

Article

# Characteristics of Census 2021 respondents by mode of completion, England and Wales

What the Census can tell us about who chose to complete their census questionnaire online or by paper.

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# 1 . Main points

- Census 2021 was the first digital-first census. It gave all households in England and Wales the opportunity to complete their census form either online or by paper questionnaire, or by other means if additional assistance was required.
- A letter inviting households to take part online was sent to 89.0% of households and 11.0% were initially sent paper questionnaires; all households invited to take part online could request a paper form.
- A higher proportion of younger respondents completed their census questionnaire online compared with older respondents.
- Male respondents were slightly more likely to complete their census questionnaire online across almost all age categories.
- Proportions of online completions also varied depending on other demographic characteristics such as ethnic group, disability status, and highest qualification of respondents.

This analysis is based on the characteristics of the household reference person (HRP). See [Section 4: Household reference person](#) for further details.

## 2 . Design for a digital-first census

For Census 2011, all households in England and Wales were sent a paper questionnaire, which included an access code that gave them the option to respond online. Only 16.4% of respondents took this option. In 2014 the National Statistician recommended the next census should be “predominantly online” following a major public consultation. This led to Census 2021 being [the first digital-first census \(as explained on our Census recommendation webpage\)](#).

The aim of a census is to produce high quality estimates that accurately reflect the whole population. To do this we needed to maximise the number of people who were able to complete the census in the way that they wished. This principle was therefore central to the [design of Census 2021 \(as shown on our webpage\)](#). We gave all respondents the opportunity to complete their census questionnaire anywhere, at any time of the day, on any device; but also understood there may be those who still wished to complete a traditional paper questionnaire or needed additional support to complete their form.

Adopting a digital-first design for Census 2021 not only had benefits for the respondent, but also benefits for the quality of the data. It allowed for more detailed instructions, guidance and assistance to be added to the electronic questionnaire, such as [search as you type and address lookup functionality](#). Respondents were only asked to complete those questions that were appropriate to their circumstances.

Through increased online participation, we could monitor patterns of response and take appropriate action during census collection. The data we received could also be checked and processed in a much more timely manner, allowing us to share results from Census 2021 as early as June 2022, as explained on our [Census webpage](#). More than 450 million pieces of paper were saved by reducing the number of traditional paper questionnaires that were issued, as explained in our [Designing a digital-first census article](#).

Through the design of Census 2021, we were able to achieve a response rate of 97% of all households across England and Wales, as shown in our [Maximising the quality of Census 2021 population estimates methodology](#). This exceeded our target of 94%. We were also able to exceed our response targets for all local authorities.

## 3 . Mode of completion

## Overview

For Census 2021, respondents could choose to complete their census questionnaire via one of these two primary “modes of completion”:

- the “online” mode of completion through submitting an electronic census questionnaire via unique access code
- the “paper” mode of completion through completing a paper questionnaire and posting this back to Office for National Statistics (ONS)

Respondents could also complete their census by telephone through the dedicated contact centre, with interpretation support if needed. The use of this option was very limited and cannot be disaggregated from “online” mode of completion events, as contact centre agents used an electronic questionnaire to capture responses.

There were instances when responses for households were submitted via both modes of completion; the whole household or individuals within the household submitted both electronic and paper returns.

In these cases, the household was considered to have provided an ‘online’ completion, partly because this demonstrated the desire of respondents in the household to engage with Census 2021 as a digital service, and therefore that they had a desire and willingness to complete online.

Overall, 88.9% of households in England and Wales responded online to Census 2021, as shown in our [Designing a digital-first census article](#). This article analyses both modes of completion, it presents data primarily based on the proportion of online completions. This is because most households completed their census form online. Where the figures provided show online rates of completion, the remaining proportion of respondents completed a paper questionnaire.

## “Online-first” and “paper-first” areas

Although this article looks at how the characteristics of respondents might have affected their choice of mode of completion, it is important to consider the contact strategy used as part of the design for Census 2021.

As we understood that some respondents either would not wish or not be able to complete their census form online, we supplied 11% of Lower Super Output Areas (LSOAs) with a paper questionnaire as part of their initial contact. These LSOAs were known as “paper-first” areas and were designated as such using two hard-to-count indices (Hard to Count Willingness and Hard to Count Digital). Each questionnaire sent to households in “paper-first” areas included a unique access code allowing that household to complete their questionnaire online if they chose to do so.

Although the hard-to-count indices were in part informed by the characteristics of the population in those LSOAs, whether respondents received a paper questionnaire had a strong bearing on their mode of completion. In the 89% of LSOAs that did not receive a paper questionnaire as part of their initial contact (“online-first”), only 5.8% households completed via paper. In some “online-first” LSOAs, 100% of responses were received via online completion. In comparison only 46.4% of households in “paper-first” areas completed online, with the greatest online share of response in a “paper-first” LSOA being 82.3%.

The analysis of the characteristics of HRP in this article is therefore split between paper-first and online-first areas to account for this difference in initial contact. For more information on the wave of contact strategy and overall online share for Census 2021 by LSOA, please see our [Designing a digital-first census article](#).

## Other information

Since conducting Census 2021, we have published several articles on the ONS website that have provided insights into how respondents chose to complete their census questionnaires. You can find these articles in [Section 12: Related links](#).

## 4 . Household reference person

In this article we look at the mode of completion used by respondents to fill in their census form, and their characteristics. We consider this for a single member of each household that submitted a census response called the household reference person (HRP). The HRP is more likely to have completed part or all the census form on behalf of the household, and therefore to have determined the mode of completion used by the household.

Focus in this article is provided on the following characteristics of HRPs:

- age
- sex
- disability
- ethnic group
- highest level of qualification

The HRP is a single reference for a household identified based on certain characteristics, such as economic activity and age. The concept is used on other social surveys and was introduced in 2001 to replace the traditional concept of the “head of the household”. If there is only one person usually resident in a household, then this person is the HRP. For more information, please see the [Household reference person harmonised standard on the Government Analysis Function website](#).

Analysing the characteristics of a single member of a responding household has certain unavoidable limitations, and this is also the case with using HRP. When using this research, it is worth considering that:

- as HRPs are determined based on certain characteristics, they will inevitably skew towards characteristics likely to be associated with the “head of the household” (for example, older, higher qualification levels, economic activity)
- the HRP may not have chosen the mode of completion for the household – this decision could have been made by another responding member of the household
- the HRP may not have answered their census questions on their own behalf and their responses might have been provided by another (proxy) respondent

## 5 . Mode of completion by age of household reference person

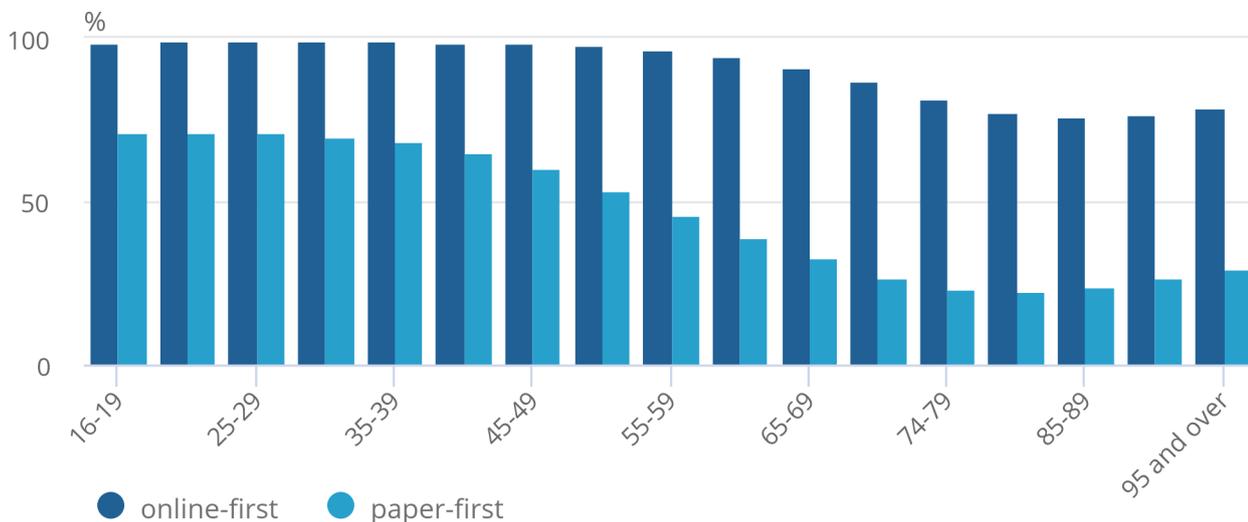
The age of the household reference person (HRP) showed the clearest relationship to the chosen mode of completion, with younger responding HRPs more likely to respond online than older HRPs. The mode of initial contact (whether online-first or paper-first) strongly influenced the mode of completion chosen by respondents, with proportionally fewer online completions in paper-first areas by older HRPs.

Figure 1 shows online completion rates for HRPs across different age categories for both online-first and paper-first areas. It shows younger HRPs were more likely to provide an online completion for Census 2021 across both primary modes of initial contact. Although HRPs in their forties (ages 40 to 44 years and 45 to 49 years) whose initial contact was online first were as likely to complete online as younger HRPs, they were less likely to complete online if their initial contact was paper first. For example, HRPs aged 45 to 49 years in online-first areas were only 0.6% less likely to complete their census form online (98.5%) than HRPs aged 35 to 39 years (99.1%). However, in paper-first areas there was a difference of 8.2% between HRPs aged 45 to 49 years (68.2%) and those aged 35 to 39 years (60.0%).

Figure 1 also shows a small exception to the general trend of older age categories being less likely to complete online. HRPs in the older age categories (aged over 90 years for online-first areas, or aged over 85 years for paper-first areas) were more likely to respond online than HRPs in the preceding age categories. This is a similar pattern to what we observed in the 2017 Census Test. It is likely to be because of higher rates of proxy completion for older HRPs, or possibly because these HRPs received assistance when completing their census questionnaire.

**Figure 1: Online completion rates by age (17 categories) of household reference person and initial contact method**

Figure 1: Online completion rates by age (17 categories) of household reference person and initial contact method



Source: Census 2021 from the Office for National Statistics

Broadly consistent high rates of online completion were recorded in all English regions and Wales across age categories for online-first areas. As Table 1 shows, London had the highest overall online completion (95.9%), with over 80% of HRPs in all age categories responding online. Wales had the overall lowest online completion in online-first areas (91.2%), and the lowest online completion across all age categories except 75 years and over. The differences in rates of online completion compared with other statistical regions in each age category were generally small.

Table 2 shows that there was more regional difference between rates of online completion in paper-first areas. London had an online completion rate more than 10 percentage points higher than any other statistical region (67.3%). Wales again had the lowest online completion rate in paper-first areas (43.6%), with lower online completion for HRPs aged over 45 years.

Table 1: Online completion rates by age (7 categories) of household reference person and region, online-first areas

<b>Region or country</b>	<b>All</b>	<b>16-24</b>	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65-74</b>	<b>75 and over</b>
<b>East Midlands</b>	93.2%	99.1%	99.2%	98.8%	97.8%	95.3%	88.5%	78.0%
<b>East of England</b>	93.9%	99.3%	99.5%	99.3%	98.4%	96.2%	89.7%	78.8%
<b>London</b>	95.9%	98.9%	99.4%	99.2%	98.5%	96.2%	89.9%	81.3%
<b>North East</b>	93.2%	99.3%	99.3%	98.9%	97.9%	95.2%	87.9%	78.9%
<b>North West</b>	93.7%	99.3%	99.5%	99.1%	98.1%	95.5%	88.5%	79.3%
<b>South East</b>	94.4%	99.4%	99.5%	99.4%	98.7%	96.7%	90.8%	79.9%
<b>South West</b>	92.5%	99.2%	99.2%	98.8%	97.7%	95.3%	88.7%	76.8%
<b>Wales</b>	91.2%	98.4%	98.2%	97.3%	95.7%	92.9%	86.4%	77.0%
<b>West Midlands</b>	92.9%	98.9%	99.0%	98.6%	97.5%	94.9%	88.0%	77.7%
<b>Yorkshire and the Humber</b>	93.1%	99.1%	99.3%	98.9%	97.8%	95.1%	87.7%	77.6%

Source: Census 2021 from the Office for National Statistics

Table 2: Online completion rates by age (7 categories) of household reference person and region, paper-first areas

<b>Region or country</b>	<b>All</b>	<b>16-24</b>	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65-74</b>	<b>75 and over</b>
<b>East Midlands</b>	49.6%	71.1%	70.6%	67.0%	57.4%	43.6%	30.2%	24.2%
<b>East of England</b>	48.7%	70.8%	70.2%	67.6%	59.0%	45.9%	31.1%	23.8%
<b>London</b>	67.3%	78.6%	79.9%	76.8%	70.1%	59.0%	44.3%	39.0%
<b>North East</b>	52.2%	74.7%	73.2%	67.9%	56.4%	43.4%	28.9%	27.0%
<b>North West</b>	57.0%	75.3%	75.3%	71.3%	61.4%	47.4%	33.3%	29.5%
<b>South East</b>	54.0%	73.0%	73.2%	70.6%	62.7%	50.5%	35.6%	25.9%
<b>South West</b>	45.4%	68.1%	67.1%	63.5%	55.2%	43.2%	30.2%	21.7%
<b>Wales</b>	43.6%	68.7%	67.2%	62.5%	51.5%	38.4%	26.1%	20.4%
<b>West Midlands</b>	50.9%	71.7%	71.7%	67.9%	57.8%	43.5%	30.7%	25.9%
<b>Yorkshire and the Humber</b>	52.0%	72.3%	71.3%	67.7%	57.8%	42.8%	29.9%	25.5%

Source: Census 2021 from the Office for National Statistics

## 6 . Mode of completion by sex of HRP

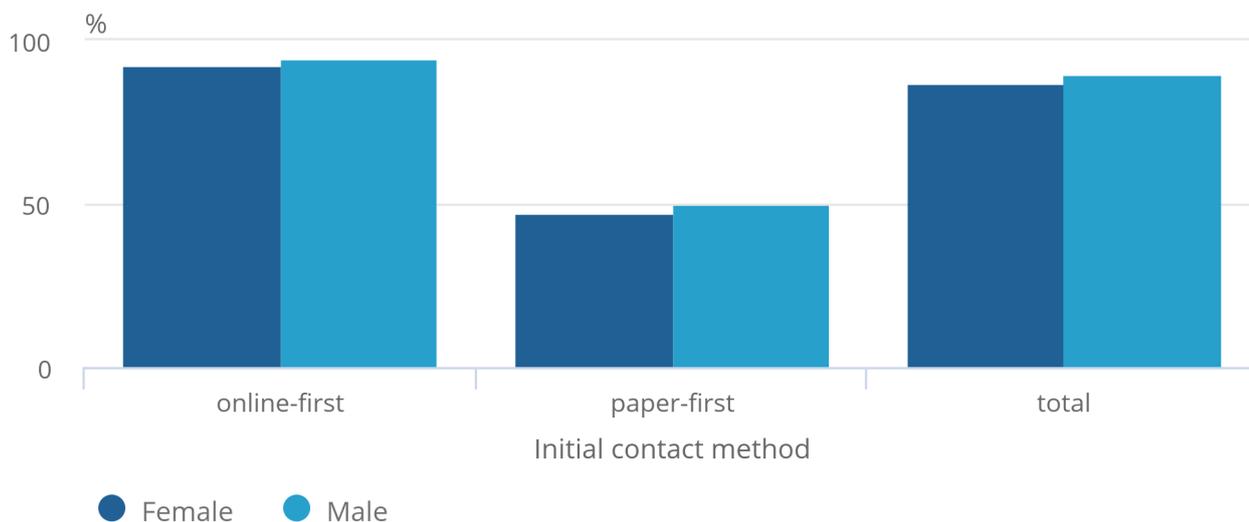
Overall, households with male HRPs were more likely to complete their census questionnaire online than households with a female HRP, but this was primarily because of other characteristics such as age.

Figure 2 shows overall that male HRPs were 2.1% more likely to respond online in online-first areas (94.7%), and 3.1% more likely to respond online in paper-first areas (50.3%). Both female and male HRPs had very high overall rates of online completion, with 87.2% of households with female HRPs completing their census questionnaire online and 90.0% of male HRP households.

A similar pattern of slightly higher male HRP online completion was seen across English regions and Wales. For more information, please see the accompanying datasets for this article.

**Figure 2: Online completion rates by sex of household reference person and initial contact method**

Figure 2: Online completion rates by sex of household reference person and initial contact method



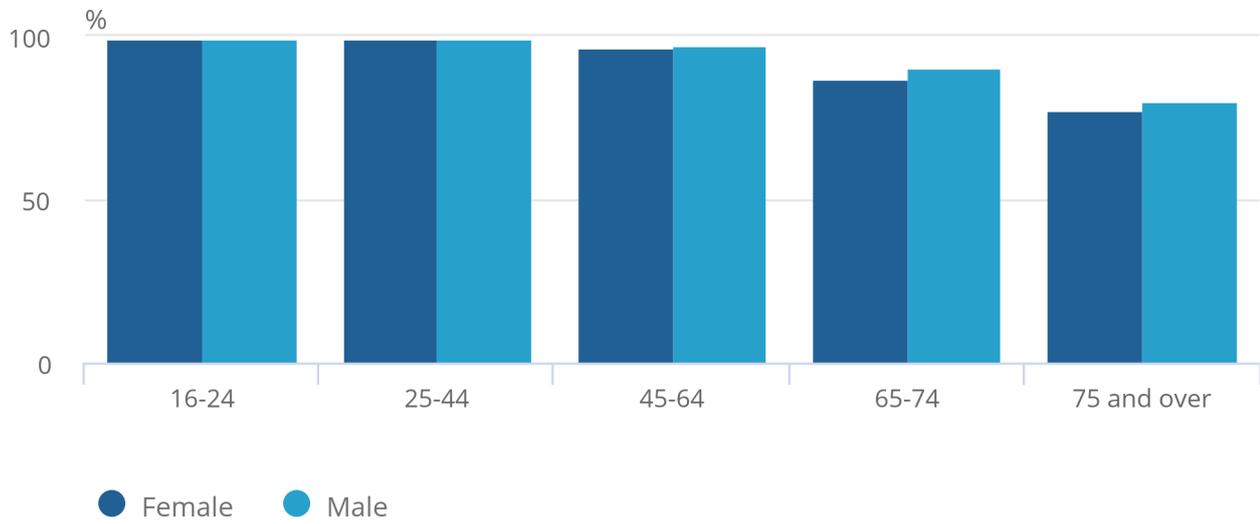
**Source: Census 2021 from the Office for National Statistics**

When considering age alongside sex of HRP, age had much more impact on the chosen mode of completion for a respondent. Figures 3 and 4 demonstrate that proportions of online completion reduced with age for both female and male HRPs. In general, male HRPs were more likely to respond online than female HRPs for all age groups, and across both online-first and paper-first areas.

The only exception to this was that female HRPs aged 75 years and over in paper-first areas were more likely than male counterparts to complete their census form online. This could potentially be explained by older HRPs receiving help from friends and relatives to complete their census form. Despite this, HRPs aged 75 years and over had the lowest overall proportions of online completion, and 18.1% of all female HRPs were in this age group, compared with 12.8% of all male HRPs.

**Figure 3: Online completion rates by sex and age (5 categories) of household reference person, online-first areas**

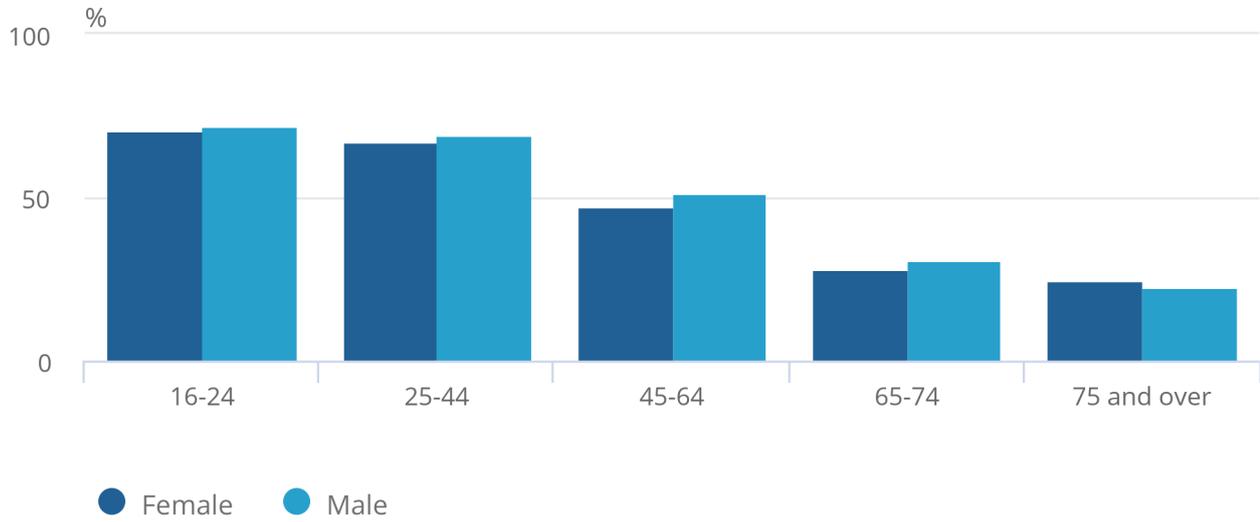
Figure 3: Online completion rates by sex and age (5 categories) of household reference person, online-first areas



Source: Census 2021 from the Office for National Statistics

**Figure 4: Online completion rates by sex and age (5 categories) of household reference person, paper-first areas**

Figure 4: Online completion rates by sex and age (5 categories) of household reference person, paper-first areas



Source: Census 2021 from the Office for National Statistics

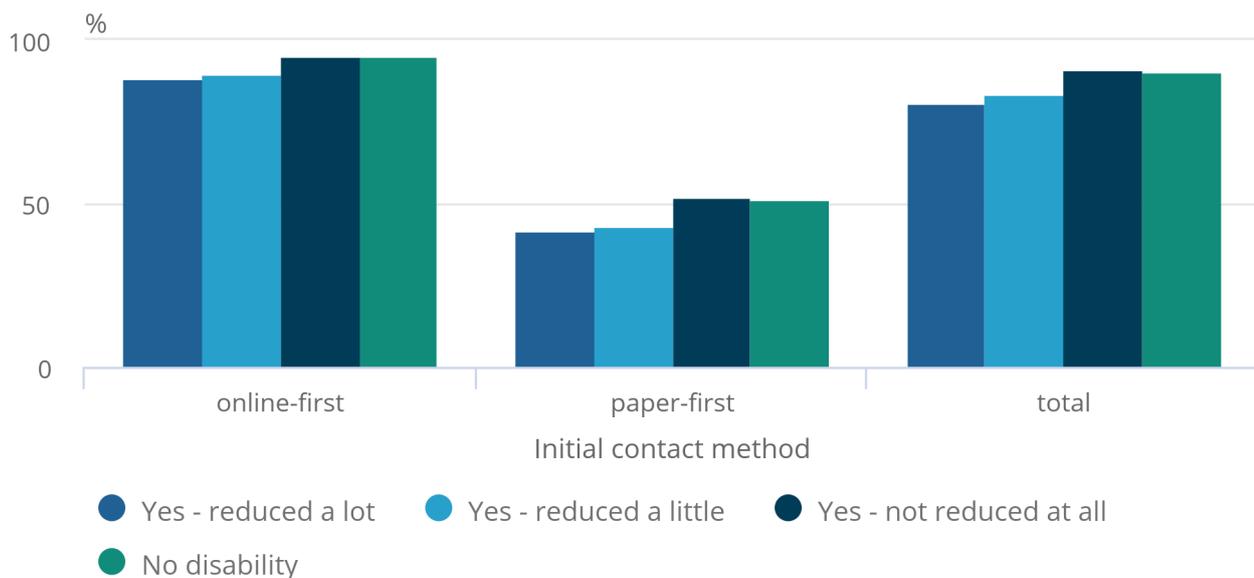
## 7 . Mode of completion by disability status of HRP

We asked Census 2021 respondents "Do you have any physical or mental health conditions or illnesses lasting or expected to last 12 months or more?" to identify those with disabilities. If they answered yes, we asked a follow-up question "Do any of your conditions or illnesses reduce your ability to carry out day-to-day activities?". For more information on Census 2021 data disability in England and Wales, see our [Disability, England and Wales: Census 2021 bulletin](#).

Figure 5 shows the proportion of online completions by the disability status of the HRP, by online-first and paper-first areas. It shows those HRPs who indicated their disability reduced their day-to-day activities were less likely to complete their census form online than those whose activities were not limited by a disability. The difference between the status with highest proportion of online completion ("Yes – not reduced at all") and lowest proportion ("Yes – reduced a lot") was greater for paper-first areas (10.2% difference) than online-first areas (6.8% difference).

**Figure 5: Online completion rates by disability status of household reference person and initial contact method**

Figure 5: Online completion rates by disability status of household reference person and initial contact method



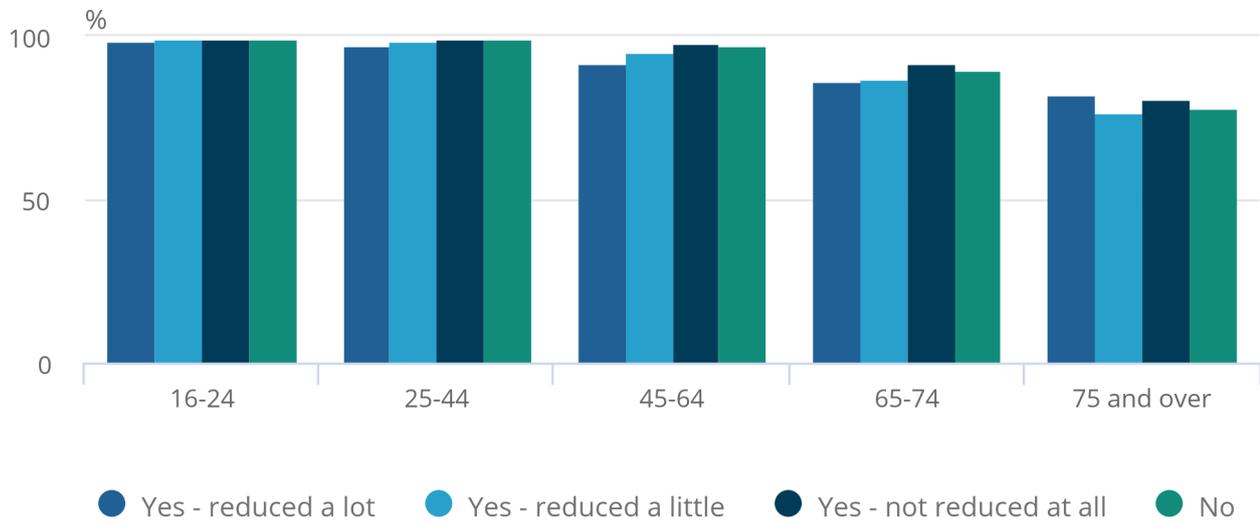
**Source: Census 2021 from the Office for National Statistics**

As older people are more likely to experience health conditions, the patterns seen appear linked with age. Figures 6 and 7 break online completions down by disability status and age for both online-first and paper-first areas. Both show that age is more important than disability status in the choice of mode of completion. Across the younger age categories, the pattern was broadly consistent with the overall picture shown in Figure 5 of higher online completion for those without limiting disabilities. However, for HRPs aged 75 years and over, those indicating limitations in their day-to-day activities were more likely to complete online than those without a limiting disability.

The reason for these differences is likely to be because of support provided to the elderly HRPs with limiting disabilities by family members or carers, to complete their census form online.

**Figure 6: Online completion rates by disability status and age (5 categories) of household reference person, online-first areas**

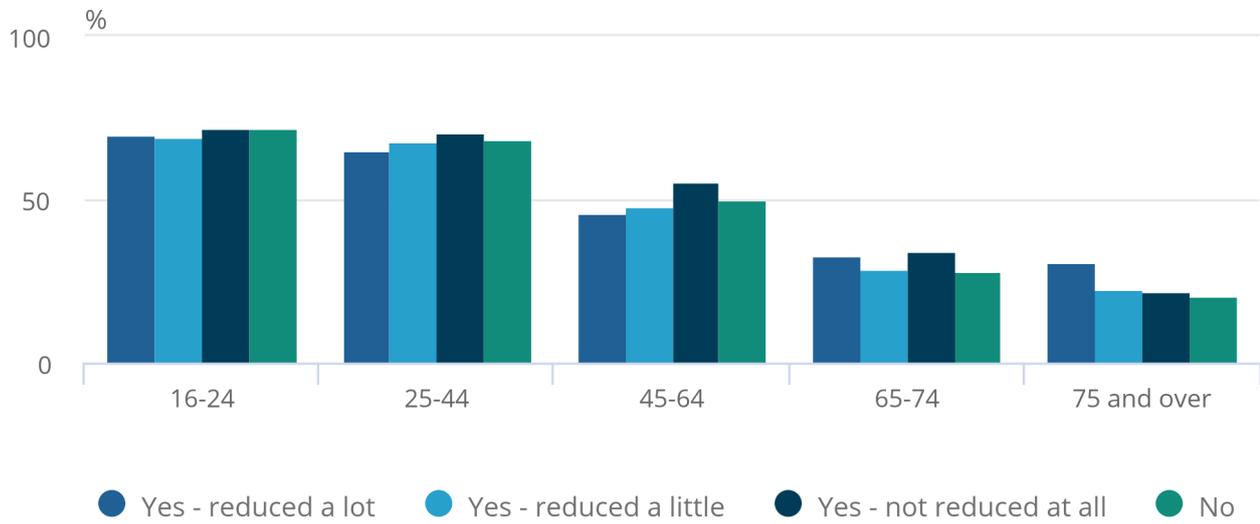
Figure 6: Online completion rates by disability status and age (5 categories) of household reference person, online-first areas



Source: Census 2021 from the Office for National Statistics

**Figure 7: Online completion rates by disability status and age (5 categories) of household reference person, paper-first areas**

Figure 7: Online completion rates by disability status and age (5 categories) of household reference person, paper-first areas



Source: Census 2021 from the Office for National Statistics

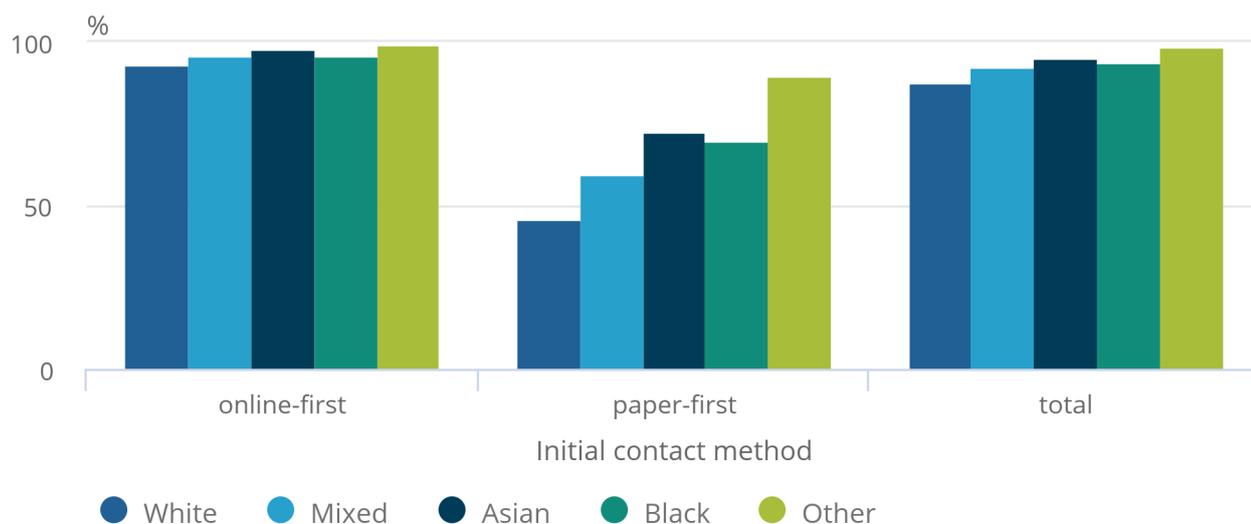
## 8 . Mode of completion by ethnic group of HRP

For analysing mode of completion by ethnic group of HRP we are using the five high-level categories. This is because the more detailed categorisations for ethnic group produce very small numbers of HRPs for some categories in paper-first areas, given only 11% of Lower Layer Super Output Areas (LSOAs) in England and Wales received paper questionnaires. For more information, please see our [Ethnic group, England and Wales: Census 2021 bulletin](#).

There is some evidence of differences in propensity to respond online based on ethnic group. Figure 8 shows that HRP respondents identifying their high-level ethnic group as “White” were less likely to complete their census form online, with 87.9% responding online, compared with more than 90% for all other ethnic groups. For paper-first areas, HRPs identifying as “Other” ethnic group categories were almost twice as likely to complete their census questionnaire online (90.0%), than “White” HRPs (45.8%). HRPs identifying as “Asian” (72.4%); “Black” (69.8%) and “Mixed” (59.9%) were also much more likely to respond online in paper-first areas.

**Figure 8: Online completion rates by high-level ethnic group of household reference person and initial contact method**

Figure 8: Online completion rates by high-level ethnic group of household reference person and initial contact method

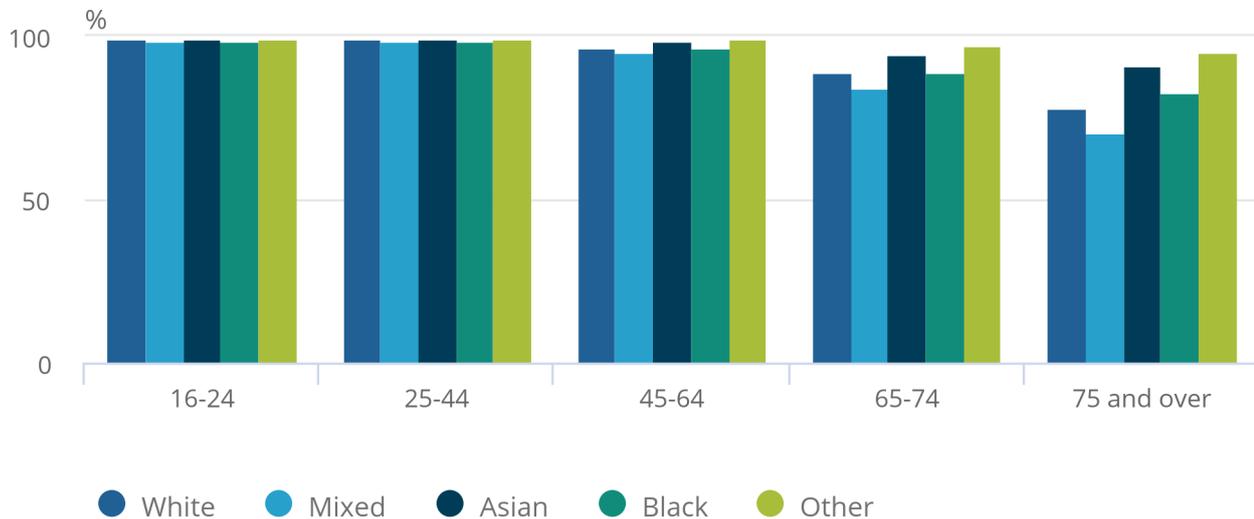


Source: Census 2021 from the Office for National Statistics

Age was still a major factor in the mode of completion, but the scale of this was different for different ethnic groups. When we look at online completion in online-first areas by age, across all HRP high-level ethnic groups there was a reduction in the proportion of online completions in age categories from 45 to 64 years onwards. However, as Figure 9 demonstrates, the relative decline in the proportion of online responses by age was less pronounced in HRPs identifying as “Other”, “Asian” and “Black” compared with “White” and “Mixed” high-level ethnic groups. More than 90% of “Other” (95.2%) and “Asian” (90.9%) identifying HRPs aged 75 years and over responded online in online-first areas; compared with 78.3% of “White” and 70.9% of “Mixed” HRPs in the same category.

**Figure 9: Online completion rates by high-level ethnic group and age (5 categories) of household reference person, online-first areas**

Figure 9: Online completion rates by high-level ethnic group and age (5 categories) of household reference person, online-first areas



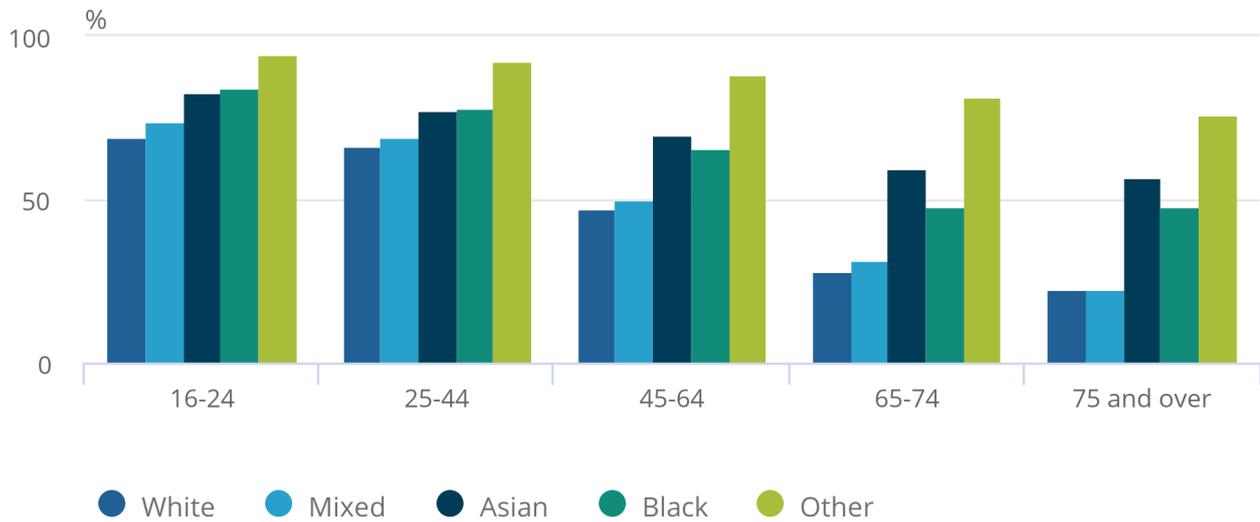
**Source: Census 2021 from the Office for National Statistics**

We see a similar pattern in paper-first areas (Figure 10), as online completion decreased with age across all high-level ethnic groups. However, the difference between “White” and “Mixed” ethnic groups and “Asian”, “Black” and “Other” was more pronounced than in online-first areas. Less than 30% of “White” HRPs aged 65 to 74 years (28.2%), and 75 years and over (22.7%), chose to respond online in paper-first areas, compared with more than 75% of HRPs identifying as “Other” aged 65 to 74 years (81.2%), and 75 years and over (75.7%) responding online.

The relative size of these groups has some bearing on the results. Figure 11 shows the relative proportions of HRP from each age group in each high-level ethnic group category. HRPs who identify their ethnic group as “White” are generally older. Of all responding HRPs, 84.5% identified as “White”, meaning the other high-level ethnic group categories had fewer respondents, and therefore larger potential for variability.

**Figure 10: Online completion rates by high-level ethnic group and age (5 categories) of household reference person, paper-first areas**

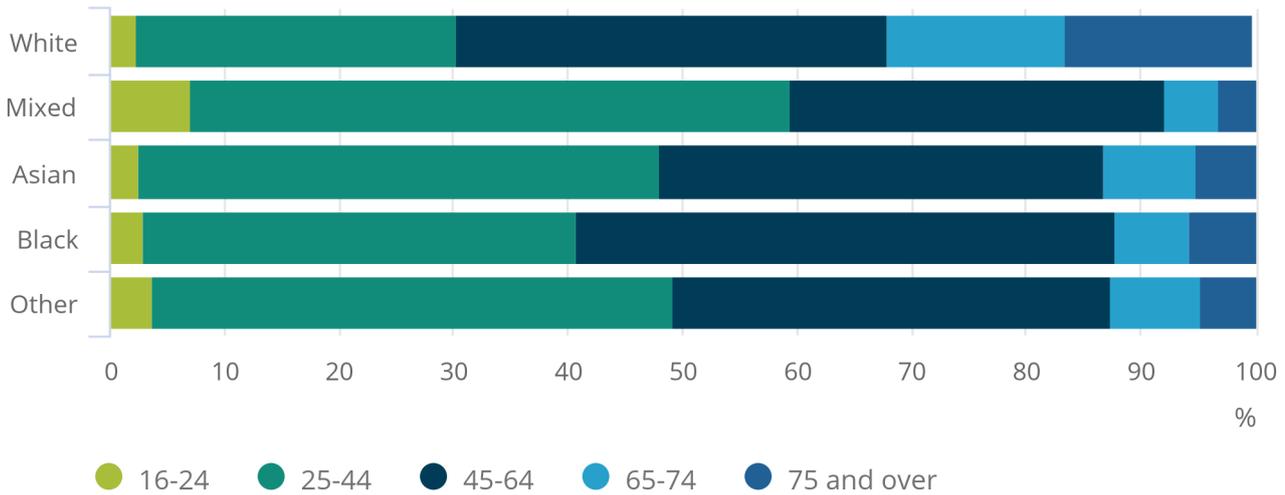
Figure 10: Online completion rates by high-level ethnic group and age (5 categories) of household reference person, paper-first areas



Source: Census 2021 from the Office for National Statistics

**Figure 11: Age composition (5 categories) of responding household reference persons by high-level ethnic group**

Figure 11: Age composition (5 categories) of responding household reference persons by high-level ethnic group



**Source: Census 2021 from the Office for National Statistics**

When we consider online completion for the English regions and Wales by high-level ethnic group, the pattern is generally consistent with overall regional variations in mode of completion. Table 3 and Table 4 show that London and South East regions had slightly higher proportions of online response for HRPs identifying as “White” than other regions, but online completion rates were broadly similar for other ethnic groups.

In paper-first areas, Wales had a much lower proportion of “White” (42.7%) and “Mixed” (52.5%) HRPs complete online compared with similar high-level ethnic groups in English regions, but similar proportions of online response for other ethnic groups. This had a clear impact on the overall online completion in Wales, as many more LSOAs in Wales were paper-first than in regions of England. For more information, please see our [Designing a digital-first census article](#).

Table 3: Online completion rates by high-level ethnic group of household reference person and region, online-first areas

<b>Region or country</b>	<b>All</b>	<b>White</b>	<b>Mixed</b>	<b>Asian</b>	<b>Black</b>	<b>Other</b>
<b>East Midlands</b>	93.2%	92.8%	95.0%	97.6%	95.3%	98.6%
<b>East of England</b>	93.9%	93.5%	96.9%	98.5%	97.6%	99.1%
<b>London</b>	95.9%	94.7%	96.6%	98.3%	96.3%	99.2%
<b>North East</b>	93.2%	93.0%	93.6%	98.4%	97.4%	99.0%
<b>North West</b>	93.7%	93.3%	95.6%	98.5%	96.8%	99.1%
<b>South East</b>	94.4%	94.0%	97.0%	98.7%	97.7%	99.1%
<b>South West</b>	92.5%	92.3%	94.8%	97.4%	95.2%	98.5%
<b>Wales</b>	91.2%	91.0%	89.8%	94.9%	91.0%	96.7%
<b>West Midlands</b>	92.9%	92.1%	94.7%	97.7%	94.2%	98.7%
<b>Yorkshire and the Humber</b>	93.1%	92.7%	95.1%	97.8%	95.3%	99.0%

Source: Census 2021 from the Office for National Statistics

Table 4: Online completion rates by high-level ethnic group of household reference person and region, paper-first areas

<b>Region or country</b>	<b>All</b>	<b>White</b>	<b>Mixed</b>	<b>Asian</b>	<b>Black</b>	<b>Other</b>
<b>East Midlands</b>	49.6%	46.6%	59.7%	71.1%	67.4%	89.8%
<b>East of England</b>	48.7%	45.8%	61.4%	76.6%	71.7%	91.7%
<b>London</b>	67.3%	59.5%	65.9%	78.4%	73.2%	88.2%
<b>North East</b>	52.2%	51.0%	62.0%	76.0%	76.4%	93.1%
<b>North West</b>	57.0%	51.1%	63.8%	73.7%	72.5%	90.9%
<b>South East</b>	54.0%	50.8%	64.1%	77.1%	72.4%	90.4%
<b>South West</b>	45.4%	44.2%	59.2%	72.4%	73.6%	91.5%
<b>Wales</b>	43.6%	42.7%	52.5%	69.3%	72.1%	87.7%
<b>West Midlands</b>	50.9%	46.5%	61.3%	71.5%	67.2%	89.5%
<b>Yorkshire and the Humber</b>	52.0%	47.1%	59.5%	71.7%	69.9%	91.2%

Source: Census 2021 from the Office for National Statistics

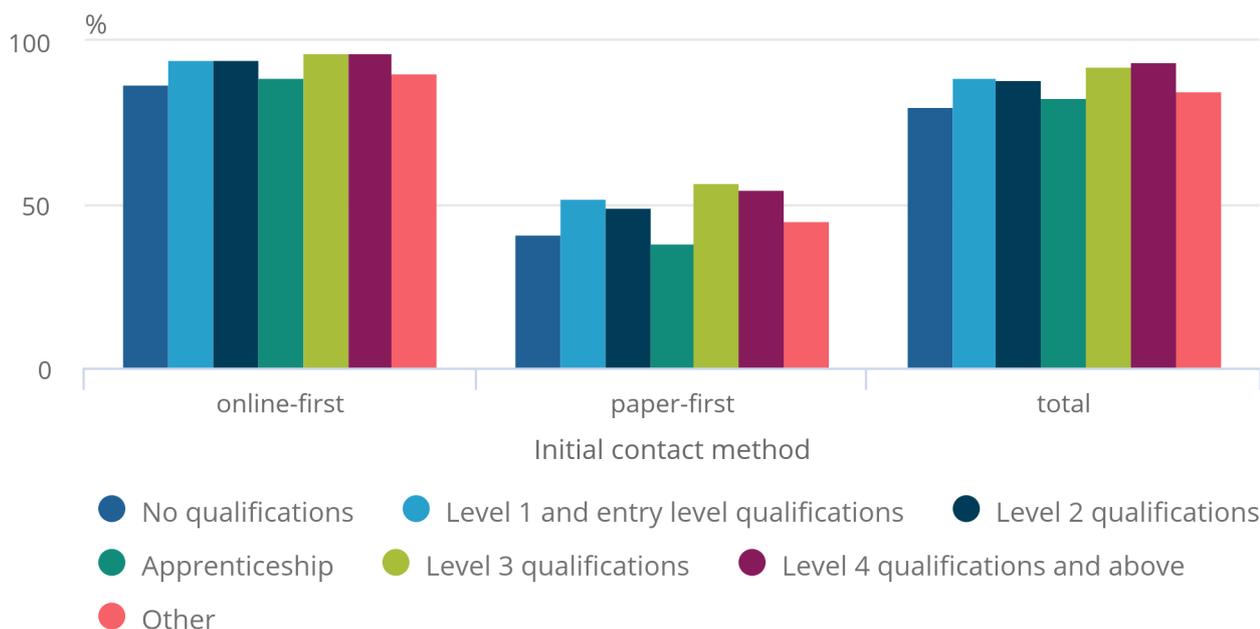
## 9 . Mode of completion by highest level of qualification of HRP

HRPs with higher levels of education, in general, were more likely to complete their Census online compared with those of lower education levels. For more information on how highest level of qualification was captured and the categories used, please see our [Education, England and Wales: Census 2021 bulletin](#).

Figure 12 shows that in both online-first and paper-first areas HRPs with Level 3 qualifications (92.6% overall) and Level 4 or above qualifications (93.5% overall) were most likely to complete their census questionnaire online. These proportions of online completion were slightly higher than the rates for HRPs with Level 1 highest qualifications (88.9% overall) and Level 2 highest qualifications (88.5% overall). Those HRPs with “other” qualifications (84.7% overall); apprenticeships (83.2% overall) and no qualifications (80.3% overall) had lower proportions of online completion than those with different highest qualifications. All categories of highest qualification saw more than 85% of HRPs in online-first, and 40% of HRPs in paper-first areas chose online as their mode of completion.

**Figure 12: Online completion rates by highest level of qualification of household reference person and initial contact method**

Figure 12: Online completion rates by highest level of qualification of household reference person and initial contact method



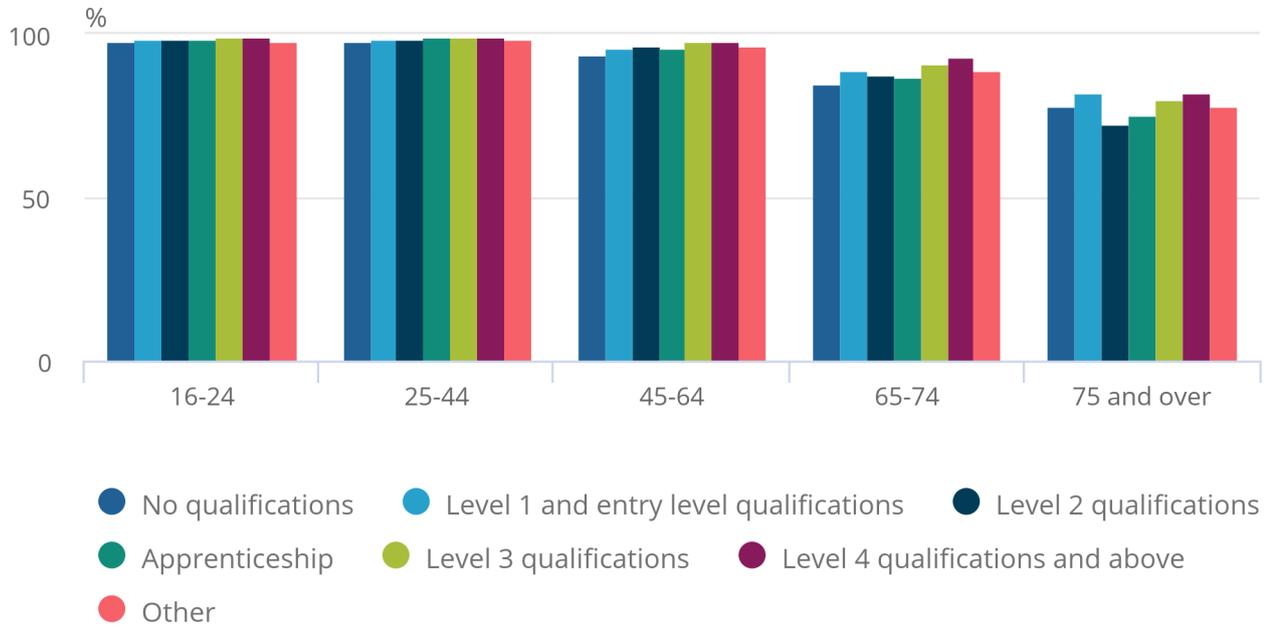
Source: Census 2021 from the Office for National Statistics

Figures 13 and 14 show that, like with other characteristics considered in this article, age and method of initial contact were still the main determinants of whether HRPs completed their census questionnaire online. Education level generally had less of an effect on whether someone responded online for HRPs aged under 45 years. Of HRPs aged between 45 and 74 years, those with Level 4 or above qualifications were proportionally more likely to respond online in both online-first and paper-first areas. Among the oldest HRPs (75 years of age and older), those with Level 1 qualifications were proportionately more likely to respond online than other highest qualification categories.

For example, both figures show that older HRPs with Level 1 highest qualifications, no qualifications, or “other” qualifications were more likely to respond online, relative to other highest qualification, than younger HRPs.

**Figure 13: Online completion rates by highest level of qualification and age (5 categories) of household reference person, online-first areas**

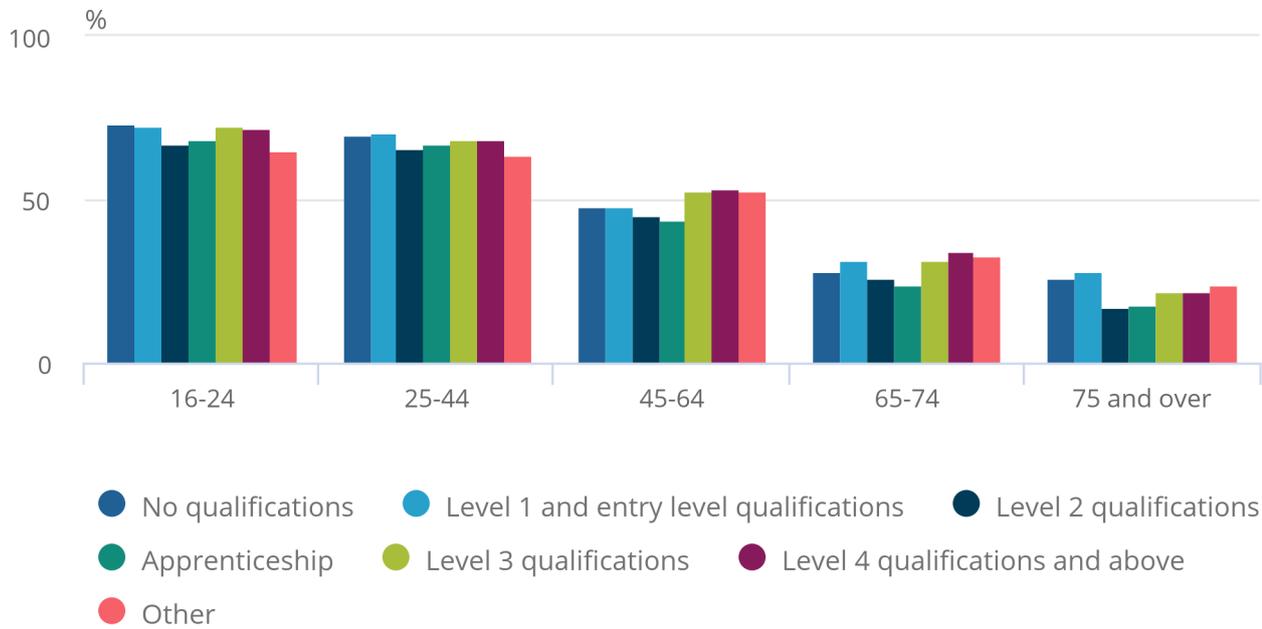
Figure 13: Online completion rates by highest level of qualification and age (5 categories) of household reference person, online-first areas



Source: Census 2021 from the Office for National Statistics

**Figure 14: Online completion rates by highest level of qualification and age (5 categories) of household reference person, paper-first areas**

Figure 14: Online completion rates by highest level of qualification and age (5 categories) of household reference person, paper-first areas

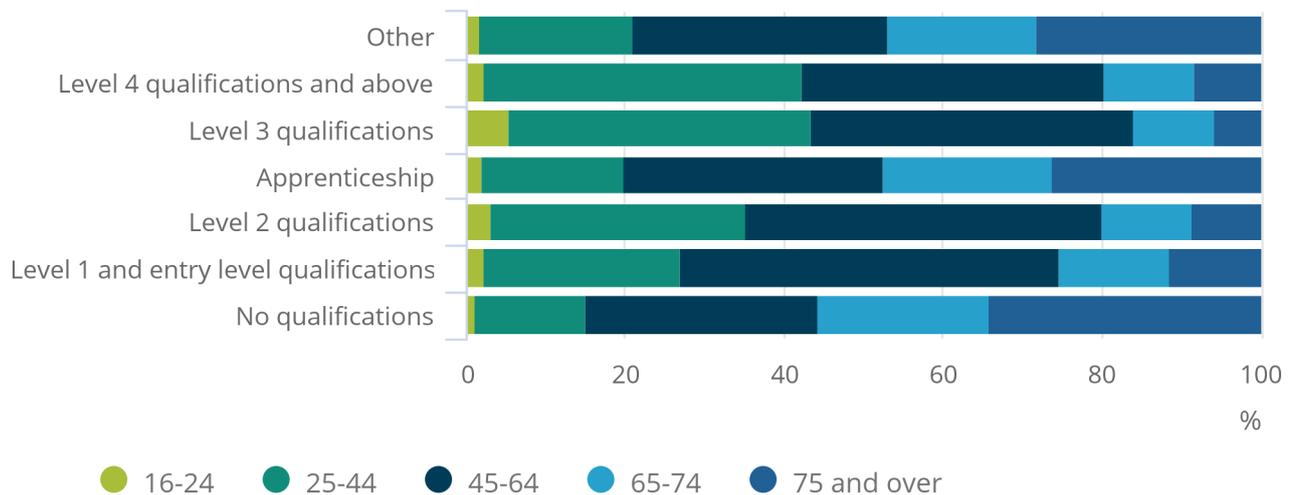


Source: Census 2021 from the Office for National Statistics

Figure 15 shows that, when looking at the age compositions of HRPs for each highest qualification category, the effect of age on the overall mode of completion figures is clear. HRPs aged 65 years and over make up a much higher percentage of HRPs with no qualifications (55.7%); Apprenticeships (47.5%); and “other” qualifications (46.8%) than any other highest qualification category.

**Figure 15: Age composition (5 categories) of responding household reference persons by highest level of qualification**

Figure 15: Age composition (5 categories) of responding household reference persons by highest level of qualification



Source: Census 2021 from the Office for National Statistics

## 10 . Glossary

### Lower layer Super Output Areas (LSOAs)

Lower layer Super Output Areas (LSOAs) are geographical areas used for the reporting of small area census statistics for England and Wales. They were first created following the 2001 Census and are updated following each census. They are usually made up of groups of four or five Output Areas (OAs), the lowest level of geographical area for census statistics. LSOAs comprise between 400 and 1,200 households and have a usually resident population between 1,000 and 3,000 persons.

### Household reference person (HRP)

Household reference persons provide an individual person within a household to act as a reference point for producing further derived statistics and for characterising a whole household according to characteristics of the chosen reference person.

The household reference person is the member of the household in whose name the accommodation is owned or rented, or is otherwise responsible for the accommodation. In households with a sole householder, that person is the household reference person.

## Hard-to-count index

The hard-to-count index is based on models created to inform planning and resourcing assumptions. There are two parts to the hard-to-count index, the willingness index and digital index. The willingness index indicates the relative likelihood of residents in an area responding to the census without field visits or reminder letters. The digital index indicates the relative propensity of households in an area to respond to the census online. For each index (separately), every LSOA across England and Wales is ranked and then categorised. For more information on the hard-to-count index, please see our [Designing a digital-first census article](#).

## Disability status

People who assessed their day-to-day activities as limited by long-term physical or mental health conditions or illnesses are considered disabled. This definition of a disabled person meets the harmonised standard for measuring disability and is in line with the Equality Act (2010).

The census first asked a question about disability in 1991. The answers help communities by allowing local authorities to understand the health needs of the people in their area both now and in the future. For example, people with long-term medical conditions are likely to need more support from the NHS. By measuring long-term conditions, local authorities can see how people will use the NHS in the future. They can then make plans to set aside resources and provide the right services for communities.

This information also helps develop and monitor policies to make sure that everyone is treated fairly. These policies affect the way that public bodies provide healthcare and aim to reduce health inequalities. They also help work towards improving the general health of the people in their area and the rest of England and Wales. For more information please see our [Disability variable: Census 2021 definition webpage](#).

## Ethnic group

The ethnic group that the person completing the census feels they belong to. This could be based on their culture, family background, identity or physical appearance.

Respondents could choose one out of 19 tick-box response categories, including write-in response options.

## High-level ethnic group

This refers to the first stage of the two-stage ethnic group question. High-level groups refer to the first stage where the respondent identifies through one of the following options:

- "Asian, Asian British, Asian Welsh"
- "Black, Black British, Black Welsh, Caribbean or African"
- "Mixed or Multiple"
- "White"
- "Other ethnic group"

## Highest qualification

The highest level of qualification is derived from the question asking people to indicate all qualifications held, or their nearest equivalent.

This may include foreign qualifications where they were matched to the closest UK equivalent.

The equivalent qualifications for "highest level of qualification" are as follows (please note, this is not an exhaustive list and therefore does not include every possible qualification):

- level 1 and entry level qualifications – any GCSEs at other grades, O levels or CSEs (any grades), Foundation Welsh Baccaulaureate, one Advanced Subsidiary (AS) level, NVQ (National Vocational Qualification) level 1, Basic or Essential Skills, skills for life, literacy and numeracy, Level 2 Scottish Vocational qualifications
- level 2 qualifications – five or more GCSEs (A\* to C or 9 to 4), O levels (passes), CSEs (grade 1), Intermediate Welsh Baccaulaureate, one A level, two to three AS levels, NVQ level 2, Business and Technology Education Council (BTEC) General, City and Guilds Craft, level 2 Scottish Vocational qualifications
- level 3 qualifications – two or more A levels, four or more AS levels, Advanced Welsh Baccaulaureate, NVQ level 3, City and Guilds Advanced Craft, Ordinary National Certificate (ONC), Ordinary National Diploma (OND), BTEC National, International Baccaulaureate, level 3 Scottish Vocational qualifications
- level 4 or above qualifications – degree, foundation degree, Doctor of Philosophy (PhD), Master's degrees, Higher National Diploma (HND) or Higher National Certificate (HNC), NVQ level 4 or above, professional qualifications (for example, teaching or nursing)
- Other – any other qualifications, equivalent unknown

## 11 . Data sources and quality

For data sources and quality information, please see our [Maximising the quality of Census 2021 population estimates methodology](#).

## 12 . Related links

### [Design for Census 2021](#)

Article | Released 1 October 2020

How we have planned and designed Census 2021 from start to finish, to ensure results are of high quality and fit for purpose.

### [Designing a digital-first Census](#)

Article | Released 4 October 2021

How we designed a digital-first census to make sure everyone could take part and the response to this.

### [Digital Propensity Index for England and Wales LSOAs: Census 2021](#)

Article | Released 8 February 2023

How Census 2021 online response rates, combined with modelled predictions, created a comparative measure of digital uptake for England and Wales at Lower layer Super Output Area (LSOA) level.

### [Delivering the Census 2021 digital service](#)

Article | Released 4 October 2021

How the technical aspects of the Census 2021 digital service were built, for interest of digital professionals across government.

### [Maximising the quality of Census 2021 population estimates](#)

Article | Last revised 9 December 2022

How we maximised the quality of Census 2021 population estimates during the processing and quality assurance of the final statistics.

## 13 . Cite this article

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