

Article

Coronavirus and travel to work: June 2020

Contextual data on travel to work patterns from the Census and Annual Population Survey. It provides data on method of travel to work and distance of travel to work split by industry sectors and workplace location.

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1 . Main points

- Census 2011 data for England and Wales showed that 55% of workers with a workplace in Inner London commuted by rail or underground compared with 16% of workers working in Outer London, 5% of workers working in other conurbations and only 1% of workers working in rural local authorities.
- The Annual Population Survey (APS) showed that for the UK in 2018, 40% of people who took the train or underground to work were employed in either the information and communication, finance and insurance, or professional services industries, all of which are sectors in which a larger share of employees are likely to be more able to work from home under the current restrictions.
- Census 2011 data showed that 12% of workers with a workplace in London commuted by bus or coach compared with 11% in other conurbations, 7% in other urban local authorities and 2% to 3% in rural local authorities.
- Census 2011 data showed that 65% of commuter journeys by bus or coach were between 2 kilometres (km) and 10km in length, with the retail and health sectors making up a third of all bus or coach journeys to work.
- The retail and the food and beverage sectors had the highest shares of short journeys to work according to Census 2011 , over 25% of journeys to work in these industries were less than 2km with over 65% less than 10km; the health and education sectors both had over 60% of journeys less than 10km.

2 . Coronavirus and travel to work

This article provides data on pre-pandemic travel patterns to give a context to the transport planning issues now being faced across the country. In particular, the article focuses on examining the data by different industrial sectors because the opening up of the economy has been largely following a sector by sector approach. The article also highlights the differences in travel to work between London, other conurbations and urban areas and rural areas.¹

The coronavirus (COVID-19) pandemic has led to major changes in commuter travel patterns. Many workers stopped travelling to a workplace either because they were furloughed, began working from home or in some cases lost their jobs. The amount of people travelling to a workplace therefore declined sharply.

Over the past month, there has been a gradual increase in the numbers of employees returning to work. Evidence for this can be found in [Wave 6](#) of the ONS Business Impact of Coronavirus (COVID-19) Survey, which reported that of businesses that reported trading, 5% of the workforce returned from furlough in the last two weeks of May, while 2% had returned from remote working to the normal workplace. The shares were highest for the construction and manufacturing sectors over that period, reflecting the fact that the economy is gradually re-opening on a sector by sector basis.

This return to work does, however, provides challenges for the transport system. The requirement for social distancing limits the number of commuters who can be transported on public transport. But if fewer people are to travel on public transport then how else can they travel? And will the transport system be able to cope?

It should be noted that for some industrial sectors, increased working at home is likely to reduce the numbers commuting to a workplace both in the short term and possibly longer term as well. Several other ONS articles have been looking into this aspect in more detail.

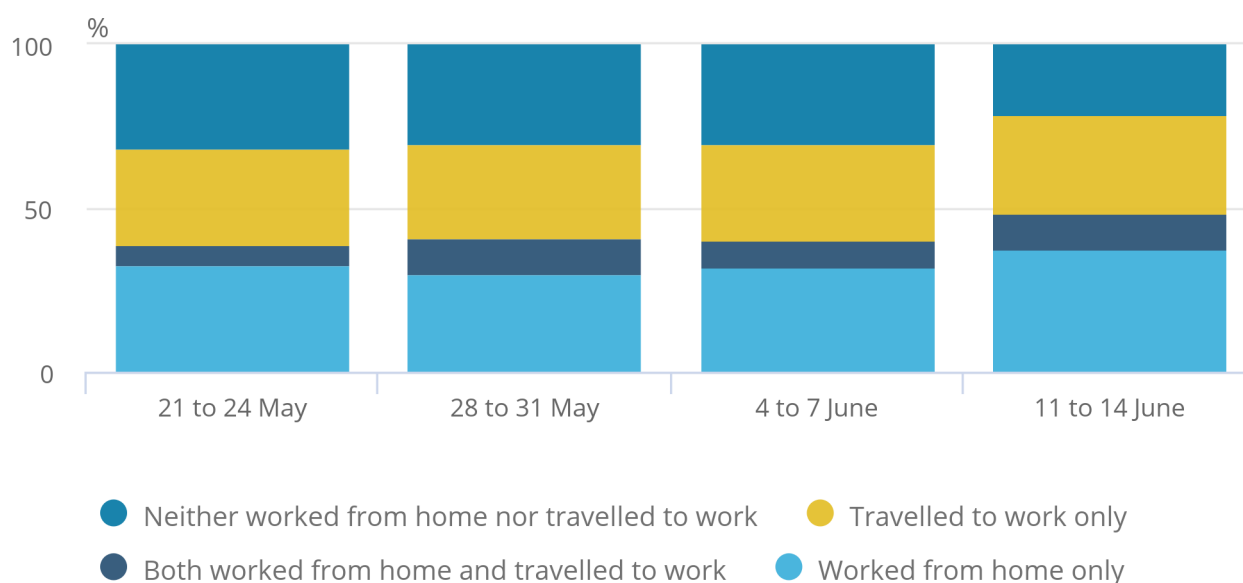
For example, data from the [ONS Opinions and Lifestyle Survey](#) found that 38% of working adults worked from home only between 11 and 14 June 2020, while a further 11% both worked from home and travelled to work. This is shown in Figure 1, which also shows 30% of those in employment travelling to work (without any home working) and a further 21% neither working from home nor travelling to work. The reasons for the latter may include being furloughed, a temporary closure of business or workplace, being on annual leave or sick leave, variable hours, being on maternity or paternity leave or being unable to work due to caring responsibilities.

Figure 1: More people in employment back at work, either at home, or at their workplace

Great Britain, 11 to 14 June 2020

Figure 1: More people in employment back at work, either at home, or at their workplace

Great Britain, 11 to 14 June 2020



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

1. Base population for percentage: all adults in employment. 2. The main reasons for respondents neither working from home nor travelling to work in the past seven days include being furloughed, temporary closure of business or workplace, on annual leave or sick leave, variable hours, being on maternity or paternity leave or being unable to work due to caring responsibilities. 3. Percentages may not sum to 100 due to rounding.

Meanwhile, an [analysis](#) of typical working from home patterns pre-COVID-19 by industry and occupation showed that professional occupations and managers, directors and senior officials were most likely to work from home. On an industrial sector basis this is seen by higher levels of home working in sectors such as information and communication, professional business services, and the finance and insurance sector.

One other important factor that will influence demand for travel, particularly during the morning peak period, are journeys to schools and education. These journeys are not the subject of this article. However, for context, table 9908 from the [National Travel Survey](#) provides details of travel to school by main mode and by geography. The latest data for 2017 to 2018 showed that 19% of trips to school in London were made by local bus and 10% in the rest of England. Rail use, however, was low for school trips with just 1% of trips to school in England having rail as the main mode.

More about coronavirus

- Find the latest on [coronavirus \(COVID-19\) in the UK](#).
- All ONS analysis, summarised in our [coronavirus roundup](#).
- View [all coronavirus data](#).
- Find out how we are [working safely in our studies and surveys](#).

Notes for Coronavirus and travel to work

1. The article uses data that can provide granularity by both industry and location and therefore uses the Annual Population Survey for January to December 2018 and Census 2011. If this level of granularity is not required, then there are other sources of transport data available and some links to these are provided at the end of the article.

3 . Travel to work by location of workplace

Because of the need for social distancing on public transport, it is useful to understand how large a role public transport played for travel to work journeys in different parts of the country before the pandemic. The data show some very large differences.

According to the census, in 2011 50% of people with a job in London used public transport as the main travel mode in their regular commute. For Inner London, the share was 67%. In the City of London (the “square mile”), it was 84%.

By contrast, for local authorities described as “mainly rural” or “largely rural” in the England and Wales Rural Urban Classification, the share of people with a job in these local authorities using public transport as the main travel mode in their commute averaged only 3% to 4%.

Even other conurbation areas in England and Wales do not come close to having London’s level of public transport usage. For conurbations overall (excluding London), the level of workers arriving at work having used public transport as their main mode of travel was 15%. The local authorities with the highest shares were Newcastle upon Tyne, Liverpool and Manchester at 27% to 28%.

It is rail and underground use that are responsible for the majority of these differences. While rail and underground were the main modes for 38% of commutes to London workplaces, the share for non-London conurbations was 5%, for other urban local authorities 2% and for rural local authorities only 1%.

For buses, the difference between London and other urban areas was much lower. Of people employed in London, 12% used bus as their main travel mode compared with 11% of people in non-London conurbations and 7% in other urban local authorities. Bus usage, however, was low for workers travelling to workplaces in “mainly rural” or “largely rural” local authorities averaging just 2% to 3%.

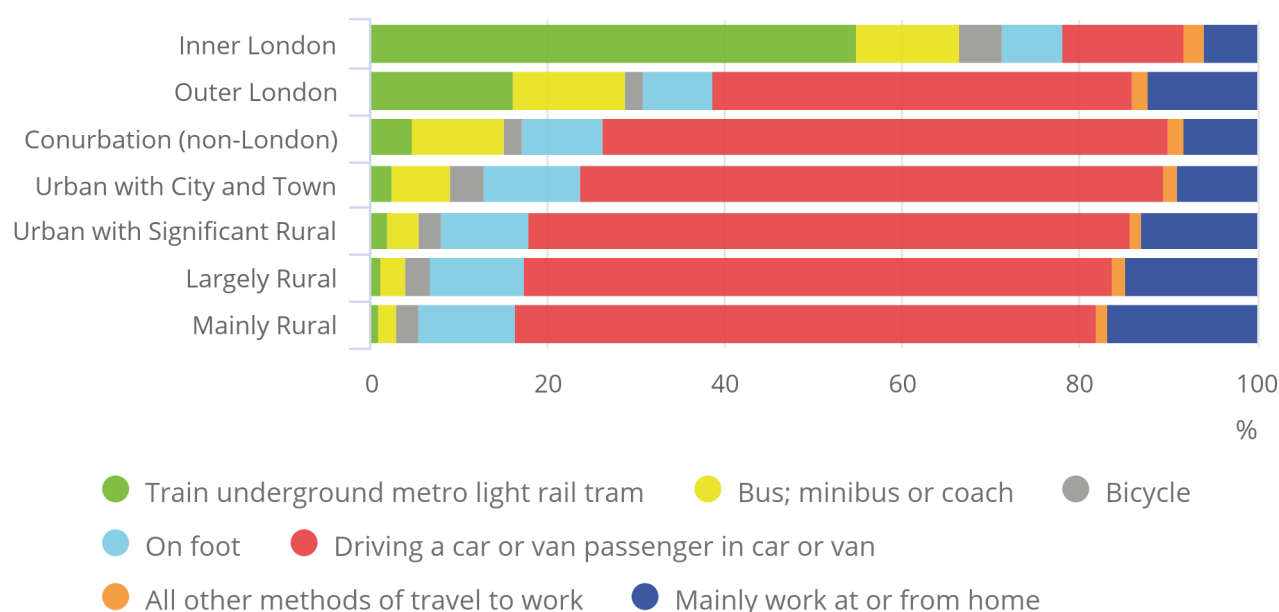
While the exact shares in some places will have changed in the period since the census, the broad pattern shown above will remain and it illustrates that the implications on transport networks of the need for social distancing on public transport are going to be felt very differently in different parts of the country.

Figure 2: Inner London local authorities are the most reliant on public transport

Mode of travel to work to rural and urban workplaces, England, 2011

Figure 2: Inner London local authorities are the most reliant on public transport

Mode of travel to work to rural and urban workplaces, England, 2011



Source: Census 2011 - Office for National Statistics

Notes:

1. Data for England only.
2. The rural urban categories are taken from the Local Authority version of the Rural Urban Classification except that the usual conurbation category in the rural urban classification has been split into Inner London, Outer London and Conurbation (non-London).

4 . Travel to work by industry and location of workplace

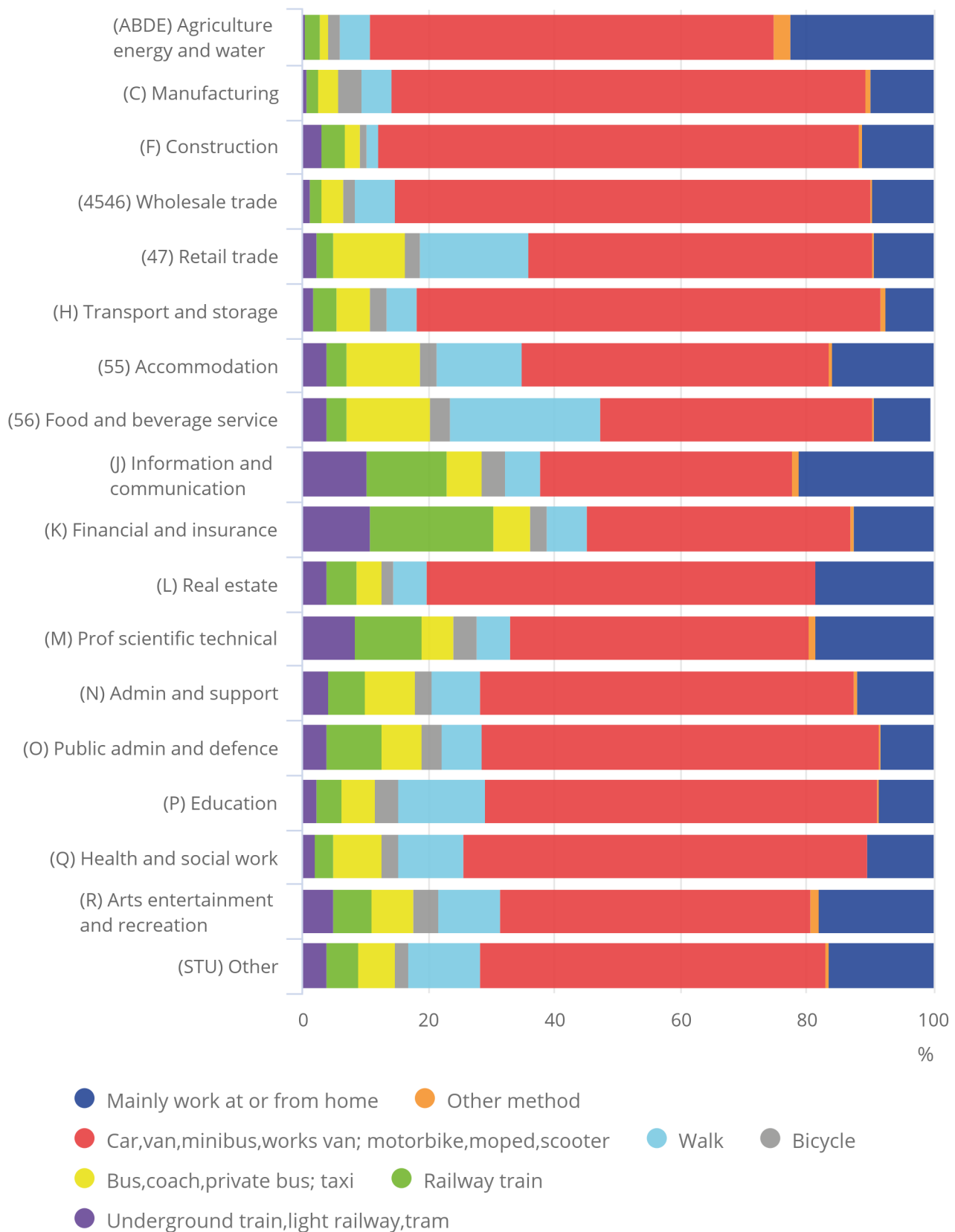
The mode of travel used to commute to work not only differs by place, it also differs by industry. Figure 3 shows the mode of travel to work in the UK in 2018 by industrial sectors.

Figure 3: Car is the most popular mode of travel to work in every industry

Mode of travel to work by industrial sectors, UK, 2018

Figure 3: Car is the most popular mode of travel to work in every industry

Mode of travel to work by industrial sectors, UK, 2018



Source: Annual Population Survey Jan-Dec 2018 - Office for National Statistics

The results show that the car is the most popular mode of transport in every industry. However, there are some significant differences. In the construction, manufacturing and wholesale sectors, around 75% of workers used a car or van to travel to work. With a further 10% to 11% working at home in these industries, this means only around 15% were travelling the main part of their commute by non-car modes of travel.

By contrast, in the food and beverages, and the financial and insurance sectors, over 45% were travelling by non-car modes, a slightly higher share than were travelling by car or van for these sectors.

The reasons for the high non-car travel in these two sectors differs as illustrated in Figure 4, where travel mode is shown split by different workplace location for these sectors and for construction. In the case of the financial and insurance industry, it is the sector's concentration in London that is largely responsible, with many of its London workers using the train or underground despite car usage remaining relatively high within this industry elsewhere in the country.

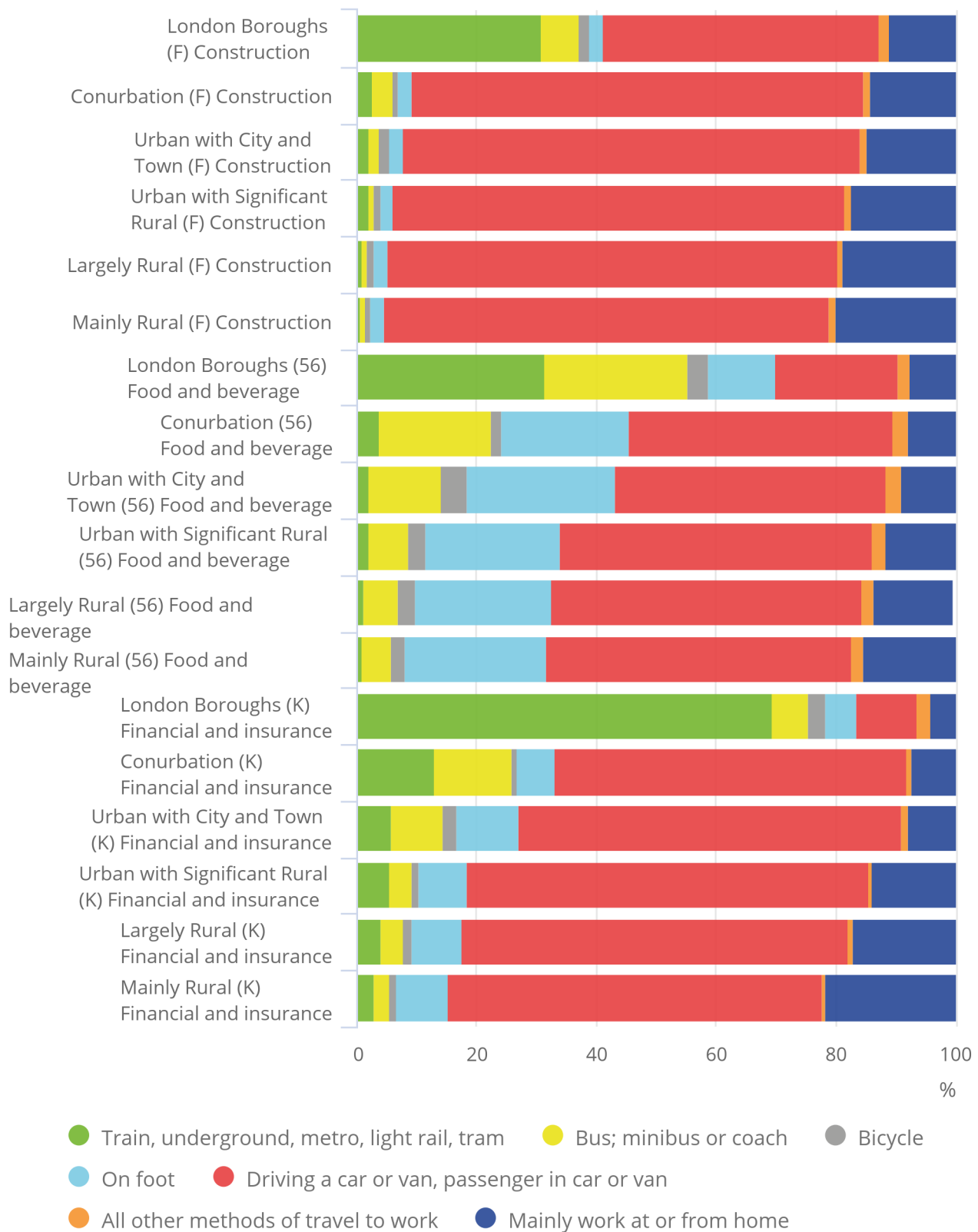
For the food and beverages industry, by contrast, the difference between London and elsewhere is less and car usage in the sector is relatively low across all areas of the country when compared with most other industries, with a relatively high share of journeys in this particular industry occurring on foot.

Figure 4: Rail and underground usage very high for commutes into London's finance and insurance sector

Mode of transport by urban or rural location and by industry sector, England, 2011

Figure 4: Rail and underground usage very high for commutes into London's finance and insurance sector

Mode of transport by urban or rural location and by industry sector, England, 2011



Source: Census 2011 - Office for National Statistics

Understanding the different patterns in different sectors is important at present because different parts of the economy are returning to work on different time scales, and the industry detail therefore allows us to see the implications for different places as this process occurs.

Figure 5, based on census data, provides a means of investigating this in more detail. For each local authority, it shows the share of journeys to workplaces in that local authority that were carried out by public transport and it then shows which industries these public transport journeys took place in. Comparing between different local authorities, the relative shares will depend on the industrial composition of each local authority as well as its rural urban composition.

For example, in City of London, 84% of the workforce used public transport as the main mode for their commute at the time of the census in 2011. The industry totals show the make-up of this 84%, with 40% working in the finance sector, 18% in the professional services sector and the remaining 26% of public transport commuters spread across the remaining industry sectors. Most of these commutes were by rail rather than bus.

Gateshead, by comparison, had the majority of its public transport commuter journeys by bus. In total, 17% of the workforce employed at locations in the local authority in 2011 were using public transport, with the retail and health sectors the main industry sectors for these workers.

In many rural local authorities, public transport usage is low. In West Suffolk, for example, just 2.6% of the workforce employed at locations within the local authority used public transport as their main mode, with employees of the retail, health and accommodation sectors the largest users of public transport.

Figure 5: Explore the industries of workers using public transport in your area

Travel to work by bus and rail, by local authority of workplace, England and Wales, 2011

[Download the data](#)

For the UK as a whole, Figure 6 shows how different modes are used by industry. For example, 17% of bus journeys are for travel to work in the retail sector and a further 16% for travel to work in the health and social work sector. By contrast, for railways, only 5% of journeys are for work in the retail sector and 7% for health, but 13% are for work in the financial and industrial sector and a further 16% for the professional service sector.

Figure 6: Health and retail largest sectors for bus commutes; professional business services largest for rail commutes

Different modes of transport by industry, UK, 2018

[Download the data](#)

Figure 6 is worth considering alongside data on those sectors most likely to work from home. Three sectors where home working is likely to continue are professional services; finance and insurance; and information and communication. These sectors account for 40% of those who typically commute by train or underground but only 13% of those who typically commute by bus. Therefore, home working may help to limit demand for train and underground use for some time to come, but is less likely to significantly limit usage of buses.

5 . Distance to work by industry and location of workplace

The geographical location of a job can influence the choice of travel mode as illustrated in the previous sections. Another factor that can influence travel mode choice is the distance of the journey. In particular, when considering the potential for commuter journeys to be made by either walking or cycling, the distance of the journey is clearly a major factor. According to the 2011 Census, 17% of travel to work journeys were less than 2 kilometres (km), while 52% were less than 10km.

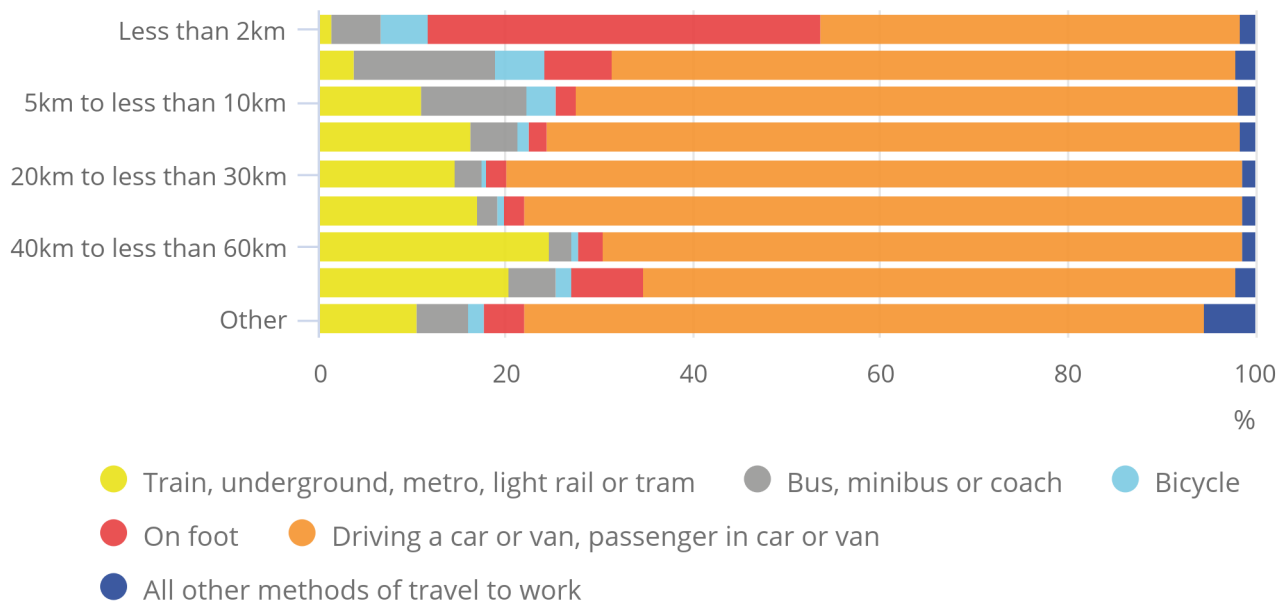
Figure 7 illustrates this using data from Census 2011. It shows that for journeys of less than 2km, 42% of journeys to work were made by foot, while 45% of journeys of that distance were made by car. Once the distance rises above 2km however, the amount of walking declines sharply.¹

Figure 7: 42% of travel to work journeys of less than 2km were by foot and 45% by car

Travel to work by distance and mode of transport, England and Wales, 2011

Figure 7: 42% of travel to work journeys of less than 2km were by foot and 45% by car

Travel to work by distance and mode of transport, England and Wales, 2011



Source: Census 2011 - Office for National Statistics

Cycling to work, meanwhile, is most common for journeys of up to 5km for which it is responsible for 5% of travel to work. For the 5km to 10km, the share falls to 3% and is very low for distances above 10km.

Figure 7 is also interesting in terms of public transport usage. It shows that bus use is most common for journeys of between 2km and 5km and between 5km and 10km. Rail and underground have only a small modal share of journeys less than 5km. Instead, rail and underground are a more common choice of mode when journeys are over 10km.

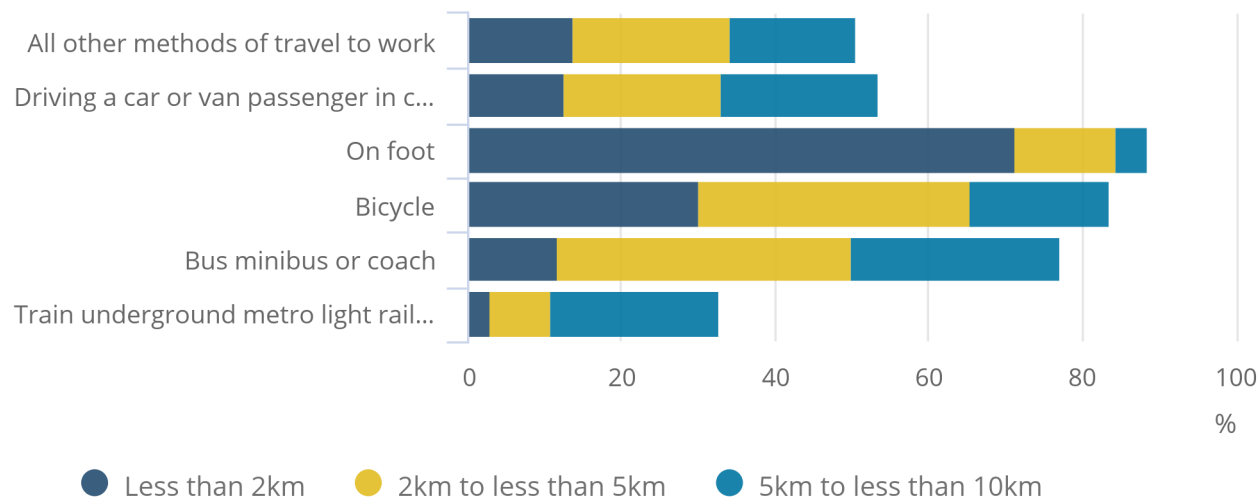
Figure 8 confirms these points. It shows that when bus is the main mode of transport, 65% of journeys to work are between 2km and 10km, with 77% less than 10km in total. When rail or underground was the main mode of transport, 33% of journeys were below 10km in length with just 11% below 5km. For commuter trips based around the car, 54% were less than 10km.

Figure 8: The majority of bus journeys to work are between 2km and 10km

Main mode of transport by travel to work distance, England and Wales, 2011

Figure 8: The majority of bus journeys to work are between 2km and 10km

Main mode of transport by travel to work distance, England and Wales, 2011



Source: Census 2011 - Office for National Statistics

Notes:

1. Chart shows share of journeys by mode by distance.
2. The total journeys by mode are the shares below 10km shown in the chart plus journeys above 10km plus 'other travel to work' which includes workers with no fixed place of work.

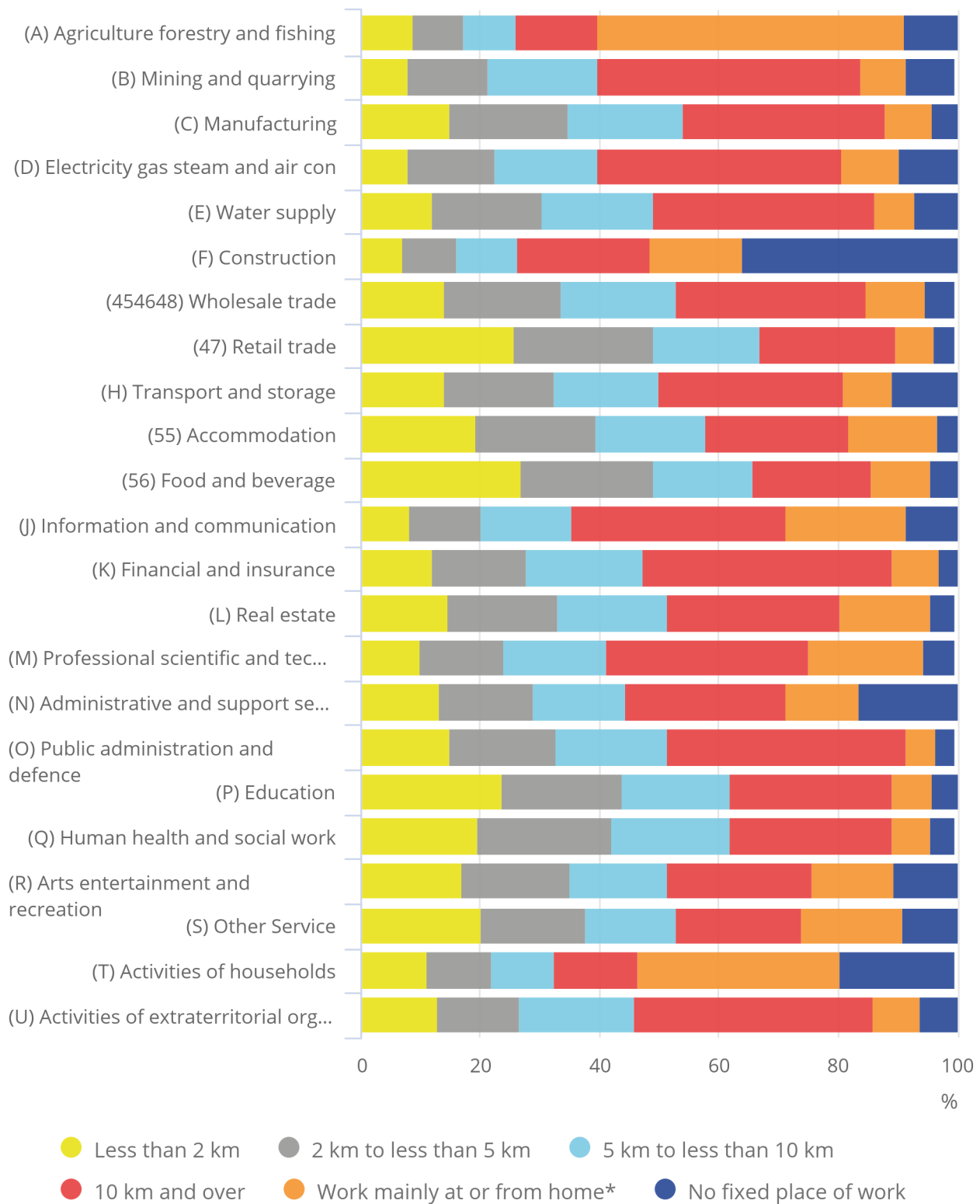
Figure 9 shows the information on travel to work distances from Census 2011 split by industrial sector. It shows that the retail and the food and beverage sectors had the highest shares of short journeys to work. Over 25% of journeys to work in these industries were less than 2km, with over 65% less than 10km. The health and education sectors both had over 60% of journeys less than 10km.

Figure 9: Food and beverage service and retail trade sectors had the highest shares of short journeys to work

Travel to work distances by industrial sector, England and Wales, 2011

Figure 9: Food and beverage service and retail trade sectors had the highest shares of short journeys to work

Travel to work distances by industrial sector, England and Wales, 2011



Source: Census 2011, England and Wales - Office for National Statistics

Examining journeys of less than 2km in more detail we find that five industries are responsible for a combined 61% of all journeys of less than 2km. These are retail; health; education; food and beverages; and manufacturing.

Figure 10 allows data on distance to work to be investigated for all local authorities in England and Wales based on Census 2011 data. It shows that many of the places with over 60% of the workforce employed in the local authority travelling less than 10km are in the North West or Yorkshire. For example, in both Sheffield and in Bolton, 64% of the workforce employed at locations in these local authorities were travelling less than 10km to work, with health, retail, education and manufacturing the main industrial sectors for these shorter journeys.

Local authorities with lower shares of short journeys can either have a higher share of longer journeys, or a higher share of workers with no fixed place of work (most common in London boroughs), or higher shares working mainly at, or from, home (most common in rural local authorities).

Local authorities in England and Wales with the highest share of longer (greater than 10km) journeys to workplaces located in their boundaries include City of London, Westminster and Tower Hamlets in London, and Welwyn Hatfield, Crawley, Winchester and South Cambridgeshire outside of London. The data can be examined further in the [dataset accompanying](#) the article.

Figure 10: Explore the industries of workers travelling less than 10km to work in your area

Travel to work journeys of less than 10km by location of employment and industry, England and Wales, 2011

[Download the data](#)

Notes for Distance to work by industry and location of workplace

1. Why do people walk over 60km to work? Clearly, they do not. The most likely issue here is that the data measures the distance between a person's residential address and their workplace address. However, if you spend your week at a second address (that is actually close to your workplace) then it is possible you will be walking to work. The census does not have information on second addresses so assumes the journey is happening from a person's primary address.

6 . Travel to work by occupation

The article has concentrated on showing the differences in travel to work by industry sector. It is also possible to examine the data by occupation.

The sales and customer service and elementary occupations have the highest rates of either walking or taking the bus to work, with 30% using one of these two methods as the main mode of transport, compared with less than 10% for managers, directors and senior officials or skilled trades occupations. These results on bus and walking usage correspond with those from the industry analysis showing these modes used most in sectors such as retail and the food and beverages.

Rail and underground usage is highest within the occupations related to office work, in particular professional and associate professional occupations, and managers, directors and senior officials. This ties in with results shown earlier about trips to workplaces in London being a major source of train (and underground) travel to work trips.

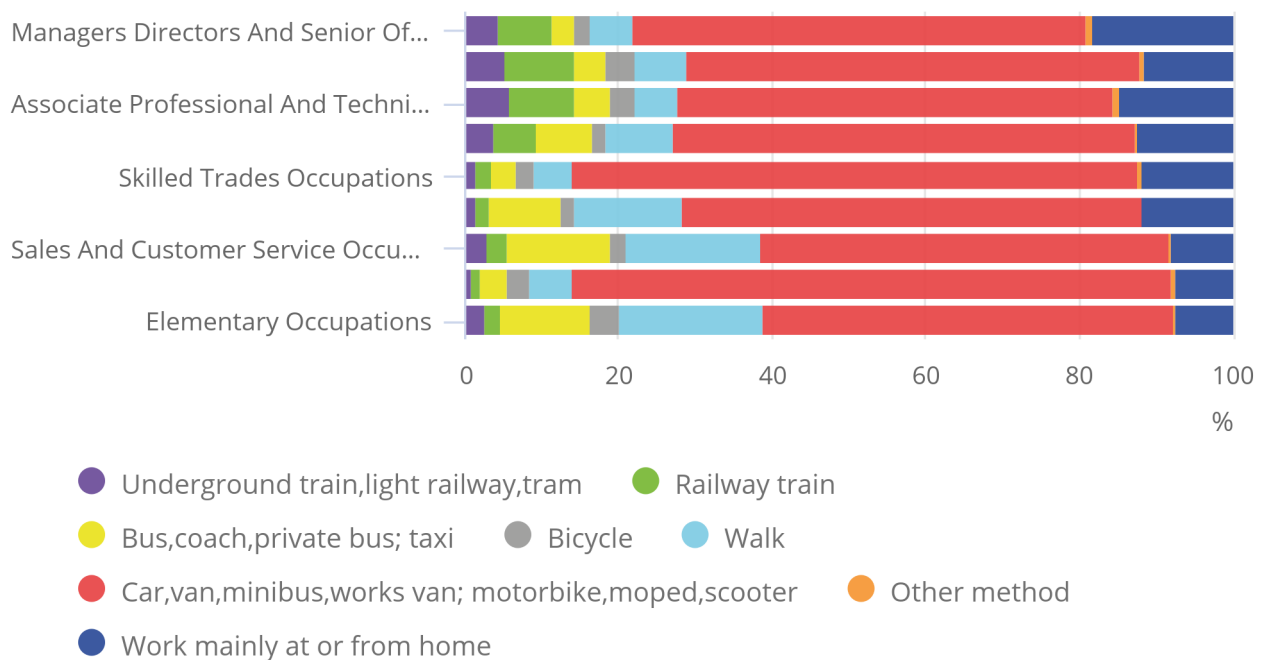
Car usage, meanwhile, is highest within the skilled trades and process, plant and machine operatives occupations. This ties in with earlier results around sectors such as manufacturing and construction. The fact that these industries often do not have city centre locations is one reason for the relatively high car usage for workers in these occupations.

Figure 11: Bus share of travel to work trips was highest for sales and customer service occupations

Travel to work mode by occupation, UK, 2018

Figure 11: Bus share of travel to work trips was highest for sales and customer service occupations

Travel to work mode by occupation, UK, 2018



Source: Annual Population Survey Jan-Dec 2018 - Office for National Statistics

7 . Data availability

To aid transport planning analysis, a number of new England and Wales Census 2011 tables have been produced that provide more detailed industry breakdowns of the census travel to work data than previously available. The newly published tables are:

- 2011 census estimates that classify all usual residents aged 16 years or over in employment by distance travelled to work and industry (two-digit SIC) by [local authority](#), by [travel to work area](#) and by [local authority \(workplace basis\)](#)
- 2011 census estimates that classify all usual residents aged 16 years or over in employment by method of travel to work and industry (two-digit SIC), by [local authority](#), by [travel to work area](#) and by [local authority \(workplace basis\)](#)

For information, the census data used in this article have been taken from the local authority (workplace basis) versions of these table and the two reference tables published alongside this article are simplified versions of these workplace tables (with the data aggregated to the industry sectors used in this article).

Another newly published table that may be of interest is an origin destination table showing [method of travel to work by area of residence by area of workplace by selected \(two-digit SIC\) industries by NUTS 2 area](#).

Please note that the census data shown in the article are for England and Wales only. Census data on travel to work are also available from [National Records of Scotland](#) and [the Northern Ireland Statistics and Research Agency \(NISRA\)](#). The data from the Annual Population Survey shown in the article are for the whole of the UK and are for the year 2018. We used the Annual Population Survey (APS) because it has a larger sample size than the Labour Force Survey. However, this meant the latest data were for 2018, because travel to work data are only published every three years within the APS.

Note that Census 2011 data have been used in this article because they provide a level of granularity in terms of geography and industrial sector that is not available from other data sources on travel to work patterns. Therefore, despite the age of the data, it is useful to be able to illustrate the travel patterns shown by the data. However, users should be aware that while the overall patterns and trends shown in the data should still be valid, the exact values will inevitably have changed over the period since 2011.

If users do not require the levels of granularity shown in the census data, then there are a range of sources for the latest travel to work data and transport data more broadly. The following links may be useful:

- [Transport use during the coronavirus \(COVID-19\) pandemic](#)
- [National Travel Survey](#)
- [Transport Statistics Great Britain 2019](#)
- [Travel in London reports](#)
- [Travel survey for Northern Ireland](#)
- [Transport Scotland publications](#)
- [StatsWales Transport](#)

8 . Related links

[Transport use during the coronavirus \(COVID-19\) pandemic](#)

Web page | Last updated 17 June 2020

Official statistics to monitor the use of the transport system during the coronavirus (COVID-19) pandemic. Department for Transport (DfT) provides statistics on transport use by mode, published every Wednesday.

[Coronavirus \(COVID-19\) latest data and analysis](#)

Web page | Updated as data become available

Latest data and analysis on the coronavirus (COVID-19) in the UK and its effects on the economy and society.

[Coronavirus \(COVID-19\) roundup](#)

Blog | Updated as and when data become available

Catch up on the latest data and analysis related to the COVID-19 pandemic and its impact on our economy and society.

[Coronavirus and the social impacts on Great Britain](#)

Bulletin | Released weekly

Indicators from the Opinions and Lifestyle Survey to understand the impact of the coronavirus (COVID-19) pandemic on people, households and communities in Great Britain.