

Statistical bulletin

Origin-destination data, England and Wales: Census 2021

Overview of people's movements between locations to migrate, for work, or to stay at a second address, from Census 2021 in England and Wales



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1 . Main points

- Out of all English regions, the South East had the highest number of usual residents who had an address in a different English region, or in another UK country, in the year before Census 2021.
- The highest proportion of usual residents migrating within the same local authority in the year before Census Day could be found in Oxford (10.9%) in England and Cardiff (9.3%) in Wales.
- Females aged 16 to 24 years had the highest number of moves across various local authorities in England and Wales.
- The top three local authorities where usual residents commuted to a workplace outside their respective local authorities were Bolsover (47.1%), North East Derbyshire (45.0%), and Barking and Dagenham (44.9%).
- In England and Wales, the Cotswolds (1.0%), Gwynedd (1.0%), and the Isle of Anglesey (1.0%) had the highest proportion of usual residents who stayed at their work-related second address outside their local authority for more than 30 days a year.

Census 2021 took place during the coronavirus (COVID-19) pandemic, a period of unparalleled and rapid change; the national lockdown, associated guidance and furlough measures will have affected the origin-destination data. Therefore, care is advised when using these data for planning and policy purposes.

2 . Origin-destination migration data

The Census 2021 estimates for origin-destination migration flows show the movement of usual residents aged one year and over, who were living at a different address one year before the Census 2021, to their usual residence at the time of the census. This statistical bulletin will use the term "move", "flow", or "commute" to describe the movement from origin to destination throughout the rest of the bulletin.

Census 2021 does not record the moves of those aged under one year on Census Day (21 March 2021) because they did not have an address one year prior to the census. An estimate was made for these moves in 2011, but this has not been estimated for 2021. Users must be cautious when comparing it with 2011 origin-destination datasets.

England, Wales, and Northern Ireland held their censuses in March 2021, whereas Scotland held their census in March 2022. The difference in dates means we have been unable to combine these data to produce a reliable set of UK origin-destination data.

Origin-destination datasets for England and Wales include the following Scottish and Northern Ireland flows:

- to Northern Ireland or Scotland, where a usual resident of England and Wales worked in Northern Ireland or Scotland
- from Northern Ireland or Scotland, where a usual resident of England and Wales had an address in Northern Ireland or Scotland one year before Census Day
- to Northern Ireland or Scotland, where a usual resident of England and Wales had a second address in Northern Ireland or Scotland

In England, 6.2 million usual residents, and in Wales, 292,000 usual residents had a different address one year before Census Day.

Out of all English regions, the South East had the highest number of usual residents (244,728) who had an address in a different English region or in another UK country in the year before Census 2021. Of the total moves to the South East, which were made from another region or another UK country, 54.0% were from London.

Figure 1: Across English regions, the North West had the highest proportion of usual residents who moved within the region, one year before Census 2021

Origin and destination of usual residents for those aged one year and over, who had a different address one year before Census 2021, England and Wales

Download the data

[.xlsx](#)

Migration within the UK

Of the total moves to England from another UK country, 54.9% were from Wales, 39.3% from Scotland, and 5.8% from Northern Ireland. Wales had most of the usual residents who had a different address one year before the Census in another UK country, mainly from England (97.8%), followed by Scotland (1.9%) and Northern Ireland (0.3%). More information can be found in our [People in England and Wales with a different address in the UK a year before the census](#) article.

Migration within the local authority

This bulletin presents origin-destination flows as a proportion of usual residents in local authorities. However, areas with small populations, such as the City of London, may be more likely to show large percentage changes compared with other local authorities. If you are interested in the total counts of moves in an area, the interactive visuals in the bulletin will provide total counts of flows.

The top two local authorities with the highest proportion of usual residents aged one year and over who moved within-local authority were Oxford (10.9%) and Cardiff (9.3%), respectively, in England and Wales. In Oxford, the most common age group of these people was those aged between 16 and 24 years (42.8%), comprising 53.7% females and 46.3% males. Similarly in Cardiff, the most common age of people was those aged between 16 and 24 years (43.1%), over half of which were female (55.3%). More information on how people with a different address one year before the census move within the same area can be found in our [People in England and Wales with a different address in the UK a year before the census](#) article.

Migration from outside of a local authority (inflows)

In England, the top three local authorities with the highest inflows as a proportion of all usual residents aged one year and over in that area were the City of London (18.6%), Islington (11.7%), and Hammersmith and Fulham (11.4%). In the City of London, 40.1% of outside-local authority moves were made by usual residents aged 25 to 34 years and were higher in males (60.7%) than females (39.3%). The top three contributing local authorities for these moves were Tower Hamlets (12.4%), Westminster (10.9%), and Islington (8.3%).

Islington saw the second highest proportion of usual residents migrating from another local authority. 48.2% of total outside local authority moves in Islington were made by residents aged 25 to 34 years, which showed a larger female population (51.9%) compared with males (48.1%). Hackney (12.1%), Camden (10.5%), and Haringey (8.6%) were the top three contributing local authorities for these moves in Islington.

Hammersmith and Fulham had 11.4% of usual residents aged one year and over who had a different address outside of the local authority, one year before the census. The most common age group of people was 25 to 34 years (44.0%), and people were more likely to be female (52.5%) than male (47.5%). The three main local authorities from where usual residents moved to Hammersmith and Fulham were Kensington and Chelsea (10.1%), Wandsworth (8.6) and Ealing (8.3%). The data show that most outside local authority moves were within clusters of neighbouring or nearby local authorities.

The top three local authorities in Wales with people from outside that local authority were Ceredigion (6.4%), Swansea (4.4%) and Monmouthshire (4.4%). Of the total people from outside the local authority, 50.7% of the people in Ceredigion were aged 16 to 24 years, with more females (50.7%) than males (49.3%). Most usual residents (7.8%) in Ceredigion migrated from Carmarthenshire. Swansea had 53.9% of usual residents aged 16 to 24 years, with more males (55.7%) than females (44.3%). Swansea had 20.0% usual residents from Neath Port Talbot, which is the major contributing local authority for these moves. In Monmouthshire, 26.6% of the people were aged 25 to 34 years, with more males (51.2%) than females (48.8%). The two main local authorities from where usual residents moved to Monmouthshire were Newport (8.3%) and Bristol (8.1%).

Figure 2: Interactive map showing movement of people from their address one year before Census Day to their usual residence on Census Day

Origin and destination of usual residents aged one year and over, 2021, local authorities in England and Wales

Notes:

1. This figure excludes data for usual residents who had an address outside the UK one year before Census Day.

Download the data

[.xlsx](#)

International migration

International migration provides information on the usual residents aged one year and over of England and Wales, who had a different address outside the UK one year before Census 2021. As a result of the coronavirus (COVID-19) pandemic, UK travel restrictions were enforced from March 2020 onwards, and restrictions were put in place in other countries across the world. As a result, a decline in the number of moves from outside the UK had been expected. To protect confidentiality, origin-destination datasets for Census 2021 include 60 categories for detailed, and 10 for less detailed information, about the country of origin.

The country of previous residence does not necessarily correspond with country of birth or nationality, and it will include the return migration of UK nationals or UK-born individuals. Those who migrated to the UK from abroad in the year before Census 2021 and then moved within the UK that year, will be considered as having a previous address overseas and their move within the UK will not be recorded.

In England and Wales, 8.4% of all usual residents with a different address one year before the census had an address outside the UK.

Across English regions, the most common country of origin was India, except for the East of England and the South West; in these regions, the top contributing countries were the United States and the "other Middle East" group (which includes all countries in the Middle East, except Iran and Iraq), respectively.

The top three local authorities in England which received the highest number of people from outside the UK as a proportion of usual residents aged one year and over, were the City of London (6.4%), Westminster (4.9%), and Cambridge (4.3%). The United States was reported as the major contributor to the migration in each of these local authorities; Westminster (15.4%), Cambridge (12.4%) and the City of London (12.0%). Most people who migrated to these local authorities were aged 25 to 29 years; the City of London (28.1%), Cambridge (24.7%) and Westminster (22.8%).

In Wales, Cardiff (1.4%) had the highest proportion of usual residents who migrated from outside the UK one year before the census. India (12.8%) was the main contributing country of origin for Cardiff. The age group of people that was most common in Cardiff was 20 to 24 years (26.0%).

For more information on population characteristics of international migrants, read our [International migration, England and Wales: Census 2021 bulletin](#).

Figure 3: India and United States were the top two countries of origin for the majority of usual residents with addresses outside the UK one year before Census Day

Origin and destination of usual residents aged one year and over, 2021, local authorities in England and Wales

Download the data

[.xlsx](#)

3 . Origin-destination workplace data

The workplace datasets show commuting flows between usual residence and place of work for people aged 16 years and over, in employment or temporarily away from work in the week before Census 2021.

On the Census 2021 questionnaire, people aged 16 years and over, and either in employment or temporarily away from work in the week before Census Day, were asked "Where do you mainly work?". People were asked to report whether they worked from home, at an offshore installation, at a regular workplace or depot, or whether they did not have a fixed workplace. Respondents with a regular workplace or depot, were asked for their workplace address.

Census 2021 was conducted during the coronavirus (COVID-19) pandemic, which will have affected where many people worked. Home workers were not asked to provide a usual workplace address, so workplace data will reflect behaviours at that time.

As a result of the coronavirus (COVID-19) pandemic, the UK government had introduced furlough measures to ensure those who could not work were able to remain in employment. During the coronavirus (COVID-19) pandemic, people in England and Wales were supported by the Coronavirus Job Retention Scheme and the Self-Employment Income Support Scheme (SEISS), national income support schemes also referred to as "furlough". When completing the Census 2021 questionnaire people on furlough were advised to say that they were temporarily away from work, as were those who were quarantining or self-isolating because of the pandemic. People on furlough had specific guidance to help them respond. More information about this can be found in our [Travel to work quality information for Census 2021 methodology](#) and our [Labour market quality information for Census 2021 methodology](#).

In England, local authorities with the highest proportions of usual residents aged 16 years and over in employment who commuted to their workplace within the same local authority were Barrow-in-Furness (57.2%), North East Lincolnshire (57.2%) and the Isle of Wight (56.8%).

Bolsover (47.1%), North East Derbyshire (45.0%), and Barking and Dagenham (44.9%), were the top three local authorities where usual residents commuted to a workplace outside their local authority. Out of the total workforce in Bolsover who commuted outside their local authority, 17.9% reported their workplace in Chesterfield, 13.1% in Ashfield, and 10.9% in Amber Valley.

In Wales, Pembrokeshire (52.4%), Wrexham (49.0%), and Gwynedd (48.3%) had the highest proportion of work-related flows within their respective local authorities.

Blaenau Gwent (39.4%), Merthyr Tydfil (30.7%) and Caerphilly (30.6%), had a large number of usual residents aged 16 years and over in employment who commuted outside their respective local authority. In Blaenau Gwent, 21.6% of usual residents reported Caerphilly as their workplace.

The differences in workplace movement at different geographies may be partly explained by variations in employment within occupations and industries, by the type of job that could be done remotely and the prevalence of furlough for an industry or occupation. More information about how people were employed can be found in our [Industry and occupation bulletin](#).

Figure 4: Interactive map showing the movement of people from their usual residence to workplace

Origin and destination of usual residents aged 16 years and over in employment, 2021, local authorities in England and Wales

Notes:

1. These data exclude usual residents who did not have a fixed place to work, who worked at or from home, or who had a workplace address at an offshore installation or outside the UK on Census Day.

Download the data

[.xlsx](#)

4 . Origin-destination second address data

Census 2021 also asked respondents to report whether they stay at another address for more than 30 days a year. If they answered yes, they were asked the purpose of the second address, and whether it was within, or outside, the UK.

Census 2021 was conducted during the coronavirus (COVID-19) pandemic which may have affected people's use of second address, but this is difficult to measure.

In England and Wales, 5.3% of the total population (3.2 million) stayed at a second address for 30 days or more; a slightly higher percentage of people in England used a second address (5.4%) than in Wales (5.2%). In England and Wales, 2.5 million people (4.1% of the usual resident population) reported their second address within the UK. The remaining 736,000 (1.2% of the usual resident population) used a second address outside the UK. Find out more about second addresses in our [People with second addresses, England and Wales: Census 2021](#) bulletin. You can also find information in our [Characteristics of people in England and Wales with a second address: Census 2021](#) article.

Work-related second address flows

In England and Wales, the top three local authorities with the largest proportion of usual residents aged 16 years and over in employment, who stayed at a work-related second address outside their local authority for more than 30 days a year, were the Cotswolds (1.0%), Gwynedd (1.0%), and the Isle of Anglesey (1.0%).

In the Cotswolds, 13.0% of usual residents aged 16 years and over in employment had work-related second addresses in Kensington and Chelsea and 11.8% in Westminster. Most of the usual residents with work-related second addresses were aged 50 to 64 years (36.9%).

A high proportion of usual residents in Gwynedd had work-related second addresses in Cardiff (6.2%). The majority of these usual residents (36.1%) were aged 50 to 64 years.

In the Isle of Anglesey, 10.0% of usual residents aged 16 years and over and in employment had work-related second addresses in Gwynedd. The highest proportion of residents in the Isle of Anglesey who stayed at a second address for more than 30 days a year were aged 50 to 64 years (41.2%).

Figure 5: Interactive map showing people's usual residence and their work-related second address where they stayed more than 30 days a year

Origin and destination of usual residents aged 16 years and over in employment who stayed at a work-related second address more than 30 days a year, 2021, local authorities in England and Wales

Notes:

1. This figure excludes data for those usual residents who had their work-related second address outside the UK on Census Day.

Download the data

[.xlsx](#)

5 . Origin-destination of students

Census 2021 estimates for origin-destination student flows show the movement of usual residents aged 16 years and over who had a different address that was a student term-time residence or boarding school address in the UK, one year before Census Day.

Student flow data provides partial coverage of student migration. For example, it does not include students who migrated from their parental address to another address for study purposes, if the move was before March 2020. In contrast, the data does include migration flows for individuals who were a student one year prior to the census and lived at a student address but who on Census Day were no longer a student but lived at a different address. Further information on quality and limitations on students' flow data can be found in section 6 of our [origin-destination user guide](#).

The origin-destination student flows may have been impacted by the coronavirus (COVID-19) pandemic national lockdowns. For instance, students may have been more likely to be residing at their parent or guardian's address for the academic year with no use of a different term-time address, and fewer international students were living in England and Wales. Further information can be found in our [International student population in England and Wales article](#).

In English regions, the South East had the highest number of usual residents who had a student term-time or boarding school address one year before the census. Of total moves in the South East, 69.2% of moves were made within the region.

Moves within local authorities

In England, Exeter (3.6%) and Nottingham (3.4%) had the highest proportion of usual residents aged 16 years and over who were living at a term-time or boarding school address one year before the census within the same local authority. In Nottingham (54.7%) and Exeter (54.5%) these usual residents were aged below 20 years. Of the total usual residents who had a previous address which was a student term-time or boarding school address, Nottingham had 94.2% and Exeter had 93.8% usual residents who were still full-time students on Census Day.

In Wales, the top two local authorities that received the highest proportion of usual residents were Ceredigion (2.1%) and Cardiff (1.9%). Within these local authority moves, most were aged 20 to 24 years, 54.8% in Ceredigion and 50.9% in Cardiff. In Ceredigion 89.1% and in Cardiff 85.9% were still full-time students on Census Day.

Moves from outside local authorities (inflows)

In England, the City of London had the highest proportion of usual residents aged 16 years and over (2.3%) who had a previous address outside the local authority, mainly from Camden (11.5%), Southwark (8.7%), and Tower Hamlets (8.7%). In the City of London, 63.4% were aged 21 to 24 years. Of the total usual residents who moved to the City of London from a student term-time or boarding school address, 58.8% of these usual residents were still students on Census Day.

In Wales, Swansea had the highest proportion (0.7%) of people with a previous address outside of their current local authority. Most of these usual residents reported a previous residence in Neath Port Talbot (60.1%) and Cardiff (8.4%). In Swansea, 52.3% of these people were aged under 20 years. Of the total usual residents in Swansea who had a different address one year before Census Day, that was student term-time or boarding school, 87.9% were still full-time students on Census Day.

Figure 6: Interactive map showing the movement of people who had an address that was a student term-time or boarding school address one year before Census Day

Origin and destination of usual residents aged 16 years and over, 2021, local authorities in England and Wales

Download the data

[.xlsx](#)

6 . Origin-destination data

[Origin-destination migration](#)

Dataset | Released 26 October 2023

This dataset provides Census 2021 estimates on all usual residents aged one year and over in England and Wales, who were living at a different address one year before the Census.

[Origin-destination workplace](#)

Dataset | Released 26 October 2023

This dataset provides Census 2021 estimates on all usual residents aged 16 years and over and in employment the week before the census in England and Wales. The estimates show the movement of people between their area of residence and workplace.

[Origin-destination second address](#)

Dataset | Released 26 October 2023

This dataset provides Census 2021 estimates on all usual residents who have a second address where they stay more than 30 days a year.

[Origin-destination student](#)

Dataset | Released 26 October 2023

This dataset provides Census 2021 estimates on all usual residents aged 16 years and over in England and Wales who were living at a different address that was a term-time residence or boarding school one year before the census.

7 . Glossary

Address one year ago

The place where a person was living one year before Census Day, that is, on Sunday 22 March 2020. People could choose from:

- same as the current address
- student term-time or boarding school address in the UK
- another address in the UK
- outside of the UK

In employment

People aged 16 years and over are in employment if, between 15 March and 21 March 2021, they were an employee or self-employed.

The census definition differs from the International Labour Organization definition used on the Labour Force Survey, so estimates are not directly comparable.

NS-SEC

The National Statistics Socio-economic Classification (NS-SEC) indicates a person's socio-economic position based on their occupation and other job characteristics. It is an Office for National Statistics (ONS) standard classification. NS-SEC categories are assigned based on a person's occupation, whether they are employed, self-employed, or supervising other employees.

Full-time students are recorded in the "full-time students" category regardless of whether they are economically active.

Second address

An address (inside or outside of the UK) where a person stays at for more than 30 days a year, that is not their place of usual residence.

Second addresses typically include:

- armed forces bases
- addresses used by people working away from home
- a student's home address
- the address of another parent or guardian
- a partner's address
- a holiday home

If a person with a second address was staying there on census night, they were classed as a visitor to the second address, but counted as a usual resident at their home address.

Usual resident

A usual resident is anyone who on Census Day, 21 March 2021 was in the UK and had stayed or intended to stay in the UK for a period of 12 months or more, or, had a permanent UK address and was outside the UK and intended to be outside the UK for less than 12 months.

8 . Measuring the data

Reference date

The census provides estimates of the characteristics of all people and households in England and Wales on Census Day, 21 March 2021. It is carried out every 10 years and gives us the most accurate estimate of all the people and households in England and Wales.

We are responsible for carrying out the census in England and Wales but will also release outputs for the UK in partnership with the Welsh Government, the National Records of Scotland (NRS) and the Northern Ireland Statistics and Research Agency (NISRA). The census in Northern Ireland was also conducted on 21 March 2021, whereas Scotland's census was moved to 20 March 2022. All UK census offices are working closely together to understand how this difference in reference dates will affect UK-wide population and housing statistics, in terms of timing and scope.

Response rate

The person response rate is the number of usual residents for whom individual details were provided on a returned questionnaire, divided by the estimated usual resident population.

The person response rate for Census 2021 was 97% of the usual resident population of England and Wales, and over 88% in all local authorities. Most returns (89%) were received online. The response rate exceeded our target of 94% overall and 80% in all local authorities.

Further information on question-specific response rates will be published in a separate report later this year.

9 . Strengths and limitations

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 people were working from home, or were furloughed, compared with Census 2011. There are a number of ways in which this affected the census results for travelling to work as described in our [Travel to Work quality information for Census 2021 methodology](#) and [Labour market quality information for Census 2021 methodology](#).

In summary, it is unclear as to how representative the census statistics are of travel to work patterns on Census Day. The census data give 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 addresses one year ago will reflect the impact of the pandemic on international and domestic migration. While the data for this topic are not affected by all of the complexities affecting travel to work, we advise users to be cautious in assuming that migration patterns seen in the 12 months leading up to the census are representative of patterns seen in other years. You can find out more about this in our [Demography and migration quality information for Census 2021 methodology](#).

The strengths and limitations of Census 2021 can be found in our [Quality and Methodology Information \(QMI\) for Census 2021](#), and further information on our quality assurance processes is provided in our [Maximising the quality of Census 2021 population estimates report](#).

10 . Related links

[User guide to Census 2021 origin-destination data, England and Wales](#)

Methodology | Released 26 October 2023

Supporting information for origin-destination data from Census 2021 in England and Wales, including how to access and use public, safeguarded and secure origin-destination datasets.

[Analysis of social characteristics of international migrants living in England and Wales: Census 2021](#)

Analysis article | Released 18 September 2023

Country of birth, age, sex, housing, family, language, health, qualifications, religion, national identity and ethnicity, for the non-UK-born population in England and Wales.

[People in England and Wales with a different address in the UK a year before the census: Census 2021, England and Wales: Census 2021](#)

Analysis article | Released 6 September 2023

Characteristics of people who moved a year prior to Census 2021 and the 2011 Census, with detailed migration datasets. Regional and local authority inflows and outflows.

[International migration, England and Wales: Census 2021](#)

Bulletin | Released 2 November 2022

International migration, including country of birth, passports held and year of arrival, Census 2021 data.

[Travel to work, England and Wales: Census 2021](#)

Bulletin | Released 8 December 2022

Method of travel and distance travelled to work, Census 2021 data.

[Labour market and travel to work in Wales \(Census 2021\)](#)

Bulletin | Released 8 December 2022

A summary by Welsh Government of Census 2021 data about the labour market and travel to work in Wales.

[People with second addresses, England and Wales: Census 2021](#)

Bulletin | Released 5 January 2023

Information about people who use second addresses in England and Wales, Census 2021 data.

[Characteristics of people in England and Wales with a second address: Census 2021](#)

Bulletin | Released 19 April 2023

People with second addresses in 2011 and 2021 by age, sex, addresses inside and outside of their usual local authority and the UK, and distance from usual address.

[Census 2021 dictionary](#)

Supporting information | Released 28 October 2022

Variables, definitions and classifications to help when using Census 2021 data.

11 . Future publications

We are currently transforming population statistics. As part of this work, we are exploring how we might use administrative and other sources of data to estimate future population characteristics.

12 . Cite this statistical bulletin

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