

# Population change in London during the COVID-19 pandemic

May 2021

## Summary

This report is primarily intended to present an objective assessment of the available evidence concerning population change in London since the beginning of the COVID-19 pandemic.

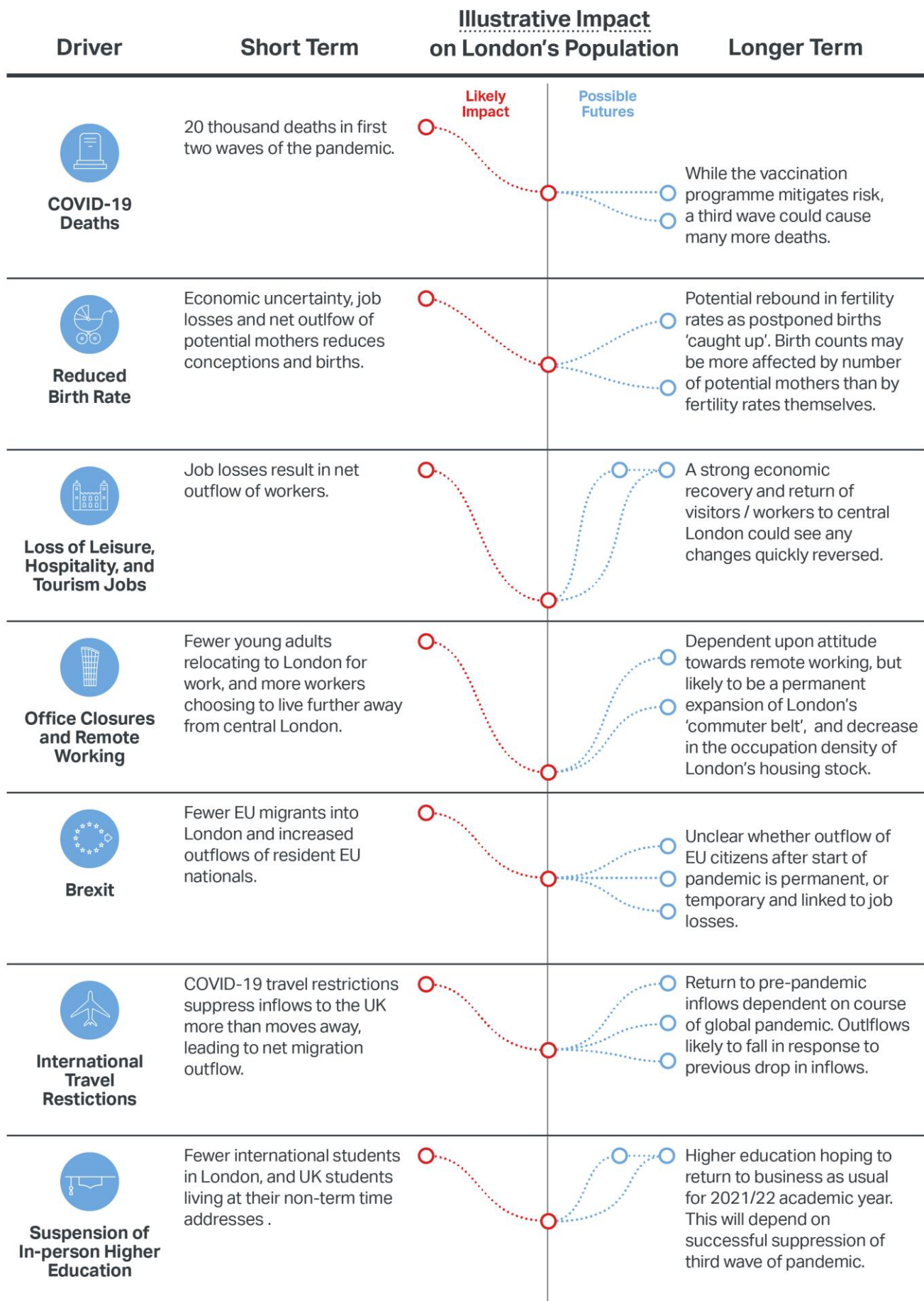
Though it remains too early to reliably quantify population change since the start of the pandemic, given the balance of evidence and our understanding of the dynamics and drivers of population change in London, it is hard not to conclude that the population of London is likely to have fallen. However, the scale of such a fall is likely to be far short of the more dramatic figures reported in the press in recent months.

There is good evidence that natural change (the excess of births over deaths) in London has been lower over the past year than at any point since the early 2000s, the result of a continued decline in the number of births and some 20 thousand deaths as a direct result of the pandemic.

Migration to London, from the rest of the UK and overseas, will have fallen substantially from its pre-pandemic level of some 450 thousand, as a result of jobs losses, office closures, and travel restrictions.

If migration flows out of London (over 460 thousand in the year to mid-2019) have also fallen, it will be to a lesser degree. The pandemic is unlikely to have curtailed flows of returning international migrants to the same extent as it would new immigrants; and any disruption of moves out of London to the rest of the UK resulting from COVID-19 restrictions will have been offset by the effects of both the partial suspension of stamp duty, and the increased adoption of remote working.

More important than the absolute size of any immediate drop in population will be the extent to which changes persist as restrictions are eased and the city begins to recover. Some impacts, notably net outflows of those that worked in the hospitality and tourism sectors, are likely to be readily reversed by economic recovery and a return of jobs to London. Others, such as the likely additional net loss of families to the wider region, are likely to take more time to undo.



## Background

By May 2021, COVID-19 had directly caused some twenty thousand deaths in London. However, in terms of impact on the size and composition of London's population, even loss of life on this terrible scale could be less significant than the potential effects of travel restrictions, increased remote working and job losses on migration and fertility trends.

The pandemic has not only had a huge impact on the patterns of migration that shape the city's population, but it has also greatly disrupted our ability to measure these impacts. Monitoring population change in a city as dynamic as London has proven to be challenging at the best of times, but has been made more difficult by the suspension and distortion of key sources of official statistics such as the International Passenger and Labour Force Surveys. At the present time, it should be accepted that it is not possible to accurately and robustly measure population change.

Planners, policy makers, service providers and those involved in tackling the public health emergency, all rely on accurate intelligence about population trends in order to be able to work effectively. The dual impacts of the COVID-19 pandemic and Brexit mean that these trends are now both more uncertain and more difficult to follow than at any point in the recent past.

Against this backdrop, there is a great deal of work being undertaken, by ONS, academia, and others, to work around these limitations and to develop new approaches for measuring demographic change. In common with so many other fields, the pandemic has spurred on and accelerated innovation.

Another consequence of the lack of solid information has been a ready audience for speculation. Since the start of the pandemic, the media has seized upon any research that has promised to provide answers to the questions not answered by official statistics. Typically, it is the more dramatic findings of such research that make the headlines, and (just as typically) important caveats and methodological issues are not adequately communicated to the audience.

## Purpose of this report

This report is primarily intended to present an objective assessment of the available evidence concerning population change in London since the beginning of the COVID-19 pandemic. Significant uncertainty about population trends will remain for some time yet and new data, analysis and speculation will continue to be published.

Uncertainty about the impacts of the pandemic arise in part due to incomplete data and gaps in the evidence. More fundamentally, the full extent of COVID-19's impacts on patterns of population change are unknowable as much rides on the future course of the pandemic, both in the UK and globally, and its wider repercussions in terms of the economy, international relations, and politics.

It is likely not possible to disentangle the effects of the pandemic from those of the UK's exit from the European Union. The timing of the events and interactions between them in terms of driving migration patterns, mean that their impacts will have to be largely considered in aggregate. To provide background to changes since the start of the pandemic, this document also provides a brief overview of how migration with the EU has changed since the referendum.

It is hoped that by collating data from key sources together with impartial commentary, this document will both serve as a useful overview of the current situation and context against which new information, analysis, or media reports can be considered. To ensure this report remains relevant, it will be periodically refreshed as new data and evidence becomes available.

## Structure of this report

The final section of this report presents a summary of the evidence about population change in London, based on information from a range of sources. This is preceded by several sections that provide background and context to assist in the interpretation of this evidence.

These background sections cover:

- The key trends and dynamics that have shaped London's population;
- The methods and challenges of measuring population change in London;
- An overview of some of the ways that the pandemic might be expected to affect London's population trends.

This report is accompanied by a separate annex that provides information about the various data sources that have been considered in the production of this document.

## Overview of key population trends

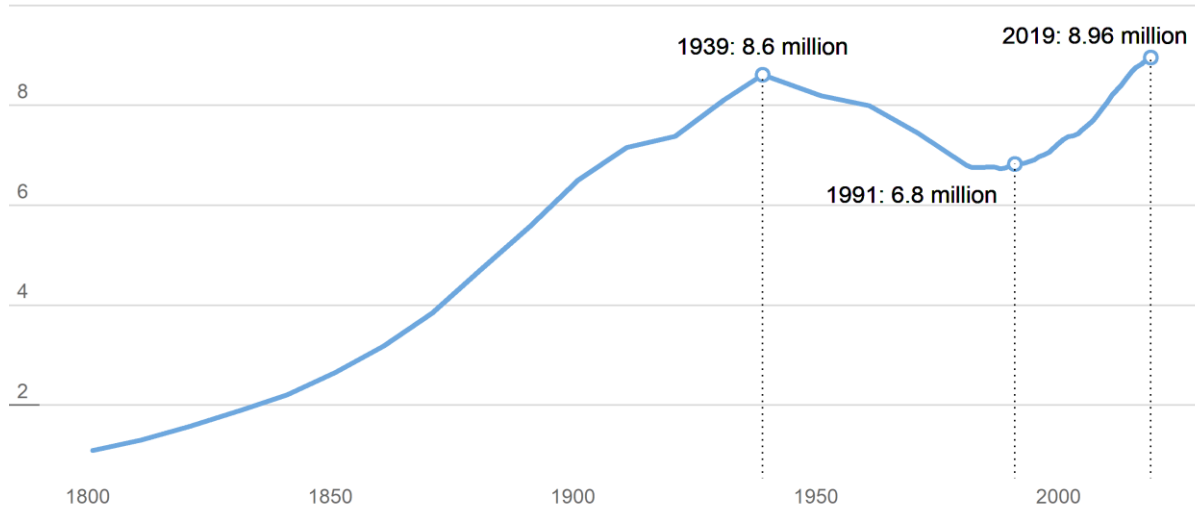
### London's recent growth

Over the last two decades London's population has grown rapidly. Official estimates for mid-2019 placed London's population at 8.96 million, higher than at any other point in its history, having passed the previous pre-war peak of 8.6 million in 1939, and more than two million larger than it stood at the start of the nineties.

#### Greater London, 1801-2019

Total population (millions)

10



Source: UK Census, ONS mid-year estimates; Chart: GLA demography

London is by far the largest city in the UK. Using ONS's *Built-Up Area* (BUA) definitions (which represent the wider area around a place, rather than just the area defined by administrative boundaries)<sup>1</sup> to provide a consistent basis for comparison, London's population (9.8 million) in 2011 was nearly four times greater than that of the next biggest urban centres: Manchester (2.6 million) and Birmingham (2.4 million).

<sup>1</sup> [https://www.nomisweb.co.uk/articles/ref/builtupareas\\_userguidance.pdf](https://www.nomisweb.co.uk/articles/ref/builtupareas_userguidance.pdf)

The scale of London relative to other UK cities cannot be explained by either its position as the nation's political capital nor its status as one of the world's great cultural centres. Rather—and in common with other large cities—it has been its labour market and the economic opportunities it offers that have driven the expansion of London's population.

## Migration

The opportunities offered by London's labour market as well as its universities, attract large numbers of migrants from the UK and overseas to the city. ONS estimates that in the year to mid-2019, almost 450 thousand people—predominantly young adults—moved to London.

These very large flows into London are balanced by comparable sized annual outflows. In the year to mid-2019, ONS estimated outflows from London of over 460 thousand people. Over the last twenty years, the volumes of these outflows have consistently matched those of the inflows to within a few tens of thousands.

That London's in and outflows have balanced one another so closely is a consequence of the relationships that link these flows to one another:

- Moves that tend to be temporary in nature, e.g. for formal study, are followed by return or onward moves in subsequent years.
- London acts as an international gateway to the UK for many migrants who subsequently settle in other parts of the country after an initial transition period in London, resulting in a proportion of international inflows being offset by subsequent outward domestic moves.
- Young adults that move to London for work or study, increasingly prioritise living space and affordability as they transition through the life course and aspire to purchase a home and raise a family. Onward moves of previous migrants to London tend to trace the paths of decreasing property prices outward from Central London.
- The extent to which inflows to London can increase without corresponding increases in outflows is governed by the finite capacity of the available housing stock<sup>2</sup> with net increases in population needing to be accommodated by some combination of new housing development or increases in the density with which residents occupy existing properties.

## Natural change

Though the absolute size of the flows to and from London are similar and the net flow is relatively small, migration still plays a crucial role in London's growth. In the year to mid-2019, the number of births that took place in London exceeded the number of deaths by over 70 thousand. This level of *natural change* is greater than that of the rest of the country combined.

That London has relatively high numbers of births and few deaths is in large part a natural consequence of having a younger age structure<sup>3</sup> than the rest of the UK; this youthful population is in turn a result of the patterns of migration to and from the city—inflows are dominated by young adults, outflows by older adults (together with their families).

<sup>2</sup>

[https://www.researchgate.net/publication/271013679\\_Fitting\\_a\\_quart\\_in\\_a\\_pint\\_pot\\_Development\\_displacement\\_andor\\_densification\\_in\\_the\\_London\\_region](https://www.researchgate.net/publication/271013679_Fitting_a_quart_in_a_pint_pot_Development_displacement_andor_densification_in_the_London_region)

<sup>3</sup> For 2017, ONS estimate the median ages of London and the UK as being 35.1 and 39.9 years, respectively.

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/adhocs/009301populationestimatesmedianagesforadministrativeelectoralandcensusgeographies>

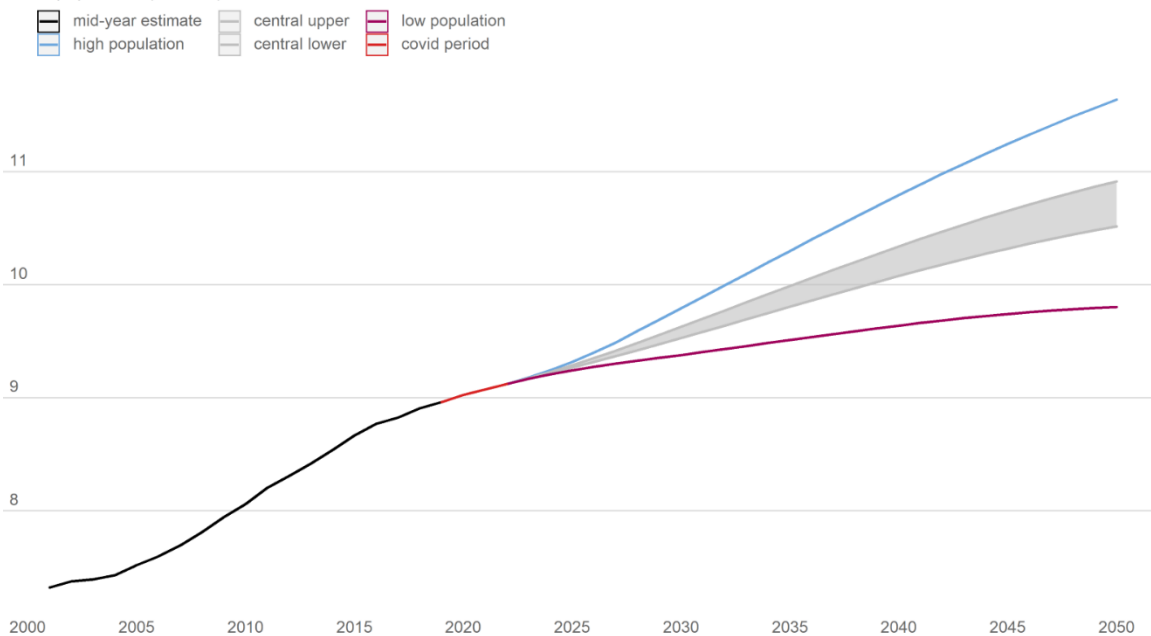
## Projected future growth

While projections for London produced over the last decade by the ONS and GLA have spanned a very wide range (with the population projected to reach anywhere from 9.5 to 11 million by 2040), they have all shown London continuing to grow. Projected increases have been inevitable given the consistency of the trends that have driven London's expansion over the last twenty years.

The GLA's 2019-based trend projections<sup>4</sup>, published in November 2020, are the first to explicitly attempt to account for the impacts of the pandemic. In producing these projections, the GLA consulted a panel of academic experts as part of the assumption setting process. The published projections, which primarily serve to indicate longer-term trends, span a wider range of population outcomes than previous GLA outputs, reflecting the high level of uncertainty that exists about the future trajectory. All of the main variants produced, however, showed continued growth in the total population of the city.

### Variant population projections, London

Total population (millions)



Source: ONS Mid-year estimates, GLA 2019-based projections; Chart: GLA demography

## Measuring population change

### Official population estimates

The principal source of information about population change is estimates produced by the Office for National Statistics (ONS), of which the key release is their annually produced *mid-year estimates of population (MYE)*. This release comprises detailed estimates of both the resident population at a point in time and the 'components of change' that account for *how* the population changed over the preceding year.

The mid-year estimates are published annually, but with a significant lag. The estimates for mid-2020, the first to cover any of the post-pandemic period were not scheduled to be published until June 2021. These estimates, relating to the end of June 2020 and the components of change for the preceding year, still only capture the first few months of the pandemic. The 2021 estimates are not scheduled for publication until June 2022, though headline results from the 2021 Census are expected to be available from March 2022.

<sup>4</sup> <https://data.london.gov.uk/dataset/trend-based-population-projections>

## Challenges in measuring London's population change

The different components of population change are not equally easy to measure. Births and deaths can typically be estimated with a high degree of accuracy, principally because of the legal requirements to register these events, but capturing migration presents far greater challenges.

The UK lacks the kind of central population registers that exist in, e.g., Finland or Denmark, and which might provide a solid basis for accurate measurement of migration. Rather, ONS must rely on data from various administrative sources and surveys, bringing these together in complex models to estimate international and domestic migration flows as best they can.

These estimates and the methods used to produce them represent an impressive (and often underappreciated) achievement and are the result of decades of development and refinement. Nonetheless, there are significant limitations in the accuracy and reliability of official migration estimates, and these make tracking population change in London especially challenging due to the sheer scale of migration to and from the city. In a given year, close to half a million people move to London and a similar number leave. With such large volumes involved, even relatively small errors in the estimates of individual flows can lead to significant errors in estimates of the resident population. These errors can be especially exaggerated for lower geographic areas, such as individual boroughs or wards.

Furthermore, uncertainties in population estimates are not constant over time. Census-based estimates of the population are the closest thing we have to 'actuals' available for the UK. As such, the most recently available census-based population estimate is used as the foundation on which annual estimates for the following decade are built. Each subsequent estimate takes the previous year's population as a starting point and then accounts for the estimated components of change, as well as the ageing of the population, to arrive at a new population.

A drawback of this approach is that, over the course of the decade, any systematic errors in migration estimates will tend to compound and lead to increasing uncertainty in the size and characteristics of the population. With official estimates still being anchored to the 2011 Census, the timing of the pandemic creates an additional challenge for those trying to understand its impact on trends, as almost a decade's worth of uncertainty had already built up in the estimates at the point when it began<sup>5</sup>.

## Disruption to official statistics

The pandemic has not only disrupted normal patterns and trends of population change, but also the processes and data collections used by ONS to monitor and measure those trends, including:

- Suspension of the International Passenger Survey (IPS)
- Delays to the registration of new births
- Suspension of in-person interviewing for the Labour Force Survey (LFS)

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<sup>5</sup> As an example, following the 2011 census the 2010 mid-year estimate for London was revised upwards by 236 thousand persons (3 percent). At the borough level, the revisions were more significant: Newham's population was increased by 25 percent and Brent's by 19 percent. Elsewhere City of London saw a 37 percent reduction in its estimate and Westminster a 14 percent reduction. It should also be noted that the revisions are not uniform across the age structure with error occurring in different age groups to a greater or lesser extent.

Of these, the suspension of the IPS<sup>6</sup> is most problematic—being the foundation of the international migration estimates for the UK. This issue, taken together with delays in birth registration data, has greatly complicated the production of the 2020 mid-year estimates.

ONS have flagged that the 2020 mid-year estimates will have a far greater level of uncertainty than usual, and there will inevitably be consequences for subsequent estimates as well.

The suspension of face-to-face interviews for the LFS has had a significant impact on the representativeness of responses to the survey. This, in turn, has undermined the value of the data collected for understanding changes to the population by nationality and country of birth.

Another issue that will affect future estimates is that the census took place on 21 March 2021, towards the end of the second wave of the pandemic. In addition to difficulties associated with data collection during the pandemic there is a wider question about the extent to which the results of this census, capturing a snapshot of the population at a very unusual point in time, will be able to serve as a useful basis for subsequent population estimates (or for the revision of estimates for the previous decade).

## Definitional issues

The pandemic also creates some more subtle complications for the creation and interpretation of population estimates to do with *where* individuals are enumerated. The most obvious example of this is the student population, who, under normal circumstances, are considered to be usually resident at their term-time addresses. Under lockdown many students have spent the greater part of the year living somewhere other than their term-time address and so, strictly speaking, ought to be enumerated at this alternative location instead – though for many applications it would be more useful to have students where they ‘should’ have been. Irrespective of which definition happens to be preferred, the data on which domestic migration estimates are based are likely to have only partially captured changes to the usual residence of students and so published estimates results may reflect a rather indistinct picture as far as this is concerned.

## ONS response to disruption

ONS has responded to the disruption to established sources by adapting its processes as best it can to mitigate the problems.

ONS’s programme<sup>7</sup> to transform population and migration statistics through increased use of administrative data sources had already been underway and this work has taken on a greater urgency since the start of the pandemic. Among the goals for this programme is to develop a system for producing population estimates that was less reliant on the Census and IPS as sources, and less prone to the issue of compounding errors affecting the accuracy of estimates over the course of each intercensal period.

To help address the problems caused by the suspension of the IPS for the production of the 2020 mid-year estimates, ONS intends to make use of approaches developed as part of the transformation programme—basing international migration estimates on statistical modelling of administrative data sources<sup>8</sup>.

<sup>6</sup> The International Passenger Survey (IPS) collects information about passengers entering and leaving the UK and has been running continuously since 1961. The IPS conducts between 700,000 and 800,000 interviews a year, of which over 250,000 are used to produce estimates of overseas travel and tourism.

<https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/internationalpassengersurvey>

<sup>7</sup>

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/articles/transformationofthepopulationandmigrationstatisticssystemoverview/2019-06-21>

<sup>8</sup>

<https://www.ons.gov.uk/methodology/methodologicalpublications/generalmethodology/onsworkingpaperseries/usingstatisticalmodellingtoestimateukinternationalmigration>

To mitigate issues with delayed registrations leading to incomplete data on which to base birth estimates, ONS has worked with the NHS to supplement the available registration data with birth notifications data.

## Use of alternative sources

The lag in available official population statistics means that alternative sources and methods are being sought to provide more timely insights into the impacts of the pandemic.

Approaches used to try and track population change typically vary in how *directly* the data on which they are based relates to what is being measured. Some approaches, such as that used in the widely publicised analysis by the Economic Statistics Centre of Excellence<sup>9</sup> (ESCoE) make use of source data relating closely to the output, in this case using survey-based estimates of the population by country of birth to infer international migration flows. Examples of more indirect approaches might include using patterns of energy or water usage to try to infer the size of the residential population.

## Challenges and pitfalls in the use of alternative sources

Developing robust measures of population change based on such approaches is rarely straightforward and attempting to apply them to the period since the start of the pandemic presents additional challenges, because of the nature of the crisis.

In the example of the ESCoE analysis, the authors used data from the LFS to estimate year-on-year change in the size of the foreign-born population and from this to impute likely levels of international migration. Prior to the pandemic, this approach could have been considered an ‘off-label’ use of LFS data, with any results being subject to very large confidence intervals and a number of caveats.

When the authors applied the approach to data gathered after the start of the pandemic, the results implied that there had been a very large exodus of foreign-born residents—with an upper bound estimate of 700 thousand having left London. The reliability of these findings has since been called into question by other commentators<sup>10,11</sup>, as well as by ONS themselves<sup>12</sup>.

The key issue affecting the analysis was that the manner in which the survey was conducted changed at the start of the pandemic, with face-to-face recruitment to the survey being replaced with telephone contact. This change seems to have disproportionately reduced the representation of those born overseas in the survey sample, which, when the normal process to gross the survey sample data to the total population was applied, in turn led to a large apparent reduction in the size of the foreign-born population.

The validity of the authors’ approach had relied on the consistency of the underlying data and its relationship to the population, and so the results of the analysis reflected the impact of operational changes on the data as much as they did real changes in population trends.

This example illustrates a problem which extends to more indirect approaches to monitoring population change, which is that they generally rely on consistency in the relationship between population and some proxy measure. The pandemic has caused so much disruption to so many aspects of life that it is hard to find proxy measures where the relationships with population have not changed to the extent that they cease to be reliable indicators.

As a simple example of this issue, average daily energy use in residential areas may have provided a reasonable indicator of the size of the population prior to the pandemic (once seasonality, weather,

<sup>9</sup> <https://www.escoe.ac.uk/estimating-the-uk-population-during-the-pandemic/>

<sup>10</sup> <https://migrationobservatory.ox.ac.uk/resources/commentaries/where-did-all-the-migrants-go-migration-data-during-the-pandemic/>

<sup>11</sup> <https://blogs.lse.ac.uk/covid19/2021/03/22/the-data-suggesting-a-million-people-left-britain-in-2020-doesnt-hold-up/>

<sup>12</sup> <https://blog.ons.gov.uk/2021/03/23/exploring-how-the-uk-population-and-workforce-are-changing-in-the-pandemic/>

holidays, building typologies, etc were accounted for), but the dramatic impacts of the pandemic on remote working, job losses, home schooling and recreation, will have changed patterns of home energy use to the point that the measure ceases to have much value as a proxy for population.

While one can try to choose proxy measures in a way that is likely to minimise the impact of such changes (in our example we might limit our measure to Sunday evening energy usage to reduce the impact of remote working), but in practice it proves difficult to identify measures and relationships that can be used as reliable indicators of population change.

## Making effective use of alternative sources

Despite these issues, alternative measures and proxies are still able to provide valuable insights into population trends. To ensure their effective use it is important to ensure that the data sources, relationships, and potential limitations of the approach are well understood. Furthermore, it is good practice to avoid relying on any single measure or dataset and instead to consider as many independent sources of evidence as possible in developing a view of what is happening.

## Potential impacts of the pandemic

The COVID-19 pandemic and Britain's exit from the European Union will inevitably have significant impacts on population trends in London and the rest of the UK.

Some of these impacts are largely foreseeable in terms of the *direction* in which they will act, e.g. immigration flows since the start of the pandemic will be reduced, but much less so in terms of the *scale* of their effect. For others, even the nature of the effect on overall population trends are difficult to anticipate. This is especially the case where the impacts of events are felt differently across individual population sub-groups, or where complex interactions and knock-on effects lead to the initial direct impacts being either compounded or negated.

The following section explores some of the *potential* impacts of the pandemic and Brexit on London's population trends. The effects considered here include a number of those that were discussed in the expert panel review that informed the assumptions for the GLA's 2019-based trend projections<sup>13</sup>, as well as others that have been proposed by various commentators over the last year.

## Deaths and mortality

### Direct deaths resulting from COVID-19

In the first year of the pandemic, at least 20 thousand London residents died as a direct result of COVID-19<sup>14,15,16</sup>. To put that figure into proper context, it should be considered against the 50 thousand deaths *from all causes*, that had previously been anticipated over the period.

In the short-term, fears remain over the potential for a third wave of infections to cause thousands more deaths. However, sustained falls in cases, hospitalisations and deaths, together with the success of the

<sup>13</sup> [https://data.london.gov.uk/download/trend-based-population-projections/cdd17f02-cfb4-42d7-afb1-de1919137404/2019\\_based\\_projections\\_expert\\_panel\\_review.pdf](https://data.london.gov.uk/download/trend-based-population-projections/cdd17f02-cfb4-42d7-afb1-de1919137404/2019_based_projections_expert_panel_review.pdf)

<sup>14</sup> Based on ONS death registrations for the period 21 March 2020 to 19 March 2021, together with PHE estimates of excess mortality in the first wave of the pandemic

<sup>15</sup>

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/datasets/deathregistrationsandoccurrencesbylocalauthorityandhealthboard>

<sup>16</sup> <https://fingertips.phe.org.uk/static-reports/mortality-surveillance/excess-mortality-in-england-latest.html>

vaccination programme to date, offer the hope that future mortality from COVID-19 can be kept down to levels comparable to that of seasonal influenza.

### Delays in diagnosis and treatment

The pandemic led to a suspension of routine screenings, and delays in the diagnosis and treatment of other conditions and diseases. Some degree of increased mortality resulting from the disruption to medical services seems inevitable with one study, published in *The Lancet*<sup>17</sup>, that found that ‘substantial increases’ in the number of avoidable cancer deaths in England are to be expected over the next five years as a result of diagnostic delays. While it is difficult to predict the timing and absolute number of additional deaths resulting from these disruptions, most of the impacts are likely to be felt over the next few years.

### Long COVID

A high proportion of those that contract COVID-19 go on to report prolonged symptoms that can persist for weeks or months after initial infection. ONS analysis of participants in the Coronavirus Infection Survey suggests that around 20 percent of those that become infected with COVID-19 are still experiencing symptoms five weeks later and that over 13 percent continue to experience symptoms 12 weeks after infection<sup>18</sup>. Research is still ongoing into the cause and potential health impacts of ‘long COVID’, and the implications (if any) for future mortality are not yet known.

### Births and fertility

While predicting future fertility rates is notoriously difficult, there is a broad consensus<sup>19,20,21,22</sup> that the odds of the pandemic triggering a ‘lockdown baby boom’ are outweighed by the likelihood of it heralding a period of lower birth rates across much of the developed world.

Factors which point towards a likely drop in the birth rate include:

- Job losses and economic uncertainty leading to the postponement of plans to start a family.
- Disruption to assisted fertility services.
- Reduced opportunities for young adults to meet and form partnerships and/or for unplanned conceptions.
- A likely reduction in inflows of young adults to London, reducing the number of potential mothers.

These are considered likely to have a greater impact on fertility rates than those factors which might lead to additional births, such as:

- Couples spending more time together leading to increased conceptions.
- The increase in remote working providing an impetus for couples to relocate further away from Central London and thus bringing forward plans to start a family.
- Decreased access to contraceptive and abortion services.

However, while the recession that followed the 2008 Financial Crisis, led to a fall in birth rates across much of Europe, annual births in London continued to rise before reaching an eventual peak in 2012. This then raises the question of whether London could again buck the prevailing trend.

<sup>17</sup> [https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045\(20\)30388-0/fulltext](https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(20)30388-0/fulltext)

<sup>18</sup>

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/prevalenceofongoingsymptomfollowingcoronaviruscovid19infectionintheuk/1april2021>

<sup>19</sup> <https://www.brookings.edu/blog/up-front/2020/12/17/the-coming-covid-19-baby-bust-update/>

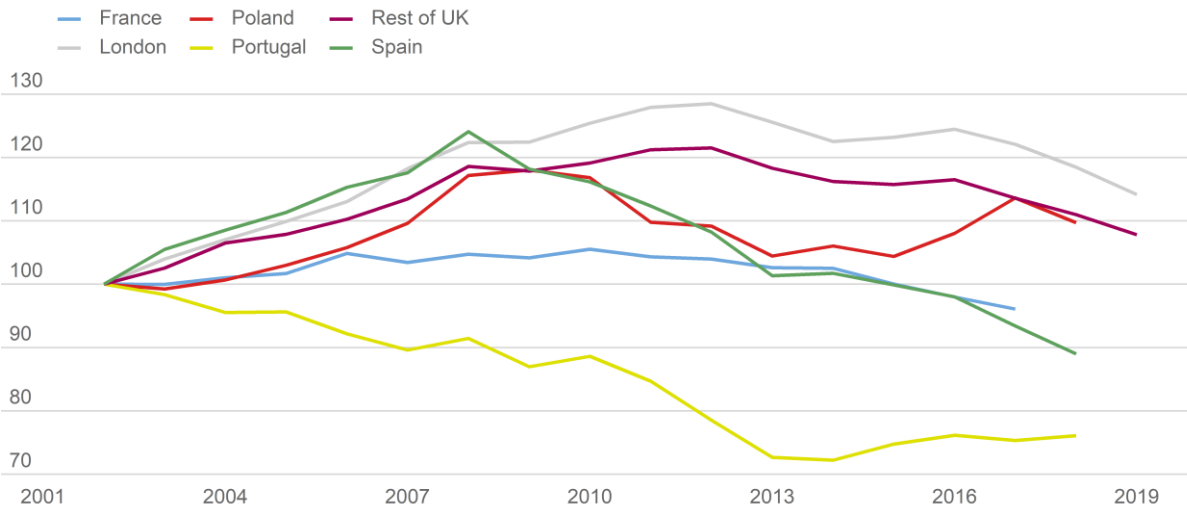
<sup>20</sup> <https://www.demographic-research.org/volumes/vol43/47/>

<sup>21</sup> <https://link.springer.com/article/10.1007/s10680-020-09556-y>

<sup>22</sup> <https://www.dmu.ac.uk/about-dmu/news/2020/june/opinion-the-coronavirus-baby-boom-myth.aspx>

## Indexed births for London and selected European countries

Indexed: 2002 = 100



Source: ONS mid-year estimates, World Health Organisation (HFA-19). Chart: GLA demography.  
Note: UK total excludes London. UK and London mid-year, others calendar year

Key to why London did not see a fall in births immediately after 2008 was the resilience of its economy. Jobs growth accelerated in the years following the crisis, as did immigration from Southern European countries whose economies were badly impacted. Birth rates in London, already rising since 2002, continued to increase, reaching a peak in 2012.

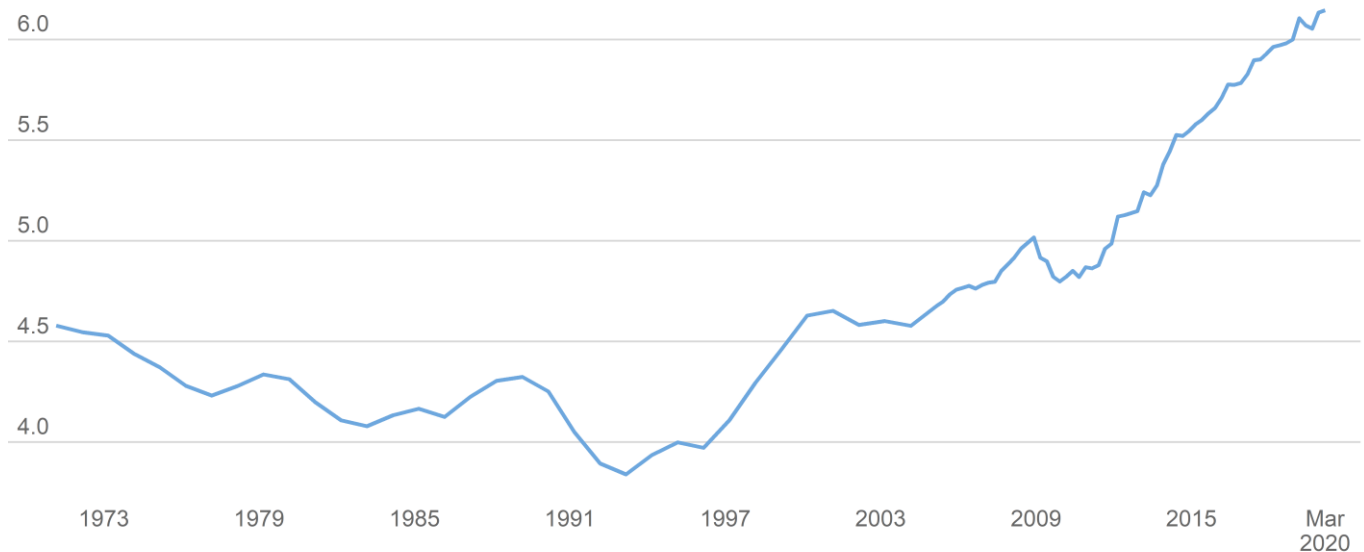
The economic impacts of the pandemic so far have been very different to those of the financial crisis and have affected London and other major cities especially badly, and there is so far little reason to assume that London will avoid a continued fall in birth rates.

## Jobs and employment

The rapid growth of London's population over the last three decades has to a large extent been fuelled by the opportunities offered by its labour market. Population has increased from under seven to approximately nine million people, while over the same period, the number of jobs based in the city has risen from under four to over six million.

## Workforce jobs, London

millions



Source: ONS Workforce Jobs (WFJ) series. Chart: GLA demography.  
Note: Final data point is March 2020

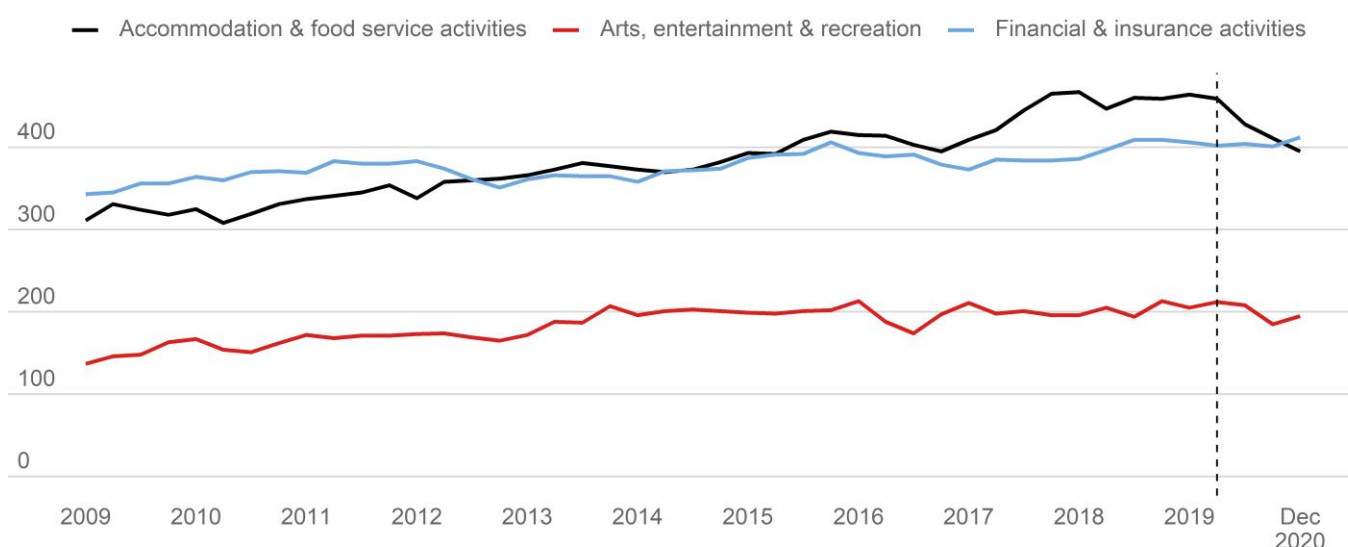
Britain's departure from the EU had long been expected to lead to the relocation of thousands of jobs in financial services to competitor cities elsewhere in Europe. The impact of the pandemic on the labour market has proven to be more dramatic. The restrictions introduced to control the spread of the virus have had a huge impact on tourism, hospitality, leisure, and retail activities with large scale job losses being reported across these sectors. The experience of office workers has been very different, with the principal impact of the restrictions being the rapid and widespread adoption of remote working.

Given the links between population and employment opportunities, it seems logical that large-scale job losses could trigger lower levels of growth or even a fall in London's population. The job losses resulting from the pandemic might be expected to have the biggest immediate impact on the population. Jobs in the sectors most directly affected tend to be relatively low paid and to be staffed by young and mobile workers, both from the UK and abroad, with a high proportion living in private rented accommodation. The last census shows that in 2011, 32 percent of all those working in *Distribution, hotels and restaurants* in London were aged 20—29 and that 24 percent of all people in that age group were working in that sector<sup>23</sup>. For some workers, loss of employment and limited opportunities in the same sector will provide the impetus to leave London, if only temporarily, to stay with family elsewhere in the UK or abroad.

<sup>23</sup> 2011 Census: WP6110EW – workplace population

## Workforce jobs by selected sectors, London

thousands



Source: ONS Workforce Jobs (WFJ) series. Chart: GLA demography.

Note: Dotted line at March 2020

Data from the ONS Workforce Jobs Series (WFJ)<sup>24</sup> show the number of jobs by sector in London. In December 2019, there were 464 thousand jobs in *Accommodation and food services*, 406 thousand in *Finance and insurance* and 205 thousand in *Arts, entertainment and recreation*. Over the last decade, the number of jobs in these sectors steadily increased and by 2019 they together accounted for 18 percent (1.08 million) of workforce jobs in London. Since March 2020 the number of jobs in *Finance and insurance* and *Arts, entertainment and recreation* has held relatively stable. There were 288 thousand fewer jobs in *Accommodation and food services* in December 2020 than a year previously (a 5 percent decrease).

## Suspension of in-person teaching for higher education students

In March 2020 university facilities were closed and, where possible, teaching was moved online. In some instances, students were directed by their university to return home. However, there was no consistent policy and decisions were taken by universities and students themselves rather than through government guidance or mandate.

For the 2020/2021 academic year, beginning in October 2020, most universities adopted a blended learning approach with a mixture of online and in-person teaching<sup>25</sup>. During this period, a number of university halls of residence were placed under lockdown to contain outbreaks of the virus and students were discouraged from returning home to their non-term-time address. However, from December 3<sup>rd</sup> to 9<sup>th</sup>, the 'student travel window' allowed students to travel home on staggered departure dates. The second national lockdown meant that many of those who returned home during this period did not return to university after Christmas.

From 8<sup>th</sup> March universities reopened to in-person teaching for some practical subjects (covering about half of students) and from 17<sup>th</sup> May all students were allowed to return to campus, with most teaching remaining online.

<sup>24</sup> <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/workforcejobsbyregionandindustryjobs05/current>

<sup>25</sup> <https://www.prospects.ac.uk/applying-for-university/university-life/how-universities-are-changing-in-the-wake-of-covid-19>

## International migration

Both the UK's departure from the European Union and the pandemic individually had the potential to dramatically change patterns of international migration to and from London. The end of freedom of movement with the EU was widely expected to result in a reduced share of migrants to the UK and London coming from the continent, while the pandemic has led to complex and evolving restrictions on international travel, as well as restrictions on movement and activities within individual countries that have strong migration links with the UK.

The timing of events - with the end of the transition period occurring as the country approached the peak of the pandemic's second wave, makes it difficult to disentangle their independent impacts on migration.

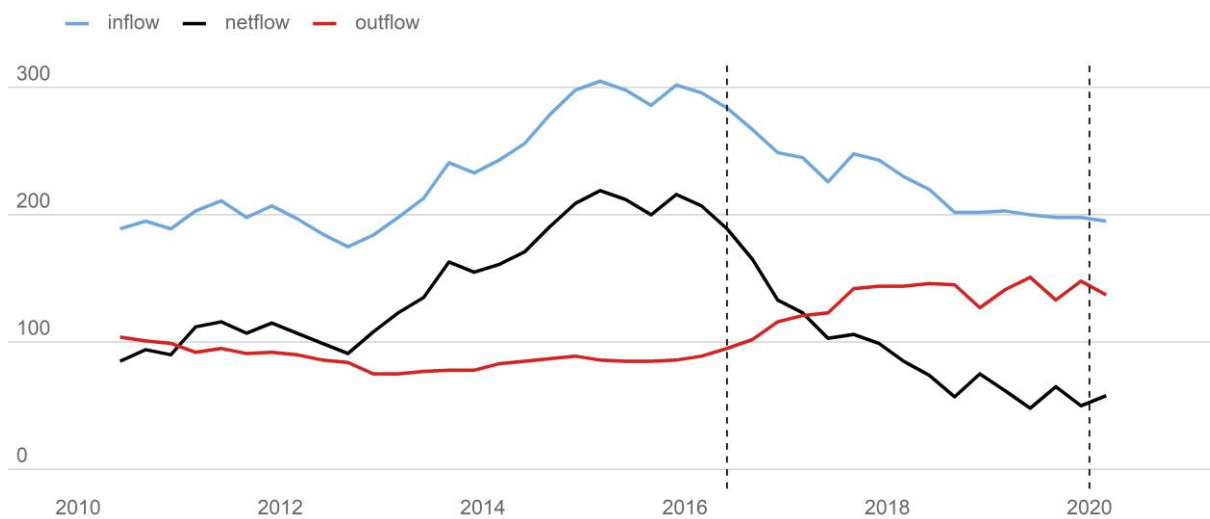
## Brexit impact on migration

It was inevitable that the UK's departure would reshape its migration relationship with the European Union. Brexit has led to the end of freedom of movement between the UK and the EU and made it necessary for most EU citizens living in the UK to apply for settled status in order to remain.

In addition to these changes in rules governing migration, the referendum result itself, together with much of the rhetoric and coverage surrounding it, will have led to shifts in sentiment of many EU citizens towards the UK as a place to live and work. While not straightforward to evidence, such shifts might explain at least some of the increase in outflow of EU citizens from the UK that followed the referendum.

### Migration of EU citizens to and from the UK

thousands



Source: ONS International Passenger Survey. Chart: GLA demography.  
Note: Dotted lines are EU referendum and EU exit

EU citizens looking to move to the UK, or already resident, are by no means a homogenous group and the impacts of Brexit on them will not be uniform. Those that came to the UK some time ago and are well established, with families, careers, and networks, will mostly be eligible for settled status and it is not clear that the referendum would cause large numbers to return to their countries of origin.

Decisions by more recent or prospective migrants to the UK seem more likely to have been influenced by changing sentiment or anticipation of future rule changes, though these are not the only factors that could account for the changes seen after the referendum. With many migrants drawn to the UK, and London in

particular, by economic opportunities, the sharp fall in the value of the pound<sup>26</sup> may have been at least as much of a driver for some.

Falls in net migration from the EU since the referendum have been largely offset by similarly sized increases in net migration from non-EU countries. Such increases may, in part, reflect changes in rules to make it easier for non-EU migrants to come to the UK for work.

### GBP to EUR exchange rate

Average rate by quarter



Source: ONS national accounts. Chart: GLA demography.

### COVID-19 travel restrictions

Lockdowns and travel restrictions have suppressed international travel since the start of the pandemic. While sources such as Home Office figures on air passenger arrivals do not explicitly tell us about migration, the scale of the reduction in overall numbers coming to the country makes it inevitable that there will have been a substantial impact on migration flows since the start of the pandemic.

In the short term, it seems likely that restrictions will have a larger impact on international migration inflows than outflows. A large proportion of the international outflow from the UK is made up of foreign nationals (for 2019, ONS estimated that British citizens made up only one third of the total migrant outflow<sup>27</sup>), often returning to their country of origin following a period of study or work in the UK. While restrictions on travel may temporarily delay such moves, it seems less likely that they would lead to their long-term postponement or cancellation. Travel restrictions are likely to prove a greater obstacle to would-be immigrants to the UK, with travel bans and hotel quarantine requirements in places for arrivals from countries considered as being high-risk.

### Job losses

For some prospective migrants, the severe impact of the pandemic on jobs across the hospitality, leisure, and retail sectors will have, temporarily at least, removed the draw of London as a destination offering economic opportunity. For others, such as those seeking employment in healthcare or in sectors less acutely impacted by the pandemic, opportunities likely remain.

<sup>26</sup> <https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/timeseries/thap/mret>

<sup>27</sup> ONS Long-Term International Migration Estimates

For foreign nationals living and working in the UK, the loss of a job and limited near-term prospects for alternative employment, may trigger a return to their country of origin, if only temporarily.

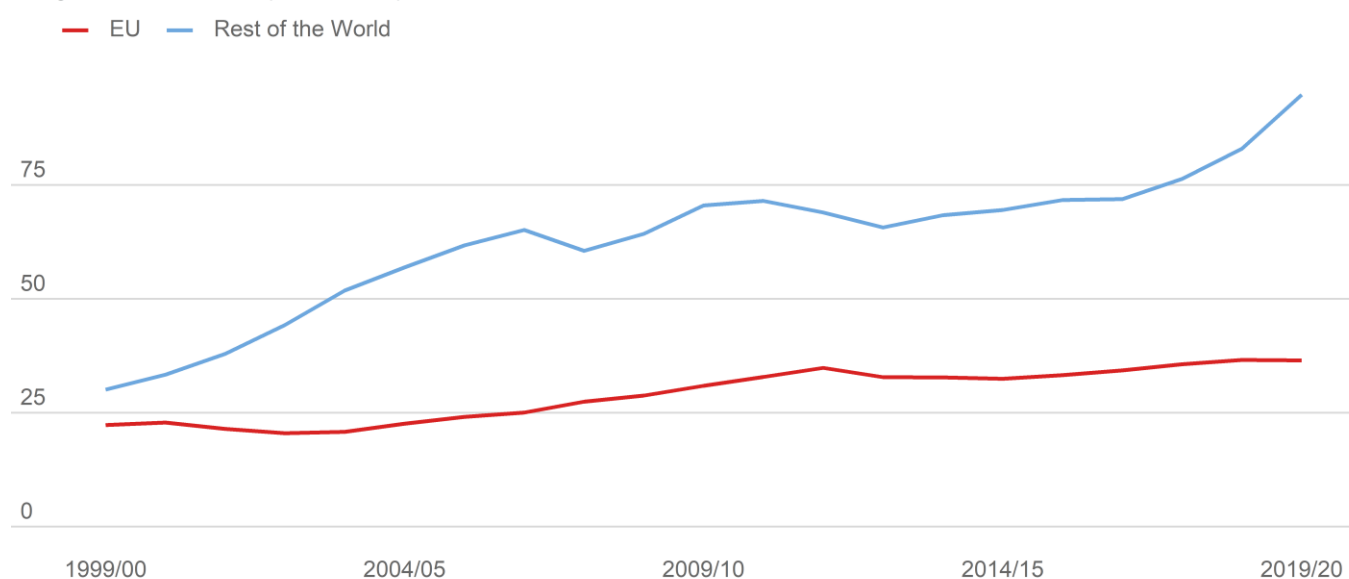
### International students

Education is one of the two most common reasons people move to the UK. In the year ending June 2019, around 212 thousand people (35 percent of all international migrants) arrived for study with the intention of staying for at least a year. In the 2019/20 academic year, four London universities featured in the top ten most popular universities among international students coming to the UK<sup>28</sup>. In that year, 131 thousand (24 percent) of the 543 thousand international students studying in the UK, attended a London university<sup>29</sup>. This proportion has remained relatively stable (between 23 percent and 27 percent) over the past 20 years.

ONS analysis of non-EU student travel behaviour<sup>30</sup> has shown that younger undergraduate students retain strong links to their country of domicile during their course. Under half of undergraduates spent more than 10 months in the UK over a 12-month period with annual patterns showing them leaving the UK during university holidays. Among postgraduates and older students there was a higher propensity to remain in the UK year-round. This analysis could provide an indication of whether international students are likely to have remained in the UK throughout the pandemic or whether they have chosen to return to their country of origin.

### Domicile of international students at London universities

Registered students (thousands)



Source: HESA (under licence). Chart: GLA demography.

Note: EU counties as at reference year

Universities will hope for a resumption of in-person teaching as well as a return to normal for other aspects of university life in the upcoming academic year. However, it is possible that the pandemic could have a continuing impact on the number of international students coming to the UK and London. Some prospective students may be concerned about the potential for a future rise in infections and a repeat of the

<sup>28</sup> <https://www.ukcisa.org.uk/Research--Policy/Statistics/International-student-statistics-UK-higher-education>

<sup>29</sup> HESA data provided to the GLA under licence

<sup>30</sup> <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/articles/whatcanadministrativedatasourcesstellusaboutthepatternsofpresenceofnoneustudents/2020-02-14>

disruption that affected the 2020-21 academic year. The global economic impacts of the pandemic may also affect the ability of many to study in the UK.

## Domestic migration and residential choice

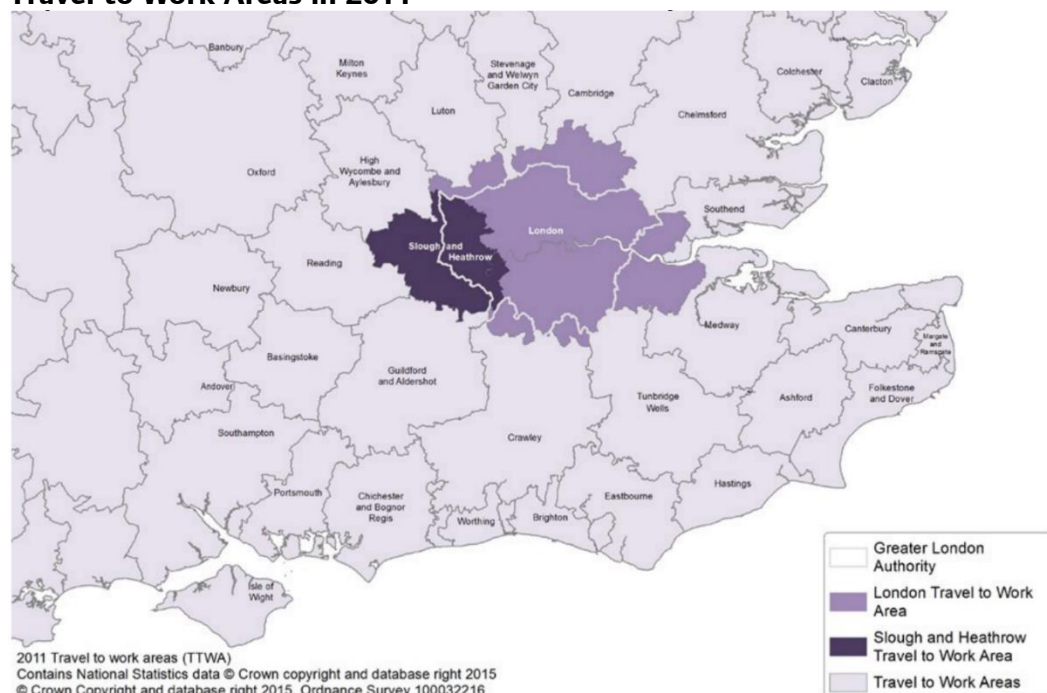
### Job losses and remote working

Inflows to London from the rest of the UK will likely have been greatly reduced by both job losses and the closure of offices. A large proportion of the domestic inflow to the city is from young adults moving for work. Many who would have come to start office jobs will likely have postponed the physical move and begun working remotely; those who would have come in search of employment in retail, tourism, or hospitality, will likely have had to make alternative plans.

Opinions vary about the extent to which increases in home working will persist once the necessity imposed by the pandemic has passed. Nonetheless, there is a strong consensus that many more people will work remotely, at least some of the time, than was the case prior to the pandemic. While not all jobs can be carried out remotely, London has a relatively large number of jobs in finance, management, professional services and information—sectors that have the highest potential for remote work<sup>31</sup>.

A widespread increase in remote working is likely to reshape decisions about where to live, which for many are determined by the trade-off between housing costs and commuting time/costs. If workers expect to make less frequent journeys to the office, the net result is likely to be an expansion of the effective commuter belt to cover a wider area and an increase in the proportion of London office workers living outside of the city itself (the 2011 Census showed that some 17.5 percent (almost 800 thousand) of London workers commuted in from outside)<sup>32</sup>. Within London, one might anticipate some shift in the place of residence of office workers away from well-connected, but relatively expensive, areas toward more affordable parts of Outer London that have more limited public transport accessibility.

### Travel to Work Areas in 2011



<sup>31</sup> <https://www.mckinsey.com/featured-insights/future-of-work/whats-next-for-remote-work-an-analysis-of-2000-tasks-800-jobs-and-nine-countries>

<sup>32</sup> <https://data.london.gov.uk/dataset/characteristics-of-commuters>

### Partial suspension of Stamp Duty

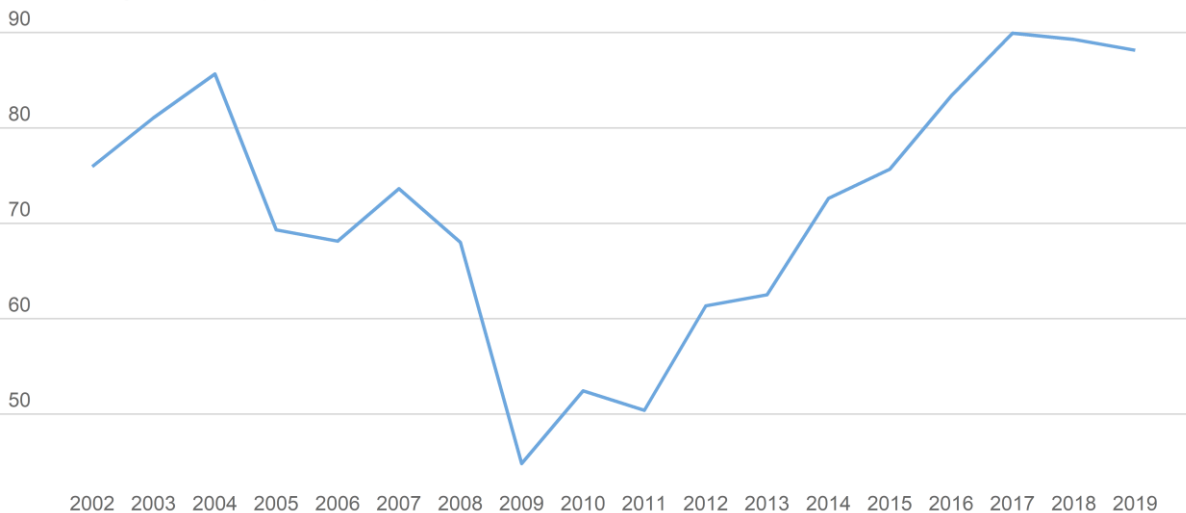
The first lockdown led to a sharp reduction in the volume of property sales across the country. In July 2020, to counter this slowdown, the government partially suspended property purchase tax on sales in England and Northern Ireland. This 'stamp duty holiday' is likely to have boosted sales, with buyers bringing forward planned purchases to take advantage of the temporary break in tax costs.

With many moves from London to surrounding regions linked to the purchase of a property and its coincidence with the widespread adoption of remote working, the change to stamp duty rates is likely to have bolstered domestic outmigration flows away from London over the last year.

The significance of the relationship between housing sales and domestic migration from London is clearly illustrated by the sharp drop in sales and related fall in outflows from London to the surrounding regions following the 2008 Financial Crisis (the apparent weakening of the relationship between sales and net outmigration in the years following the crisis may reflect a rise in renting among people who would previously have purchased a property).

### Balance of domestic flows between London & the Wider South East

Net Out migration 2019 (thousands)

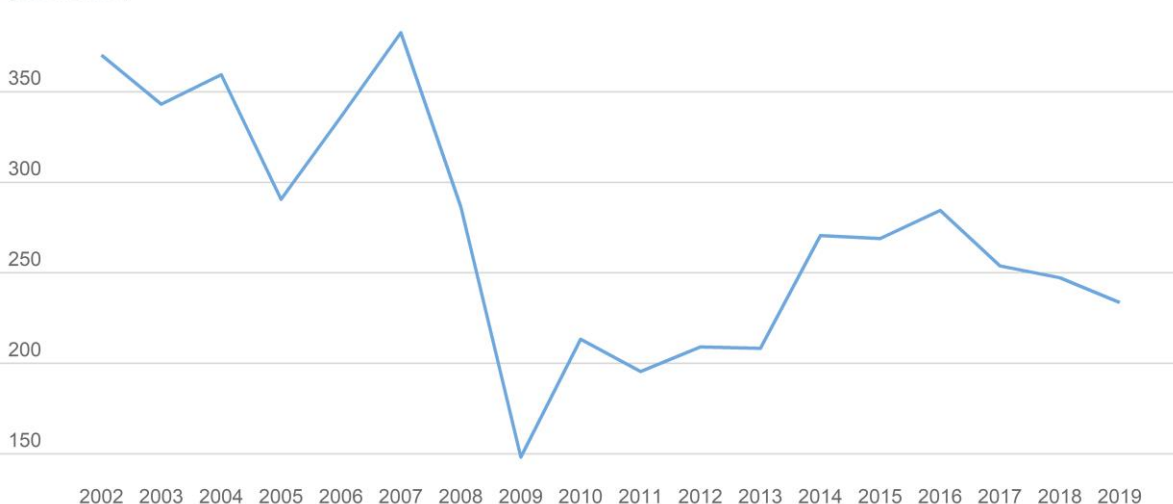


Source: ONS Internal Migration Series. Chart: GLA demography.

Note: Values are net out migration and so indicate a net loss of population from London to the Wider South East

### Housing sales in the South East and East of England regions

(thousands)



Source: ONS Residential property sales for administrative geographies: HPSSA dataset 6

Chart: GLA demography.

### **UK-domiciled students not at their usual term time address**

In the 2018/19 academic year a total of 320 thousand London residents attended a UK university<sup>33</sup>. Just under half of those attended a university in London while 152 thousand attended a university outside the capital. Conversely, 98 thousand students came to study in London from elsewhere in the UK.

Because population estimates place students at their term-time address for the duration of their studies (on the basis that they spend more than half of each year there), the net effect of this exchange is that official population estimates for London are some fifty thousand lower than they would be if students were placed at their home/parental address.

As a result of the pandemic, many students spent significantly more than half of the year at their non-term time address, while undertaking distance learning. In areas with large concentrations of students, such as Camden, Hackney or Kingston, this will have led to the actual numbers of young adults present being significantly lower than indicated by official population estimates for more of the year than usual. Likewise, the actual number of student-age persons in suburban residential areas will likely have been somewhat higher than in official estimates.

If universities are able to resume in-person teaching, the real impact on population trends of students temporarily spending a greater balance of their time at their non-term-time address is likely to be relatively minor. Of potentially greater importance will be the need to understand how these effects are reflected in official statistics so that real trends in population movement can be correctly interpreted.

It is currently unclear to what extent official estimates for mid-2020 will identify students as being at their non-term-time address (where many should be placed according to the 'usual residence' definition) rather than their term-time address (where they 'should' have been had the pandemic not disrupted teaching).

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<sup>33</sup> <https://www.hesa.ac.uk/data-and-analysis/students/where-study>

## Evidence of population change

In the following section, some of the key evidence about population change in London since the start of the pandemic is presented. Additional information about the data sources referenced here is available in the annex that accompanies this report on the London Datastore.

### Deaths and mortality

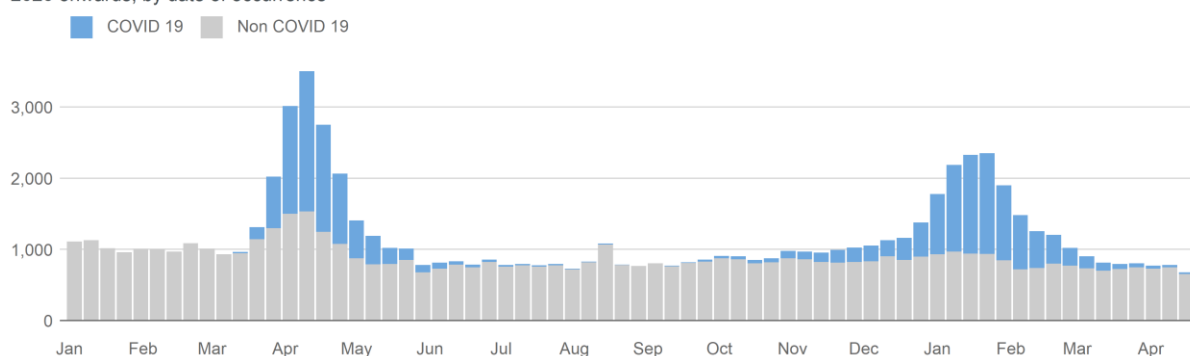
ONS's published data up to 23 April 2021, gives the total number of deaths caused by COVID-19 in London as 19,183. These deaths are concentrated over the two distinct waves of infection which peaked in April 2020 and January 2021.

This figure is undoubtedly an underestimate of the true number of deaths. Cause of death in the ONS data is assigned based on the information recorded on the death certificate. It is widely believed that in the early weeks of the pandemic, due to the guidance in force at the time, a significant number of deaths that resulted from COVID-19, especially those that occurred in care homes, were not recorded as such.

This assertion is supported by comparison of weekly deaths by all causes, with the average numbers from previous years. This shows that there was a large number of excess deaths that occurred at the beginning of the pandemic which were not accounted for by the number of deaths attributed to COVID-19.

#### London weekly deaths

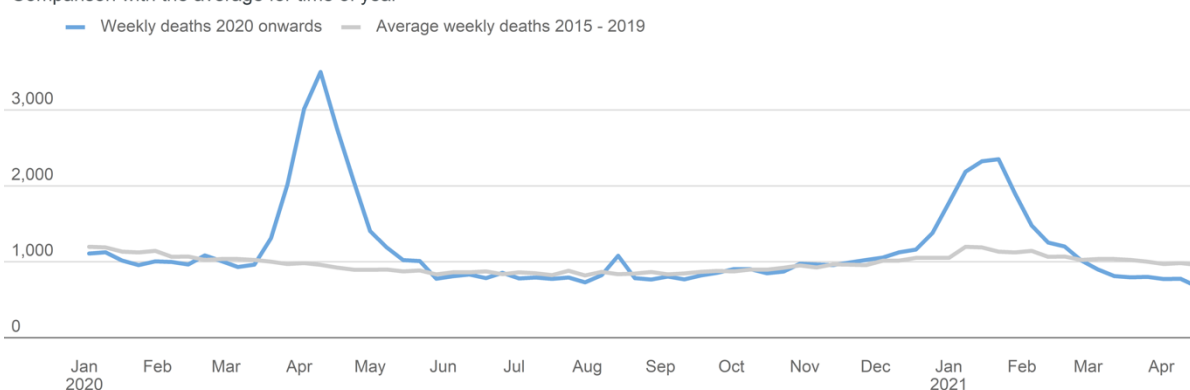
2020 onwards, by date of occurrence



Source: ONS weekly deaths by Local Authority  
Chart: GLA City Intelligence

#### London weekly all-cause deaths by date of occurrence

Comparison with the average for time of year



Source: ONS weekly deaths  
Graphic by GLA City Intelligence

Analysis by Public Health England<sup>34</sup> shows that between 21 March and 15 May, the number of deaths registered in London was 9,502 higher than expected, but the number for which COVID-19 was mentioned on the death certificate was 7,745. This suggests that the official count for London may underestimate the true toll of COVID-19 in London by around 1,750 deaths.

## Births and fertility

Annual births in London have fallen over the last decade and by the start of the pandemic were already significantly below their 2012 peak.

The latest provisional birth estimates published by ONS cover the period to the end of August 2020 and indicate a continued decline in the number of births. However, any impacts of the pandemic on conceptions will only show in birth numbers from January 2021 onwards.

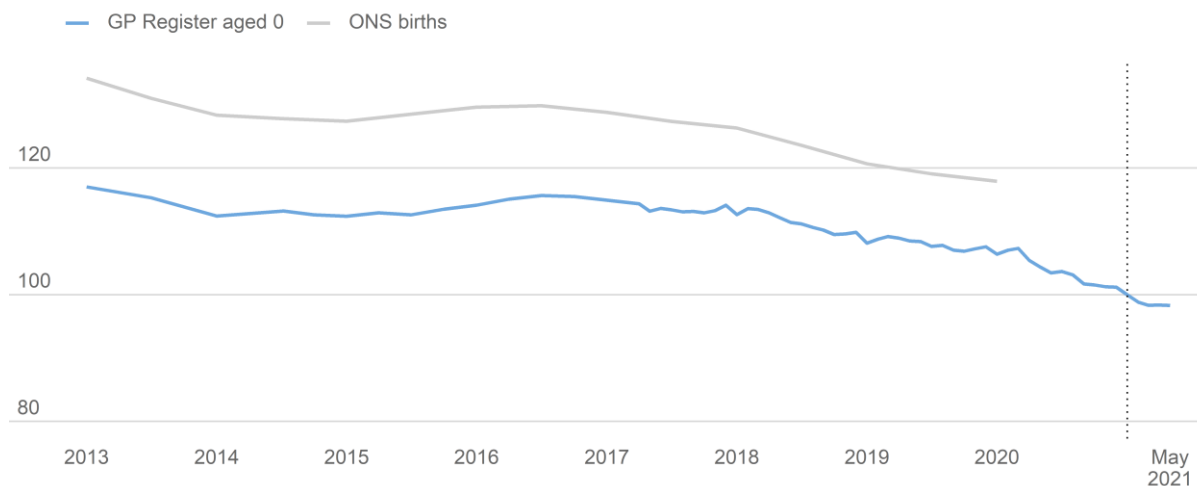
To understand more recent birth trends, we can use the number of children present on GP registers that have not yet reached their first birthday as an indicator. For London, this data correlates very strongly with the number of births that have taken place over the preceding year.

Analysis of GP registration data for London implies that there were approximately 110 thousand births for (calendar year) 2020.

The latest data suggests that the decline in births has continued in the months since January, but it remains too early to draw further conclusions about how the pandemic has affected trends.

### Annual births and the number aged 0 on the GP register

Persons (thousands)



Source: NHS Digital, ONS mid-year estimates, ONS calendar year. Chart: GLA demography.

Note: ONS births includes data points for mid-year and calendar year

Dotted line at 1 January 2021 (9 months after the start of the pandemic)

<sup>34</sup> <https://fingertips.phe.org.uk/static-reports/mortality-surveillance/excess-mortality-in-england-latest.html>

## Jobs and employment

The evidence is unambiguous that the pandemic has had dramatic impacts on the economy and employment, and these impacts have:

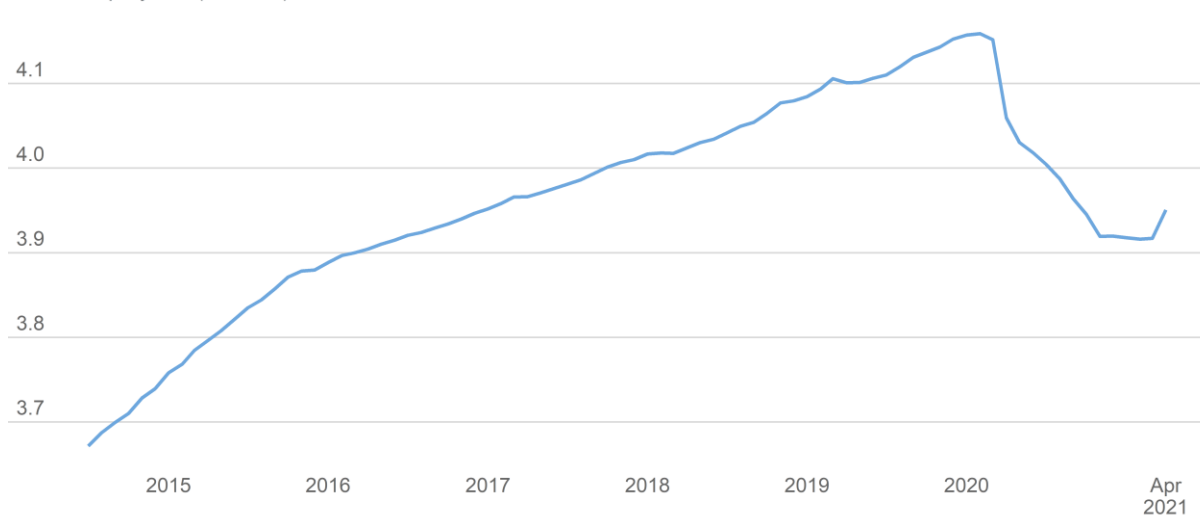
- Been greater in London than in the rest of the country.
- Disproportionately affected younger and lower income workers.
- Been especially severe in sectors that employ relatively large numbers of foreign workers and recent migrants.
- Led to a large proportional drop in the number of payrolled employees from the EU.

### PAYE Real Time Information system

Experimental data from the Pay As You Earn (PAYE) Real Time Information (RTI) system indicates that the number of payrolled employees resident in London fell sharply after the first major Covid restrictions were introduced and by November 2020 was 210 thousand lower than it had been in March 2020.

#### Payrolled employees, seasonally adjusted, London

Total employees (millions)



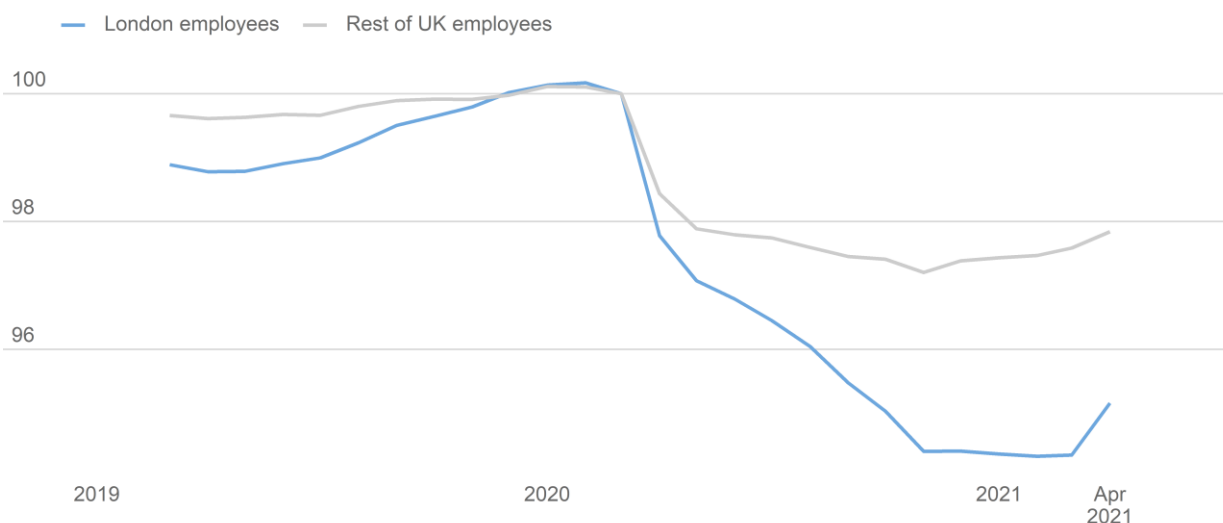
Source: ONS, Earnings & Employment PAYE Real Time Information. Chart: GLA demography.

Notes: Data refers to region of residence of employee. Final data point is an early estimate liable to revision.

The impact on employee numbers was greater in London than for other UK regions, with the proportional fall for the rest of the UK to November 2020, being less than half (2.5 percent) than that for London (5.1 percent).

## Change in number of payrolled employees

Indexed: March 2020 = 100



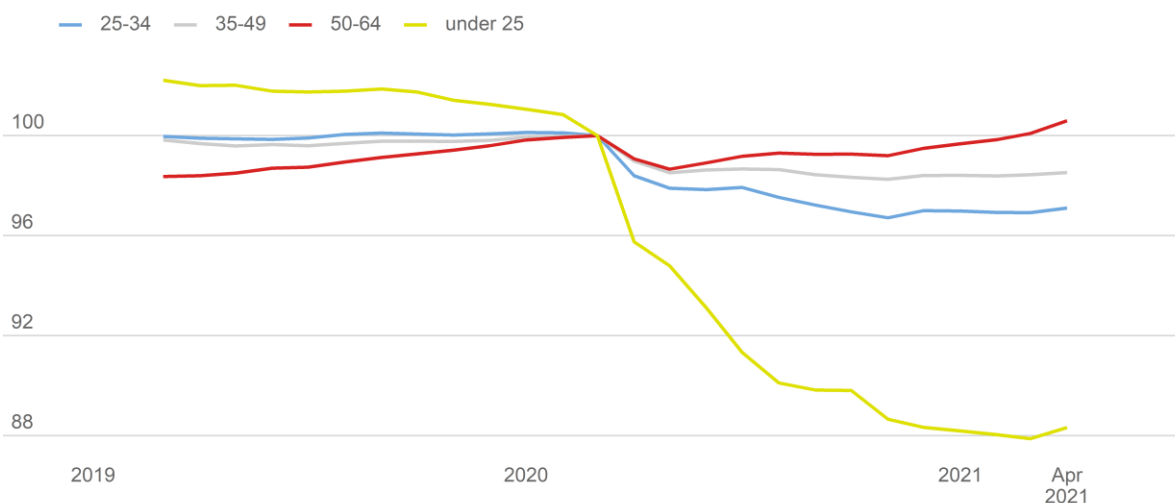
Source: ONS, Earnings & Employment PAYE Real Time Information. Chart: GLA demography.

Notes: Data refers to region of residence of employee. Final data point is an early estimate liable to revision.

Data for the UK by age and industry highlights the disproportionate impact of the pandemic on younger employees and those working in *Accommodation and food services* and *Arts, entertainment and recreation*. Since the start of the pandemic, the number of employees under the age of 25 fell by more than 10 percent, dramatically more than for older age groups, as a result, around 54 percent of the fall in UK payrolled employees between March 2020 and March 2021 has been among employees aged under 25.

## Change in number of UK payrolled employees by age

Indexed: March 2020 = 100



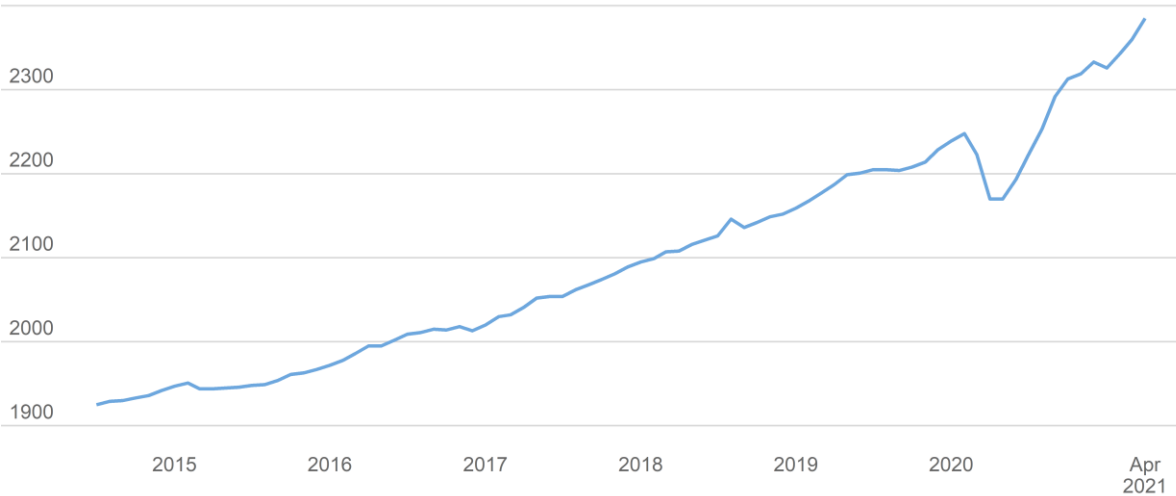
Source: ONS, Earnings & Employment PAYE Real Time Information. Chart: GLA demography.

Notes: Data refers to region of residence of employee. Final data point is an early estimate liable to revision.

The immediate impact of the pandemic on median pay is shown by the sharp fall in the first quarter of 2020. However, median pay recovered rapidly and exceeded pre-pandemic levels by autumn 2020. This increase in median pay is likely to be influenced by compositional effects—including a fall in the number and proportion of lower-paid employees. This would be consistent with assumptions about the sectors and types of job most adversely affected by the acute phase of the pandemic.

### Median pay, seasonally adjusted, London

Monthly pay (£)  
2400



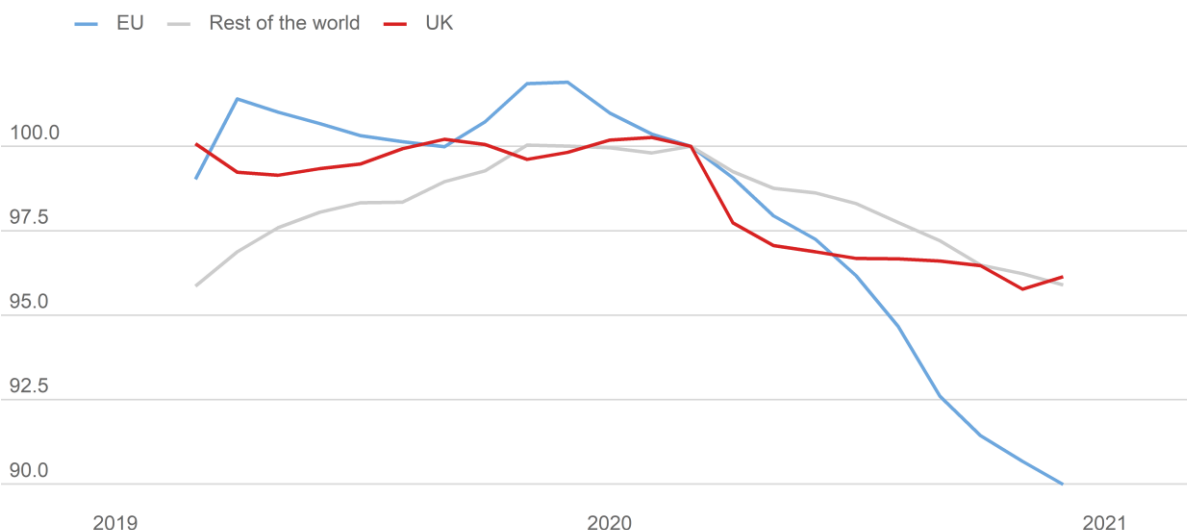
Source: ONS, Earnings & Employment PAYE Real Time Information. Chart: GLA demography.  
Notes: Data refers to region of residence of employee. Final data point is an early estimate liable to revision.

The RTI data is now available with a breakdown by nationality of employees. This data reflects nationality at the time that a National Insurance Number was issued (and does not account for subsequent changes in citizenship or those with dual citizenship).

The data indicate that, from March to December 2020, the proportional drop in the number of payrolled employees living in London was twice as large for those from the EU (10.0 percent) as it was for those from the UK (3.9 percent) and the Rest of the World (4.1 percent).

### London employees by nationality, seasonally adjusted

Indexed: March 2020 = 100



Source: ONS, Earnings & Employment PAYE Real Time Information. Chart: GLA demography.

### Labour Force Survey

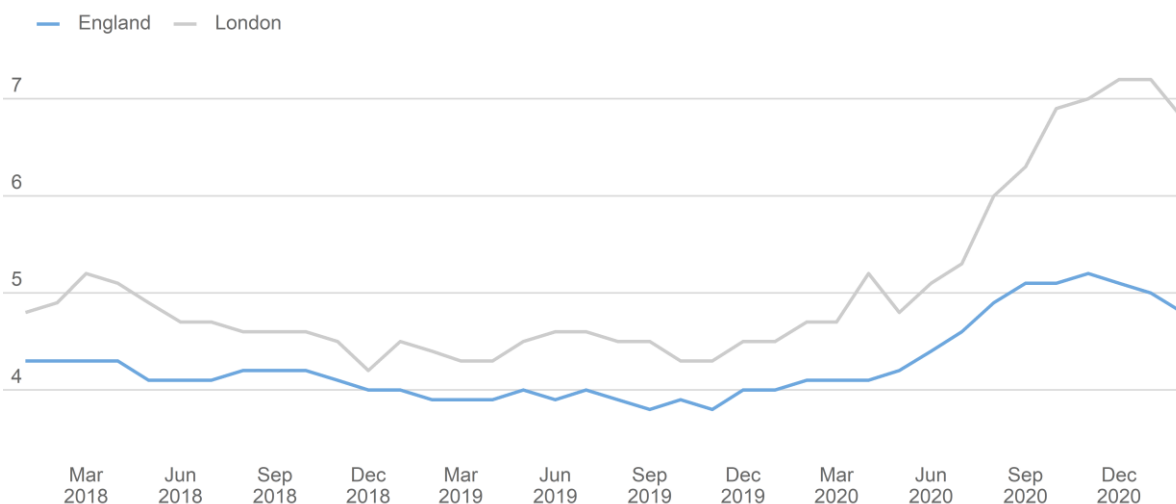
The issues that have affected the Labour Force Survey since the start of the pandemic undermine it as a source of estimates of absolute levels and change, but ONS have stated that employment rates based on the data remain robust. The LFS continues to provide a key measure of unemployment rates.

The data show a clear increase in unemployment rates in London since the start of the pandemic, with rates rising to 7.2 percent for the three-month period ending February 2021, up from 4.5 percent a year earlier.

The data also show that the impacts in London have been greater than for other regions, with the gap in unemployment rates widening from approximately 0.5 percentage points to more than 2.0 percentage points over the course of the year.

### Unemployment rate, seasonally adjusted

All persons aged 16 and over (%)



Source: ONS labour force survey. Chart: GLA demography.

Note: Latest data February 2021

## International migration

### Impact of Brexit on migration prior to the pandemic

Data from the International Passenger Survey (IPS) indicate that the referendum coincided with falls in net inflows of EU citizens, with the drop being especially pronounced from the EU8<sup>35</sup> nations.

However, the last available data from the IPS, covering the year to the end of March 2020, showed net migration from EU15<sup>36</sup> and EU2<sup>37</sup> nations to still be higher than it had been prior to 2013, and, though there was a net outflow of EU8 citizens, the volume was still small relative to past inflows and the number resident in the UK.

This suggests that, while the referendum significantly reduced the level of migration from the EU, in the period up to the start of the pandemic, it had not led to large scale departures of EU citizens from the UK or London. This view is corroborated by:

- Data on births by mother's country of birth, which show that, while London births to mothers born in EU member states fell marginally in the year to mid-2019, they remained close to historic highs and remained more buoyant than those to mothers born in the UK or other world regions.

<sup>35</sup> EU8 nations: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia

<sup>36</sup> EU15 nations: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Republic of Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom (reported on separately in UK statistics)

<sup>37</sup> EU2 nations: Bulgaria, Romania

- Figures from the EU Settlement Scheme, which showed that there were 1.72 million applications in London, and that the majority of applicants had been granted either settled status (52 percent) or pre-settled status (45 percent)

### Impacts of the pandemic on international migration

The suspension of the IPS created a large gap in understanding about changing international migration trends since March 2020. At the same time, operational issues caused by the pandemic made data from the Labour Force/Annual Population Surveys unreliable as a source of information about changes to the size of the migrant population.

Work by ONS to develop new methods for monitoring the movement and stocks of migrants has recently begun to yield results and provide more reliable insights into migration flows in the months following the start of the pandemic. The key stories from the data published to date are that:

- Inflows to the UK fell substantially, but outflows did not.
- Most of the resultant net outflow was of EU citizens.

This picture of a net outflow of EU nationals in the early months of the pandemic is consistent with data from the PAYE RTI system, which showed disproportionately large falls in the number of EU national employees on payrolls.

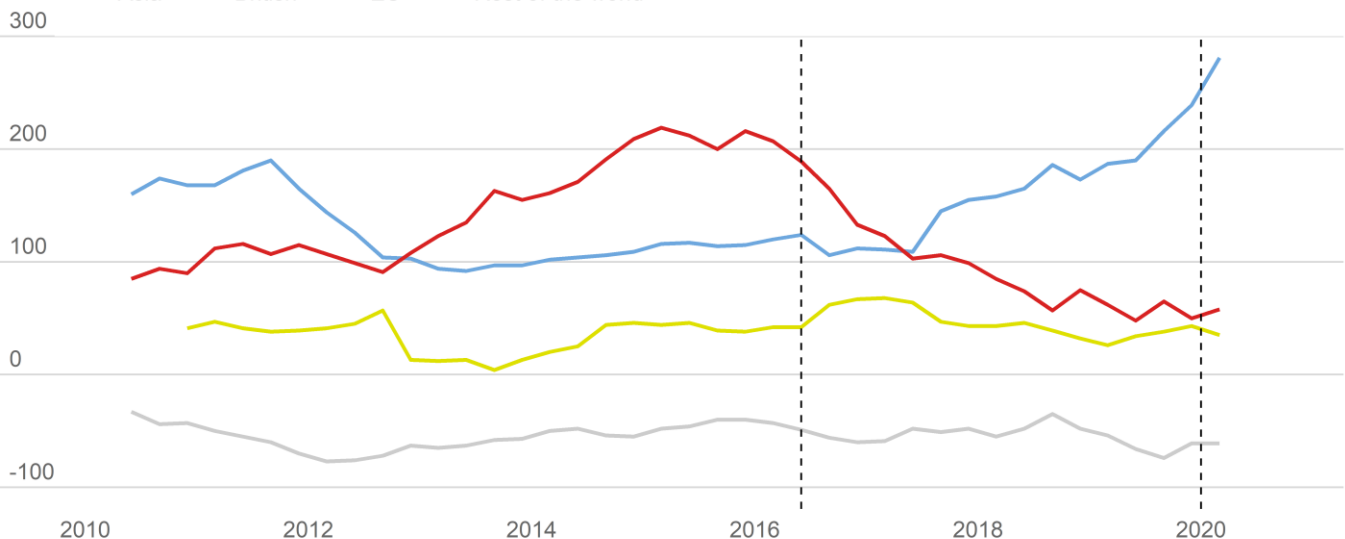
### International Passenger Survey/Long Term International Migration estimates

While the overall level of international in-migration to the UK over the years prior to the pandemic remained relatively stable, the contribution from different countries changed significantly. The UK and London saw increases in migrants from non-European countries, particularly from Asia, and falls in the number of migrants from Europe.

#### Net migration by citizenship

thousands

— Asia — British — EU — Rest of the world



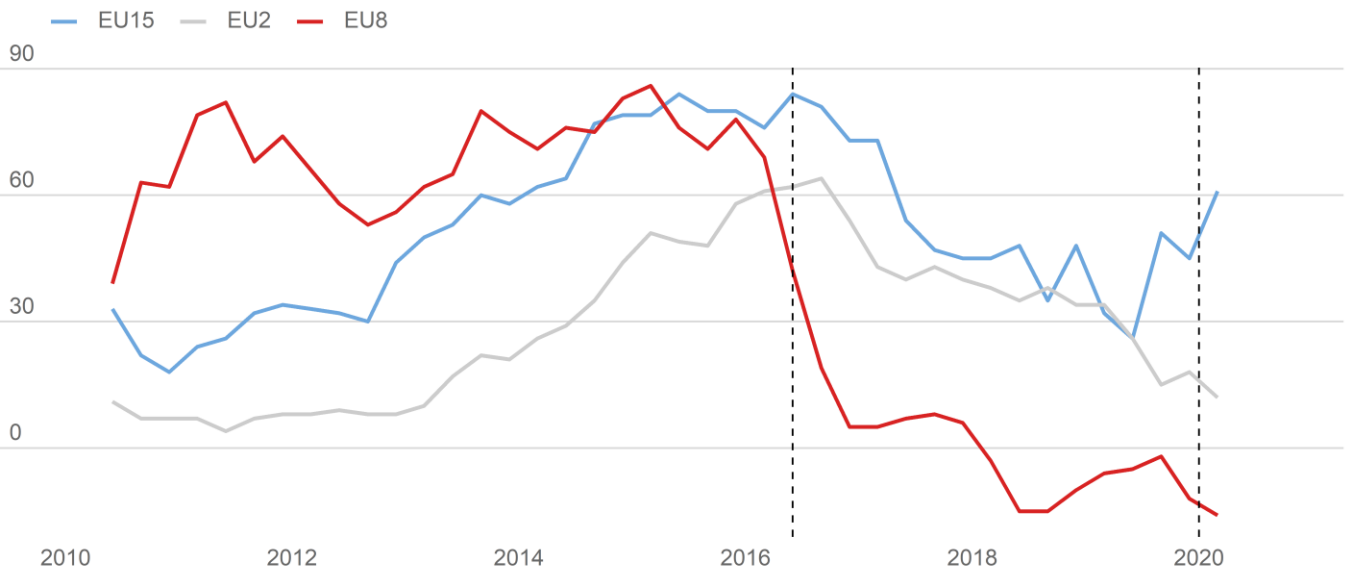
Source: ONS International Passenger Survey. Chart: GLA demography.  
Note: Dotted lines are EU referendum and EU exit

The impacts of the referendum on migration appear most strikingly apparent in the changing balance of migration with EU8 nations, which saw previously strong net inflows replaced with (much smaller) net outflows. Changes in EU15 and EU2 flows are somewhat more ambiguous. While net inflows of each group

decreased following the referendum, they had been rising in the years leading up to it, and still remained above their 2013 levels.

### Net migration by citizenship (EU citizens)

thousands



Source: ONS International Passenger Survey. Chart: GLA demography.  
Note: Dotted lines are EU referendum and EU exit

### ONS experimental modelled migration estimates

ONS's recent publication of experimental modelled migration estimates has helped fill some of the gaps in knowledge left by the suspension of the IPS. While the data has relatively wide confidence intervals, has no subnational breakdown, and extends only to the end of June 2020, it provides new insight into the immediate impacts of the pandemic on migration.

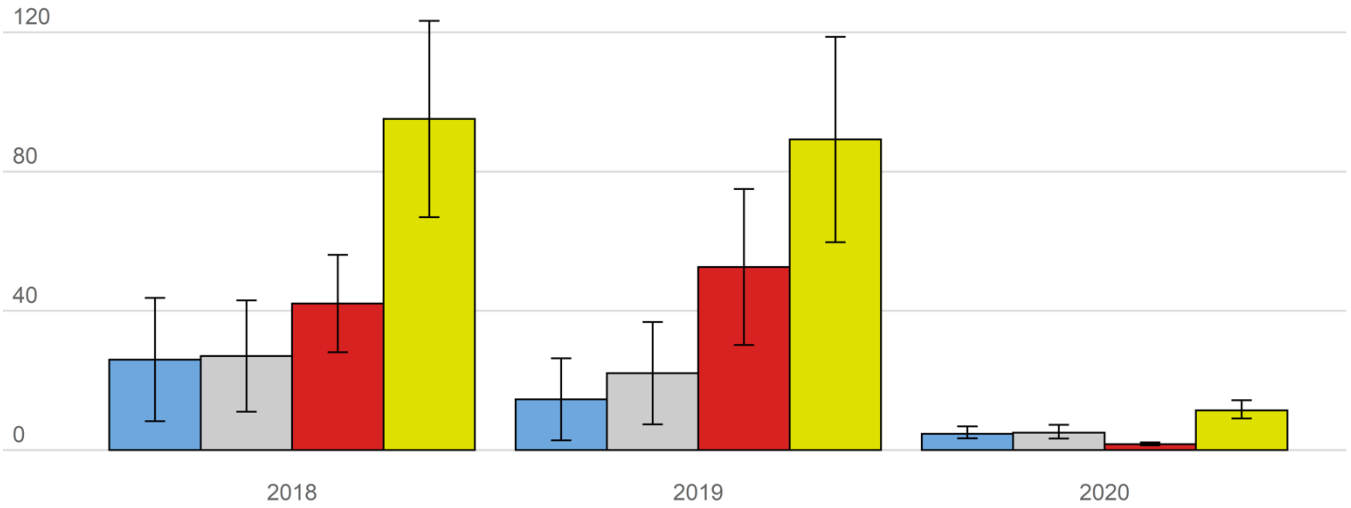
Comparing data for the quarter following the start of the pandemic with data for the equivalent periods in the preceding two years:

- Immigration to the UK dropped substantially, with an estimated inflow of 11 thousand, compared to an average of over 90 thousand for the previous two years.
- The largest drop in immigration was from non-EU countries.
- Emigration flows showed far less of a drop, with an estimated 62 thousand for the quarter, compared to an average of 65 thousand.
- Most of the emigration was by EU nationals, who made up 54 thousand of the outflows.
- There was an estimated net *outflow* of between 27 and 73 thousand people—almost entirely EU citizens—a dramatic change from an average net *inflow* of 27 thousand in the two preceding years.

## UK Inflows by nationality

thousands

British EU Non-EU Total

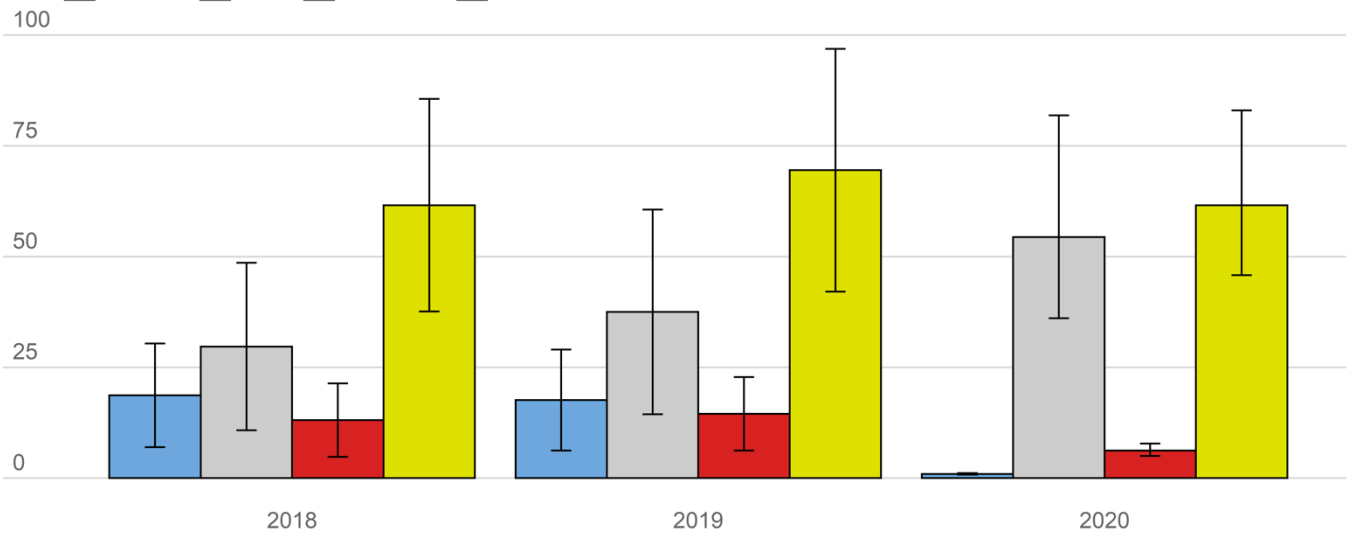


Source: ONS modelled migration estimates. Chart: GLA demography.  
Note: Data for April-June of reference year

## UK Outflows by nationality

thousands

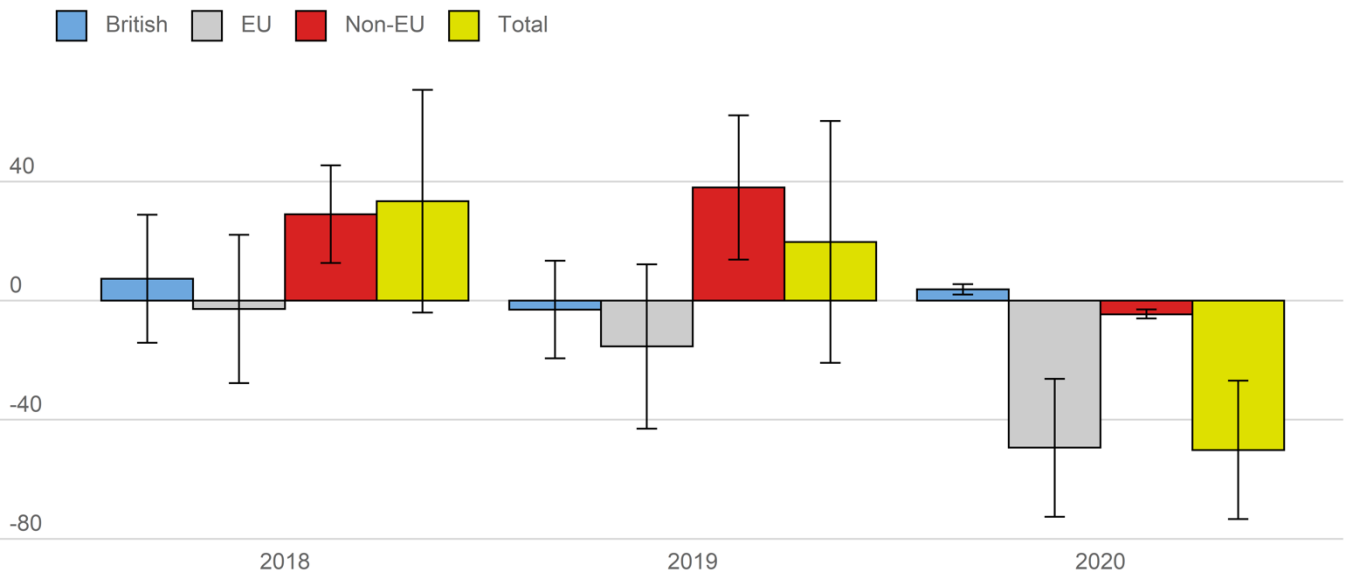
British EU Non-EU Total



Source: ONS modelled migration estimates. Chart: GLA demography.  
Note: Data for April-June of reference year

## UK Net flows by nationality

thousands



Source: ONS modelled migration estimates. Chart: GLA demography.

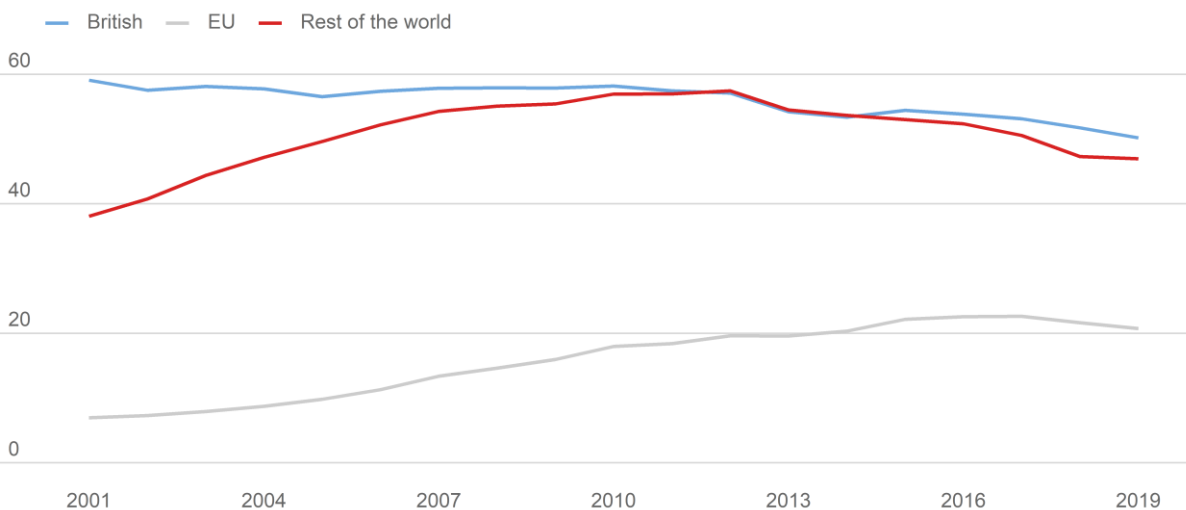
Note: Data for April-June of reference year

## Births by mother's country of birth

Births to EU-born mothers rose steadily from the early 2000s until 2016. Since the referendum, the number of births to mothers born in the EU has seen a modest decrease. However, this decrease is proportional to that seen among UK-born mothers and far smaller than for mothers born elsewhere overseas.

## London Births by Mother's Region of Birth

Births (thousands)



Source: ONS Births by parents' country of birth statistics. Chart: GLA demography.

Note: EU countries as at 2021

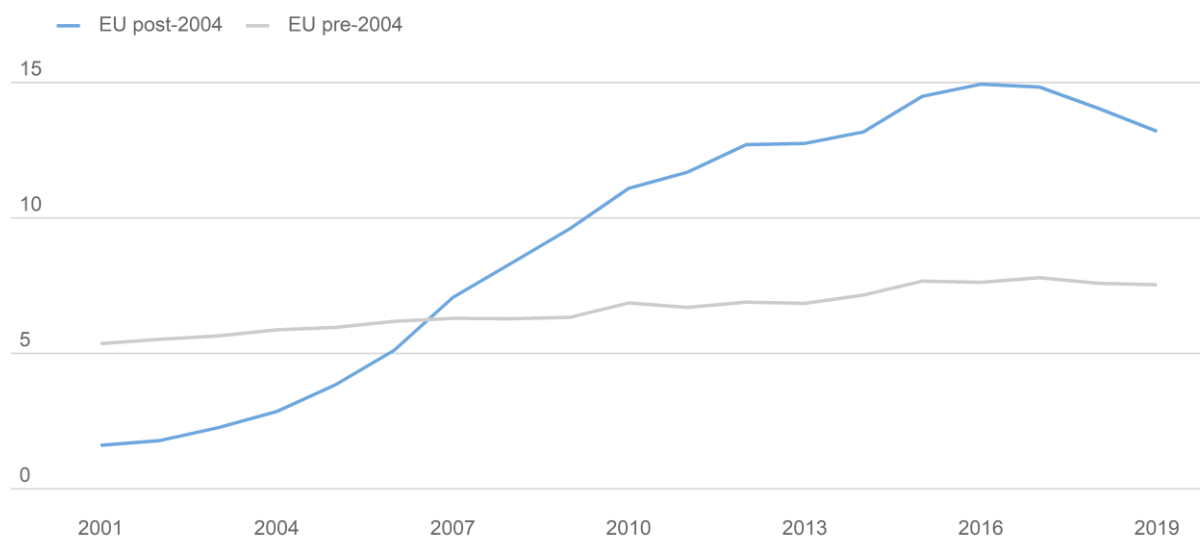
Closer examination of the EU data shows contrasting trends for those countries that were part of the EU prior to 2004 and those that joined subsequently<sup>38</sup>. In 2001, there were only a third as many births to mothers born in countries that subsequently joined the EU as there were to those from existing member states. However, births rose sharply after 2004 and by 2016 there were almost twice as many births to

<sup>38</sup> i.e. EU15 and EU8 plus EU2, respectively

mothers from new EU countries (14,900) than there were to those from the old EU (7,600). Births to new EU mothers have fallen since 2016 and were almost 12 percent below their peak by 2019 (13,200).

### London Births by Mother's Region of Birth

Births (thousands)



Source: ONS Births by parents' country of birth statistics. Chart: GLA demography.

### ONS estimates of population by nationality and country of birth

In January 2021, ONS published estimates of population by nationality and country of birth for the year ending June 2020. Taken at face value, the estimates suggest that London's non-British population fell by over 100 thousand compared to the previous year<sup>39</sup>. However, there are two issues that affect the reliability of these estimates at this time:

- Under-representation of foreign-born/foreign nationals in the survey sample representation as a result of the suspension of face-to-face interviewing.
- The use of projected 2020 populations that don't account for the impacts of the pandemic to gross-up the rates from the APS and which are likely higher than the actuals.

These issues have been acknowledged by ONS<sup>40</sup> and they have stated their intention to issue revised estimates in July 2021.

## Domestic migration and overall population change

### Rental prices

Rental prices for new tenancies in London have shown a marked decline since March 2020. By February 2021, the HomeLet Rental Index suggests new rental prices paid in London were five percent lower than they had been a year prior. This is in stark contrast to the trend in rental prices in other regions, which saw comparably sized increases.

Figures from the Rightmove Rental Trends Tracker covering the first quarter of 2021 suggest that asking rents in Greater London fell by 7.8 percent compared to the same period a year earlier. This data also provides a split between Inner and Outer London, which shows that the majority of the overall decrease

<sup>39</sup> Note that ONS has long advised users against inferring migration flows from year-on-year change in this data

<sup>40</sup>

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/bulletins/ukpopulationbycountryofbirthandnationality/yearendingjune2020>

resulted from a fall of 14.0 percent in Inner London, while asking prices in Outer London fell by only 1.1 percent. National prices increased by 4.2 percent over the same period.

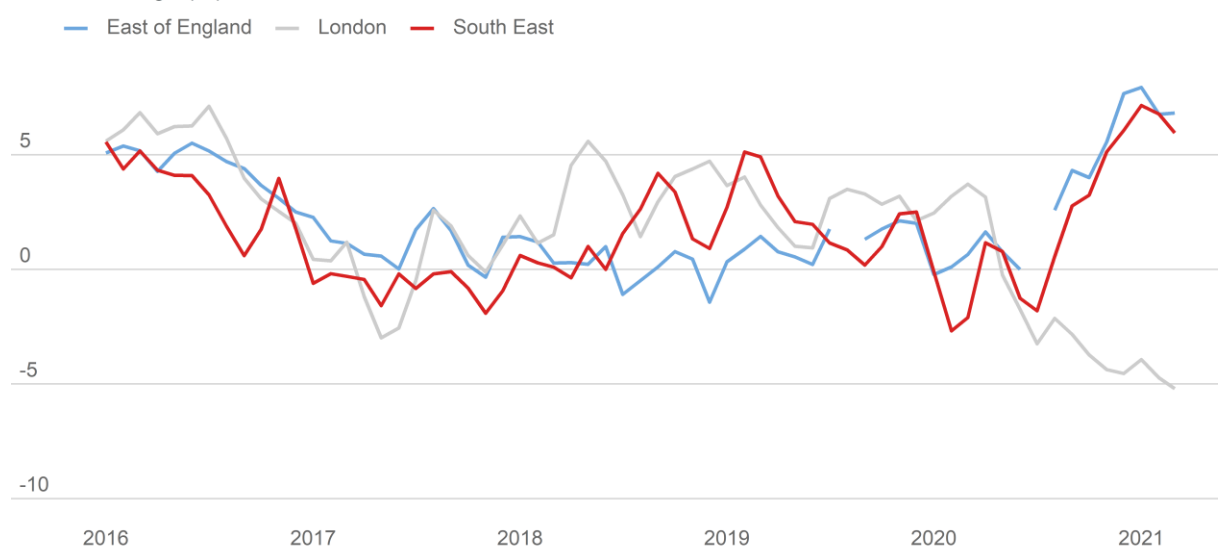
Falls in Inner London rental prices could be consistent with reduced demand for accommodation due to a reduction in the number of people seeking to rent in the city – due to fewer people moving to London and/or more people leaving. The substantial increases in rental prices which have occurred in surrounding regions over the same period support this possibility.

Caution is required in interpreting this data, however, as there are other factors that could potentially account for some of the observed change in rental prices, for example:

- The poor outlook for tourism may have led to a number of properties previously offered as short-term holiday lets returning to the residential letting market, thereby leading to a spike in the supply of properties.
- Job losses and furlough have reduced the incomes of many, and it would seem likely that this would put downward pressure on prices.
- Some may have left rental accommodation to join another household with friends or family within London, either in response to social distancing requirements, to provide care or support, or due to unemployment or furlough. This might have a similar effect on rental prices as increased outmigration from London but may not constitute an actual reduction in population.

### Annual change in rents for new tenancies, Wider South East

Annual change (%)



Source: Homelet. Chart: GLA demography.

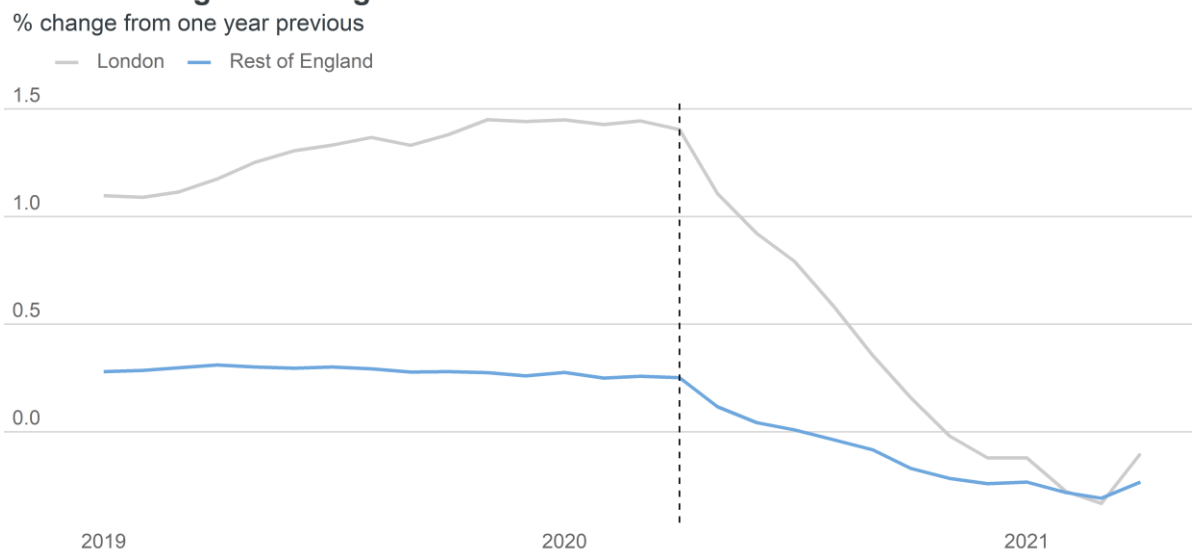
### Persons registered with a GP

In the run up to March 2020, the number of patients present on the GP register in London was growing at a rate of nearly 1.5 percent per year. Following the introduction of lockdown measures this trend changed sharply.

Inferring real population change from the changing number of patients present on the GP register is not straightforward due to delays in registration/deregistration and the tendency for patient lists to become inflated over time due to delays in removing emigrants. Additional caution should be used in interpreting trends in the data due to the potential for the pandemic to have altered patterns of interaction with GP services or to have increased list-cleaning activities by surgeries.

The similar, if less dramatic, trends in the data for the rest of the country suggest that this effect may be at least partly the result of changes in international migration, rather than just relocation of Londoners to other parts of the country.

### Annual change in GP register count



Source: NHS Digital. Chart: GLA demography.

Note: Dotted line at 1 April 2020. England data excludes London.

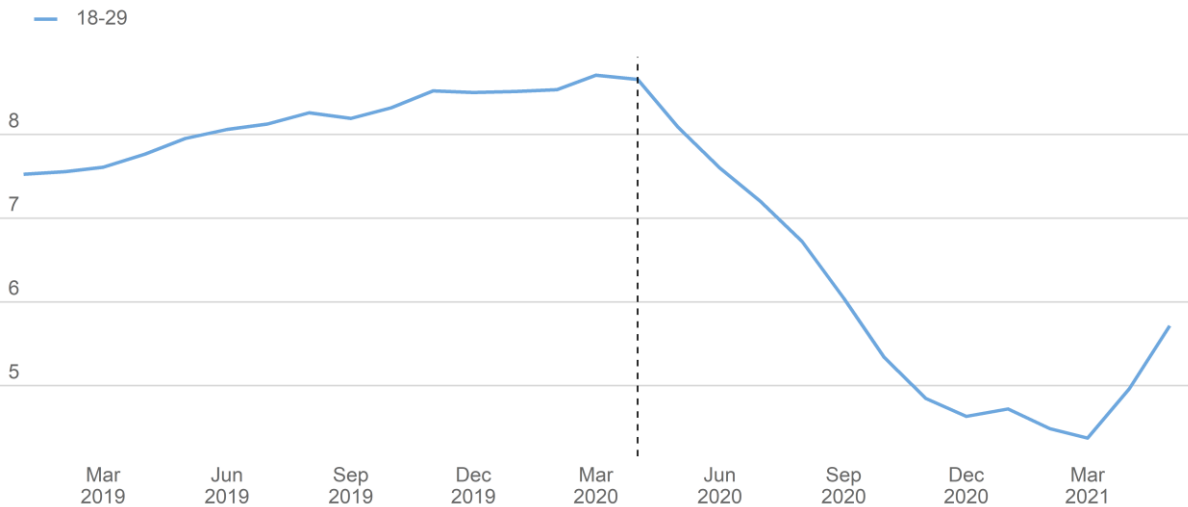
The trends by individual age band can also be tracked over time. As the size of the population in any given age band will naturally vary over time due to variations in the size of individual cohorts, we correct for this by tracking the proportional change in the size of cohorts entering each age band over time rather than their absolute size<sup>41</sup>.

Using this approach to examine trends in the age 18 to 29 population (the only age group in which London experiences a net migration inflow), an abrupt change in pattern is apparent from the very beginning of the pandemic. Where cohorts were increasing in size by 7.5—9 percent up to March 2020, by March 2021 this had fallen to half this level. While the data should be interpreted cautiously, this change is consistent with a large drop in net inflow of young adults to London.

<sup>41</sup> As an example, for the age band 18 to 29, we track the proportional difference between the number of persons on the register age 18 to 29 at a point in time, and the number of persons age 17 to 28 that were present a year earlier. For age bands where there is a net inflow, such as for 18 to 29, the cohort grows in size and this is reflected in a positive change in the value. For other ages such as young children (for whom there is generally a net outflow from London), or the elderly (where mortality becomes a significant factor in population change), proportional changes in the size of cohorts will consistently be negative.

**Proportional annual within-cohort change in GP register count (aged 18-29)**

% change from one year before, London



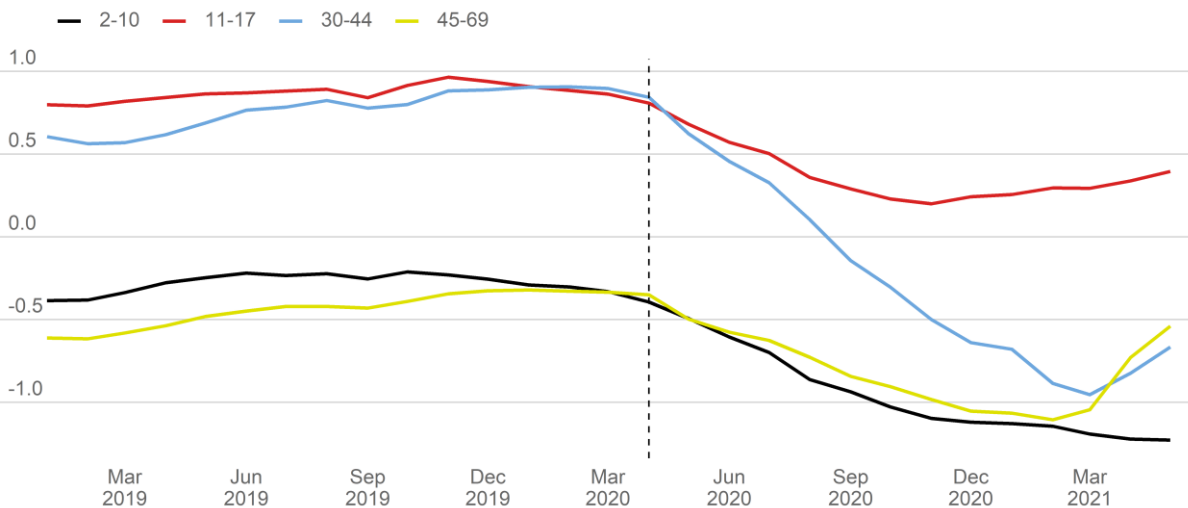
Source: NHS Digital. Chart: GLA demography.

Note: Dotted line at 1 April 2020. Cohort age at end of period.

Clear shifts in patterns are evident at other ages, with the: 2—10, 11—17, 30—44, and 45—69 groups all seeing changes consistent with an increased level of net migration outflow from London.

**Proportional annual within-cohort change in GP register count (other ages)**

% change from one year before, London



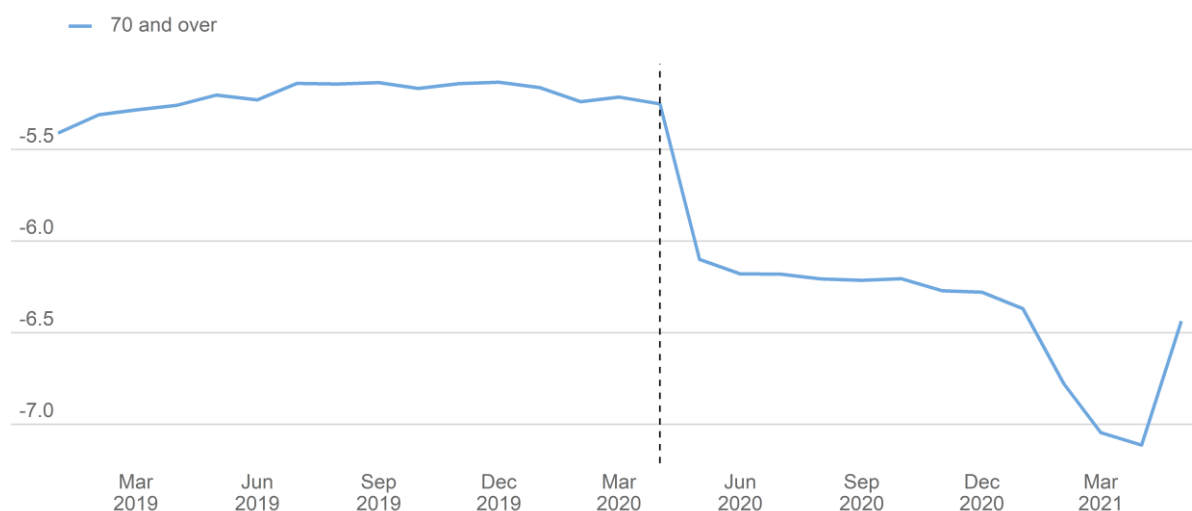
Source: NHS Digital. Chart: GLA demography.

Note: Dotted line at 1 April 2020. Cohort age at end of period.

The data for those age 70 and over shows two sharp drops. These coincide with the first and second waves of the pandemic and reflect periods of significantly increased mortality among the older population.

### Proportional annual within-cohort change in GP register count (aged 70 and over)

% change from one year before, London



Source: NHS Digital. Chart: GLA demography.

Note: Dotted line at 1 April 2020. Cohort age at end of period.

## Conclusions

### Natural change

A combination of falling births and increased deaths resulting from COVID-19 makes it likely that annual natural change in London fell to below 50 thousand for calendar year 2020—far below the peak of almost 90 thousand that was reached in 2011 and close to the levels seen in the early 2000s.

Though the evidence does not yet conclusively show what impact the pandemic has had on birth trends, a clearer picture should gradually emerge over the coming months as new GP registration data is published.

### Migration

The evidence at national level shows that international inflows fell to a fraction of their usual levels, for the first three months of the pandemic, while total emigration flows saw less change. There is little reason to expect that the patterns were different for London. No international migration data for the period since June 2020 is yet available.

A fall in international inflows to London could have a large impact on overall population change in London, given that annual inflows are typically of the order of 200 thousand and outflows 100 thousand. However, it is not yet possible to draw confident conclusions about the likely scale of the effect as:

- The available data available covers only the first three months from the beginning of the pandemic.
- International migration flows show high levels of seasonal variation.
- Emigration flows are linked to previous inflows and can be expected to fall at some point.

Analysis of GP registration data provides some more timely indication of possible trends in domestic migration and overall population change. While this supports the notion that inflows to London have fallen and outflows have increased, it is not straightforward to use this data to robustly quantify the impacts.

Several upcoming releases from ONS should provide important insights into migration trends for London:

- The extension of modelled international migration estimates for the UK to cover the period to the end of 2020—providing an indication of how migration changed as the UK emerged from the first period of lockdown (publication date tbc).
- 2020 mid-year population estimates—which will disaggregate international migration to regions and local authorities (scheduled for June 2021).
- Internal migration estimates for the year to mid-2020—which should provide some indication of how patterns of domestic migration changed (scheduled for June 2021).

## Overall population change

It is likely still too early to reliably quantify post-pandemic population change. While we can estimate natural change with a fair degree of reliability, quantifying migration flows over the same period remains extremely challenging.

Nonetheless, given the balance of evidence and our understanding of the dynamics and drivers of population change in London, it is hard not to conclude that the population of London is likely to have fallen since the start of the pandemic. The scale of such a fall is likely to be far short of the more dramatic figures reported in the press.

More important than the absolute size of any immediate drop in population will be the extent to which changes persist as restrictions are eased and the city begins to recover. Some impacts, notably net outflows of those that worked in the hospitality and tourism sectors, are likely to be readily reversed by economic recovery and a return of jobs to London. Others, such as the likely additional net loss of families to the wider region, are likely to take more time to undo.