

Demography and migration quality information for Census 2021

Known quality information affecting demography, migration and international migration data from Census 2021 in England and Wales.

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1 . Quality information

Census 2021 took place during a period of rapid change and this will be reflected in the origin-destination statistics produced from the census.

The origin-destination statistics for travel to work reflect a situation when many more people than at the time of the 2011 Census were working from home or on furlough. There are a number of ways in which this affected census results for travel to work as described in our [Travel to Work quality information for Census 2021](#). In summary, it is unclear as to how representative the census statistics are of travel to work patterns as at Census Day. Furthermore, the Census data is a snapshot in time, but, given the impact of lockdown and furlough, the census results have limited utility in measuring pre- or post-pandemic travel patterns.

Origin-destination statistics for address one year ago will reflect the impact of the pandemic on international and domestic migration. While the data for this topic is not affected by all of the complexities affecting travel to work, we advise users to be very cautious in assuming that migration patterns seen in the 12 months to Census are representative of patterns seen in other years.

We identified a quality issue in the 2011 census origin-destination statistics for a very small number of areas where an element of some flows had been incorrectly recorded as a flow to another area with the same name. Our quality assurance has not identified this issue arising in the 2021 results.

Household deprivation

For the purposes of census outputs, households were classified as whether belonging to each of the following dimensions of deprivation:

- employment: where any member of a household, who is not a full-time student, is either unemployed or economically inactive due to long-term sickness or disability.
- education: no person in the household has at least five or more GCSE passes (grade A* to C or grade 4 and above) or equivalent qualifications, and no person aged 16 to 18 years is a full-time student
- health and disability: any person in the household has general health that is "bad" or "very bad" or is identified as disabled
- housing: the household's accommodation is either overcrowded, with an occupancy rating of negative 1 or less (implying that it has one fewer room or bedroom required for the number of occupants), or is in a shared dwelling, or has no central heating

This classification provides no more information on deprivation than the definitions allow for. Care should be taken when interpreting this variable which, for example, does not directly reflect a household's income or wealth. This classification is broadly the same as that used in the 2011 census outputs but changes in the census definitions for variables in the education, housing and health topics should be taken into account if analysing change between 2011 and 2021.

Household size

Our method of adjusting for undercoverage involves adding new households to the census database to reflect both households that did not respond to the census and individuals in responding households who were not included on the census return. This means we did not add these latter individuals into existing households.

As a result, populations tending to have larger households who responded to the census but missed some individuals from their return may see their household size distribution slightly over-estimate the number of smaller households and slightly under-estimate the number of larger households.

Given the high level of person response and the overall household size distribution this effect would be very small across the population as a whole. However, it might be more evident in estimates for very small areas or population groups which had a concentration of such households.

Family and Household composition (large families or households)

Census figures relating to family and household composition draw on the “relationship matrix” on the census questionnaire, which records how members of the household are related to each other. These data contain the full set of relationships between the first five people in a household. Where a household contains more than five people, the data for the “additional” members of the household cover only a subset of those relationships. For example, Person 5 on the household response will have relationships with each of Persons 1 to 4 recorded, while Person 7 will only have relationships with Persons 1 and 6 reflected in the data.

As only 2.4% of households in England and Wales have more than five people, and as we would expect few families or households to change their categorisation in the standard output classifications as a result of relationships for Persons 6 and above, this aspect of the data is unlikely to affect the interpretation of the standard results for these topics. However, it could affect the interpretation of data on specific family types, such as step-families and grandparent families, provided as a commissioned table. If you need a more detailed categorisation of households or families, please contact census.customerservices@ons.gov.uk to discuss the options available.

Comparing Census 2021 household relationships with 2011 Census

Census figures relating to family and household composition draw on the “relationship matrix” on the census questionnaire, which records how members of the household are related to each other. This is one of the more complex parts of the Census question and prone to response error. Data quality of Census 2021 is higher than 2011 Census. Census 2021 was largely collected online, whereas 2011 Census was largely collected through paper questionnaires. The online questionnaire included checks that reduced errors in completion, particularly on date of birth from which age is derived.

For example, Census 2011 showed more than twice as many sibling relationships with age gaps of more than 30 years (which is still less than 0.5% of sibling relationships) than 2021 Census. Many of these relationships are likely to be explained by response error (either to the ‘Date of Birth Question’ or the relationship matrix). This is unlikely to impact the household and family classifications for the vast majority of households. However, Census 2021 and Census 2011 relationships data may not be directly comparable when used to identify less common household and family types (for example children living without parents but with adult siblings).

Child-only households

Where needed, we have made national adjustments for children aged 0 to 2 years. This is because people completing the census often forget to add their babies. The estimates are still valid, however, in some instances the data are showing a higher-than-expected number of child-only households. This is clustered to the East of England and affects the household reference person, sex and resident age. In some cases, this is correct for example where a child is the usual resident born in the UK but has parents who are short-term residents.

Armed forces

Armed forces personnel and defence employees are included in the census and recorded as usually resident using the standard definitions. The instructions given to personnel on how to respond to the census mean that this group cannot be separately identified in census data. Information on the size and characteristics of the UK armed forces population is produced by the Ministry of Defence (MOD) and available at [MOD National and Official Statistics by topic](#).

Inconsistency when comparing legal partnership status with household composition

The complexity of living arrangements coupled with the way people interpreted these questions may mean that relationships seen in the household may not appear to match legal partnership status. For example, there may be situations where people who have described themselves as never married or civil partnered are shown as living in “married couple families”.

Take care when interpreting census data on legal partnership status together with data drawn from the relationship matrix question on the census questionnaire, such as family type.

Legal partnership status

The census response data contained implausibly high numbers of people reporting to be in opposite-sex civil partnerships and same-sex marriages. We have corrected most of these apparent errors by using information from the relationship matrix question on the census questionnaire.

However, this correction is not possible where people do not live with their current or ex-partner. This means that we consider estimates for the legal partnership status “Separated”, “Divorced/dissolved”, and “Widowed/surviving partners” to be reliable. However, the disaggregation of those groups by opposite- and same-sex partnerships is not.

Be aware that we will not be producing separate estimates by opposite- and same-sex for the legal partnership status categories “Separated”, “Divorced/dissolved” and “Widowed/surviving partners” as part of our standard census results.

Passports held

The passports held question allowed respondents to select:

- “United Kingdom”
- “Ireland”
- “Other”

If they selected “Other”, they could write in the country for which they had a passport. Multiple ticks were allowed for this question. So, for example, people could be recorded as holding both a British and Irish passport. However, only the first written-in country was taken if the respondent wrote in more than one country under “Other”.

Croatia passport holders categorises in wrong group in multiple_passports

We have incorrectly coded Croatia passport holders to the wrong multiple passport held groups. The 2011 country groupings were used to classify EU and non-EU groupings, causing us to code Croatian passport holders to “UK and Other: other Europe” passport holders instead of “UK and Other: European Union”, “Irish and Other: other Europe” instead of “Irish and Other: European Union” and “Other only: other Europe” instead of “Other only: European Union” groups.

This affects the 24 category version of multiple passports in [the custom dataset builder](#). Take care when using this variable. We will correct this by the end of Autumn 2023.

Short-term residents

The great majority of published census estimates relate to “usual residents”. The census also collects information on “short-term residents”. These are defined as people born outside the UK who were present in the UK on Census Day who intended to stay in the UK for less than 12 months, including the time they have already spent here. This population is relatively small (fewer than 200,000 people across England and Wales) and has not been adjusted to correct for any non-response.

Reliability of data at oldest ages

Any misreporting of date of birth by either the respondent, proxy completer or from scanning of paper returns is more likely to affect older ages where there are fewer actual records. We carried out estimation of non-response in Census 2021 for the age 90 years and over group as a whole. This means that there is less reliability in the estimates for single year of ages from age 90 years up to 100 years and over than for the group as a whole. When the adjustment process imputed new records to account for the estimated non-response, this was optimised across a number of characteristics rather than just single year of age. As such, where there are small numbers in single age groups, this can sometimes lead to unlikely looking age patterns at low-level geographies.

Topic summary feedback

Help us improve our Census 2021 content by [completing our survey](#).

2 . Related links

[Quality and methodology information Census 2021](#)

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Details the data strengths, limitations, uses, users and methods used for Census 2021, England and Wales.