*Please note: \* indicates proposals for new census questions*

- Name
- Sex
- Date of birth
- Marital/legal civil partnership status
- Ethnic group
- National identity
- Amount of unpaid care provided
- General health
- Long-term health problem or disability
- Qualifications
- Long-term international migration

- Short-term international migration
- Address one year ago
- Citizenship (via passport held)
- Religion
- Welsh language skills (only in Wales)
- Main language used
- English language proficiency
- Economic activity
- Occupation
- Industry
- Method of transport to place of work
- Supervisory status
- Address of place of work
- Address and type of second residence
- Second residence
- Students' term-time addresses
- Armed forces\*
- Gender identity\*
- Sexual orientation\*

#### **For visitors in households**

- Name
- Sex
- Date of birth
- Location of usual residence

3.24 ONS is proposing to **exclude** two questions covered in the 2011 Census. These are:

- Number of rooms
- Year last worked

All other topics included in the 2011 Census will be included in the 2021 Census.

3.25 Questions on all the topics listed above will be included in the 2019 Rehearsal. Proposals for new topics are set out in paragraphs 3.26 to 3.54. The questions that are being continued, and, where relevant, how they

differ from those used in the 2011 Census, are described in paragraphs 3.55 to 3.167. The questions to be included in the census will be set out in due course in the Census Order (the legislative process is described in Chapter 7).

## Proposed new topics

- 3.26 In addition to continuing to collect information ONS has gathered before, consultation showed strong needs from decision-makers for new questions to be asked in the census, each of which reflect the identity of particular groups in the population. The needs identified were:
- to collect information on veterans of the **UK armed forces** to support users to meet their commitments under the Armed Forces Covenant – a promise between the country and those who serve or have served it
  - to collect information on **gender identity**, in addition to the current question on sex, to meet the needs for better quality information for monitoring and for supporting anti-discrimination duties under the Equality Act 2010
  - to collect information on **sexual orientation** to meet the needs for better quality information on the lesbian, gay and bisexual population for monitoring and for supporting anti-discrimination duties under the Equality Act 2010
- 3.27 Further work is being undertaken in respect of the new questions to test details such as routing and ordering of the questions which can have a significant effect on the way they are answered. This work will inform the final design of the census. ONS is also undertaking user testing and cognitive testing in English and Welsh of online and paper questions to ensure respondents can provide high-quality data, easily.

## Armed forces

### User need

- 3.28 During the topic consultation, a new need to understand the size and characteristics of the armed forces community was identified. The main need identified by central and local government and charities that work with veterans and their families, such as the Royal British Legion, was to meet their commitments under the Armed Forces Covenant<sup>19</sup>. This Covenant is a promise by the nation, ensuring that those who serve or who have served in the armed forces, and their families, are treated fairly. Those who sign up to

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<sup>19</sup> <https://www.gov.uk/government/publications/armed-forces-community-covenant/armed-forces-community-covenant>

it provide support in a number of areas including education and family well-being, housing, healthcare, employment, financial assistance, and services provided at a discounted rate.

- 3.29 Service providers need to be able to assess how well they are doing in meeting these commitments, and to do that they need access to basic information about the population of ex-service personnel in the community they are trying to serve. Putting in a census question will enable them to access those data because it will be possible to analyse responses to all the other census questions alongside the responses on armed forces membership (multivariate analysis), at a local level.

### **Consideration process**

- 3.30 Initially, the user need for this topic was assessed to be below the threshold for inclusion, based largely on the apparent availability of data from an alternative source held by the Ministry of Defence. However, further work showed that this source only partially met the user need. ONS successfully matched the Veterans Leavers Database with census data. However, there were gaps in the data for those who left service pre-1971. ONS also explored combining samples of the Annual Population Survey, but some samples were too small to provide sufficiently consistent local-level data.
- 3.31 Versions of questions were tested by means of cognitive testing and large-scale testing which found the question to be generally acceptable (though the reason for asking it needed to be made clear), and that the question being developed was easy to answer accurately.

### **Recommendation**

- 3.32 ONS recommends introducing a new question to identify those people, aged 16 years and over, who are serving or who have ever served in the UK armed forces. This includes regulars, those who have served as reservists and those who served as part of National Service. It will include people who have served in the UK armed forces for a day or more and have left at the time of the census.
- 3.33 Including this question in the census in 2021 will provide an accurate estimate of the size of the veterans' community. This will include data on other characteristics, such as their housing situation, general health indicators and their activity in the labour market, for small areas. In addition to central government departments' policy development, it will enable local authorities and third-sector organisations to ensure they are meeting the demands of the Covenant.

## Gender identity

### User need

- 3.34 Users have identified a requirement for information on the transgender population. “Transgender” is an overarching term used to describe those whose gender identities do not match the sex they were registered at birth<sup>20</sup>. This information is needed to meet equality duties, to allocate resources and for policy development, especially in relation to the provision of health services. There is also a respondent need for the sex question to be more inclusive as some respondents did not feel the 2011 sex question provided adequate response options and so consideration has also been given to this need.
- 3.35 Currently there are no official data about the size of the transgender population. The inclusion of a question in the census would increase visibility and provide a better basis for identifying inequalities, needs, services and support for transgender people. This is also relevant given the predicted small size of this population, which makes it hard to identify through sample surveys.
- 3.36 A primary focus of this work has been to ensure there is no risk to the quality of data collected on the vital information about a person’s sex (male or female).

### Designing a question on gender identity

- 3.37 There are, however, complex issues to consider in designing a question on this subject. The protected characteristic of gender reassignment in the Equality Act 2010 refers to people who are proposing to undergo, are undergoing, or have undergone, a process (or part of a process) for the purpose of reassigning the person’s sex by changing physiological or other attributes of sex. It also includes people who are perceived to have this characteristic. Gender identity, on the other hand, has been defined by the Equality and Human Rights Commission as “the way in which an individual identifies with a gender category”<sup>21</sup>. This is based on an individual’s own perception of themselves and so the gender category with which a person identifies may not match the sex registered at birth.

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<sup>20</sup> <https://www.ons.gov.uk/methodology/classificationsandstandards/measuringequality/genderidentity/genderidentityupdate>

<sup>21</sup> [https://www.equalityhumanrights.com/sites/default/files/rr75\\_final.pdf](https://www.equalityhumanrights.com/sites/default/files/rr75_final.pdf)



## Consideration process

- 3.38 The research and testing plan was designed to clarify the way the concepts around sex, gender and transgender are to be expressed and can be measured. It is used to assess whether or not it is possible to develop, while continuing to ask a sex question, a question which is:
- publicly acceptable
  - readily understood
  - capable of providing good-quality data
- 3.39 Key aspects of the research plan were to:
- review international work in this area
  - engage with relevant stakeholders to clarify data requirements
  - identify any alternative options to meet the user need
  - identify key aspects of evaluation to determine whether to recommend including a question (for example, public acceptability and quality of data collected)
- 3.40 Since the response to the public consultation<sup>22</sup> was published ONS has worked further with stakeholders including Stonewall and the LGBT Foundation to clarify the user need, reviewed the work other national statistical agencies are considering, and started to assess whether alternative sources can meet the user need. ONS has also investigated the minimum age at which a gender identity question should be asked. A number of different question approaches have been considered including:
- asking a more inclusive sex/gender question which contains a third "other" box
  - asking a sex question and then a question about gender, aiming to identify the transgender population through differing responses to the two questions
  - asking a sex question then a question asking if the respondent is transgender
- 3.41 ONS also commissioned independent research into public acceptability<sup>23</sup>. Around 4,000 people responded, and the results showed widespread acceptability with:
- only 1% saying it would lead them to stop completing the census altogether

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<sup>22</sup> <https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/consultations/the2021censusinitialviewoncontentforenglandandwales/topicreport03genderidentity.pdf>

<sup>23</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/questiondevelopment/2021censustopicresearchdecember2017>

- 80% of those in England and 75% of those in Wales finding it acceptable to ask a question on gender identity
- 5% in England and 10% in Wales saying that they would skip a question but complete the census
- 79% in England and Wales finding it acceptable to answer on behalf of other household members who are aged 16 and over, dropping to 69% when on behalf of other household members who are aged 15 and under

3.42 Research has also been conducted to develop questions including cognitive interviews, focus groups, workshops, informal community testing, large scale surveys, an online omnibus and public acceptability research. The research shows that:

- the 2011 sex question is a barrier to transgender and non-binary<sup>24</sup> individuals responding to the census
- neither a sex nor a gender question alone can meet the user need
- adding a question about gender identity or asking if a respondent is transgender is publicly acceptable and would meet most of the user need
- adding a caveat to the sex question that a gender identity question will follow the sex question makes the question more acceptable to non-binary and transgender people

3.43 ONS concluded that there would be a risk to the data collected on sex if a third response option were to be added to that question. ONS also concluded that a question approach which asks if a respondent is transgender can meet most of the user need. ONS is testing two different options for a question and is confident one of these will meet the need.

3.44 ONS is undertaking a large scale quantitative test to help understand the effect of these different question designs on response rates and data gathered, along with public accessibility testing of different questions. As well as testing of possible census questions, work is in progress to identify supplementary options. ONS is working co-operatively with a number of government departments to explore administrative data sources and is also considering the possibility of measuring gender identity in more detail through ONS's social surveys.

### **Recommendation**

3.45 ONS proposes that the sex question remains unchanged, and that a question asking individuals their gender identity is asked of those aged 16 years and over. As with the question on religious affiliation introduced in the

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<sup>24</sup> <https://www.ons.gov.uk/methodology/classificationsandstandards/measuringequality/genderidentity/genderidentityupdate>

2001 Census, ONS believes the new question on gender identity should be voluntary. That is, no one should have to answer this question if they prefer not to. The government and UK Statistics Authority will consider the appropriate mechanism to ensure this is the case.

ONS is conducting further testing of question designs, which will further inform how the question is asked. ONS proposes, subject to that testing, to include the gender identity question with a caveat in the sex question to explain that a gender question will follow later in the questionnaire. This has been found to increase acceptability amongst the transgender and non-binary populations.

## Sexual orientation

### User need

- 3.46 ONS's public engagement with users from the 2015 topic consultation identified a clear and significant requirement for better information on sexual orientation. This would support work on policy development and service provision, as well as supporting the monitoring and other duties set out in the Equality Act 2010 and the Well-being of Future Generations (Wales) Act 2015<sup>25</sup>.

### Consideration process

- 3.47 ONS initiated a wide-ranging testing programme which included:
- a question on this topic in one half of the 2017 Test to investigate the effect on overall response and the quality of responses
  - separate testing to assess the public acceptability of asking such a question
  - assessment of the question design for the census in qualitative studies
  - assessment of legislative requirements for including the question on the census
  - assessment of equality impacts of asking the question such as requesting an individual form or an individual disclosing their identity by choosing not to answer
- 3.48 In the tests the question proved publicly acceptable. The results from an independent survey with 15,595 households and a 25% response rate showed that:
- only 1% would stop completing the census questionnaire altogether if the sexual orientation question was included

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<sup>25</sup> <http://gov.wales/docs/dsjlg/publications/150623-guide-to-the-fg-act-en.pdf>

- 70% of respondents aged 16 and over in England and Wales considered it acceptable to include a question on sexual orientation on the questionnaire
- 80% of respondents said that they would provide an accurate answer to a sexual orientation question for themselves and on behalf of other household members
- less than 1% would provide an inaccurate answer or request an individual form for privacy reasons

3.49 ONS received good-quality data from the 2017 Test. The results showed that:

- the inclusion of the question did not have a material effect on overall response
  - The difference in response was 0.4 percentage points between a questionnaire with the question and a questionnaire without the question, well within the 2.0% threshold (see para 2.41)
- the level of item non-response was 8.4% overall
  - This was lower than the threshold (10%) and further research suggests that this was higher for older ages and could be mitigated with improved publicity and guidance on why information on sexual orientation is collected
- only a small number of people stopped completing census questionnaire at this question
- agreement rate between the census and a follow-up evaluation survey was very high at 98.6%
- the distribution of responses was consistent with results from the Annual Population Survey (APS), showing a high percentage of the sample identifying as lesbian and gay, with similar estimates for bisexual, and identical distributions for “other”

3.50 Therefore, ONS is confident that if the question were to be included on the 2021 Census, ONS will be able to produce statistics that will inform users about this population.

3.51 One of the issues clearly identified was that there was a need for people to be able to keep their sexual orientation private if they wished to do so. Various ways of achieving this were considered. ONS therefore conducted a further large-scale test of 13,700 households. This tested three forms of the question: one with a “prefer not to say” option for the response; one with an instruction that the question was voluntary; and one with neither of these. The results showed that the “prefer not to say” option had the highest response rate to the survey, the lowest incidence of failure to answer the particular question, and produced the highest figure for distribution of the LGB population. The figures are set out in table 4.

**Table 4: Testing sexual orientation privacy options**

Option Sample	Response to Survey (%)	Non-response to the sexual orientation question (%)	Distribution of LGB population (%)
Prefer not to say	34.8	1.6	2.3
Instruction that the question was voluntary	33.0	7.8	1.7
Neither instruction nor option	33.2	2.4	1.5

Source: ONS

- 3.52 ONS has also undertaken cognitive testing of different versions of questions, which has shown the question to be acceptable and has helped us to assess and develop the question and question guidance in both English and Welsh. ONS also analysed the APS which presented subnational estimates of sexual orientation as an average for the combined years of 2013 to 2015. This showed that using that approach would not fully meet user need for data on the LGB population at small geographies, because the APS sample sizes were too small<sup>26</sup>.
- 3.53 This testing shows that the question will work, is acceptable to the public, and would not damage the overall quality of the census. It would work better if asked only of those aged 16 years and over, and if the question includes a “prefer not to say” response option. This would enable respondents to comply with the mandatory nature of the question while maintaining privacy if they wish.

### **Recommendation**

- 3.54 ONS recommends introducing a new question enquiring about an individual’s sexual orientation where they are aged 16 or over. As with the question on religious affiliation introduced in the 2001 Census, ONS believes the new question on sexual orientation should be voluntary. That is, no one should have to answer this question if they prefer not to. The government and UK Statistics Authority will consider the appropriate mechanism to ensure this is the case.

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<sup>26</sup> <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/sexuality/articles/subnationalsexualidentityestimates/uk2013to2015>

The decision to recommend a question for inclusion in the census in 2021 is based on the outcome of this testing alongside the strength of user need for this topic. The testing has shown that it would be broadly acceptable to include a question on the census and that it will deliver good quality data with minimal effect on overall response. ONS will continue research to further improve the implementation of the question and the subsequent quality of the data collected.

## Topics retained from 2011

### Questions on address of usual residence

- 3.55 There is an operational requirement to collect and/or confirm data on address for all properties occupied by households, for all unoccupied household accommodation, and for all communal establishments. The householder (or manager of the communal establishment) will be asked to check that the pre-populated address information is correct and to amend it if necessary.
- 3.56 Address information will enable all properties occupied by households, unoccupied household accommodation, and communal establishments to be assigned to output areas. Output areas are the lowest geographical level at which census estimates are provided and are formed from clusters of adjacent postcodes (see Chapter 5).

### Questions on names of all residents and visitors

- 3.57 The person responsible for completing the census return will enter the names of each household or communal establishment resident (or usual resident), and each visitor present at their address on the census date. This information will be used operationally to help ensure that the enumeration is complete and to direct any queries to the right person if there is a need to check for missing information.

### Questions about the household

- 3.58 Some questions will refer to the household as a whole rather than to individuals. Information will be collected on both occupied and unoccupied accommodation. Where accommodation is unoccupied on the census date and a return has not been submitted, the information will be recorded by field staff or may be estimated from other data sources already held by government.
- 3.59 Information about households is vital for decision-making and resource allocation associated with planning to meet future housing needs and other public services. At the local area level, the census is the only source of nationally comparable information on housing, and is used widely in

developing local plans and housing projections. In addition, measures of inadequate housing and overcrowding are used by central and local government to determine levels of housing investment and for targeting programmes to address social and economic needs in both urban and rural areas.

3.60 Questions on the following topics will be asked:

### **Usual residents**

3.61 Questions on the number and type of usual residents (including short-term residents). This information is used operationally to support the derivation of accurate estimates of the number of usual residents at the local area level.

### **Visitors**

3.62 Questions on the number and type of visitors. Visitors are persons who are present at an address on the census date where they are not usually resident. This information will support the derivation of accurate estimates of the number of visitors and usual residents at the local area level.

### **Household and family relationships**

3.63 In households of two or more people, a question will be asked about the relationship between each person in the household. The household and family relationships information derived from the relationship matrix is fundamental for population profiling and planning purposes, such as future housing need, and service planning for particular familial types (such as one parent families).

### **Number of bedrooms**

3.64 The question on number of bedrooms available for use by each household is used extensively to understand overcrowding, and inform decision making regarding housing strategy needs assessments. Living in overcrowded conditions is associated with adverse personal, social and health effects. For example, shortage of space is seen as detrimental to children's development.

3.65 This question was asked for the first time in the 2011 Census in conjunction with the long-standing question on number of rooms. In the context of minimising respondent burden, ONS does not believe it is appropriate to continue to include two questions covering a single information requirement unless there is a clear and unequivocal case to do so. Respondents find it more straightforward to answer the question on number of bedrooms and this is of better quality.



3.66 In 2017 ONS looked at Valuation Office Agency data<sup>27</sup> as a potential alternative to estimating the number of rooms and bedrooms on the 2021 Census. ONS held a public consultation to invite users to respond to this. The consultation found that:

- more respondents used number of bedrooms than number of rooms
- the requirement for number of rooms is for under- and over-occupancy, which can be calculated from number of bedrooms
- the data quality for a question on number of bedrooms is greater than for a question on the number of rooms
- in addition, Valuation Office Agency (VOA) data include information on space which will also be valuable to understanding cramped living conditions

3.67 Given these points and ONS's view that it is only appropriate to ask one question, ONS recommends keeping the number of bedrooms question, and removing the number of rooms question. ONS will continue to work with the Valuation Office Agency to explore the feasibility of supplementing the census questions with administrative data on total number of rooms, living space and property type.

### **Type and self-containment of accommodation**

3.68 Questions on the type of accommodation and self-containment of accommodation are core inputs for decision-making.

3.69 These questions will be used to provide a count of dwellings including vacant dwellings and those shared by two or more households. By collecting information about the accommodation occupied by each household, the census will be able to show how the housing stock is being used and offer a sound basis for assessing current and future requirements as the numbers and types of households change. The information will be used to compare household and dwelling estimates and to understand the distribution of vacant dwellings.

### **Tenure and type of landlord (if renting)**

3.70 Questions on the tenure of accommodation and, where relevant, the type of landlord provide vital inputs for decision-making and resource allocation associated with planning to meet future housing needs. The data will help local authorities and other organisations to understand changes in the private rental sector.

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<sup>27</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/questiondevelopment/housingcommunalestablishmentsandvisitors/estimatingthenumberofroomsandbedroomsinthe2021censusanalternativeapproachusingvaluationofficeagencydata>



### **Type of central heating**

- 3.71 The question on type of central heating supports the monitoring of energy efficiency and fuel poverty policies as well as the allocation of resources to support policy-related interventions. ONS is currently undertaking research to consider whether additional response options are required to cover new sources of heating such as renewable energy.

### **Number of cars or vans**

- 3.72 A question on the number of cars or vans available for private use by members of the household has been included in the census since 1971. The information is used across central and local government and other sectors to support transport modelling, transport planning and associated resource allocation. Information is also used in developing parking schemes including the provision and allocation of residential parking.

### **Questions about communal establishments**

- 3.73 The number and type of questions asked about communal establishments, which include hospitals, schools, detention centres and other residential establishments, will be limited and will be concerned with understanding the nature of the establishment.

### **Type of establishment**

- 3.74 Questions will seek to identify the nature of the establishment, the type and age of the groups catered for and management responsibilities. Statistics on communal establishment residents, which separately identify resident staff, will be prepared for each type of establishment. As communal accommodation is increasingly dispersed in small units, comprehensive information is difficult to collect in sample surveys. The census provides an authoritative estimate of the population living in these establishments that is not available from other sources.
- 3.75 If resident elsewhere in the UK, visitors will be required to complete a full census return at their usual address. No information will be collected on any visitor who is a non-UK resident staying in a communal establishment for a period of less than three months.

### **Questions about usual residents of communal establishments**

- 3.76 Residents of communal establishments will be asked to complete an individual census return. They will be asked to answer the questions asked of all usual residents. In addition, they need to provide details on their status in the establishment, and to indicate whether they are answering for themselves or on behalf of someone else.

## Status within the establishment

- 3.77 A question on the respondent's position within the establishment will be asked to identify whether they are residents, staff or owners, or family of staff or owners. This information will allow these groups to be separately identified in statistics about communal establishment residents.

## Questions about usual residents of households and communal establishments

- 3.78 The primary purpose of the census is to give an accurate and authoritative estimate of the number of people in England and Wales and to show where they usually live. This is in order to provide a new and up-to-date benchmark for the annual mid-year population estimates for local areas. Population estimates are central to every national system of official statistics. They are used in statistical formulae that allocate public money to a range of organisations including the devolved administrations, local government and the health service.
- 3.79 In the years between censuses, the annual mid-year population estimates are updated (using the census estimates as a base) by making use of information from registrations of births and deaths and estimates of migration. Without the periodic updating and correction provided by the census count these estimates, particularly at the local area level, would become progressively less reliable.
- 3.80 Long-term policies need to take account of the changing population. Population estimates revised in the light of the census will be the basis for making projections of the number of people and households in future years. These will be used to assess likely demand for goods and services in both the public and private sectors.
- 3.81 However, there are short-term policy needs too, and a need to meet the demands from decision-makers for more frequent granular insights into our ever-changing society. ONS is developing a new administrative data-led system for population and migration statistics for England and Wales by spring 2020. ONS is developing its use of administrative data (that is information already collected by the public sector) so that statistics on the population and housing will be provided by integrating administrative data supplemented by surveys (and in some cases commercial data) to fill gaps that the administrative data cannot meet.

3.82 Proposals for census questions, relating to people, that are to be continued in 2021 are outlined below.

### **Age and sex**

3.83 These core demographic variables are of fundamental importance for a range of census users providing vital information for national and local population statistics as described above. In addition, age (derived from date of birth) and sex are critical to deriving age- and sex-specific rates for morbidity, mortality and fertility which in turn inform, among other outputs, population projections. These, in turn, underpin decision-making, planning and resource allocation across central and local government. Both variables are used extensively for multivariate analysis, constitute two of the protected characteristics specified in the Equality Act 2010 and are used extensively to monitor and measure inequalities in age and sex.

3.84 Age and sex are also important variables in the processing of census data. They are used in estimating and adjusting for errors in under- or over-coverage of the census and in ensuring the accuracy of the final census population estimates.

### **Marital or civil partnership status**

3.85 The question on marital or civil partnership status is used widely by users including central government to monitor the impact of government policies, and to support service planning and delivery. Marriage and civil partnership is one of the nine protected characteristics in the Equality Act 2010.

3.86 Following the Civil Partnership Act 2004, the census question on marital status was expanded to include response categories for civil partnership status. Marriage of same-sex couples has been legalised since the last census<sup>28</sup>, and in accordance with the undertaking given in the topic consultation report<sup>29</sup>, ONS is conducting testing to review the marital status question and response options to ensure all the necessary data are collected and will seek to ensure that all legally recognised statuses are covered. ONS is considering what steps it might take in the light of the government's response to the Supreme Court judgement in the case of *Steinfeld and Keidan*<sup>30</sup> concerning the availability of civil partnerships to opposite-sex couples.

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<sup>28</sup> <http://www.legislation.gov.uk/ukpga/2013/30/contents/enacted>

<sup>29</sup> P24, at <https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/consultations/the2021censusinitialviewoncontentforenglandandwales/topicreport09demography.pdf>

<sup>30</sup> R (Steinfeld and Keidan) v Secretary of State for International Development [2018] UKSC 32 (On appeal from [2017] EWCA Civ 81)

## **Ethnic group**

- 3.87 The user need for data on ethnic group is higher than any other topic except age, sex and household relationships. The data are particularly important for local authorities, service planning, and meeting duties under the Equality Act 2010. In the topic consultation, respondents told us about changes that they would like to see to the response options for ethnic group and national identity. In the light of this, ONS investigated the best approach to presenting the current ethnic group question online on a range of devices. In parallel ONS reviewed the ethnic group response options, alongside the national identity and religion response options.
- 3.88 Three question design approaches were qualitatively tested with an ethnically diverse sample. These were a two-stage design similar to the one in 2011, a two-stage design with an open box at the second stage, and an entirely open question. Findings indicated that a question designed with tick-box response options was more effective than an entirely open free-text box question. Quantitative testing then showed that a question with a closed first stage, followed by an open response open box at second stage, led to significant non-response at that point. The acceptability and accessibility of the 2011 design was subjected to further cognitive testing, which led to some changes. Further testing to maximise the ease of responding to this question online will continue. Testing so far has shown that a two-stage question, asking first about the higher-level groups, then a second question asking about detailed ethnicity, works best.
- 3.89 Following the topic consultation, a further exercise was held to gather evidence of the need for new response options within the ethnic group question. Requests were prioritised initially against strength of need, and further against additional criteria including the availability of alternative data sources, data quality, and comparability. In this exercise, 55 possible new response options were requested, with four of those taken forward for further investigation. The four areas with highest user need were Roma, Somali, Sikh and Jewish. The case for each of these has been examined in depth.
- 3.90 ONS recognises the needs from all four areas. ONS will meet the user needs for all four groups but in different ways following testing.

### ***For the Roma population***

- 3.91 ONS recommends including an additional response. ONS will work with the Roma population, assisting Roma organisations to provide support for local communities and raising awareness of the Roma response option.

- 3.92 There is evidence that Roma are a group of particular policy interest for stakeholders to help ensure, when developing local lettings policies, that their needs are met without unintentional discrimination. There is also evidence that data on Roma are needed in planning services, for example to help plan school places, understand language needs, review housing needs, and to plan housing development and design.
- 3.93 ONS conducted research projects to further investigate the acceptability of an additional Roma tick-box within the ethnic group question. ONS found that while some of the Roma population would usually select the “Gypsy or Irish Traveller” response option, this does not meet the user requirement (which is a different need to Gypsy/Irish Traveller data), and can reduce the quality and utility of the data.
- 3.94 The term was acceptable to Roma focus group participants, and the inclusion of the specific response option improves acceptability of the ethnic group question. There was some disagreement amongst the groups whether “Gypsy” was a derogatory term. Some of those who believed the term was derogatory would still select it from the 2011 ethnic group census question, believing this is the term they have been labelled with.
- 3.95 When testing the question among Roma groups, most participants identified with the Roma tick-box and found the addition of the specific response option eased burden on respondents. Testing showed that locating the specific response option within the White category caused least confusion.

***For the Somali population***

- 3.96 ONS will work with members of the Somali population to encourage engagement and provide appropriate field support to raise awareness of the option of writing in their ethnic group. This will encourage wider participation in the census and improve estimates of the population. With the online-first census in 2021 ONS is developing the “search-as-you-type” capability which will make it easier to use the write-in option, by providing Somali as one of the options. The census has previously had an “other, specify” box within the ethnic group question which has allowed a respondent to write in their ethnic group.
- 3.97 ONS will continue to improve the information it can produce and publish on the Somali population (as identified by the use of the write-in option), and is looking at methods that could be used to gather information in greater detail on Somali and other African populations. ONS will continue to work with Somali groups to develop guidance, promotional activities and analytical products to ensure user needs are met.

- 3.98 ONS does not recommend inclusion of a Somali tick-box within the ethnic group question for the 2021 Census. This is because the addition of a specific Somali response option was seen by some of the Somali population and some Black Africans as singling out only one African ethnicity and was unacceptable.
- 3.99 This recommendation follows research and engagement including stakeholder engagement activities and focus groups to further understand the need and acceptability of the specific Somali response option within the ethnic group question.
- 3.100 There is strong evidence that people of Somali origin experience disadvantage in several areas of life and some evidence that data are needed for service planning and delivery. The stakeholder engagement showed strong support for a specific Somali response option to obtain better Somali data. However, the focus groups, which were conducted by an independent research agency, found that the inclusion of Somali tick-box, while not including one for other African ethnicities, was viewed as unacceptable. The addition of a Somali tick-box in testing resulted in participants feeling they had to choose between being African or Somali.

***For the Sikh population***

- 3.101 ONS has always provided an “other, specify” box within the ethnic group question, to allow respondents to answer as they wish to (such as defining their ethnicity as Sikh). With the online census in 2021 ONS is developing the “search-as-you-type” capability which will make it easier to use this option, making it easier for respondents to self-define their ethnic group (when a specific response option is not available).
- 3.102 The 2021 Census will continue to include a religion question, with a specific Sikh response option. Flexible data outputs will allow analysis of those who define their religious affiliation as Sikh (through the religion response option) and those who define their ethnic group as Sikh through the use of the “search-as-you-type” capability on the online ethnic group question.
- 3.103 ONS will estimate the Sikh population using alternative data sources to assess the numbers who may declare themselves of Sikh background but not through the religion question. ONS will strengthen the harmonisation guidance on the collection of religion alongside ethnicity data across government. ONS will also increase the analytical offering and outputs for all ethnic groups, through flexible outputs.

- 3.104 The proposals on utilisation of the Digital Economy Act 2017 (see Chapter 3, paragraph 3.183) will ensure that data on the Sikh population is available across public services. ONS will work with members of the Sikh population to encourage wider participation in the census and raise awareness of the options of writing in their identity in the ethnic group question.
- 3.105 ONS does not propose adding an additional specific response option to the 2021 Census ethnic group question because of the evidence that this would not be acceptable to a proportion of the Sikh population. ONS considers that the estimates of the Sikh population can be met through data from the specific response option in the Sikh religion question.
- 3.106 The proposals meet the user needs expressed to ONS and follow extensive investigation. Leaders of Sikh groups have provided information which has fed into the analysis. There are differing views within the Sikh population as to whether a specific response option should be added to the 2021 Census, and views on each side are passionately held.
- 3.107 ONS received information from a survey of Gurdwaras enquiring about acceptance of a Sikh ethnic group tick-box, which showed a high acceptance for inclusion. The survey gave ONS more insight into the views of leaders of Sikh groups, alongside ONS's other research. Independent research was undertaken for ONS to further understand the acceptability of the Sikh response option within the ethnic group question.
- 3.108 Focus groups were conducted, with over 50 participants from Leicester, Birmingham and London who were spread across age, gender and life stages. These found:
- that the inclusion of Sikh tick-box, without other religion tick-boxes, within the ethnic group question was viewed as unacceptable – particularly amongst younger, second-generation participants
  - younger second-generation participants wanted to express their Sikh background through the religion question as this was how they expected Sikh identity to be recorded
  - a small number of older, male participants were keen to express their Sikh identity with an ethnicity Sikh tick-box and many stated that it was one of the most important aspects of their background
  - there was increased respondent burden with some participants confused about having to choose between an Indian and Sikh identity, and felt that they were being asked to make a choice when they felt they were both



3.109 Additional, quantitative survey findings show there is no evidence that the religious affiliation and ethnic group questions are capturing different Sikh populations. All respondents who stated they were ethnically Sikh (in question versions with or without a specific Sikh response option) also stated their religious affiliation was Sikh. This is in line with findings from the 2011 Census data (where only 1.6% of those who had recorded themselves as ethnically Sikh had a religious affiliation other than Sikh).

*For the Jewish population*

3.110 ONS will work with members of the Jewish population to encourage engagement and strengthen the harmonisation guidance for collecting religion data across government.

3.111 With the online census in 2021 ONS is developing the “search-as-you-type” capability which will make it easier to use the write-in option, making it easier for respondents to self-define their ethnicity. ONS has always provided an “other, specify” box within the ethnic group question to allow respondents to self-identify, and will continue to do so. ONS will also increase the analytical offering for the Jewish population, and for all ethnic groups, through flexible outputs.

3.112 ONS does not recommend the inclusion of a specific Jewish response option in the ethnic group question for the 2021 Census. Research has shown that the Jewish population would prefer to have a Jewish option only in the religion question.

3.113 This recommendation follows focus group testing through an external research agency on the ethnic group question. There was a strong consensus that a specific Jewish response option is unacceptable, irrespective of placement. However, respondents would still be likely to record themselves as Jewish under religion as this is how they were accustomed to communicating their identity.

3.114 Stakeholder engagement with the Board of Deputies of British Jews and the Institute for Jewish Policy Research has shown that there are concerns around continuity of data. Changes might result in users being unable to tell if changes to resulting data are due to a genuine population change or the change in approach.



## National identity

- 3.115 A question on national identity was asked for the first time in the 2011 Census to complement the question on ethnic group. The question enabled respondents to identify themselves using a range of options including British, English, Welsh, Scottish and Northern Irish, irrespective of their ethnic group. In considering this topic for the 2021 Census, ONS recognised a medium user need, particularly when considered with the ethnic group, and recommended, at that time, a question on national identity should be included.
- 3.116 The evidence provided during the topic consultation and further engagement with stakeholders about ethnicity identified requests for a new response option for Cornish. ONS fully recognises the need of the Cornish community for data on the socio-economic, educational, health and housing conditions of those who identify as Cornish. While there is national user need, the main need is local within Cornwall.
- 3.117 The development of the “search-as-you-type” facility on the online form will be coupled with a strong local marketing and communications campaign, and additional field support will enable all those who wish to self-identify as being of any particular identity, including Cornish, to know how to do so.
- 3.118 ONS will also for the first time produce an analytical report on the population who identify as Cornish and how their health, housing, work and education differs from those who do not identify as Cornish.
- 3.119 The evidence from the topic consultation stated a need for a Cornish response option to supplement other data sources, such as the School Census and housing needs survey to understand the impact of policy and deprivation characteristics of the indigenous population and their cultural identity. Complementing this evidence was the recognition in 2014 of Cornish as a National Minority under the European Framework Convention of the Protection of National Minorities. In the 2011 Census, 83,000 usual residents wrote in Cornish as their national identity. Of these, 73,000 lived in Cornwall, comprising approximately 14% of the population. The remaining 10,000 resided elsewhere in England and Wales.
- 3.120 ONS has met and reviewed the evidence of Cornish stakeholders to understand the need and conducted testing to consider the acceptability of adding regional tick-boxes, including Cornish, to the national identity question. Having reviewed the evidence against the evaluation criteria, ONS has concluded that the need for a Cornish tick-box is very localised and not strong enough to justify its inclusion in the nationwide census, when ONS can gather the data by means of the online and paper write in options.

## **Amount of unpaid care provided**

- 3.121 ONS will include a provision of unpaid care question in the 2021 Census. Information about the amount of unpaid care is used by central and local government to allocate resources to services and provide services to support carers. The question also provided evidence which contributed to the introduction of the Care Act 2014.
- 3.122 The question used for the 2011 Census will be revised so that it meets the Digital Service Standard set by the Government Digital Service (GDS) (see Chapter 4 for more details of online completion, para 4.41 for GDS). Based on evidence from cognitive testing and stakeholder engagement, ONS will aim for the question to continue to ask individuals whether or not a person provides unpaid help or support. This will include support to family members, friends or neighbours with a long-term physical or mental health problem, disability, or problems related to old age. It will include the amount of time spent each week. Subject to space constraints on the paper questionnaire, ONS also aims to amend the response "Yes, 20-49 hours a week" so that the census can gather information on carer's allowance as requested by data users.

## **General health**

- 3.123 General health is a self-assessment of a person's general state of health. Responses to the question have been shown to be a good predictor of future demands on health services. A question on general health was first included in the 2001 Census and was expanded in the 2011 Census. ONS will continue to collect information about general health in the census in 2021 and will retain the question wording and extended response options which enable respondents to describe their health as "very good", "good", "fair", "bad", or "very bad".

## **Long-term health problem or disability**

- 3.124 ONS will include a long-term health problem or disability question in the 2021 Census. The question will be based on international best practice on defining disability. Information about long-term health problems and disability inform resource allocation and service provision by central and local government. As disability is a protected characteristic under the Equality Act 2010 the information collected will be important for assessing inequality and targeting interventions designed to reduce inequality both nationally and locally. It will also support disaggregation of UK data by disability status for the global Sustainable Development Goals.

- 3.125 ONS does not intend that the 2021 question should be the same as the one used in the 2011 Census. This is because the 2011 question did not follow what is now understood to be best practice on disability measurement. Subject to ongoing testing and stakeholder engagement, ONS intends to base the question for the 2021 Census on the Government Statistical Service harmonised standard, which was developed in 2011 (after the last census) following broad consultation with government departments and disability groups.
- 3.126 Careful consideration has been given to the level of detail that is required on this topic, such as information about types of disability (for example, physical, mental, sensory and learning) which would enable service providers to plan better to meet the needs of disabled people. ONS will develop approaches to integration of the 2021 Census data with health and social care data, government surveys and administrative sources such as benefits data, to produce new research which will describe the health of the population in innovative ways and with greater depth and precision. ONS will use linked data, including longitudinal analysis, to answer important questions about health determinants and experiences of health and wellbeing over the course of a lifetime. Some particular areas of focus will include mental health, disability, social mobility, and transitions between health states and across health and social care systems.

### **Qualifications**

- 3.127 Information about qualifications held is used widely across central and local government to inform service delivery and policy development. In particular, the information provides the basis for addressing variations in levels of skills and for targeting interventions appropriately.
- 3.128 The evidence provided by users showed that their most pressing need was for information about highest levels of qualifications and no qualifications. Traditionally, this question has not performed well as it is difficult for respondents to remember their qualifications and/or try and align them with English and Welsh qualifications if they have received foreign qualifications. ONS is undertaking testing to develop a question or suite of questions with the aim of providing better-quality data on the core need of decision-makers.

## Migration

- 3.129 Migration can be internal or international. There are three ways in which an international migrant can be defined. They can be defined as:
- a person who was born outside the UK
  - a person who holds a non-UK passport (taken to indicate a non-UK national)
  - a person who was usually resident outside the UK one year prior to the census date
- 3.130 The census allows analysis of different types of migrants and their socio-economic outcomes, down to low geographic levels. For policy, resource allocation and planning purposes it is important to have a consistent definition of migration to underpin official estimates of the population at a national level. However, understanding how migration drives population changes at a micro level is also important for local decision-making where understanding the impact of different types of migrants can be useful. For example, some people may be described as circular migrants, that is, migrants who move back and forth between two (or more) countries. Understanding this group, as well as those who can be covered using census data, will be important in understanding the impact of migration on the economy and society.
- 3.131 ONS has set out a cross-government statistical service programme, working with the Home Office (the lead policy department), the devolved administrations and other government departments who have a strong interest in improving the migration evidence base. ONS intends with this programme to benefit from the expertise that exists within these departments to produce robust, collaborative research that adds value. This programme of work is progressing and there are increasingly more data sources available to assess trends in migration.

## Passports held

- 3.132 ONS introduced a question about passports held in 2011 as a proxy for citizenship. This information is used to support the development of migration policy, as well as monitoring the national and local impacts of international migration and informing community cohesion work. ONS will continue to collect this information in the same way in 2021.

## Questions on year of arrival

- 3.133 The questions on month and year of entry and intended length of stay were introduced in the 2011 Census and were fundamental to improving response to the census and counting everyone in the appropriate way (that is, as a

usual resident or a short-term resident). ONS intends to use the information in this way again in 2021. Migration is split into long-term migration, short-term migration and internal migration which are discussed below.

- 3.134 New questions on passports held and year of arrival (for those born overseas) were introduced for the 2011 Census, in order to better understand international migration patterns and the characteristics of different groups of international migrants. These questions provided opportunities for analyses that were not previously possible and have been particularly beneficial in helping to fill gaps in the data about socio-economic outcomes of some groups of people who have been in the UK since before 1973 but who do not hold passports.

### **Long-term international migration**

- 3.135 A question asking for the usual address of each person one year before the census has been included in the census since 1961 and will be retained for the 2021 Census. Respondents will be asked to record their address one year ago, if this is different from their current usual address, and to state the country of residence if this is outside the UK. The figures will show arrivals from outside the UK, but not those leaving, in the year before the census.
- 3.136 Long-term international migration is an important component of the population estimates and projections that underpin planning and resource allocation across central and local government. It also contributes to the understanding of population change at a local level, allowing local authorities to plan and deliver services including education, housing and health care.

### **Short-term international migration**

- 3.137 There will be a question on country of birth. As in the 2011 Census, anyone born outside of the UK will be asked additional questions on the month and year of entry to the UK and their intended length of stay in the UK. These questions enable the non-UK born population to be categorised as either a usual resident or a short-term resident. Information about short-term international migration complements the population estimates on a usual residence basis, providing local authorities with a greater understanding of their total population and their associated service requirements.

### **Internal migration**

- 3.138 The question on the usual address of each person one year before the census will also be used to collect information on internal migration in cases where the previous address was within the UK. As with long-term international

migration, internal migration is an important component of the population estimates and projections contributing to the understanding of population change at a local level and allowing local authorities to plan and deliver services.

## **Religion**

- 3.139 The census first included a question on religion in 2001. ONS intends to have the same question in 2021 to provide continuity with the 2001 and 2011 Census results. The same response options will be included on the question, although ONS is considering some small changes to the way these are presented.
- 3.140 As required by law, this question will remain voluntary. Information on religion is used by a range of data users including central government, local authorities and religious organisations to plan and deliver services. Responses will help users to monitor the equality of outcomes and provision to support them in meeting their duties under the Equality Act 2010.
- 3.141 While specific response options cannot be included for every religion, ONS proposes to ensure by use of online and paper write-in facilities (with the “search-as-you-type” functionality that ONS is developing for online completion) and good provision of advice, so that everyone is able to identify themselves as they choose.
- 3.142 ONS will work with local authorities and provide analysis to help them better serve the different religious communities in their areas. ONS’s work with some communities showed that while the “Other” box was widely used, the data was not so well-used by decision-makers, so ONS will work with communities to ensure the data are easily made available to decision-makers.

## **Welsh language**

- 3.143 A question on Welsh language skills has been included in every census in Wales since 1891. The question collects information on the ability of respondents to understand spoken Welsh, speak, read and write Welsh. Information about Welsh language skills is used widely by the Welsh Government, the Welsh Language Commissioner, local authorities and other public bodies in Wales to monitor use of the Welsh language and to inform strategies to support and promote it. This requirement has been strengthened by legal responsibilities arising from Welsh language legislation including responsibilities set out in the Welsh Language Act 1993, Welsh Language (Wales) Measure 2011 and associated Regulations.

## **Main language used**

- 3.144 The 2011 Census was the first to gather information on main language used (including sign languages), following a programme of research, consultation, testing and analysis to establish the most suitable questions.
- 3.145 This information enables areas where specific languages are used to be identified and, in conjunction with data about spoken English language proficiency, helps plan and improve access to services. It also helps to plan provision of appropriate interpretation facilities and target interventions aimed at improving integration and community cohesion.
- 3.146 ONS intends to continue to collect main language information in 2021. The question will remain the same as it was in England and in Wales in 2011.

## **English language proficiency**

- 3.147 The question on spoken English language proficiency is used in conjunction with the question on main language to target language support and to ensure that integration policies are directed to the areas of greatest need. The question was asked for the first time in the 2011 Census and will be retained in 2021.

## **Economic activity**

- 3.148 Economic activity data from the census are used extensively by central and local government. As a key dimension of local economic performance, economic activity is used by local authorities to develop economic strategies and plans and to support major programmes of public investment. Unemployment and economic inactivity are important measures which can be used to highlight disadvantage affecting specific groups of the population including those with protected characteristics specified in the Equality Act 2010.
- 3.149 Information on economic activity is collected via a suite of questions which only apply to those aged 16 years and over. The questions are designed to determine whether or not a person is in employment, or is:
- retired
  - a student
  - looking after the family or home
  - long-term sick or disabled
  - looking for work
  - available for work
  - waiting to start a job



- 3.150 These categories will provide the basic classification for analysis of economic activity and are designed to be as consistent as possible with definitions recommended by the International Labour Organisation (ILO). ONS will continue to collect information about economic activity in the 2021 Census. If changes are needed to maintain consistency with ILO guidelines and with Labour Force Survey outputs the questions may need to be reviewed.
- 3.151 In the 2011 Census respondents were asked if they had ever worked, and if so, were then required to write in the year that they last worked. The information collected was used primarily by local authorities to profile and understand the needs of the long-term unemployed. However, this has a high respondent burden, and the evidence to support the ongoing need for information on the actual year someone last worked was limited and not sufficient to justify its inclusion in the 2021 Census.
- 3.152 There is still a requirement to distinguish the short- and long-term unemployed from those who have never worked. This is used in the derivation of the National Statistics Socio-economic Classification (NS-SEC). ONS plans to collect these data by adapting the “ever worked” question to collect data on whether someone has worked in the last 12 months.
- 3.153 Only those who are employed or who have ever worked will be asked to provide further information on topics such as their occupation or the industry they are or were in.

### **Occupation**

- 3.154 For those in paid work or who have ever worked, information on occupation of their current or last main job will be collected. This information will be gathered through questions on an individual’s full job title and the main activities done in their job.
- 3.155 Information about occupation provides a basis for analysing local labour markets, identifying exclusion from particular types of work and supporting local economic development plans and large infrastructure projects.

### **National Statistics Socio-economic Classification**

- 3.156 The questions on occupation together with related information on employment status and supervisory status form the basis for the derivation of the National Statistics Socio-economic Classification (NS-SEC). ONS has commissioned researchers at University of Essex to review the derivation of NS-SEC to ensure that it remains relevant and understandable in a changing labour market context. The results of this will inform the derivation of NS-SEC in the 2021 Census.



## **Supervisory status**

- 3.157 Supervisory status was used to differentiate NS-SEC codes for 139 occupations in 2011, affecting approximately 2.6 million people. Research into the removal of supervisory status has concluded, and ONS will continue to collect this information to maintain the quality of this classification.

## **Industry**

- 3.158 Information about industry complements the data collected by the occupation question and provides specific detail about local labour markets. In addition, the data can be used to identify areas where there are concentrations of workers employed in a specific sector, to underpin local economic development plans and large infrastructure projects.
- 3.159 Industry will be determined primarily by asking people the nature of the business or activity of the organisation that employs them. Supplementary details will be obtained from questions on the name of the organisation and, for those currently working, the address of their workplace.

## **Hours worked**

- 3.160 A question on the number of hours usually worked in the person's main job enables those in full-time and part-time employment to be distinguished. The information helps to provide a better understanding of changes in working patterns and how these affect particular occupations and industries.

## **Address of place of work**

- 3.161 This question is used to support transport planning. By combining responses to a question on address of place of work (destinations) with information on usual address (origins), it will be possible to derive information on journeys to work and the numbers travelling between specific origins and destinations. In conjunction with information from the question on method of travel to work, the data will help to identify commuter routes that are subject to higher volumes of traffic. In addition, the question on address of place of work is used to produce workplace statistics.

## **Method of travel to place of work**

- 3.162 This question asks respondents for information on the methods of transport used to get to their place of work and in particular for details relating to the longest part, by distance, of their usual journey to work. Information from this question and the previous question on address of place of work supports transport planning by contributing to the derivation of transport models and providing the basis for measuring commuting patterns. The data are used extensively for policy development and monitoring including assessment of the impact of past housing and transport policies.

## **Second residence**

- 3.163 Questions on residence arrangements, including details on the address of any second residence and the reasons for staying at such an address, were included in the 2011 Census. These improve coverage and the quality of the population estimates and will be retained in 2021.
- 3.164 These questions will provide a better measure of the dynamics of societal change as reflected in more complex living arrangements. Examples are those who are weekly commuters, the children of divorced or separated parents or those with a second home. These issues have important implications for the previously well-established concept of usual residence and the derivation of population statistics. In conjunction with the information on usual address, responses will enable ONS to ensure that people are allocated appropriately to the place of usual residence and help to reconcile the census estimates with the mid-year population estimates.

## **Students' term-time addresses**

- 3.165 Questions on whether or not a person is a schoolchild or student in full-time education, together with details about their term-time address, are used to improve coverage. This information helps to ensure that students and pupils at boarding schools are recorded at their place of usual residence, that is, their term-time address. Once again, this information helps to reconcile the census estimates with the mid-year population estimates. These questions, asked in both 1991 and 2001, will be retained in 2021.

## **Questions about visitors**

- 3.166 The census in 2021 will collect limited information on the household questionnaire about anyone who is at an address on the census date that is not their usual residence. Visitors who are resident elsewhere in the UK will be required to supply full information on a census questionnaire at their usual address.
- 3.167 The questions that visitors will be asked to complete will be name, usual address or country of residence if they are a non-UK resident, sex and date of birth. This information will support the derivation of accurate local-level counts of visitors and usual residents. In addition, linking counts of visitors to those of residents at their usual address could help to estimate any census overcount or undercount.

## Questions ONS does not propose to ask

- 3.168 Each topic included in the proposals for the 2021 Census satisfies the evaluation criteria referred to earlier in this chapter. The UK Statistics Authority is grateful to all those who made suggestions and regrets that it has not been possible to accept all of them.
- 3.169 ONS's user consultation resulted in a number of new topics being put forward for inclusion in the census in 2021. In cases where sufficient evidence has been provided, detailed assessments have been undertaken to understand the new information requirements. However, there were a number of topics where evidence of user requirements was relatively lower than for other topics, and, as a result, ONS does not recommend their inclusion. The topics are:
- technology
  - pet ownership
  - mental health
  - health conditions and incapacities
  - factors affecting health
  - reason for migration
  - address of place of study
  - place of birth
  - maiden name
- 3.170 In contrast there were two topics where there was evidence of a higher user requirement, but which ONS nevertheless does not recommend including in the 2021 Census. These topics were:
- income
  - volunteering

### Income

- 3.171 Income is a topic that users repeatedly ask to be included on the census questionnaire. Income data are used to inform central and local government service planning, policy development and implementation. Information on income is used in many ways including to:
- assess housing affordability
  - develop policies and strategies to tackle poverty
  - alleviate debt and overcome disadvantage

- 3.172 However, testing prior to the 2011 Census showed an unacceptable impact on response rates and concerns about data accuracy. The 2007 Test carried out as part of the preparations for the 2011 Census showed that the inclusion of an income question reduced overall response rates by a statistically significant 2.7 percentage points. These results were consistent with earlier tests. These findings were exacerbated by concerns about the quality of income data collected using the census test questionnaire and whether respondents understood, and were content to answer, income questions.
- 3.173 Given these concerns, ONS does not recommend collecting information on income in the 2021 Census.
- 3.174 To meet the need, however, ONS is working with tax and benefits data from the Department for Work and Pensions (DWP) and Her Majesty's Revenue and Customs (HMRC) to develop census-type income data that can be integrated with the data collected on the 2021 Census. ONS has already produced some research outputs to demonstrate the potential of this approach<sup>31</sup>.

## Volunteering

- 3.175 Users identified a need for information on volunteering to calculate its contribution to the economy, to measure volunteer engagement and to improve volunteer-based services. They were also interested in the frequency and hours spent volunteering. Since the initial topic report<sup>32</sup> ONS has undertaken further work with stakeholders and testing, to clarify the user need and consider alternative data sources that are available.
- 3.176 ONS developed and tested different versions of questions to assess whether ONS could design a question that, if included in the census, would provide sufficient quality data to meet the user need. This included two rounds of cognitive testing, large-scale tests and an evaluation survey which found:
- an agreement rate of 78% between the 2017 Test responses and a follow-up evaluation survey of test respondents – this was a lower agreement rate than other topics
  - respondents who volunteered on an ad-hoc basis were unable to successfully select a response option that suited their volunteering schedules

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<sup>31</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/administrativedatacensusproject/administrativedatacensusresearchoutputs>

<sup>32</sup> <https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/consultations/the2021censusinitialviewoncontentforenglandandwales/topicreport05labourmarket.pdf>

- 3.177 Testing has shown that respondents found the question difficult, which raises issues of data quality and suggests that more than one question would have to be asked to meet the need.
- 3.178 To meet the need, ONS recommends that it should continue to gather the data needed to estimate the contribution of volunteering to the economy through its household surveys, which are better suited to the topic.

## Questions ONS recommends dropping

- 3.179 There are some existing questions for which there is now an insufficient case for inclusion.
- 3.180 While ONS recommend continuing to ask a question on the **number of bedrooms**, it recommends utilising administrative data for the **number of rooms** in a similar way to income. In the interests of minimising respondent burden, ONS does not believe it is appropriate to continue to include both questions. As the question on bedrooms is easier to understand and provides better quality data, ONS recommends dropping the question on number of rooms.
- 3.181 In the 2011 Census respondents were asked if they had ever worked, and if so, were then required to write in the year that they last worked. This has a high respondent burden. The information collected was used primarily by local authorities to profile and understand the needs of the long-term unemployed. ONS recommends dropping the question on **year last worked** as further investigation highlighted that user need was about having worked in the last year. ONS will collect this information through adapting the “ever worked” question.

## Equalities monitoring following the census

- 3.182 In 2017 the government online data service “Ethnicity Facts and Figures”<sup>33</sup>, published by the Race Disparity Unit, showed that data collections on ethnic group across the public sector are not consistent. In addition, religion is little monitored across government. ONS recognises that for communities including the Sikh, Jewish and Roma communities this means many aspects of their communities’ needs are hidden at present and that this needs to change.

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<sup>33</sup> <https://www.ethnicity-facts-figures.service.gov.uk>

- 3.183 As well as the consideration ONS has given to how this can be addressed in the census, ONS will use the new possibilities provided by the Digital Economy Act 2017 to address these needs. ONS will work across government to identify a body that collects data on each key characteristic so that once collected the data can be shared with ONS and used with other data to improve the government's ability to identify and address disadvantage associated with each of the protected characteristics across government, consistently, at lower cost to the taxpayer, and lower burden on users of public services.
- 3.184 In advance of this the harmonisation guidance will be updated as soon as possible to ensure that it fully reflects the range of communities that need to be monitored as a race.

# 4



# 4 Collecting the information

## Introduction

4.1 The data collection operation – the public face of the census – covers the activities carried out to support respondents in completing the census in the way that best meets their needs, whilst ensuring the relevant quality targets are met. These activities include:

- publicity and marketing
- identifying all addresses where someone may be resident
- the delivery to each household and communal establishment of an invitation to take part
- public support to assist respondents with completing their questionnaire
- recruiting field staff to provide face-to-face support for non-responding households

The data collection operation is also responsible for managing the suppliers who will work with ONS to deliver the services required to collect the data.

4.2 To ensure the value of census data to users, it is vital that the census is of high quality. There are several aspects to this. First of these is that the response rate to the census should be very high. This means ONS needs to get responses from 94% of the population nationally and at least 80% of the population in every local authority area, and with minimal variation within areas. This is necessary to ensure that the data reflect the population and its characteristics in small areas, and for small populations. As well as getting high response rates, it is also important to ensure that people can understand the questions and easily provide accurate answers, so it is vital the online and paper questionnaires are well-designed and easily accessible.

4.3 As with the 2011 Census, the challenge will be to enumerate a population that continues to change in behaviour and attitude towards surveys. Digital services have become mainstream, providing opportunities to improve the data collection operation both in terms of quality of data collected and efficiency of the operation. This enables the 2021 Census to be “digital first” by aiming for a 75% online response rate (though not at the expense of other response rate targets).



- 4.4 Experience has shown that it is increasingly difficult to contact certain households, particularly respondents living in inner city areas. Difficulties in contacting households can be attributed to many factors such as:
- an ageing population
  - growing numbers of one-person households
  - changing work patterns
  - increase in access-controlled properties
  - certain groups and communities within the population feeling disconnected with society
- 4.5 Some people who completed the 2011 Census on paper may not be as willing to complete the questionnaire online in 2021 when there will be a digital-first approach. This includes people unable or unwilling to embrace digital services. These factors have been a major influence in shaping data collection plans for the census in 2021. An effective publicity strategy, well-tested communications materials and multi-channel, multi-lingual public support will also be vital to the success of the census.
- 4.6 Many people now regularly use the internet to access a wide variety of services<sup>34</sup>, and online completion will be the best way to engage the majority of the public in 2021. Digital response is expected to help improve data quality, enable census data to be processed faster, and should lead to a reduction in costs. In 2011, paper questionnaires were delivered to every address, giving respondents the choice of making a paper or online return. In 2021, households and communal establishments will be delivered a letter with a unique access code (UAC) to enable secure online completion. In some areas with a lower uptake of online services, a paper questionnaire will be issued which will also have a UAC. Paper questionnaires will be returned by post in a pre-paid envelope to be processed.
- 4.7 The field force remains an essential component of the data collection operation. Staff will be trained to encourage respondents to complete their return and to provide appropriate help. ONS will work with local authorities and community groups to support people in completing the census online or on paper. Specialist staff will be employed to work with some harder-to-reach communities to encourage and increase their participation.

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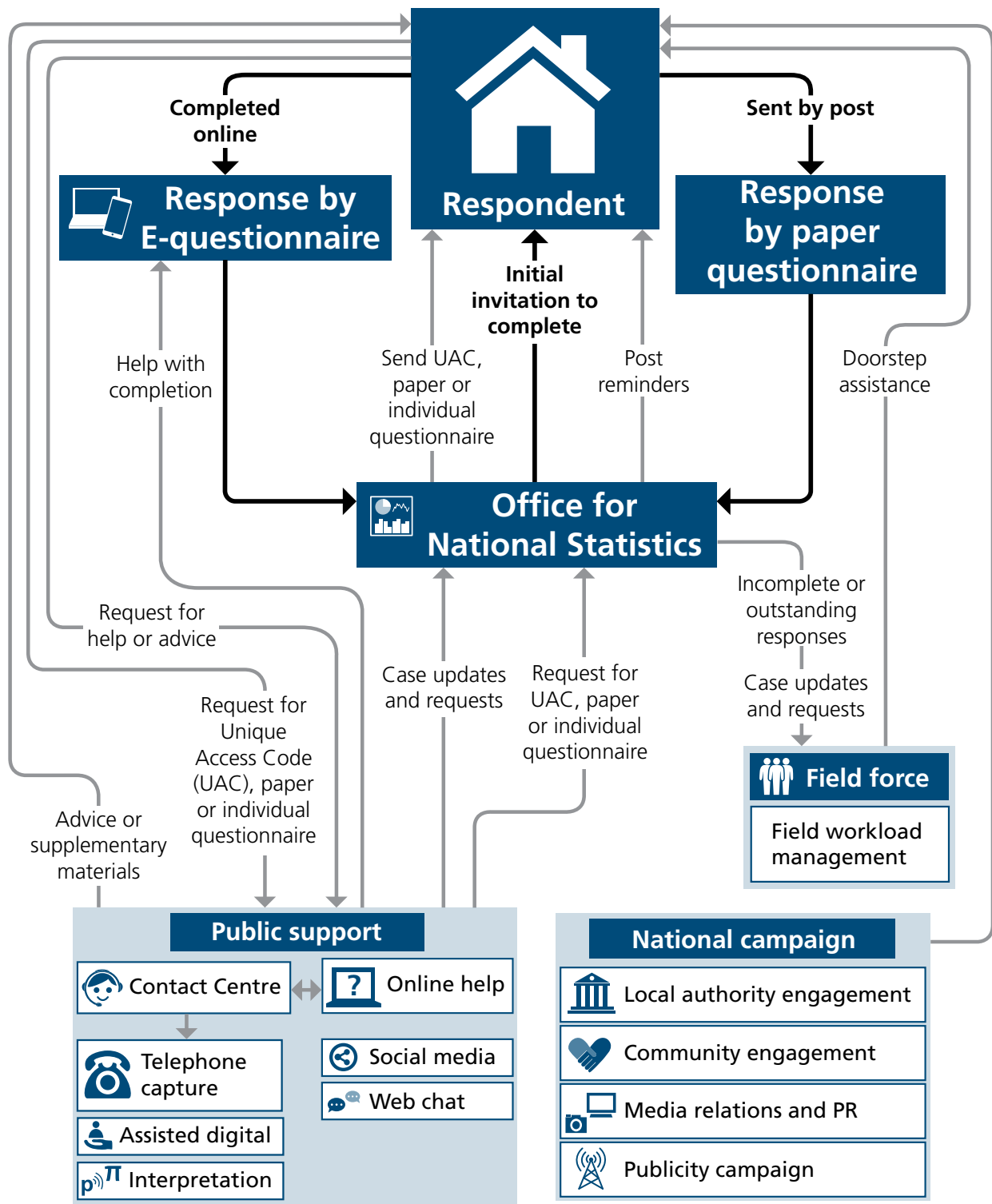
<sup>34</sup> <https://www.ofcom.org.uk/research-and-data/internet-and-on-demand-research/internet-use-and-attitudes> and <https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/internetaccesshouseholdsandindividuals/2018>

- 4.8 ONS will improve the use of targeted reminders to some non-respondents, an approach first used successfully in 2011<sup>35</sup>. ONS will replace paper lists of addresses for field staff to visit with secure electronic workloads on mobile devices through the field work management tool. This will help prevent unnecessary calls to households and increase the efficiency of the field force.
- 4.9 Figure 2 provides a highly simplified view of the principal interactions involved in gathering census responses.

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<sup>35</sup> [https://www.ons.gov.uk/file?uri=/census/2011census/howourcensusworks/howdidwedoin2011/2011censusgeneralreport/2011censusgeneralreportforenglandandwaleschapter3\\_tcm77-384965.pdf](https://www.ons.gov.uk/file?uri=/census/2011census/howourcensusworks/howdidwedoin2011/2011censusgeneralreport/2011censusgeneralreportforenglandandwaleschapter3_tcm77-384965.pdf)

**Figure 2: Census Respondent Interactions Overview**



## Operational objectives

- 4.10 A number of objectives of the data collection operation underpin the broad strategic aims of the 2021 Census set out in Chapter 1. These are to:
- develop an effective enumeration methodology that targets resources and procedures to maximise response
  - encourage a high level of online response (which will have a positive impact in other operational areas)
  - track online response, return and receipt of questionnaires (both electronic and paper) to target non-response
  - manage the tasks associated with the recruitment, retention and payment of a large field force
  - encourage public participation and co-operation through informative publicity, and public support channels
  - work with local authorities and others in planning and carrying out the enumeration, in particular to make best use of their knowledge of their communities, their local address lists and residence arrangements, and ways of contacting harder-to-reach groups
  - develop technology solutions that will support the effective deployment of field resources
  - achieve response rate targets of 94% nationally and at 80% in each local authority, to support quality levels
  - provide field-based resource and procedures to support the inclusion of hard-to-reach or vulnerable communities such as students, the elderly, communal establishment residents, rough sleepers and non-English speakers
  - provide support to communities and groups via a community engagement programme
  - develop a strong digital marketing strategy for a range of products and social media

## Developing and using a comprehensive address register

### Overview

- 4.11 The need to ensure that every resident in every household and communal establishment is included in the census in 2021 and is motivated to respond is, more than ever, a driver in the strategy and planning for data collection.

A prerequisite for an inclusive and successful census will be the availability of a comprehensive, high-quality address register covering all households and communal establishments for England and Wales.

- 4.12 ONS will be using AddressBase as the core dataset for the address register for the 2021 Census. AddressBase is maintained by GeoPlace, a joint venture between local government and Ordnance Survey, and draws upon the best national address data sources (including local authority and Royal Mail (Postcode Address File) lists). ONS has access to AddressBase under the Public Sector Mapping Agreement<sup>36</sup> and has signed a Memorandum of Understanding with GeoPlace agreeing to work closely together to ensure the quality of the census address list.
- 4.13 Each address included in AddressBase has a unique property reference number, and this will be used throughout the process to help avoid duplication issues which can occur with complex addresses or communal establishments.
- 4.14 One area of focus for the census in 2021 will be work to ensure the identification and correct classification of all communal establishment properties included in the address list. This will involve working closely with local authorities as well as quality assuring the lists using public and commercial lists (such as lists of care homes or caravan parks).

## Development and quality assurance of the census address register

- 4.15 ONS will not build a separate address register, as was the case for the 2011 Census, but rather will work in partnership with GeoPlace, local authorities and other suppliers to ensure that AddressBase is capable of supporting the census and ONS's ongoing needs.
- 4.16 Nonetheless, ONS will fully quality assure, and may enhance, the list where necessary to meet census requirements. A range of methods and strategies have been identified:
- identifying any differences between AddressBase classifications and those required for census
  - working closely with Ordnance Survey and GeoPlace to understand the process of building and maintaining AddressBase
  - collaborating with Ordnance Survey and GeoPlace to resolve anomalies found

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<sup>36</sup> <https://www.ordnancesurvey.co.uk/business-and-government/public-sector/mapping-agreements/public-sector-mapping-agreement.html>

- working with local authorities to ensure the address data they contribute to AddressBase reflect census requirements and facilitate the collection of high-quality census data
- using clerical investigation to resolve anomalies and quality assure samples of addresses
- linking administrative data to AddressBase to identify differences between address attributes (for example residential or communal status) held on AddressBase and those held in administrative data (see para 4.18 below)

4.17 Close engagement with the local authorities, which are the main suppliers of information for maintenance of AddressBase, will play a key role in ensuring the quality, timeliness and suitability of the list for ONS's use.

## The use of administrative data to enhance the address register

4.18 ONS is investigating the use of administrative data to improve and enhance the quality of the address register. For example, attributes of administrative data, such as flags to denote an address as a care home or unoccupied, may help ONS deliver an efficient census enumeration process.

4.19 This work is in its early stages and no decisions on the use of administrative data have been made. All work is being conducted in accordance with ONS's policy on data security, disclosure and ethics.

## Address matching

4.20 Address matching methods are being developed to aid the use of administrative data in the census. The use of common address matching methods across government would help improve the linkage and use of data and ONS is sharing experience on this in a number of areas (for example by sharing experience of developing methods with HMRC, and making a matching service available for trial by the Welsh Government and some local authorities).

4.21 To help improve the quality and accuracy of data collected, address look-up will be used within the online census questionnaire to allow respondents to select and confirm address details, such as place of work or address one year ago.

## Building for reuse

- 4.22 The census proposals have been developed as part of ONS's wider work in the Census and Data Collection Transformation Programme to renew its technology infrastructure by designing common data sources, processes and systems to ensure the maximum capacity for reuse (Chapter 9 sets out the benefits of the programme).
- 4.23 The address register, for example, will be designed and built for reuse to support statistical processes, such as running social surveys, business surveys and the linking of administrative data, to enable new insights into our society and economy. Given the long-term goals for the address register, the methods used to develop and improve it are being built to be sustainable.
- 4.24 Another example is Survey Data Collection Platform, which has already been used for the collection of over 200,000 responses from businesses online, and which is providing infrastructure that will also underpin the census in 2021.
- 4.25 In processing the 2021 Census data, ONS will use its newly built Data Access Platform, which has been designed to meet the needs of a national statistics institute. New technologies will support the initial processing of responses in real time, allowing analysis to be carried out and the data collection adapted if necessary. The approach being developed can then be applied to other ONS data collection exercises with the potential to impact upon the statistical quality and timeliness of outputs.
- 4.26 The new technology also means that the majority of the statistical methods used in processing the data need to be rewritten. The approach being taken to this task will ensure that there is the maximum potential for reuse. The writing of code will also require staff to become proficient in the new tools and approach to data management and so will develop capability to support the wider office transformation. Where possible the development of the processing system is being undertaken by collaborative integrated project teams. These not only help to ensure the wider perspective, but help ensure that there will be a business area responsible for the development once the census is over.
- 4.27 In order to maximise the potential statistical benefit to ONS of the census data, their potential wider use is being considered in the data models and associated documentation being produced to support their processing. The teams are using new tools to capture information during the system build stage to facilitate this. This knowledge will also be shared with the wider ONS community.

- 4.28 The Data Access Platform has been built on the basis of security by design with the design following a number of security principles. The measures that have been put in place will safeguard not only the census data but other information held for statistical use. More information on Data Security is to be found in Chapter 6.

## Staffing

### Field staff

- 4.29 The temporary field force that will be employed to support the operation will consist of full- and part-time staff with at least 17,000 census field officers being recruited. Their role will include making contact with non-responding households, encouraging participation, highlighting the benefits to households and individuals, and providing assistance for both online and paper completion as required. They will also meet with managers of communal establishments (for example care homes and boarding schools) to manage the enumeration procedures of residents.
- 4.30 The management structure of the field force will be headed by census area operations managers employed for a period of around two months before, and around three months after, the census. Some will be responsible for the enumeration of an area of about 500,000 people, others, in less densely populated areas, will be responsible for fewer. They will have the responsibility of managing local team managers to be known as census co-ordinators and communal establishment co-ordinators who will, in turn, supervise local teams of census officers and communal establishment officers.
- 4.31 There will also be census engagement managers and liaison staff, who will be employed to work with local authorities and community groups within their area and engage with specific populations, focusing on publicity and media liaison work. These community advisers, some of whom will have specific language skills, will be engaged to work with particular communities such as those where language or culture may be a barrier to participation. Both the area engagement managers and liaison staff will start in summer 2020, giving them time to develop an understanding of their area and build relationships with community leaders.
- 4.32 Following the census, a small number of staff will be engaged in enforcement following non-compliance, the final stage of the field operation.



## Recruitment, training and payment of field force

- 4.33 The strategy for the recruitment, training and payment of the 2021 Census field force will be similar to that followed in 2011. The early outsourcing of these services to a contractor with particular expertise in field operations was successful in 2011 and ONS is seeking to replicate the strategy. Such services are clearly a non-core activity for ONS and cannot be provided internally, to this scale, without a significant additional investment.
- 4.34 Though responsibility for field recruitment will rest with the supplier, ONS intends that the staff appointed for the field operation will be ONS employees, and will therefore be recruited in accordance with the Civil Service Code principle of fair and open competition<sup>37</sup>. This inclusive approach to recruitment should ensure that the field force reflects the profile of the communities within which they will be working. This will enable field staff to engage more effectively to encourage participation. Sufficient numbers of Welsh-speaking field staff will be recruited in Wales to ensure that those who wish to engage with the census in Welsh are properly supported.
- 4.35 The statutory obligation for persons employed on the census to adhere to strict confidentiality undertakings will apply equally to temporary field staff recruited by the contracted supplier as they would to the permanent staff of ONS.
- 4.36 An ONS-based team will support the field force to provide services dealing with queries on pay, expenses, employment issues, logistics, incidents and general field queries.

## Methods of data collection and return (households)

### Initial contact

- 4.37 Initial direct contact with the public will be made a few weeks (in most cases three weeks) before the census date. This will take the form of a letter posted out to households in England and Wales (c.26 million) as well as communal establishment addresses (for example university student halls of residence and residential care homes). This will allow sufficient time to ensure all letters are delivered before the census date and provides contingency for any issues to be resolved. Each letter will contain a unique access code (UAC) and website link, to enable online completion of the census questionnaire.

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<sup>37</sup> <http://civilservicecommission.independent.gov.uk/wp-content/uploads/2012/04/Recruitment-Principles.pdf>

4.38 Paper questionnaires will be issued as the initial contact in some areas, based on the likelihood of take-up of an online option or where residents are highly likely to prefer paper. These paper questionnaires will also contain a UAC to allow for online completion, so anyone who wishes to complete online can do so. Similarly, anyone who wants to complete a paper questionnaire can request one through the public support channels.

## Online completion

4.39 Based on previous and international census experience of online collection, and predictions of the digital take-up of services, ONS is planning that around 75% of all household responses will be online. However, the actual take-up of this channel is uncertain and the capacity planning for the response system will allow for flexibility.

4.40 A digital-first census meets the government's aim of seeking to increase the provision of public services online, and will provide ONS with an opportunity to achieve long-term cost savings and to improve data quality and processing.

4.41 The online questionnaire will be designed to allow for completion on all of the most common web browsers and mobile devices. It will conform to the Digital Service Standard set by Government Digital Service (GDS). To take full advantage of online capabilities, functions such as routing, validation and guidance will be utilised. Online functionality will be designed to minimise respondent burden and improve data quality.

4.42 Respondents will be provided with a unique access code (UAC) in a contact letter (either for a household or individual) which they will use when completing the questionnaire securely online. Anyone aged 16 years and over will be able to request a UAC (for an individual return) or individual paper form if they wish to respond privately. They do not have to tell the householder they have done this.

4.43 ONS will aim for the questions in the online and paper versions to provide the same response data, with the questions being optimised for each channel. The online questionnaire will provide sufficient capacity to cater for households comprised of very large numbers of individuals.

## Paper

### Paper questionnaire delivery

- 4.44 Paper questionnaires will be provided to the public in the following circumstances:
- as the initial contact in areas where it may be difficult to get online responses
  - when requested by members of the public, via the public help channels
  - when handed out on the doorstep by field staff
  - when mailed as reminders to some non-responders
  - in some communal establishments

Anyone aged 16 years and over may ask for a separate (individual) paper questionnaire.

Individual paper questionnaires will also be completed by some residents in certain types of communal establishments, where paper is preferred to online completion.

Paper continuation questionnaires will be available (on request) for households with more residents than are allowed-for on the main questionnaire, or more than three visitors present, on the census date.

All paper questionnaires will be provided to respondents with an explanatory leaflet and a pre-addressed, pre-paid return envelope for the return to be sent back by mail.

## Communal establishments (CEs)

- 4.45 The census must reflect the lives of people living in communal establishments (such as hotels, hospitals, boarding schools, or prisons) as well as households. Methods of reaching such people will differ depending on the size of establishment and the varying levels of difficulty involved in making contact and ensuring that residents complete their returns. In some types of CE, individual paper questionnaires will be completed by residents. In others specific arrangements will be made following initial contact with the local authority or other managing agency about the level of support needed, and the most appropriate method of completion. CE follow-up will be conducted by census field staff who will receive appropriate training for the role.
- 4.46 Prior to the census, field staff will liaise with local authorities and other head offices/agencies to inform them of the census and initiate contact with the management of each CE. This action will identify an appropriate local official for future contact and will confirm details of establishment type, size and any special support needed.

- 4.47 Specific, detailed enumeration procedures for CEs are being developed, including special arrangements for return of paper questionnaires by some CEs.

## Response management

- 4.48 A response management system will be used to instigate the delivery of invitations to participate and to track the return status of both online and paper questionnaires. This system will hold all household and communal establishment addresses, and the associated questionnaire identifiers.
- 4.49 The system will record when an online or paper response has been received from an address so that the address will not receive any follow-up to chase a response. The response management system will maintain a history of interactions with an address and will be used to target reminder communications and deploy field staff to areas of lower than expected response.
- 4.50 The response management system will interface with operational services to ensure requests for materials are satisfied and respondents are sufficiently supported to complete their census questionnaires.

## Reminder mailings

- 4.51 In addition to the visits by field staff, there will be follow-up activities for non-responding addresses. It is expected that there will be three phases of targeted reminder letters, the final one sometimes including paper questionnaires. The response management system will identify the non-responding addresses and, when appropriate to the phase and type of reminder needed, pass them to the print service provider to send the relevant mailings.
- 4.52 The use of reminder letters to non-responding households proved successful in the 2011 Census and the 2017 Test.

## Special or modified enumeration procedures

- 4.53 The strategies developed to enumerate households and communal establishments will not necessarily be appropriate for everyone, and it is recognised that additional procedures will have to be adopted for some special populations. These will include people with no settled place of residence, such as those travelling with fairs. Further analysis and changing social conditions may yet identify new populations for whom special enumeration strategies may be necessary.

- 4.54 There are other identifiable groups, dispersed throughout the population, who will require modified enumeration procedures. These include, but are not limited to:
- those unable to understand the census questionnaire, such as non-English speakers (and those in Wales who are non-English and also non-Welsh speakers) and people with reading difficulties
  - those likely to have difficulty completing or returning a standard online/paper questionnaire, including the visually impaired or physically disabled
  - those able, but unwilling, to complete the census either online or on paper

## Commitment to Welsh language in Wales

- 4.55 The UK Statistics Authority is responsible for carrying out the census in Wales. ONS is seeking to ensure that the questionnaires can be completed in Welsh as easily as in English. Welsh and English language versions of both the online and paper questionnaires and all other key communication to the public will be provided. There will be a dedicated Welsh telephone helpline and online help facilities in the Welsh language.
- 4.56 There is a commitment to recruit a proportion of Welsh speakers for the field force (particularly in areas of high Welsh usage), and bilingual census managers will be appointed to oversee the enumeration in Wales.
- 4.57 ONS will ensure that the requirements of the Welsh Language Act 1993<sup>38</sup>, Welsh Language (Wales) Measure 2011<sup>39</sup> and related Regulations<sup>40</sup> are satisfied by making appropriate arrangements for enumeration, publicity and public engagement activities in Wales.
- 4.58 Details on the legislative arrangements for conducting the census in Wales are set out in Chapter 7.

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<sup>38</sup> <https://www.legislation.gov.uk/ukpga/1993/38/contents>

<sup>39</sup> <https://www.legislation.gov.uk/mwa/2011/1/contents>

<sup>40</sup> <http://www.senedd.assembly.wales/mglIssueHistoryHome.aspx?lId=12320>

# Arrangements to support data collection

## Publicity

- 4.59 It would be impossible to carry out a census without the co-operation of the public. Every household and each resident in a communal establishment in England and Wales is obliged by law to make a census return. ONS will, in close co-operation with the census offices in Northern Ireland and Scotland, deliver a communications campaign to encourage householders to complete their questionnaire. This will ensure that they know when and how to do so, and will explain the purpose and value of the census, and give reassurance about confidentiality and data security. This will include messages about the legal requirement to complete the census.
- 4.60 The goals of the census publicity campaign itself are to make the public aware of the census and why it is important, to motivate them to take part, and to give them access to all the available support, so removing barriers to completion.
- 4.61 ONS is designing its activity based on comprehensive audience insight, which will help it determine the right messages, media and completion journey for different groups. This will help ONS to deliver an effective and efficient campaign.
- 4.62 Every household will receive an initial direct communication, stating they need to complete the census questionnaire and providing details of how to access it. In the majority of cases this will be by using their unique access code online. This will be supported with targeted publicity and further direct reminder communications, as required, as the census date approaches. The contact centre, providing a telephone helpline with foreign language interpreters, will be available to answer queries from the public while the census is taking place. In addition, census help content will be provided online during the rehearsal and census operational periods.
- 4.63 The basis of good relations with the public will be to make sure that the field staff are briefed and trained to be as helpful as possible in their interactions with the public. It will also be important that there is informative liaison with local community groups.
- 4.64 ONS will continue its programme of providing information about the census to the media and to users of the statistical results through:
- regular information and consultation papers
  - convening nationwide roadshows

- participating in conferences and seminars
  - its own regular online news alert service, use of social media and direct contacts
- 4.65 The Welsh Government will also continue to support the census publicity campaign through regular sharing of materials, joint attendance at events in Wales, and disseminating its own material through websites, blogs and social media channels.
- 4.66 The questionnaire for Wales will be offered for completion in Welsh or English (both for online and paper). Materials that support the completion of the questionnaire will be provided in Welsh and English.
- 4.67 As completion of the census is mandatory, translations of the census guidance into a wide range of foreign languages will also be available online to assist respondents whose first language is not English or Welsh, where this is essential to them completing the census.

## Public support

- 4.68 In order to maximise response, the census will offer a variety of services to provide all respondents with help and assistance.

### Assisted digital service

- 4.69 Face-to-face assistance will be offered to those who want to complete the census online. ONS anticipates this will be provided on internet-enabled devices at an accessible location, taking between five and twenty minutes per person. This assisted digital help will be sourced from various trusted suppliers who have the staff, premises and technology available to provide respondents with the help they need. All those involved in providing the assisted digital service will receive training, guidance and materials from ONS. In addition to sourcing suppliers, assisted digital will be provided through completion events (possibly including, for example, in public libraries).

### Other support

- 4.70 Assistance will be provided online for those who choose to use it, together with a contact centre that will provide guidance and help via telephone and digital services such as web chat and social media.
- 4.71 Accessibility will be further enhanced by the provision of the census questionnaire and question guidance in Braille and British Sign Language. Where it is essential to help people complete the mandatory census, ONS will provide supporting materials in appropriate foreign languages. In 2011, materials were provided in over 50 foreign languages. ONS is considering what materials will be essential this time.

## Local authority and community liaison

4.72 One of the biggest challenges to overcome in the 2021 Census will be reaching population groups that are traditionally undercounted. Research into the types of people missed in the 2011 Census, changing demographic profiles since 2011, and the impact of moving to an online-first census is helping inform the type of initiatives needed. The census programme for 2021 is building on the success and valuable experience gained from the 2011 Census to again put great emphasis on collaboration with both local authorities and community organisations.

### Local authority liaison

4.73 The best partners in working with ONS to maximise coverage are local authorities, whose need for reliable local information provides a strong incentive to assist in identifying and reaching local harder-to-reach populations. By positively engaging local authorities in the development of the census design, and actively encouraging them to promote the benefits of the census in their areas, ONS is seeking to improve coverage. Such initiatives aim to enable ONS to target resource and activities to improve response in areas known to have the characteristics associated with poor coverage.

4.74 ONS wishes to work closely with local authorities, building on their resources and knowledge of their local areas to improve the enumeration process, and local authorities in turn will benefit from better census results. Areas for partnership working include:

- development of an address register, to ensure the fullest coverage
- provision of enumeration intelligence, to identify and target local challenges
- identification of community liaison contacts
- help in the recruitment of field staff
- support for online and assisted digital
- support for local publicity and media relations
- provision of practical support to field operation (for example meeting rooms, parking permits)
- provision of local data to support quality assurance
- maximising use of census data and supporting use of census outputs within their communities



- 4.75 It is important for ONS to receive local authority buy-in to the enumeration strategy, especially at the chief executive level, to ensure ONS gets their support for the census, and that ONS understands any challenges in producing the results it needs. ONS will encourage local authorities to appoint formal census liaison managers to act as census champions within the authorities and to work with ONS field managers.
- 4.76 Liaison with local authorities is also being undertaken through various lead bodies such as the Local Government Association (LGA), as well as liaison with individual (and groups of) local authorities. Local authorities are represented on ONS's Census Advisory Groups, which meet in both England and Wales. A Local Authority Operational Management Group, including representatives from ONS and local authorities, advises and contributes to the development of the census operation. Although all types of areas are represented, the focus is on areas that are likely to be more challenging to enumerate (for example inner cities and large coastal towns).
- 4.77 ONS recognises that communities will have differing needs, and has been working closely with stakeholders and local authorities in England and Wales through formal events, meetings and the Census Advisory Groups.

### **Community liaison**

- 4.78 ONS will build on the success of the innovative community liaison conducted for the 2011 Census. The objective of this work is to improve coverage amongst communities where ONS may struggle to get a response. Broadly speaking, liaison will be conducted at two levels – national and local.
- 4.79 The census programme regularly engages with national groups. The Census Diversity Advisory Group provides valuable advice and guidance on liaising with local communities and organisations. ONS has established, and continues to establish, bilateral links with organisations and umbrella groups representing minority populations and special interest groups.
- 4.80 Leading up to the census, engagement will increase to include local groups. These will be both local branches of national groups as well as at grass-roots level. This liaison will be conducted by local field staff (area engagement manager and community liaison staff) employed from the summer of 2020. They will include staff specifically recruited to be representative of the communities that require the most assistance. The priorities for local community engagement will be to:
- encourage participation in the census by publicising the census and underline its use and value
  - help provide a potential source of field staff

- provide help and guidance to local communities and individual members of the public (for example through supporting questionnaire-completion events)
- provide field staff with intelligence, guidance and support at the local area level

## Handling the paper returns

- 4.81 Paper questionnaires will be receipted and returned direct to the questionnaire capture facility where the information provided by respondents will be digitised before being transferred to ONS for further processing.
- 4.82 When all the information has been received and accepted by ONS, paper questionnaires will be destroyed in line with government security guidelines, whilst both maintaining the particular requirement for security of census information and meeting recycling policies. All systems and storage media will be securely erased in accordance with government security standards. More information on ONS's approach to security is set out in Chapter 6.

## Enforcing the legal requirement to complete a census questionnaire

- 4.83 The fact that the census aims to cover the entire population, without exception, gives it particular value when compared with voluntary social sample surveys. To emphasise the importance of obtaining a response from all households, the UK Statistics Authority believes that it is necessary to continue to adopt a clear policy of prosecuting non-responders who refuse to make a census return either online or on paper.
- 4.84 In all cases, however the census return is completed, the statutory obligation to make a return will not be discharged until a completed questionnaire is received by the census office or local field staff. The people who are subject to the statutory requirement to make a return for each type of questionnaire will be set out in the secondary legislation. Persons refusing to comply with the statutory requirement will be offered encouragement and assistance to do so, but if they continue to refuse, may be liable to legal proceedings. This may include prosecution, possibly resulting in a fine (the maximum level of which is currently £1,000) and a criminal record.
- 4.85 The response management system will allow ONS to monitor questionnaire completion and will provide robust evidence of a failure to make a return. ONS will be able to monitor every online submission and will have evidence should there be any dispute over whether a particular questionnaire has

been completed online. Where paper questionnaires are used, householders may claim, either legitimately or otherwise, that a completed questionnaire has already been posted back. If there is no record of a return having been made, a replacement questionnaire will be issued, and a doorstep visit initiated to assist with the completion of the questionnaire.

- 4.86 ONS will continue to use specially trained field staff to conduct formal interviews under caution as required by the Police and Criminal Evidence Act 1984 (PACE)<sup>41</sup>. This approach was used successfully in the 2011 Census where there were cases with a clear indication of a householder's refusal to make a return. Some 12,000 visits by non-compliance field staff took place and, where contact was made, over two thirds of these resulted in a completed questionnaire. Where cases continued to prosecution, evidence was gathered that was sufficiently robust to satisfy the courts.
- 4.87 Another change introduced in the 2011 Census was the use of the Crown Prosecution Service (CPS) to decide on, and undertake, prosecutions. The census non-compliance team worked closely with the Ministry of Justice in London, and regional offices, regarding the court process and the location of dedicated courts across England and Wales in which prosecutions would be heard. ONS plans to build on these successful arrangements in 2021.

## Coverage and data quality

- 4.88 People will be more persuaded to take part in the census if they are convinced it will produce what is needed. Quality is at the heart of planning the census, and many of the planned innovations that were trialled in the census test in 2017 are about improving the quality of census collection processes and thus the data. A census, by its nature, is designed to cover the whole population, but there are inevitably difficulties with achieving this. A good census design will recognise this. For example, the address register – no matter how up to date – may fail to record all residential accommodation in an area at the time of the census, field staff may fail to identify all households within a multi-occupied dwelling, not all members of a recorded household may be included, and there may also be system or processing errors.
- 4.89 The improvements that are being introduced for the census in 2021 have been designed to minimise the impact of any possible errors. For example:
- the creation of an up-to-date single address register covering households and communal establishments, together with a response management system functioning in real time, to ensure that unique access codes (UACs)

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<sup>41</sup> <https://www.legislation.gov.uk/ukpga/1984/60/contents>

or questionnaires are delivered to, and returns made or collected from, all residential addresses and that monitoring of return rates can be done in real time

- the collection of up-to-date, electronic fieldwork information to assist in managing the operation from headquarters, and to support area managers and co-ordinators in the management of work for their teams
- the use of address co-ordinates to help field staff locate addresses for follow-up visits
- the use of an electronic questionnaire to make it easier for respondents to complete the questionnaire, and the increased volume of responses received from this channel to make it easier for ONS to process the data
- the use of an electronic questionnaire should lead to far lower levels of non-response to particular questions than on paper returns (as demonstrated in 2011 Census and 2017 Test)
- focusing on the most cost-effective method of chasing non-response to improve the overall coverage – through targeted marketing, community liaison, reminders and the improved allocation of field staff in areas or in groups of lower response

4.90 In 2011, the estimated under-coverage in census responses (6% in England and Wales, which was similar to that in 2001) was small compared with other national government surveys. However, there is a pattern of increasing non-response in surveys in general and it will be challenging to achieve a similar result in 2021.

4.91 The overall response rate is not the only matter of concern. A key part of the quality of the data is that they should cover all population groups and geography adequately. One of the quality improvements in 2011 was the reduction in response rate variation across different parts of the country compared with the 2001 Census, through use of the harder-to-reach approach to prioritise areas for follow-up. This will be further developed in 2021 through the use of more up-to-date information to manage the operation and focus support on population groups and geographical areas needing more assistance.

## Census Coverage Survey

4.92 The Census Coverage Survey (CCS) will be the main source of information on the extent and distribution of the census undercount. The CCS sample will be approximately 1.5% of the postcodes in England and Wales. The sample may have unequal sampling fractions, with higher sampling fractions in the areas with lower census response.

- 4.93 It will be a separate sample survey planned to be carried out over a four-week period starting six weeks after the census itself. It will take the form of a short interview, which in 2021 ONS plans to collect digitally. The field force of approximately 4,600 doorstep CCS interviewers will conduct an independent enumeration of households and individuals within households in the CCS sampled areas to collect basic demographic characteristics (such as age, sex, marital status, ethnic group and economic activity).
- 4.94 The information obtained from the survey will be matched (or linked) to the census data themselves, and potentially to administrative data. This will help produce a consistent set of census-based estimates, which will form the new base for the ongoing series of population and migration statistics for local and health authorities after 2021 (see Chapter 5 for details on processing of census data).
- 4.95 ONS will consult and inform users on the methodological approaches to be adopted for CCS, and will assess and report on the quality of the data produced.
- 4.96 The field force will have a similar structure to that employed for the census, with staff being employed for up to three months from March 2021. The calculation of final field staff numbers will be based on a number of factors including:
- assumptions regarding the response rates
  - number of visits to be made, success at contact and time per visit
  - identification of harder-to-reach populations
  - impact of online/reminder letters
  - length of operational period
  - geographical location (for example whether the area is urban or rural)

## Census Quality Survey

- 4.97 The Census Quality Survey (CQS) will be a small, separate voluntary survey that will be carried out after the census to estimate the level of respondent error as an indicator of its quality. It aims to measure the accuracy of answers given to census questions by asking a sample of households the census questions. By comparing the responses given in the CQS to those given in the census, agreement rates will be calculated, which will provide an indication of how accurately the census questionnaire has been completed by the general public.

- 4.98 The CQS will be carried out independently of the Census Coverage Survey (CCS). It differs from the CCS in that it does not aim to measure how many people were not counted by the census but rather the quality of their responses.
- 4.99 Along with other quality information published about the 2021 Census, the CQS results are intended to help users understand the strengths and limitations of census data and how to use those data appropriately.

## Quality measures published with results

- 4.100 ONS plans to produce and publish quality measures alongside the census results to provide users with guidance about the reliability of the results. These will include response rates, item imputation rates and confidence intervals.

## Working with external partners in the delivery of the census operation

- 4.101 ONS will be working with external suppliers to deliver some of the activities that are required to deliver the census. This approach is not a new strategy, as ONS has engaged the services of non-permanent staff to undertake parts of the census operation for previous censuses.
- 4.102 The major difference between the approach used in the 2011 Census and that proposed for the census in 2021 is that more of the digital collecting and processing activities will be delivered using ONS's in-house capability. This approach is consistent with the objectives of the Census and Data Collection Transformation Programme, in particular those relating to the development and enhancement of ONS's future capability (see Chapter 9). It is also in line with the government's policy for departments to ensure that contracts associated with complex information and communications technology (ICT) projects do not exceed £100 million in value.
- 4.103 In line with government principles, a further difference between the approach adopted for the 2011 Census and plans for the 2021 Census is the use of a disaggregated supply chain to deliver the outsourced elements. In 2011, two main suppliers<sup>42</sup> were appointed to provide most of the outsourced services. For the census in 2021, ONS will award multiple contracts, each of a smaller individual value. This will present more opportunities for small and medium-sized enterprises (SMEs) to get involved in delivering the census.

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<sup>42</sup> One addressing 'Recruitment Pay and Training of ONS Field Force', the other 'Data Collection Management'

4.104 All suppliers will be appointed by ONS in good time to enable them to deliver the 2019 Rehearsal (and subsequent 2021 Census), enabling learning from the 2019 Rehearsal to be used by suppliers to better prepare for the delivery of the live operation in 2021.

4.105 The main components that will be delivered with external partners are:

- recruitment, pay and training of ONS field force staff
- management of the paper questionnaires (print/post out/capture/coding)
- print and post out (of contact/reminder letters and supplementary materials)
- post-back of completed paper questionnaires
- provision of a public-facing contact centre
- field force supplies, logistics and replenishment
- field operational devices
- assisted digital
- marketing and communications
- media buying
- translation services for Welsh and other languages





# 5



# 5 Processing, analysis and output production

## Introduction

- 5.1 The census provides invaluable and accurate information on the population in all communities including an understanding of households in which they live, and their characteristics. ONS is committed to ensuring the quality of results, and that the results can be accessed easily, are made available in a range of media, and are published as quickly as possible. ONS is planning to produce and publish results from the census in 2021 more quickly than previously by making full and effective use of technological advances. These include improvements associated with the online completion of census questionnaires. These developments will be supported by new release arrangements which will include a web-based dissemination system for users.
- 5.2 The benefits of the census arise when the government, commercial sector, charities, communities and others use census information to make better decisions than they could without it. The benefits are set out in Chapter 9.
- 5.3 The results are important to a wide variety of decision-makers, for example in central and local government, to help them build better services, transport links, schools, hospitals, adult social care and housing. At the same time, the results will enable decision-makers to address unfairness and inequality in society, with particular regard to the protected characteristics set out in the Equality Act 2010.
- 5.4 Some examples of the uses to which the results from the 2011 Census have been put are given below.

**The Children's Society's 'Hidden from View'** report to reveal the impact on young carers. The report uses 2011 Census data in relation to children with caring responsibilities and the impact it has on their lives from health to educational achievements.

**London Fire Service** use the results to help them find and help the areas of the community that are most at risk of fire. Because they know, for example, that areas with a higher population of elderly residents have a higher risk of injury or death if a fire occurs, they can use census data to identify these areas. They combine the statistical census evidence with the in-depth community knowledge of their dedicated firefighters to successfully reduce the number of fires in London each year. Without census data, they wouldn't be able to model their programme in such an effective way.

**The Metropolitan Police** use the data to decide where to focus crime prevention efforts by mapping potential crime hotspots. For example, age and housing statistics showed where pockets of people aged over 65 years live. There were many cases where burglars were tricking elderly residents into letting them in by claiming they were from water or electric companies. Targeted crime prevention efforts reduced these incidents.

Many of the 22 **Public Service Boards in Wales** made significant use of census data for their areas in developing the local well-being assessments required by the Well-being of Future Generations Act 2015.

**Community groups, special interest groups and charities** use the data to give weight to their funding applications. The statistics produced by the census provide credible, factual, recognised data to use for grant applications and other purposes. Where external funding is required, they can also provide the confidence to enable other partners and agencies to support applications for finance.

5.5 The 2011 Census results were also used by the commercial sector. Examples are given below:

- the retail industry uses small-area census data extensively to maximise returns on investment
- the main water and sewerage companies in England and Wales use census data in planning new investment and monitoring leakage
- the life insurance, banking, and management and consultancy sectors use census data extensively in planning their activities

5.6 The assessment of the 2011 Census benefits concluded that the quantifiable benefits of the 2011 Census were an estimated £500 million per year. But there are some benefits which are difficult to quantify. These include, for example, the benefit to society from census information on ethnicity or religion, which helps the government put in place policies to support social cohesion. They also include central government's use of population figures as the denominator for numerous statistics expressed as rates, for example, the unemployment rate, mortality rate or teenage pregnancy rate. The benefits of the 2021 Census are expected to be around five times the cost of the Census and Transformation Programme Business Case (more detail is provided in Chapter 9).

5.7 None of these benefits would be realised, however, if decision-makers were not assured of the quality and accuracy of these data when making decisions. Careful statistical design, quality assurance and validation therefore underpin every stage of data collection, processing and analysis.

## Processing and analysis

- 5.8 Following the collection of information via online returns and paper questionnaires, the information provided by respondents will be processed and quality assured. This will enable ONS to gather a set of records that can be used to produce census outputs.

### Quality assurance

- 5.9 As part of the processing operation, the checks that will be carried out will ensure that:

- changes made within each of the processes are robust and do not introduce systematic error
- the national and sub-national (in particular, local authority) estimates are plausible when compared with data from administrative sources and demographic comparators and with demographic analysis. Such comparisons may call for additional reviews to be carried out

ONS will publish information on the quality of census results to accompany and support the release of the main statistical outputs.

- 5.10 ONS recognises the importance of building on the experience and lessons learned from the 2011 Census to ensure that the quality of the census is maintained and improved, even as introducing new content poses new challenges. As a result, the measures ONS will put in place will include:
- setting design goals and standards across key processes to embed quality in the design
  - frequent and open engagement with users to help improve methods and processes, building user trust in results
  - building on the statistical methods used in the 2011 Census and exploring new methods that could improve the statistical accuracy of the census data
  - maintenance of a high level of transparency and openness in quality assurance methods and processes, by involving experts from ONS and outside of the census programme to provide assurance that methods and processes will produce robust results
  - building on the use of the quality assurance panels introduced as part of the 2001 Census to challenge, scrutinise and endorse census estimates
  - identifying new methods that might improve the quality assurance of census results such as data science techniques and data visualisation tools

- considering potential ways of using previous census information to look at changes over time that highlight significant and implausible outliers, particularly for small areas
- the appropriate use of administrative data to improve the quality of the data and to increase the value of ONS's outputs

## Processing stages

- 5.11 Processing and analysis consist of a number of stages, summarised below.
- 5.12 **Data load** – Online responses will be merged with data scanned and captured from the paper questionnaires and other information needed for processing. During the field operation these data will be used to track household completion.
- 5.13 **Edit and validation** – These processes are designed to deal with inadvertent systematic errors or inconsistencies in the answers provided by respondents, for example resolving multiple responses from the same household. This process flags any missing, invalid or inconsistent responses (for example when a respondent does not answer a question on their form, or reports that they are four years old and married).
- 5.14 **Item imputation** – This stage resolves the items flagged in the previous stage, through the imputation process, which makes appropriate adjustments to the census data leading to complete and consistent census records. It has been accepted since the 1981 Census that it is better for this to be done by ONS rather than leaving “not answered” or “not stated” categories in the outputs. Leaving these categories in the outputs leads to a variety of assumptions being made by end users as to how to analyse the results.

ONS's imputation methods will be consistent with internationally recognised statistical standards for large-scale imputation applications such as a census.

As part of ONS's research on making better use of administrative data, it is exploring the potential of using such information to support imputation processes.

- 5.15 **Coverage assessment and adjustment** – The success of the census relies heavily on its accuracy and how well it reflects the population and their characteristics. The census will never count every single household and individual. A necessary process of coverage assessment and adjustment will be undertaken to provide accurate national and sub-national estimates of the population.

- 5.16 A focused post-enumeration survey, the Census Coverage Survey (described in Chapter 4), will be employed to measure over- or under-enumeration by carrying out a separate enumeration of a sample of the population. This process will help ONS to adjust for the number of people and households not counted in the census, building on the work carried out for both the 2001 and 2011 Censuses. The CCS data will be matched, at the individual level, to the corresponding census data, enabling ONS to produce an estimate of the numbers of people missed by the census and their characteristics, and to make appropriate adjustments. In addition, matching the census with itself will enable estimation of any overcount or duplication.
- 5.17 ONS is researching how administrative data can be used to improve the process of adjustment, helping to identify valid non-responding addresses to impute fully-imputed households into an adjustment.
- 5.18 **Statistical disclosure control** – Other disclosure control methods will be applied during processing and immediately prior to dissemination. These will ensure that no individual or characteristics of groups of individuals are inadvertently identified during publication of the results. See Chapter 6 for further details.
- 5.19 **Archiving** – As described in Chapter 4, paper questionnaires will be destroyed in line with government security guidelines. All systems and storage media will be securely erased in accordance with government security standards. ONS plans to keep a data set of copies of responses, from both the scanning process and from the online service, for the National Archives. These data will be held securely and controlled under the policy of keeping England and Wales census returns closed for 100 years. (See Chapter 6 for further details on ONS’s approach to security).

## Analysing and disseminating the results

### Disseminating the results

- 5.20 The main benefits of the census will be realised by users having access to high-quality statistics, released free at the point of use, to inform services such as decision-making, resource allocation, service planning and delivery. To maximise these benefits, ONS will work with users to develop appropriate products and to deliver them effectively. Statistics will meet the highest standards set out in the UK Statistics Authority Code of Practice for Statistics<sup>43</sup> and ONS’s emphasis will always be on safeguarding confidentiality.

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<sup>43</sup> <https://www.statisticsauthority.gov.uk/code-of-practice/>

- 5.21 The main national and local results will be released, to a pre-announced timetable, as speedily as possible. These results will be complemented by a range of other outputs which will be made available online, over time, as they are completed. ONS aims to release all the initial findings within 12 months, and all data within 24 months. An analytical work programme including topic-based reports and visualisations will support the release of the data.
- 5.22 In addition to national, regional and local authority summaries, reports on main findings and particular topics will be produced and published.
- 5.23 A major innovation will be the publication of a web-based interactive dissemination system where users can specify the data they require. This will enable users to produce cross-tabulations (tables with multiple variables) where disclosure control (which safeguards confidentiality) is applied dynamically as part of the request. This will make the results of the census more accessible to users and able to be delivered faster and more flexibly. It will also free resources within ONS to allow it to undertake a wider range of analytical work.
- 5.24 Where such outputs do not provide sufficient detail necessary for particular statistical research purposes, access to more detailed levels of data will be possible within strictly controlled laboratory conditions. All those granted such access must comply with requirements set out in the Statistics and Registration Service Act 2007<sup>44</sup> and Chapter 5 of part 5 of the Digital Economy Act 2017, and be accredited in accordance with the terms and conditions specified in the Research Code of Practice and accreditation criteria<sup>45</sup>, and the ONS Approved Researcher Scheme<sup>46</sup>.
- 5.25 Microdata, such as samples of anonymised records (SARs) of people and households, will be available to approved researchers so that they will be able to carry out analyses which would otherwise not be possible using aggregate data. Access will be subject to the overriding need to ensure protection of confidentiality. The availability of samples was a major, and successful, innovation of the 1991 Census and was extended in both 2001 and 2011.
- 5.26 ONS proposes to extend the ONS Longitudinal Study (LS)<sup>47</sup> by adding data from the 2021 Census for England and Wales to those records already included from the 1971 to 2011 Censuses. The LS is covered by the same

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<sup>44</sup> <https://www.legislation.gov.uk/ukpga/2007/18/contents>

<sup>45</sup> <https://www.gov.uk/government/publications/digital-economy-act-2017-part-5-codes-of-practice/research-code-of-practice-and-accreditation-criteria>

<sup>46</sup> <https://www.ons.gov.uk/aboutus/whatwedo/statistics/requestingstatistics/approvedresearcherscheme>

<sup>47</sup> <https://www.ons.gov.uk/aboutus/whatwedo/paidservices/longitudinalstudies>

rigorous confidentiality conditions as the census itself. The data are held securely within ONS and access is strictly controlled in accordance with relevant provisions in the Statistics and Registration Service Act 2007.

- 5.27 Metadata, in the form of definitions, classifications and quality indicators will be produced for use with statistical outputs. These will include, in particular, confidence intervals and other quality measures and information from post-census coverage and quality surveys such as local coverage rates, item non-response, and imputation rates.
- 5.28 Results for Great Britain and the UK will be made available where the data collected is consistent across the census offices of the UK. In recognition of the importance of providing consistent outputs across the UK, the National Statistician and the Registrars General for Scotland and Northern Ireland have signed an agreement on the conduct of the census in 2021. This includes, in particular, the production of harmonised statistics with specific attention being given to common questions, population bases, definitions, disclosure control methodologies and output formats<sup>48</sup>.
- 5.29 As for the 2011 Census, first results from the 2021 Census for England and Wales will be laid before Parliament, presented to the National Assembly for Wales and published.

## Data analysis

- 5.30 ONS is engaging with users to understand their requirements and discuss plans for making results available. Users will be able to use the new web-based interactive dissemination system to specify data they require and create their own tables. This will enable ONS to provide an increased analytical offering to support communities in understanding their needs. Alongside this, ONS will produce national, regional and local authority summaries, along with reports and analysis on key findings and particular topics.
- 5.31 ONS will work with the wider Government Statistical Service (GSS) to develop an ongoing analytical programme, constantly building on its ability to integrate census data with other data sources. This will enhance ONS's ability to better produce up-to-date multivariate, small-area outputs and other evidence which decision-makers require to understand the fast-changing UK society, and to identify areas of unfairness and inequality.

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<sup>48</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/legislationandpolicy>



## Use of administrative data to improve and supplement outputs

- 5.32 To complement the release of census data, ONS intends to create outputs where census data will be enhanced by integration with other data sources. ONS is working with tax and benefits data from the Department for Work and Pensions (DWP) and Her Majesty's Revenue and Customs (HMRC) to develop census-type income data that can be integrated with the data collected on the 2021 Census. ONS has already produced some research outputs to demonstrate the potential of this approach<sup>49</sup>.
- 5.33 ONS is also developing approaches to integrate 2021 Census data with health and social care data, government surveys and administrative sources such as benefits data, to produce new research which will describe the health of the population in innovative ways and with greater depth and precision. ONS will use linked data, including longitudinal analysis, to answer important questions about health determinants and experiences of health and wellbeing over the life-course. Some particular areas of focus will include mental health, disability, social mobility, and transitions between health states and across health and social care systems.
- 5.34 As noted above, ONS will also continue to work with the Valuation Office Agency to explore the feasibility of supplementing the census questions with administrative data on total number of rooms, living space and property type.

## Planning output geography

- 5.35 ONS will aim to meet users' requirements for statistical results to be made available, at varying levels of detail, for a number of geographies, subject to the overriding requirement to protect statistical confidentiality. Such geographies will be created from building blocks as in previous censuses – Output Areas and Workplace Zones.
- 5.36 Output Areas (OAs) are the smallest area for which residential census statistics are produced and were first created for the 2001 Census. Super Output Areas (SOAs) are larger areas constructed from groupings of OAs and have been extensively used for the publication of a range of statistics from the 2001 and 2011 Censuses. The SOAs consist of a lower layer (LSOA) and a middle layer (MSOA) to support analysis of data for smaller areas that would be disclosive at the OA level. Workplace Zones (WZs) are the smallest areas for which labour market census statistics are produced and were first created for the 2011 Census. Engagement with users on the value of the

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<sup>49</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/administrativedatacensusproject/administrativedatacensusresearchoutputs>

OA and WZ geographies continues to demonstrate a great deal of support for the principles of stability, comparability over time and continuity with outputs from previous censuses.

- 5.37 As continuity and stability remains a priority for the release of census geographic outputs, the OA hierarchy (OAs, LSOAs, MSOAs and WZs) for which census outputs will be presented will remain largely unchanged to enable comparability with both 2001 and 2011 Census results. Where there are areas with significant local population change or housing development, it may be necessary to create revised boundaries – primarily by splitting or merging existing OAs – to ensure that key design criteria are followed. However, ONS does not anticipate changing more than 5% of current OA boundaries in order to meet these requirements. Where there are major changes to local populations there may be a similar need to split or merge a small number of SOAs. With the exception of changes caused by restructuring of local authority boundaries, all revisions will be organised so that users will be able to compare data between 2001, 2011 and 2021 Census geographies. Revised OAs and WZs will nest into a stable hierarchy of lower layer and middle layer SOAs.
- 5.38 In line with other parts of the census process, ONS will consider the use of administrative data sources for the maintenance of statistical geography. If administrative data can be used to support statistical geographies, they will support the improved efficiency of census outputs.
- 5.39 Administrative geographies – regions, counties, local authorities, wards and civil parishes/communities in Wales – and areas built from them, such as parliamentary constituencies, will relate to boundaries in existence at the time of the census. In line with the 2011 Census, all outputs for administrative geographies will be released on a best-fit basis to allow for data to be allocated to boundaries that change during the period between censuses. The only exception to this will be national parks which will be produced on an exact-fit basis as their irregular shape and uneven distribution of population makes aggregation of data from OA more difficult.
- 5.40 In some cases, the use of best-fitting from OAs has impacted the ability to produce meaningful census statistics for small geographies (such as parishes) or rural areas. Alternative methodologies such as grids will be investigated for producing statistics for these areas. In investigating these ONS will continue to take into consideration the requirements to protect confidentiality, particularly through disclosure by differencing.
- 5.41 Where possible, census geography will be harmonised between Scotland, Northern Ireland and England and Wales to allow outputs to be released and analysed at a UK level. In all cases account will be taken of the need for consistency with previous census releases.

# 6



# 6 Confidentiality, privacy and digital security

## Confidentiality principles

- 6.1 There is an obligation on the government to ensure that personal information provided by the public for statistical purposes is treated in the strictest confidence. The statutory requirement to provide personal census information is prescribed by the Census Act 1920 and in the Order and Regulations made under the Act. In return, the Act – alongside the confidentiality provisions of the Statistics and Registration Service Act 2007 – also imposes strict requirements on the UK Statistics Authority and, consequently, on ONS to protect the confidentiality of the information collected.
- 6.2 The UK Statistics Authority recognises that the public need to be confident that their personal information will be held securely and used only for statistical purposes. As in previous censuses, all the information provided will be treated in strictest confidence by the UK Statistics Authority, and these protections will be made clear to respondents. There is a well-established reputation of maintaining census confidentiality which the UK Statistics Authority intends to uphold.
- 6.3 The information collected in the 2021 Census will only be used for the production of statistics and statistical research. In all cases access to, or use of, census data must comply with requirements set out in the Statistics and Registration Service Act 2007 and data protection legislation (such as the General Data Protection Regulation<sup>50</sup> and the Data Protection Act 2018<sup>51</sup>), as well as the standards set out in the Code of Practice for Statistics<sup>52</sup>.
- 6.4 Each of the questions proposed for inclusion in the 2021 Census is fully compliant with the Human Rights Act 1998 and the rights it provides, including those in Article 8 relating to respect for private and family life. The Authority will complete a full data protection and human rights impact assessment of the census proposals as the detail is developed, building on the privacy impact assessment published at the initial research stage<sup>53</sup>.

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<sup>50</sup> <https://eur-lex.europa.eu/eli/reg/2016/679/oj>

<sup>51</sup> <http://www.legislation.gov.uk/ukpga/2018/12/contents/enacted>

<sup>52</sup> <https://www.statisticsauthority.gov.uk/code-of-practice/>

<sup>53</sup> 'The Census and Future Provision of Population Statistics in England and Wales: Privacy Impact Assessment for the Initial Research Stage', March 2015. "Privacy impact assessments" have been renamed "data protection impact assessments" with the introduction of the General Data Protection Regulation.

6.5 The UK Statistics Authority will ensure that government-wide standards relating to information risk management and data security are met. Census data will be treated in accordance with the following principles:

- Only persons under the management and/or control of the UK Statistics Authority including those agents acting, or providing services, on its behalf for the purpose of the census, and researchers approved under the provisions of the Statistics and Registration Service Act 2007 or the Digital Economy Act 2017, will have access to personal census information
- In most cases one questionnaire will cover all members of the household but people will, if they wish, be able to give personal information on a separate form in a way that will not reveal it to others in their household or establishment
- All those working on the census as employees of ONS or as contractors or sub-contractors providing services to support the 2021 Census will be:
  - security checked and required to sign an undertaking to demonstrate that they understand their legal obligations with regards to the confidentiality of data
  - given strict instructions and will be liable to prosecution for any breaches of the law, which may result in a fine and/or imprisonment
- Security will be an integral part of the systems and processes used to collect and process data from the 2021 Census
  - All services and systems will comply with the Government Security Policy Framework<sup>54</sup> including relevant technical and data transfer standards
- Any online system for data collection will be tested and risk managed in accordance with government standards
- Separate arrangements will be made for the secure distribution and return of paper questionnaires
- Security plans will be robustly assessed
  - ONS is working with the National Cyber Security Centre to develop proposals for an independent review that will ensure that processes and systems for collecting or handling census data are secure, and appropriate measures are in place to prevent unauthorised access
- Census security will adhere to and where possible exceed the minimum set of cyber security standards expected by government<sup>55</sup>

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<sup>54</sup> <https://www.gov.uk/government/publications/security-policy-framework>

<sup>55</sup> <https://www.gov.uk/government/publications/the-minimum-cyber-security-standard>

- The physical security of personal census information held by ONS, by field staff or by authorised agents will be strictly enforced. All sites processing census data will have appropriate security arrangements in place including perimeter and access controls
- The preparation and dissemination of census statistical outputs will be subject to modification of the data in order to protect and preserve confidentiality

## Statistical confidentiality

- 6.6 The ability of the census to generate statistics about small areas and groups of people, so that public policies and plans can take account of the needs of local communities, is a key strength of the census. However, it also poses a risk of inadvertent disclosure of identity if results are published which show small values in particular population counts in small areas. As a result, particular care must be taken to meet both the need to safeguard statistical confidentiality and minimise the damage to the utility of the data.
- 6.7 This is not a new risk, and strong precautions will be taken so that any data made available to the public in any form comply with the confidentiality provisions in the Statistics and Registration Service Act 2007 and the Code of Practice for Statistics. Measures will be taken to prevent the release of statistical information that identifies characteristics about an individual person, household or group of people. Approaches to security are developed in close co-operation with the Registrars General in Scotland and Northern Ireland, who are responsible for the census in those jurisdictions (see Chapter 7).
- 6.8 In a census context, where thousands of cross-tabulations can be generated from the underlying data, the protection of statistical confidentiality will be best addressed by introducing uncertainty about the true value of small cells. Possible options include combining a pre-tabular method such as record swapping with a post-tabular method for example cell perturbation (adding random noise to cell counts). Any procedures adopted will aim to enable users to produce outputs in a more flexible and timely manner than for previous censuses. The three UK census offices have agreed that small counts may be included in publicly disseminated census data if:
- uncertainty has been created systematically about whether or not the small cell is a true value
  - creating uncertainty does not significantly damage the quality of information

- 6.9 The final method and parameters will be agreed by the National Statistician and the Registrars General in consultation with users and other experts including the Information Commissioner. Depending on the need, procedures will include:
- modifying some of the data before the statistics are released, using methods such as record swapping, some form of cell perturbation or suppression
  - limiting outputs by simplifying or grouping data; for example, providing information for aggregated age groups
  - amalgamating information to ensure that data are only available in a non-disclosive way, for example by grouping categories of data or only providing information for larger geographical areas
- 6.10 A joint agreement has been published by the National Statistician and the Registrars General for Scotland and Northern Ireland covering the statistical procedures to be applied to census data including methods for disclosure control<sup>56</sup>. The procedures to be used will be tested, evaluated and agreed in advance of the census, and co-ordinated across the UK.
- 6.11 Census data will be used in combination with data from other sources to improve the quality of those data sources and generate new statistics and analysis and hence societal insight. In all cases care will be taken to ensure that processing of the data is in accordance with the legal and ethical principles. For example, the processing of data in order to extend the ONS Longitudinal Study to include the 2021 Census data will comply with the principles of fair processing set out in data protection legislation. ONS's processing of census data in association with future administrative data and ONS's surveys will also comply with those principles.

## Controls on further use of census data

- 6.12 The Statistics and Registration Service Act 2007 contains very strong protections for personal information and only allows its disclosure in very limited circumstances. Unlawful disclosure of personal information held by the Authority, including census records, is a criminal offence with a maximum penalty of two years' imprisonment.

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<sup>56</sup> 'The Conduct of the 2021 Censuses in the UK. A statement of agreement between the National Statistician and the Registrars General for Scotland and Northern Ireland', October 2015: <https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/legislationandpolicy/theconductofthe2021censusesintheuk.pdf>



- 6.13 The functions of the UK Statistics Authority as set out in the Act are exclusively related to the production and publication of official statistics. Any use of data by the Authority is therefore strictly limited to statistical and research purposes only. The Authority will never use the data provided for the purpose of targeting individuals. The same limitations extend to any person providing services to the Authority in support of its functions.
- 6.14 The Authority will permit controlled access to census data, while keeping them secure at all times. This will allow approved researchers to realise the potential public benefits of these data, while being able to assure respondents that their details will never become public. Access is permitted to approved researchers using a framework that is commonly called the “Five Safes”: safe people, safe projects, safe settings, safe outputs, safe data. The Approved Researcher Scheme requires researchers to be accredited by the UK Statistics Authority, and their specific research proposals to be scrutinised to ensure there is a clear public benefit. The criteria for accreditation require that all researchers be fit and proper. The detailed criteria for accreditation are published on the ONS website.
- 6.15 The UK Statistics Authority requires each accredited person to sign a declaration to show that they understand the confidentiality obligations placed upon them and publishes a record of all such researchers and the data accessed. Access to census information will only be allowed within a secure environment.
- 6.16 The Statistics and Registration Service Act 2007 as amended by the Digital Economy Act 2017 further enables the Authority to disclose personal information to a devolved authority if the Authority board is satisfied that the information is required with regard to the statistical functions of the devolved authority and that it will not be used for any other purpose. Any such release can only be for statistical purposes and must comply with data protection legislation.

## **Preventing use of data for non-statistical purposes**

- 6.17 Respect for confidential personal information is embedded in the Code of Practice for Statistics and is a fundamental tenet of the UK Statistics Authority and ONS. It is the stated policy of the UK Statistics Authority that it will never volunteer personal information for any non-statistical purpose.
- 6.18 If any person or public authority seek access to respondent data, on the basis of any legal power, the UK Statistics Authority will always refuse to allow it. The Authority will contest the case to the maximum extent possible under the law, using each stage of appeal in the courts if necessary, in order to ensure statistical confidentiality.



- 6.19 This is the well-established position of the Authority, and in accordance with this policy the Authority has never disclosed any detail of any census form for a non-statistical purpose.

## **Field staff**

- 6.20 All staff, whether employed directly by, or providing services to, the UK Statistics Authority for the purposes of the census are bound by the confidentiality provisions of the Statistics and Registration Service Act 2007. Special attention will be given to ensuring that all temporary staff recruited to support the 2019 Rehearsal and the live operation in 2021 are security checked. These staff will be employees of ONS for the duration of their tenure.
- 6.21 Temporary and permanent census staff must be able to deal effectively with the public and understand the importance of safeguarding the confidentiality of any information that may be given to them. Appropriate training will be provided to ensure that everyone working on the census in 2021 understands their statutory responsibilities and the penalties associated with any disclosure of personal information. In accordance with the confidentiality principles, they will be required to sign an undertaking to show that they understand, and will uphold, these requirements and will not disclose or make known any information acquired as part of their work.

## **Security in outsourced services**

- 6.22 Arrangements for the outsourcing of services (for example recruitment and training of staff, printing and postal services), include the specification of requirements, evaluation and award of contracts. All these arrangements are being conducted in accordance with government procurement standards, promulgated by Crown Commercial Services or in specific government frameworks. Confidentiality requirements are specified in the terms and conditions set out in individual contracts.

## **Digital security and reviews of confidentiality**

- 6.23 ONS has policies in place to protect data confidentiality and security up to and including the "OFFICIAL-SENSITIVE" category. All systems and services developed and used to support the census will comply with government security standards.

- 6.24 Detailed measures designed specifically for the census operation, including the 2019 Rehearsal and the census itself, will be implemented to ensure that the collection, processing and transmission of data, whether online or on paper, is safe and secure. In all cases, full account will be taken of statutory requirements, including those in data protection legislation.
- 6.25 In accordance with previous census practice, the security and confidentiality arrangements put in place will be subject to independent review. ONS will publish the outcome of such reviews before the census and publish any associated reports on the ONS website.

## **UK government policy on public access to personal census records**

- 6.26 Careful consideration has been given to requests from genealogists for earlier access to personal census records to facilitate family history and related research. While recognising the value of historical census records, the government considers that the strict confidentiality assurances given to respondents in previous censuses must be upheld. Accordingly, the government intends to maintain its policy of keeping England and Wales census returns closed for 100 years.
- 6.27 As a result, government policy remains that records from the 2021 Census for England and Wales should not be open to the public or available online from the National Archives until January 2122.

7



# 7 The legislative process

## Introduction

- 7.1 The Census Act 1920 (as amended by the Census (Amendment) Act 2000 and the Statistics and Registration Service Act 2007) provides for the taking of a census in England and Wales. However, every census requires further legislation to cover the information to be collected and the methods to be used.

## Primary census legislation

- 7.2 The Census Act 1920 is the primary legislation that provides for the taking of a census in England and Wales.
- 7.3 The Schedule to the Census Act 1920 sets out the matters in respect of which particulars may be required, namely:
- (1) Names, sex, age
  - (2) Occupation, profession, trade or employment
  - (3) Nationality, birthplace, race, language
  - (4) Place of abode and character of dwelling
  - (5) Condition as to marriage or civil partnership, relation to head of family, issue born in marriage
  - (5a) Religion<sup>57</sup>
  - (6) Any other matters with respect to which it is desirable to obtain statistical information with a view to ascertaining the social or civil condition of the population

## Secondary census legislation

### Census Order for England and Wales

- 7.4 The government will prepare a draft Order in Council in respect of the census in England and Wales to be laid before Parliament in autumn 2019. In accordance with section 1 of the Census Act 1920, this will prescribe:
- the date on which the census is to be taken

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<sup>57</sup> In accordance with s.8(1A) of the Census Act 1920 there is no liability to a penalty for failing to provide information on religion, making any question, in effect, voluntary.

- the persons by whom, and with respect to whom, the census returns are to be made
- the particulars to be stated in the returns

7.5 The draft Order must be approved by both Houses of Parliament. While most provisions may be approved by the negative resolution procedure, any particulars to be included in the census under provisions in paragraph (6) of the Schedule (see above) must be approved by affirmative resolution.

## Separate regulations for the census in England and in Wales

7.6 Following the approval of the Census Order, the Minister for the Cabinet Office expects to lay Census Regulations for England before Parliament in early 2020. The Census Regulations set out the arrangements for the conduct of the census in England.

7.7 At the same time, and as a consequence of the transfer of some census functions to the Welsh Ministers, separate regulations for Wales will be made in the National Assembly for Wales (see below).

7.8 The Regulations will cover operational activities and field procedures including:

- the appointment of census staff
- the division of the country into areas for enumeration and the checking of addresses
- the arrangements for the completion and return of census questionnaires whether online, by post or by other means
- the duties of census staff and, specifically, the details of any particulars to be collected by them
- information relating to special arrangements for the enumeration of particular populations (for example, persons sleeping rough)
- follow-up and non-compliance procedures
- the management of field materials and documentation
- security and confidentiality procedures

The Regulations will be subject to the negative resolution procedure.

## Arrangements for the census in Wales

- 7.9 Following discussion between the UK government and the National Assembly for Wales, it was agreed that the Welsh Government should be more directly involved in agreeing the scope, content and conduct of censuses in Wales. As a result, arrangements were made for the devolution of legislative powers before the 2011 Census took place.
- 7.10 The National Assembly for Wales (Transfer of Functions) (No. 2) Order 2006 made provision for:
- the power to make Census Regulations for Wales to be transferred to the Assembly
  - the Assembly to be consulted about the content of the Census Order
- 7.11 ONS has worked with officials from the Welsh Government, members of the National Assembly for Wales and Welsh groups and users on planning for the 2021 Census. Regular meetings with the Census Advisory Group for Wales have been complemented by discussions with the Welsh Statistical Liaison Committee<sup>58</sup>.

## Devolution of the census in Scotland and Northern Ireland

- 7.12 Under the terms of the Census Act 1920, the Registrar General for Scotland has the authority for taking the census in Scotland. Since devolution the Scottish Parliament is responsible for both approving separate subordinate legislation and funding the census in Scotland.
- 7.13 The Registrar General for Northern Ireland is similarly responsible, under the provisions of the Census (Northern Ireland) Act 1969, for making arrangements for taking the census in Northern Ireland. The Northern Ireland Assembly is responsible for approving subordinate legislation and the funding for the census in Northern Ireland.

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<sup>58</sup> <https://gov.wales/statistics-and-research/about/user-engagement/statistical-groups-committees/welsh-statistical-liaison-committee/?lang=en>

7.14 UK harmonisation will be achieved through close liaison and co-operation between the three census offices. A statement of agreement has been drawn up between the National Statistician and the Registrars General for Scotland and Northern Ireland governing arrangements for the 2021 censuses in the UK<sup>59</sup>. This statement ensures that the independent censuses carried out in each constituent country of the UK provide consistent and coherent statistics that are capable of meeting users' requirements.

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<sup>59</sup> 'The Conduct of the 2021 Censuses in the UK: A statement of agreement between the National Statistician and the Registrars General for Scotland and Northern Ireland', October 2015:  
<https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/legislationandpolicy/theconductofthe2021censusesintheuk.pdf>





# 8



# 8 The future of the census in England and Wales

## Introduction

- 8.1 Decision-makers (central government, local government, businesses, charities, community groups, citizens) increasingly need better local data on the size and characteristics of their population to build better services including transport links, schools, hospitals and housing. They need to understand the changing dynamics of the population nationally and locally so they can make the best decisions possible from that evidence. At the same time, there is a need to be able to address unfairness and inequality in society, with particular regard to the protected characteristics set out in the Equality Act 2010.
- 8.2 In 2021, ONS will continue to meet this through the census and associated infrastructure. However, as the pace of change is increasing, decision-makers need this information much more frequently than every 10 years. In particular they need the data to be able to understand the changing nature of the population and migration to and from the UK more regularly and locally.
- 8.3 This is why ONS has an ambitious programme of work to put administrative data at the heart of the system. ONS intends that in 2020 the population and migration statistics system will be primarily based on data that already exist around government, utilising the new data sharing powers introduced by the Digital Economy Act 2017<sup>60</sup>. This is called an Administrative Data Census.
- 8.4 This programme does not stop at providing this population data. ONS has been researching how to use data such as these to get up-to-date pictures of, for example:
- commuting patterns to better inform transport policy
  - educational qualifications and employment data to inform skills policy
  - income estimates to inform equality and social mobility policy
- 8.5 ONS will consult with users on how these administrative data can come to the forefront of the statistical system and ensure that it is ready to make recommendations to government in 2023 on the future of the census.

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<sup>60</sup> <http://www.legislation.gov.uk/ukpga/2017/30/contents/enacted>

## A new system of population and migration statistics

- 8.6 At the ONS Population and Public Policy forum<sup>61</sup> in September 2017, ONS explained that the context for its work is changing. Users are telling ONS that they need more information on the impact migrants have while they are in the UK. This includes information on the sectors in which they work, the communities they live in and the impacts on public services such as the NHS and schools. Furthermore, there is a changing policy context, largely because of the UK exiting the EU. ONS therefore needs to be able to inform decision-makers over the near term, and also to develop the data sources to ensure future policy and implementation are informed by robust evidence.
- 8.7 ONS therefore has plans, in collaboration with the Government Statistical Service (GSS), to transform the information that it produces on migration over the next two years. ONS plans to do this in a way that will meet the changing user need, and begin to put administrative data at the core of evidence on migration in 2019. The importance of improving the statistics and the value of the GSS programme of work has been recognised by the Home Affairs Select Committee's report and the government's response<sup>62</sup>.
- 8.8 This is a key element of the transformation to a new administrative data-led system for population and migration statistics for England and Wales in 2020. This work builds and expands upon research on an Administrative Data Census (see below) to move into a routine understanding of population and migration using all available sources.

## Developing proposals for censuses after 2021

- 8.9 In line with the National Statistician's 2014 recommendation<sup>63</sup>, and to meet demands from decision-makers for more frequent granular insights into our ever-changing society, ONS is taking forward work to transform the population statistics system. As described earlier, ONS is developing its use of administrative data so that statistics on the population and housing will be provided by integrating administrative data supplemented by surveys (and in some cases commercial data) to fill gaps that the administrative data cannot meet and to establish the properties of the administrative data.

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<sup>61</sup> <https://blog.ons.gov.uk/2017/09/22/ons-forum-new-era-for-migration-statistics/>

<sup>62</sup> <https://publications.parliament.uk/pa/cm201719/cmselect/cmhaff/961/96102.htm>

<sup>63</sup> 'The census and future provision of population statistics in England and Wales: Recommendation from the National Statistician and Chief Executive of the UK Statistics Authority', ONS, March 2014: <https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/legislationandpolicy/theconductofthe2021censusesintheuk.pdf>

- 8.10 Firstly, ONS will build upon the work outlined above, seeking to produce information for a range of geographical areas on:
- the structure of our population (the number and composition of households)
  - the size and characteristics of the housing stock
- 8.11 Secondly, ONS is also exploring how, by integrating administrative, survey and commercial data, it can produce information on the characteristics of the population more frequently and in a timelier way. This includes information on, for example, health, the labour market, commuting patterns and educational qualifications. An integrated data approach offers the prospect of producing new, more responsive, timely and granular insights of our economy and society. This could include small-area household income distributions by health and ethnicity, fuel poverty, mental health, crime, inequalities, ageing, and housing affordability and provision. For example, ONS could look at questions like:
- What is the impact of having children and caring for them on the gender pay gap?
  - How great is the link between personal debt and mental health, and do different interventions work for different people?
  - What is the energy consumption for similar families in different quality homes?
  - What are the labour market outcomes (employment and earnings) for different ethnic groups with different skills in different parts of the country?
- 8.12 Thirdly, ONS is rebalancing its business and social surveys to support the administrative data-first approach to:
- fill gaps that administrative data cannot fill. For example, some data are not available from administrative sources (for example hours of unpaid caring)
  - help assess, and as necessary adjust for, definitional differences in administrative data where they don't directly meet what is required, particularly for key measures on the size of the population, migration and number of households
  - reduce ONS's reliance on large population and business surveys, making remaining survey operations more efficient through a move from paper and personal interview-based collection to online
- 8.13 The burden on the public will be reduced by only collecting data once and reusing those data.

## Developing a new approach and decision-making arrangements

- 8.14 High-quality population statistics are important because they underpin a vast range of other information and decisions. This includes, for example, information on unemployment rates and demand on the health service from an ageing population, decisions such as the number of school places needed, and where to site new businesses. As a result, it would have been high risk to move straight to a new system without careful development and testing of the new approach. ONS regularly publishes Administrative Data Research Outputs to help with this.
- 8.15 Once ONS has obtained, studied and considered the administrative data, the data are used to create research outputs which demonstrate the type and quality of outputs that are possible using those data. The first set of Research Outputs about the size of the population was published in October 2015<sup>64</sup>. This was followed in 2016 with an update on information about the size of the population. New outputs covered the number of occupied addresses (“households”) and local authority level individual gross income distributions using Pay As You Earn (PAYE) and benefits data. Further updates were published in 2017 and in early 2018 including:
- population estimates (for a range of geographies)
  - internal migration estimates
  - number and size of households
  - household composition
  - ethnicity (using combined survey and administrative data)
  - income distributions down to small areas
  - new mothers’ income
  - commuting flows using anonymised mobile phone data
  - labour market status (including more detail on undergraduate students)
- 8.16 This approach is enabling data users to consider whether the information meets their needs, and to provide feedback. Each year, ONS aims to improve the accuracy, breadth and detail of these outputs, building towards the new administrative data-led system for population and migration statistics by 2020. The latest research on this will be published later in 2018.

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<sup>64</sup> Information on these outputs can be found at:  
<https://www.ons.gov.uk/census/censustransformationprogramme/administrativedatacensusproject/administrativedatacensusresearchoutputs>

- 8.17 In addition, each year ONS publishes an assessment of its progress towards an Administrative Data Census<sup>65</sup>. This assessment is based on five high-level criteria. These are:
- rapid access to new and existing data sources
  - the ability to link data efficiently and accurately
  - methods to produce statistical outputs that meet the priority information needs of users
  - acceptability to interested parties
  - value for money
- 8.18 In 2023, ONS will present recommendations to government as to the future of census arrangements, in light of the progress that has been made. Consultation with, and the views of, end users and decision-makers will inform these recommendations in respect of how far the new system will be fit for purpose in meeting needs. The methodologies underpinning the new approach will also be quality assured by an expert external assurance panel<sup>66</sup>.
- 8.19 This work meets the government’s requirement, as set out in their response to the National Statistician’s recommendation: “Our ambition is that censuses after 2021 will be conducted using other sources of data... In the period up to 2021, the UK Statistics Authority’s plans should include ensuring that adequate research into the use of administrative data and surveys is carried out to enable a decision about the future methodology for capturing population and census data.”

## The use of administrative data in the censuses in Scotland and Northern Ireland

- 8.20 As part of the close working relationships between ONS, National Records Scotland (NRS) and the Northern Ireland Statistics and Research Agency (NISRA)<sup>67</sup>, the three offices are working together on the use of administrative data in official population statistics and in quality assuring the 2021 Census. Scotland is also considering future options for enhancing census and population statistics using administrative data.

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<sup>65</sup> <https://www.ons.gov.uk/census/censustransformationprogramme/administrativedatacensusproject/administrativedatacensusannualassessments>

<sup>66</sup> <https://www.statisticsauthority.gov.uk/about-the-authority/committees/methodological-assurance-review-panel-census/>

<sup>67</sup> <https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/legislationandpolicy/theconductofthe2021censusesintheuk.pdf>

# 9



# 9 Costs and benefits

## Introduction

- 9.1 The financial business case covers the Census and Data Collection Transformation Programme, and costs for digital transformation (infrastructure costs).
- 9.2 The Census and Data Collection Transformation Programme is delivering against its three core aims:
- a predominantly online census of all households and communal establishments with special care taken to support those who are unable to complete the census online
  - evidence to enable a decision about the future provision of population statistics after 2021
  - modernise ONS's data collection activities to provide improved and expanded population statistics, which will deliver efficiencies through the greater use of administrative data and survey data collected online instead of interview and paper based data collection
- 9.3 The Digital Transformation Programme is the renewal of ONS's technology infrastructure through the development of common digital platforms to support transformation across the whole of ONS. The programme is therefore designing and reusing common data sources, processes and systems to ensure the funding creates the fullest transformation of the statistical system.
- 9.4 One such example is the development of the survey data collection platform. The platform is already being used for the collection of data from businesses online and by the end of 2016/17 over 200,000 business survey responses were online – a figure ONS expects to more than double during 2018/19. This platform will also enable an online mode to be added to social surveys with a pilot on the labour market in October 2018. This same infrastructure will also underpin the census. These reusable systems and processes ensure ONS delivers a legacy beyond just the census.
- 9.5 Chapter 8 set out how the programme is ensuring that ONS's research into administrative data does not just benefit the census but is already having an impact on our population and migration work programme.
- 9.6 ONS will continue to report publicly on progress against all of these aims.



## Costs

- 9.7 Provision of around £900 million for the total cost of the Census and Data Collection Transformation Programme, and Digital Transformation Programme has been made for the period 2015-2026. Provision for later years will be subject to future spending reviews and will cover the final stages of data and output processing, dissemination and a number of subsequent output services and releases. The programme is subject to annual business case refreshes which are approved by HM Treasury and the Cabinet Office.

## Benefits

- 9.8 The Census and Data Collection Transformation Programme will realise a number of benefits. The benefits for users that ONS has been able to quantify are around £5 of benefit in the wider economy for every £1 spent<sup>68</sup>. There will also be significant additional benefits, to government in particular, which it has not been possible to quantify (for example for developing pensions policy and equality monitoring). Moreover, the census supports wider governmental priorities, such as the government's digital agenda (through the move to online data collection) and the development of a national open address register.
- 9.9 The programme will also deliver benefits for ONS itself. Funding from within the programme business case is already supporting the digital transformation underway across ONS. New online survey-data collection products have been created and successfully used. Work is also ongoing to investigate new statistical methodologies for analysing non-survey data. Once developed, these methods can be shared across ONS and also the Government Statistical Service (GSS) more widely. Staff capability in key skill areas such as commercial, programme and project management is also being enhanced, and lessons learned from delivering the census will be brought back to the rest of ONS.
- 9.10 The census information is used to make decisions by a wide range of users: examples are given below.

**Resource allocation:** The Ministry of Housing, Communities and Local Government, NHS England and the Welsh Government use population statistics to allocate billions of pounds to local areas using funding formulae.

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<sup>68</sup> The benefits of the 2011 Census were evaluated in a report on the ONS website, at: <https://www.ons.gov.uk/census/2011census/2011censusbenefits/2011censusbenefitsevaluationreport>

**Targeting investment:** For many local and government funding uses (such as grant allocations) statistics about population characteristics are used to ensure that targeted investment is made in the areas where it is most needed/beneficial (for example funding for public health). Businesses also use information provided by the census. For example, the retail sector uses it to target the location of new stores.

**Service planning:** Basic population counts and counts by key characteristics (such as age, sex, ethnic group, and household type) are used for national and local service planning. In particular, data for small areas are crucial in local planning of services such as education (local authorities are statutorily responsible for providing sufficient school places and local demand for school places fluctuates with migration and birth-rates), transport planning, traffic modelling, and housing development needs.

**Policy-making and monitoring:** Information on the population size, age, sex and location is fundamental to a range of government policies. For example: ageing and social care (the Dilnot review of the system for funding social care in England), migration (into and out of the country and internal), and labour supply relative to labour demand (and thus inflationary pressures). In Wales, information on local Welsh language skills is monitored to inform Welsh language policy.

**Statistical benchmarking:** Many ONS, wider government and private sector statistics are benchmarked, checked for bias and/or grossed up using census statistics or the population estimates and projections based on the census. They provide the denominator for social and economic indicators such as employment and unemployment rates, and rates of births, deaths, mortality, teenage pregnancies and obesity.

**Private sector businesses:** In light of the UK exiting the European Union, commercial organisations will need to compete in a global market. Census statistics are used for market research and targeting investment.

**Market research:** Census statistics are used in the creation of demographic packages (such as Acorn and Mosaic) and are vital for understanding small area characteristics to target marketing strategies.

**Academic research:** Population and socio-demographic statistics are used for research purposes – to understand social conditions and examine the impact of past policies.

**Family history:** When released after 100 years, census records are a key source for genealogists and historians, to support family or social history research.

- 9.11 Users look to the census to take the lead in developing and implementing new questions to provide better information, and a basis for more effective data collection across government and other public and private sector organisations. Proposed new questions on the armed forces, sexual orientation and gender identity continue the pioneering role of the census in helping to shape policy to reflect a changing society and support changes in public attitudes. ONS continues to monitor public attitudes in all areas.
- 9.12 At the same time, it is clear that many users want to take advantage of the opportunities offered by making more effective use of administrative data to improve the availability and range of information produced. The decennial census is not in itself sufficient to respond to the increasing rate of change in some areas. While results from public consultations show that users continue to rely on the census, they demonstrated a requirement for more frequent data updates in order to be able to understand and respond more promptly to changing population needs.

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