



ONS Census Transformation Programme

The 2021 Census

Summary of areas selected
for census 2017 Test

June 2016

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1. Background

As part of the planning and testing programme for the 2021 Census, the Office for National Statistics (ONS) will be conducting a large-scale test in April 2017. A number of local authorities within England and Wales, with certain characteristics that match ONS pre-defined criteria, have been selected for the field follow-up component of this test. This paper describes how and why the local authority areas were selected.

2. Objectives of the 2017 Test

The main high-level objectives of the test are to understand and assess:

- key aspects of the census operation and interfaces between systems and services, including:
 - field processes and the field operating model
 - allocation and monitoring of field force resources
 - use of mobile devices in the field
 - the viability and quality of responses through the online questionnaire
 - understanding and refining assumptions about volumes and timings
 - assessing our use of administrative data in parts of the 2021 design
 - assessing our field procedures for enumerating student halls of residence, care homes and sheltered accommodation
- the effect on response, and the quality of response, of the inclusion of a question on sexual identity
- options for the collection design to optimise overall response
- methods for optimising self-completion (maximising response before introducing field staff into the follow-up operation)
- volumes of paper questionnaire likely to be needed for 2019 rehearsal and 2021 live operations
- online take-up and our ability to predict the characteristics of areas/respondents who will/can only respond on paper

3. Components of the 2017 Test

The test has been designed as three components:

- Component 1 – a split sample test with half of the questionnaires including a question on sexual identity, alongside optimising overall response through the use of field follow-up. This part of the test will take place in a sample of 100,000 households selected from within the seven selected local authority areas.
- Component 2 – a modular test looking at methods for optimising self-completion, the prediction of volumes of paper questionnaires and where to send paper as the initial contact. This is expected to be tested on a sample of around 100,000 households drawn from across the whole of England and Wales. This sample will be entirely separate from the one drawn from the seven selected local authority areas.
- Component 3 - there will be an amount of special enumeration of student halls of residence, care homes and sheltered accommodation within the seven selected local authorities. The aim of this component is to validate methods and gain experience, rather than to test options. There are benefits of doing this at the same time as the rest of the 2017 test, but otherwise this will not interact with the other components.

4. Local authorities that have been selected for the field follow-up component of the 2017 Test

The areas selected for the field follow-up component of the 2017 census test are:

- Barnsley
- Blackpool
- Powys (selected LSOAs in North)
- Sheffield
- South Somerset
- Southwark
- West Dorset

Annex A sets out certain characteristics of these local authority areas that matched the ONS criteria relevant to the focus of the 2017 Test.

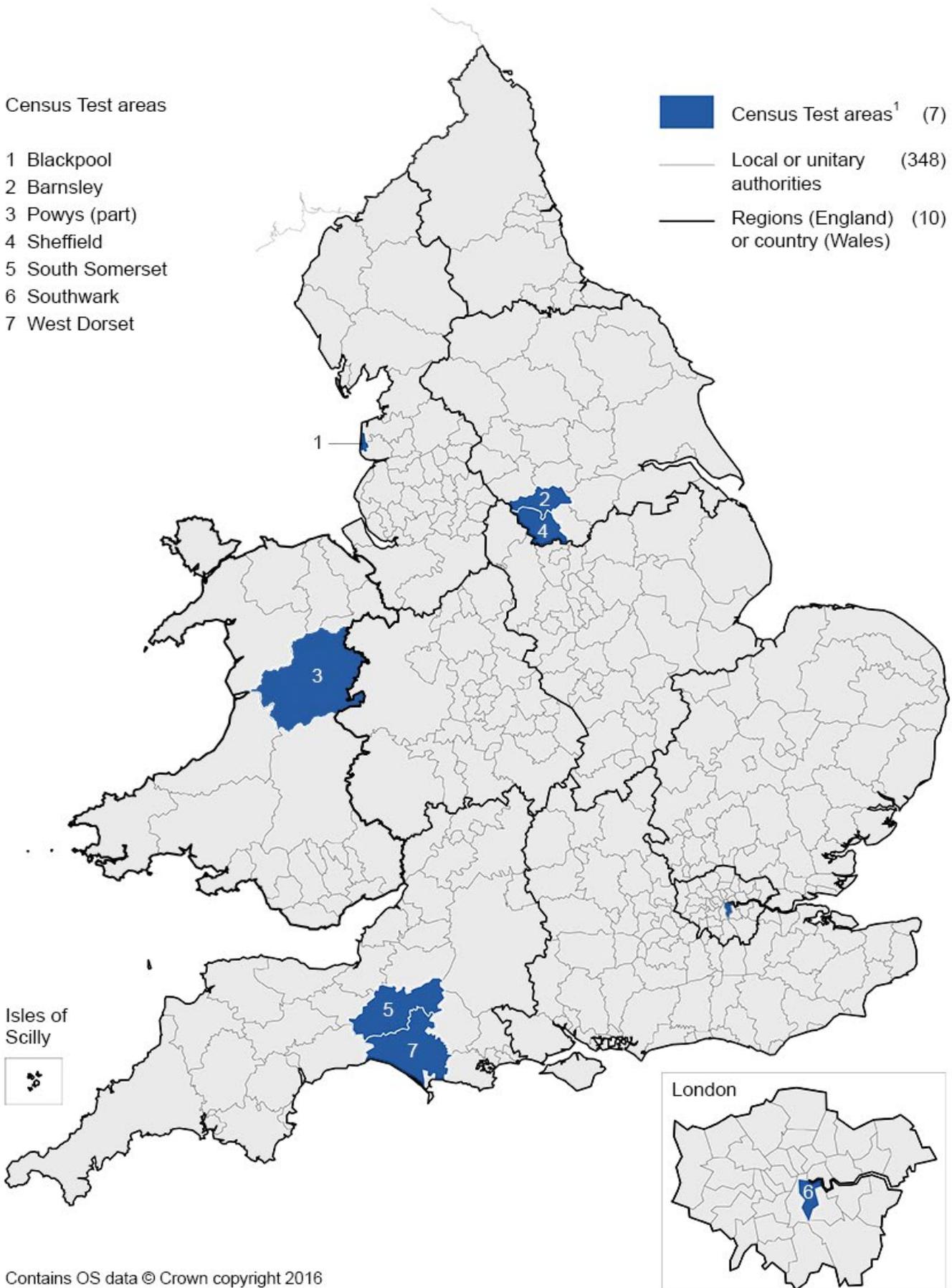
Figure 1. highlights the location within England and Wales of the selected 2017 Test areas.

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

Census Test areas

- 1 Blackpool
- 2 Barnsley
- 3 Powys (part)
- 4 Sheffield
- 5 South Somerset
- 6 Southwark
- 7 West Dorset

-  Census Test areas¹ (7)
-  Local or unitary authorities (348)
-  Regions (England) (10) or country (Wales)



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¹ Census Test 2017 areas are composed of whole local or unitary authorities except for the area within Powys in Wales, which is composed of 34 of its constituent Lower Layer Super Output Areas (LSOAs) for 2011.

5. Summary of the methods used for choosing the test areas

For the census 2017 Test, ONS needed to identify local authority areas which had certain characteristics that satisfied a wide ranging set of pre-agreed criteria. The areas also had to contain sufficient households from which to select a sample to receive questionnaires.

In order to arrive at a shortlist, data were collated from a range of sources, and matched onto the selection criteria. For some variables, such as second addresses, this was straight forward due to the collection of the data in the 2011 Census. However for other variables, such as a range of mobile connectivity, a more approximate measure was used (in this case percentage of land covered by the 3G signal in local authorities).

Once the data for each criterion had been compiled, each area was ranked. All local authorities ranked within the top twenty per cent were deemed to demonstrate that criterion. No area met all the criteria, and the next stage was to balance out the possible combination of areas in order to meet all criteria (for approximately five local authorities).

Once this was complete, the number of households containing usual residents in each of the local authorities was obtained from 2011 Census data. These data were then used to ensure that we had sufficient coverage across the different types of 'hard to count' and 'digital exclusion' strata. A further consideration was the spread of areas across England and Wales. The number of areas was limited by the capacity for coordination, with 5 being the maximum we can handle for the 2017 Test. With all the constraints around the criteria and stratification it was not possible to get sufficient sample within 5 areas, so further possibilities were explored looking at contiguous areas, resulting in 7 local authorities that will make use of 5 coordination centres.

This resulted in a list of seven recommended areas which were reviewed and signed off in March 2017. The selected areas cover the selection criteria set to meet the objectives of the test (see tables B1 and B2 in Annex B), and cover the stratification of traditional 'hard to count' and the new 'digital exclusion' dimensions. Combined, these areas contained over 650,000 households with at least one usual resident in 2011. These areas will next be further sub-sampled to give a final sample of around 100,000 households who will be sampled to be included in the 2017 Test.

6. Next steps

We will select a sample from the seven areas of around 100,000 households. The sample will be balanced to give adequate representation of the 'hard to count' drivers we are likely to encounter, alongside the new digital inclusion element. It must also ensure sufficient sample within each area to get representation in the criteria mentioned above and that can be projected to give sufficient workloads for field staff during the follow-up phase of collection.

Annex A - Characteristics of the seven local authority areas that matched the ONS criteria relevant to the focus of the 2017 Test

Table A1: Characteristics of the seven local authority areas that matched the ONS criteria

Local authority area	2011 Area Classification ¹	Characteristics that matched the ONS criteria
Barnsley	Supergroup: Mining Heritage and Manufacturing Group: Mining Heritage Subgroup: Mining Heritage and Manufacturing	Largely urban area Areas with lower broadband coverage and take-up Population turnover
Blackpool	Supergroup: Coast and Heritage Group: Coastal Resorts and Services Subgroup: Coastal and Rural	Urban area Proportion of communal establishments Proportion of empty properties Migration turnover Area with significant recent development Lesbian, gay, bisexual population Proportion of B&Bs etc
Powys (Selected LSOAs in north)	Supergroup: English and Welsh Countryside Group: Rural Hinterland Subgroup: Remoter Rural	In Wales with high proportion of Welsh speakers in the north of the area Area with low reliable mobile signal Level of 65+ population Level of second homes
Sheffield	Supergroup: Business and Education Centres Group: Business and Education Centres Subgroup: Business Centres	Proportion of people born outside the UK Proportion of short-term migrants Ethnic minority groups Proportion of students Proportion of communal establishments Areas with lower broadband and mobile coverage Area with significant recent development
South Somerset	Supergroup: English and Welsh Countryside Group: Rural Hinterland Subgroup: Traditional Rural	72% rural Proportion of communal establishments Lower reliable outdoor mobile coverage Level of 65+ population Level of second homes
Southwark	Supergroup: London Cosmopolitan Group: London Cosmopolitan Subgroup: Central Cosmopolitan Inner London	In central London Proportion of residents born outside UK Proportion of short-term migrants Ethnic minority groups Migration turnover A multilingual area Lesbian, gay, bisexual population
West Dorset	Supergroup: English and Welsh Countryside Group: Rural Coastal and Amenity Subgroup: Rural Coastal and Amenity	94% rural Proportion of communal establishments Mixed broadband coverage and take-up Lower reliable outdoor mobile coverage Level of 65+ population Level of second homes Migration turnover Area with significant recent development

¹ 2011 Area Classification <http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/guide-method/geography/products/area-classifications/ns-area-classifications/ns-2011-area-classifications/datasets/index.html>

Annex B – Criteria for choosing test areas

Table B1: Criteria, description and sources of data used

Criterion	Description	Data source
High Priority		
Hard to count populations	Ethnic minority groups, high percentage born outside UK, short-term migrants, population in CEs	2011 Census data
Urban/rural mix	To represent different collection issues	ONS Geography urban/rural classification
One area in London	Unique issues	Geography
One area in Wales (with high numbers of Welsh speakers)	Unique issues	Geography, 2011 Census data
Area with lower broadband coverage	To represent new collection issues	Ofcom data on broadband coverage and takeup
Range of mobile connectivity	To represent new collection issues	Ofcom data on mobile coverage
Proportion aged 65+ (as a potential factor in digital inclusion)	To represent new collection issues	2011 Census data
Type of address: percentage of dwellings with no usual residents	Factor in collection and use of administrative data	2011 Census data
Secondary		
One area with significant migration turnover	Collection issues and quality of admin data	ONS mid-year population estimates
One area with significant recent development	Quality of address register	ONS geography and postcode files
Address register quality	Quality of address register	ONS Address Register data
Quality of admin data	To better gauge alternative methods	ONS Administrative Data Census project
Not on list of LAs we have previously used in census tests	To reduce burden	ONS census information
Other criteria		
Multi-lingual area	Factor in collection	2011 Census data
Sexual identity categories	To gauge overall effect on response	Integrated Household Survey data
Proximity of LAs if possible	Aid operation of test	Geography
Adequate representation across England and Wales	Representation	Geography
Student population in halls of residence	For CE part of test, collection issues	2011 Census data and intelligence

Table B2: How the selected areas cover the criteria

Criterion	Local Authority						
	Barnsley	Blackpool	Powys	Sheffield	South Somerset	Southwark	West Dorset
High priority							
Ethnic min group included				X		X	
% born outside UK				X		X	
% short-term res.				X		X	
% pop in CEs		X		X	X		X
Mix of urban and rural areas (U = urban, R = rural)	U	U	R	U	R	U	R
Area with lower broadband coverage	X	X	X	X			
Range of mobile connectivity	Mix	High	Low	Mix	Low	High	Low
% aged 65+			X		X		X
Type of address (% no UR)		X	X		X		X
An area in Wales			X				
An area in London						X	
High numbers of Welsh speakers			X				
Secondary							
Migration turnover		X				X	X
Area with significant recent development		X	X	X			X
Address register quality issues		X					
Quality of admin data		X		X		X	
Other							
Multi lingual area				X		X	
Sexual identity groups		X		X		X	
Proximity of local authorities	Sheffield			Barnsley	West Dorset		South Somerset
Adequate representation across England and Wales	Yorks & Humb	North West	Wales	Yorks & Humbs	South West	London	South West
Student halls population for CE test				X			

