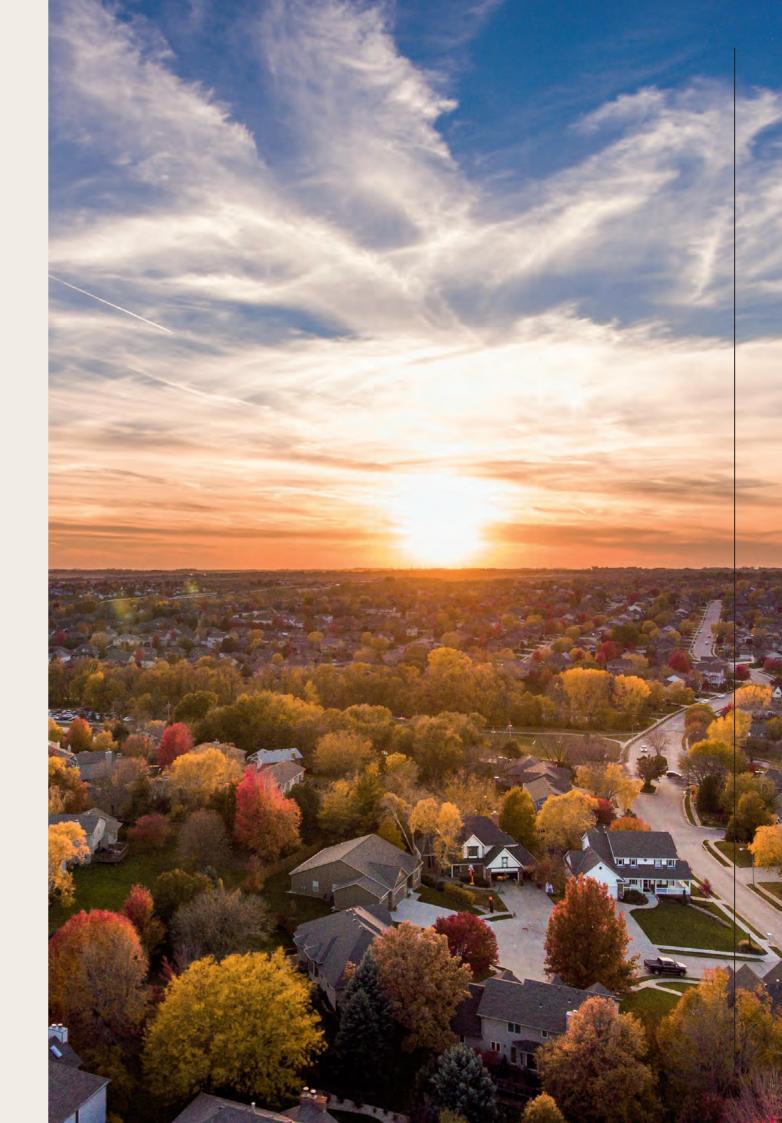
The rebirth of suburbs, towns and countryside through hybrid working

June 2023



partnership with

ARUP



Welcome...

By Mark Dixon, Founder and CEO, IWG plc

There is a particularly pertinent statement on the Spotify website: "Work isn't somewhere you go, it's something you do." For me, this neatly sums up the thinking behind the hybridworking model – the fast-evolving, digitally-enabled reality that's empowering people right across the planet to work exactly when, how and where they want.

Sometimes in a local workspace, sometimes at home, and occasionally at head office.

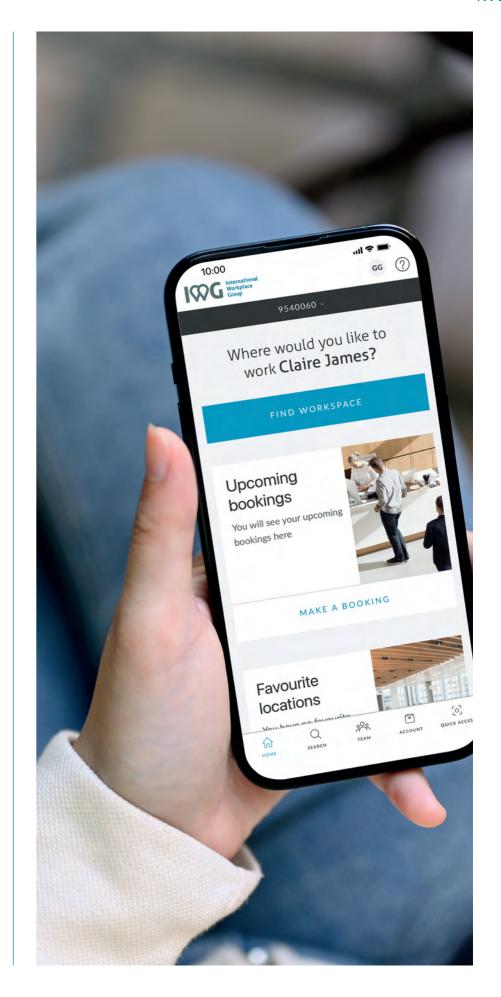
I've been talking about the rise of hybrid working for more than two decades now – a phenomenon enabled by the liberating effects of technology, cutting the ties that used to restrict people across the world to a single (and usually city-centre-based) workplace and instead empowering them to work in the heart of their local community. As a result, IWG has seen record demand in our co-working and office locations across the suburbs, small towns and countryside in all of the global markets in which we operate.

While my initial predictions might have been a little premature, there's no doubt that today we're in the grip of a remarkable and quite unprecedented societal shift that is radically changing the geography of work. A shift that, by enabling people to choose to work in the way they want, is overwhelmingly positive.

It's a subject that's particularly close to my heart. As CEO of IWG plc, the global leader in delivering hybrid work solutions to many of the world's largest (and smallest) businesses, I've had the opportunity to see at first-hand the transformative effects of the hybrid revolution.

And they're not just affecting businesses.

They're also affecting the everyday lives of countless millions of people across the planet – and therefore the communities where they work, rest and play. By the same token, they're radically reshaping our cities, our towns and the countryside. With a profound and lasting impact on the make-up of communities and the geography of towns, cities and even entire countries, this migration to hybrid is one of the most important forces at play in the world today as workers increasingly embrace the opportunity to work from a local workspace.



Exodus from the city: rebalancing the world of work

For hundreds of years, and especially since the industrial revolution – perhaps the only other social transformation that's properly comparable to what we're seeing today – the city has been at the epicentre of people's lives.

Its gravitational pull has emptied towns and other communities of their youngest, brightest and most economically active talent. It's left so-called 'commuter-belt' communities stagnant and barren during daylight hours. And great swathes within cities too have lost much of their attractiveness and variety, often becoming little more than sterile landscapes where people have to go just to work.

Perhaps above all, the city-as-workplace has exposed millions of people every day to the exhausting, expensive and destructive commute. Little has done more to add to the misery of the human condition than this anachronistic horror.

However, thanks to the recent conjunction of digitalisation, environmental awareness and Covid-19, things are changing fast. And this research, the result of a close partnership between IWG and Arup, illustrates the sheer pace at which the transformation is happening.





First, people are leaving cities. Since 2020, outbound migration from major U.S. cities to smaller communities has increased by a staggering 59%. And now, close to half a million further city-dwellers in the U.S. are projected to leave urban areas for the suburbs, smaller cities and rural regions, most of them in search of larger homes and a better work/life balance.

As you might expect, these changes are having a marked impact on property prices. Data from the U.S. shows the fastest rises are occurring in places formerly seen as being too far from major urban centres to attract commuters. The price of a house in Raleigh, North Carolina, for example, has more than doubled over the past five years, from under \$200,000 to more than \$400,000. Alperton, Wisconsin, is another case in point, with average prices increasing by 67% over the same timeframe.

And, as people seek bigger homes and a better work/life balance, we've seen something similar in the UK in recent years as well. Between 2020 and 2021, home prices in 20 British cities (excluding London) rose by an average of 8.9%, substantially below the 10.8% growth rate recorded by properties in their surrounding areas during the same period.



A boost for local communities

It's not just about where people want to have their homes. It's also about where they want to spend their time – and their money.

For example, UK mobile phone data tells us that footfall in small towns, suburbs and seaside communities has risen by a full 50% over the same period. The same phenomenon is also being replicated elsewhere, having a powerful and positive effect on the economies of smaller towns and rural areas across the UK, the U.S. and multiple other countries.

The impact of that 50% rise in footfall, creating new opportunities and underpinning a new vibrancy for many communities, is clearly reflected in the findings of this report. It reveals how the resulting higher levels of economic activity in suburbs and small communities are breathing much-needed financial vitality into areas that just a few years ago were struggling with economic hardship.

And it chimes closely with the findings of another IWG/ Arup research study, this one from 2021, which measured the positive economic impact to be gained from rising footfall. This found that rural and suburban economies could generate annual increases in local consumer spending of \$1.3 billion in the U.S. and £327 million in the UK.

That's very exciting. And it's all down to hybrid working.



Better work/life balance

Today, almost half (48%) of workers in the UK and 40% of those in the U.S. are already working in the hybrid model.

And it's continuing to get yet more popular. In the UK, for example, an overwhelming 88% of workers say that flexible working arrangements are essential for a more fulfilling professional life that delivers improvements in their mental, physical, financial and social health. So it's unsurprising that a dominant 83% of the UK's HR professionals recognise the value of hybrid working as a powerful means of attracting and retaining the top talent their businesses need.

All this, of course, is continuing to have an impact on cities, with sharp decreases in footfall as companies increasingly give up their long leases on large, expensive and prestigious city-centre spaces.

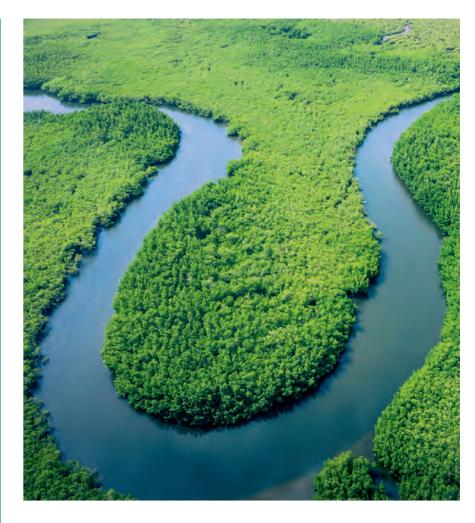
But I've often said that if city authorities understand all the issues involved, they should now be adapting fast to grasp the full opportunity that this shift offers them.

First, they should be following the examples of many cleareyed administrations by encouraging investment in flexible workspaces within easy walking or cycling distance of communities across their footprint.

And they should be using their positions at the heart of road and rail networks to maximise their full potential as important hubs for in-person decision-making, social interaction, entertainment, tourism and cultural experiences.

Those that are already doing so are successfully transforming into vibrant communities offering a blend of coworking spaces, residential opportunities and an entertainment infrastructure that no non-urban environment can ever hope to match.

Those that are not will fail to compete.



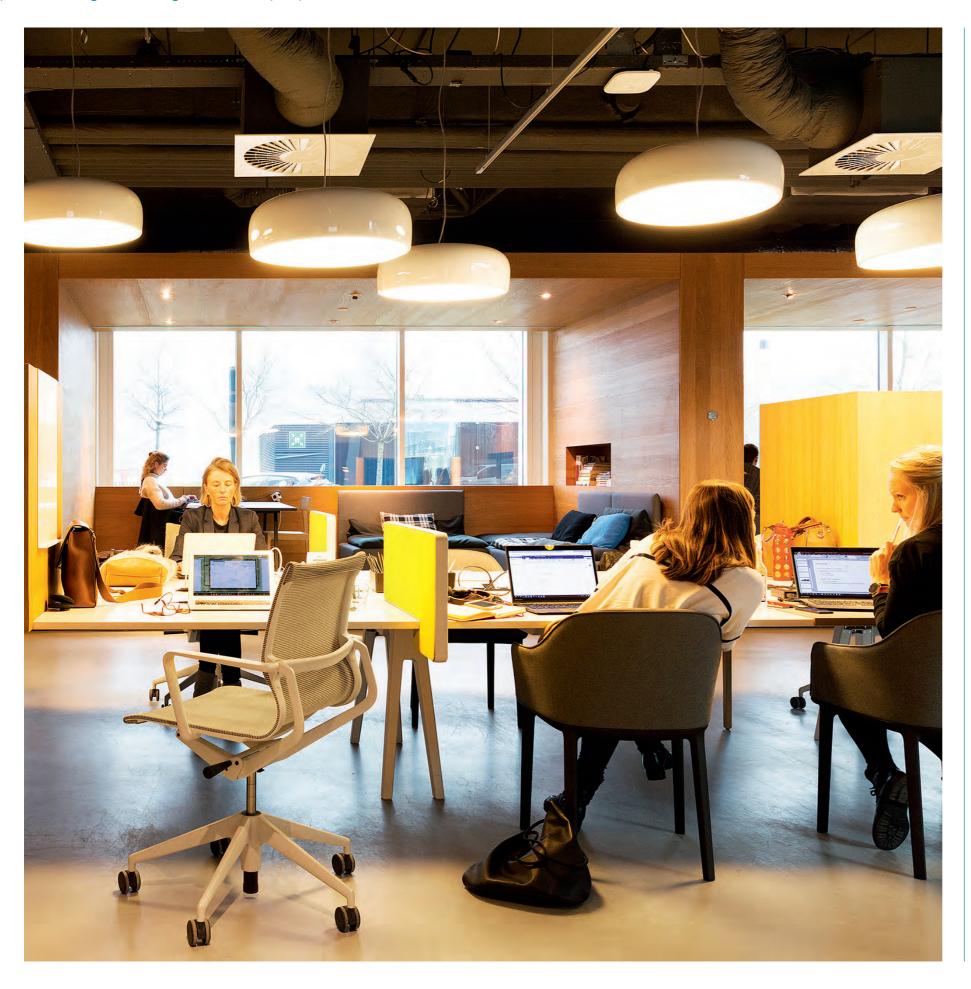
Benefiting the environment

Commuting doesn't only damage the people who have to do it. The daily grind into the city centre has also emerged as the single greatest cause of carbon emissions across the planet.

So it resonated strongly when Future Earth's Global Carbon Project reported a 2.4 billion-tonne fall in fossil CO2 emissions during the 2020 lockdowns, with the largest proportion coming from reduced transport emissions.

The positive impact of hybrid working becoming established as the norm would be at least as significant. And much more sustainable. Previous IWG research has shown that a permanent shift in work patterns would drive carbon reductions of up to 87% in the U.S. and 70% in the UK.

So hybrid goes beyond promoting wellbeing and productivity to unleash significant carbon savings too. Add in further positive action, such as promoting cycling and upgrading the eco-standards of office buildings, and you have a powerful package for positive reform.



Conclusion:

a shift that's impossible to ignore

As this exclusive new research by IWG in partnership with Arup shows, we are clearly witnessing the rebirth of suburbs, towns and the countryside through hybrid working. As a result, suburbs, dormitory towns and rural communities everywhere are being revitalised as migration away from city centres increases.

The shift is at scale, with outbound migration from U.S. cities up by 59% over pre-2020 levels, and close to 500,000 further city-dwellers planning to leave in the near future. In both the U.S. and the UK, domestic migration to smaller cities and rural areas continues to accelerate ahead of pre-pandemic levels.

And, with 48% of UK workers and 40% in the U.S. already working in the hybrid model, and many others set to follow in both markets, the essential benefits of hybrid are increasingly impossible to ignore. That's why clear-sighted policymakers, planners and businesses are embracing its benefits in their droves. And it's essential for all of us and our planet as a whole that these visionaries convince all their peers to listen and respond positively to that growing population of workers who are demanding the opportunity to work in the hybrid way.

It benefits businesses, with lower costs and better retention of the best talent. It benefits suburbs, smaller towns and rural communities, as investments in flexible workspaces, transport links and sustainable practices create vibrant, inclusive and sustainable places to live and work.

It creates brighter, more attractive and versatile cities. It enables people to see more of their friends and families, allowing them to fully participate in their local communities. And it helps to address the most pressing issues affecting our planet today to support a cleaner, more sustainable environment for everybody, everywhere.

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Introduction

Introduction

Has the uptake of hybrid working and remote working changed where people choose to live?

Technology and post-pandemic work culture have loosened the bonds attracting office workers to city centres, removing a key limitation on where they choose to live and work.

Over the past three years, we have seen the effectiveness of hybrid working in many sectors of the economy. Businesses can operate productively, and employees benefit from increased flexibility, choice and an improved work-life balance. This has broad-ranging implications, including a potential effect on where and how people live and carry out their work. Depending on the arrangements with their employer and their own circumstances, they may be somewhat or entirely freed from having to reside close to their traditional office. And they have the choice as to whether to carry out their work from home, an office, or a third space.

The frequency or ability to remote work varies by sector and by personal characteristics.

These include whether a worker needs to be physically present on-site to carry out their duties, work with others or use fixed-location machinery or equipment. Personal characteristics include out-of-work commitments, such as caring responsibilities.

McKinsey Global Institute estimates that nearly half of UK workers could be effective with a hybrid working arrangement. Around 26% of UK workers could effectively work remotely for 3-5 days, and 22% more could remain effective whilst working at home for 1-2 days a week (McKinsey Global Institute 2021, 120). In the US, the number is about 40% (McKinsey Global Institute 2021, 122). Some sectors, such as construction, accommodation, agriculture and food service, could complete only 20% of their work remotely, but other sectors such as finance, management, and IT could work remotely on a majority of their tasks (McKinsey Global Institute 2021, 40). Overall, the analysis shows that the potential for remote work is more common for skilled and educated workers and in advanced economies. Continuing growth in white collar jobs and increasing automation of certain types of jobs would result in an economy where a larger proportion of the workforce could hybrid or remote work.

At the same time, there remain reasons to come in to the office. Some collaborative tasks are best done in person. There are also other draws to cities, such as in-person networking or enjoying the arts and culture amenities. They are at the centre of our transport networks and societal system, and as such, will continue to be places where people choose to meet in person both for work and for leisure.

Moreover, employers usually require their employees to work from a central location for a certain number of days per week, most commonly two or three. Others provide access to a local workspace or smaller satellite office.

Larger cities and their metropolitan areas could be the most disrupted by these changes.

This is because office sectors are most common in larger cities and their metropolitan areas, property prices are higher, and commuting distances (and therefore cost) are larger, giving more incentive to live and work remotely. In these places, workers are commonly splitting their time between offices, other workspaces and the home. In the ten largest cities in the US, around 35% of all workdays were completed from home, and in the 11th to 50th largest cities, the share was over 30%. In smaller settlements, the share of days worked from home drops to below 30% (Barrero et al. 2022, 11). Similarly, in the UK, London was the region with the highest proportion of homeworkers in January to March 2022. In London and the South East, 37% and 36.9%, respectively, of all workers reported their home to be their main place of work (Office for National Statistics 2022b).



We have yet to see the long-term implications of the opportunities and changes brought about by hybrid working.

Employers and employees are still working to establish a new equilibrium, and the choices around where to live and work are slow-moving 'life' decisions and dependent on each individual's, couple's or family's situation. These decisions and changes in domestic migration are still playing out, and we anticipate that this will be a long-term area of study before we can definitively identify the effects of new ways of working on migration. In short, we believe that the migration opportunities presented by hybrid working have not yet been fully realised.

However, data from the past three years already show changes to living and working patterns. For example, IWG's global on-demand membership globally rose 93% year-on-year in 2022, and rose even faster in the UK at 137% (IWG 2022d).

Our research question examines the relationship between remote and hybrid working and where people choose to live.

IWG commissioned Arup to study how hybrid working might affect domestic migration patterns. The impacts of this shift to hybrid working on society, the economy and the environment are manifold and still evolving. The core question was:

How will hybrid-working reshape the geography of where people live and work? Will there be more intra-city region movements with people living in suburbs? Or, will there likely be more inter-city movement with people moving to smaller, more affordable or otherwise more attractive cities from the largest cities?

This study is the second piece of work by Arup looking at changes caused by different hybrid working patterns and workplace types. The first studied carbon emissions.

Structure of the report

This report draws together a review of published studies on the matter, interviews with informed stakeholders and data analysis to get a sense of how migration patterns have changed and may continue to change in the future. The focus of the study is the US and UK. In the remainder of the introduction, we define some key terms. The next section explores how working patterns have changed and establishes that hybrid working will persist as a long-term feature of work. The following section examines domestic migration patterns during the pandemic, showing that they were significantly different than pre-pandemic patterns. Then, we look at early evidence of migration patterns after the peak of the pandemic. These suggest that domestic migration has returned to more like historical trends, back from those observed in the pandemic. The final section summarises the key findings and gives some thoughts on what this means for the future.

Data used in the report

Migration patterns are difficult to measure in real-time. Ilndustry-standard measures such as the Office for National Statistics and the US Census Bureau release datasets long after the fact. Therefore, in addition to these sources, there are many experimental or more inferential sources which provide a look at more recent time periods. These include responses to surveys, US Postal Service change of address data, changes in rent and house prices, data from credit reporting agencies, real-time payroll information and large-scale cell phone location data. Each of these in isolation has drawbacks - for example, change of address data would not include people moving from an address outside of the US - but they become more meaningful when many of them are drawn together for comparison. This report uses a combination of all available sources to establish how migration has changed since the onset of the pandemic.



Introduction Definitions

Remote working

Working from a location other than a company's main office.

Hybrid working

A working pattern which includes working from a company's main office some of the time and remote working – including from home and from a satellite workspace – some of the time.

Office occupancy
The rate at which the office is used when compared to its total capacity. This is also sometimes called office utilisation.



Hybrid working is the new normal for office workers

Hybrid working is the new normal for office workers

About 30% of workers in the US and UK have a hybrid-working arrangement, and this seems to be stabilising

In both the US and the UK, government guidance or requirements to work from home during the pandemic led to an enormous shift in working patterns from spring 2020.

50% to 60% of the workforce in both countries began to work exclusively or primarily from their homes. In April 2020, nearly half of the British workforce – 46.6% of employees – did some work at home (Office for National Statistics 2020a). Around the same time, 61.5% of all days worked in the US were done from home (Barrero et al. 2022, 6).

The rate of home working declined through 2021 and early 2022, giving way to hybrid working, and now seems to be stabilising at around 30%.

In the US, 29.4% of employees hybrid worked in October 2022, and 13.6% of all employees had a full-time remote arrangement (Barrero et al. 2022, 6). There were similar trends in the UK. In May 2022, 38% of all employees reported working from home in the past week (Office for National Statistics 2022a).

IWG's own data also evidences the rise of hybrid working.

Attendance at their 300+ centres in the UK was 17% higher in September 2022 compared with the previous year,

indicating that many employees are no longer working exclusively at home nor solely from a main office. The IWG data also indicates a shift to more local workspaces and an increasing popularity in suburban and smaller town locations (IWG 2022a).



Hybrid working is the new normal for office workers

By autumn 2022, traditional office occupancies were at about half of pre-pandemic levels

Office occupancy, which assesses how many desks are used on a given day, also provides an indication of the adoption of hybrid working.

Offices were never 'full' before the pandemic. A typical occupancy rate was between 60% and 80%, meaning that around 3 or 4 out of every 5 desks would have been in use (Remit Consulting 2022).

Four different sources show that office occupancy is around half of pre-pandemic levels.¹

Advanced Workplace Associates conducted a survey in June/July 2022 which covered 79 offices in 13 countries. Globally, the average office occupancy rate was 33%, indicating that far fewer people are working in the office than before the pandemic (Advanced Workplace Associates 2022, 10). The average occupancy rate in the UK was equal to the global average, but the North American rate was 25%, the lowest of all the regions (Advanced Workplace Associates 2022, 21–22).

Kastle Systems in the US and Remit Consulting in the UK both measure occupancy by using building security systems to aggregate building access data gathered through access passes like key fobs or swipe cards. Kastle recorded an occupancy rate of 47.6% for the week of 26

October 2022. Occupancy in New York City was 46.7%, and occupancy in Los Angeles was 46.2%, both slightly lower than the 10-city average. The occupancy rate has been slowly increasing from a low point in early 2020 (Kastle Systems 2022a). In UK offices in the middle of October, Remit recorded a UK national average office occupancy of 32.6% (Remit Consulting 2022).

Arup's own office attendance data also shows a significantly lower occupancy rate than pre-pandemic. In late September 2022, attendance at our offices in London, Manchester, Glasgow, New York and Los Angeles ranged between 20% and 38%. It was lower in the US than the UK.



	London	Manchester	Glasgow	NYC	LA
26-30 April 2021	5%	7%	2%	6%	3%
26-30 September 2022	38%	29%	37%	26%	20%

Average attendance in different Arup offices as a % of total staff Source: Arup's own data

¹These four data sources are not directly comparable because they use slightly different methodologies, but they all have similar findings. Kastle compares an office's occupancy against pre-pandemic office occupancy rates (a pre-pandemic baseline for an office on a 'full day' is likely an occupancy of between 60% and 80%). Remit and Advanced Workplace Associates calculate occupancy by dividing the number of attendees by the total number of attendees by the total number of staff. Regardless of the methodology used, every source consistently shows that office occupancy rates are well below, roughly half of, pre-pandemic levels.

Hybrid working is the new normal for office workers

Both employees and employers are preparing for a long-term future with hybrid working

Employees appear resistant to relinquishing the benefits and flexibility they have gained in hybrid working.

Hybrid working gives an employee greater flexibility and more choices. Employees can choose when and where they work, unlocking new locations – at home or at a third location close to home – and enabling them to schedule their work at convenient times.

In a global survey of over 30,000 employees across 27 countries, 26% of all respondents said they would quit immediately or look for a new job that allows hybrid working if required to return to the office full time (Aksoy et al. 2022, 42). This was even higher in the UK and US, where 42% and 31%, respectively, said they would look for a new job or quit (Aksoy et al. 2022, 42). An IWG survey found similar results, with almost half of all office workers saying they would quit if required to return to the office five days a week (IWG 2022b). The UK respondents also said they valued the flexibility to work remotely as much as a 4.4% change in their pay, and US respondents valued it as much as a 5.7% change (Aksoy et al. 2022, 41).

In another global survey, 66% of employees agreed that employers should be flexible and allow for hybrid working (Ipsos 2021, 9). An IWG survey of workers found that 88% felt hybrid working to be a key consideration in the search for a new job, about the same as other key factors such as salary, health insurance and holiday allowance (IWG 2022c).

Specific to workers in London, 84% said that hybrid working is better for their quality of life (King's College London 2022, 18), and 75% believe that in the future, we will no longer attend the office 5 or more days per week (King's College London 2022, 6). In February 2022, of everyone UK-wide who worked from home during the pandemic, 84% planned to have working patterns that mixed work from the office and home, and only 8% were planning to work full-time from their workplace (Office for National Statistics 2022a).

Employers are preparing for a longterm future with hybrid working.

In fact, many are embracing the opportunity, seeing it as a selling point in a tight labour market which will also benefit their organisations (i.e. reduce costs, better team retention), and they are incorporating it into their long-term business plans and expectations for their employees. The Advanced Workplace Associates survey of 28 organisations globally found that 40% had a hybrid working policy in place by mid-2022 and that this policy typically required in-person attendance 2 or 3 days per week (Advanced Workplace Associates 2022, 12). Of the organisations with offices in the UK, 53% had a hybrid working policy in place (Advanced Workplace Associates 2022, 21). In the US, workers reported that their employers were planning for them to work in the office on average around 2.7 days per week. This is higher than the preference of the employee, which would be to work remotely nearly 3 days per week (Barrero et al. 2022, 11).

26% of all respondents globally said they would quit immediately or look for a new job that allows hybrid working if required to return to the office full time.

Source: Aksoy et al. 2022, 42

"Hybrid work will allow us to achieve the best of both worlds, the focus and collaboration of the office, and the flexibility and autonomy of remote work." – Tim Cook, CEO, Apple

Source: IWG Annual Results Report, 2022, p5



The changing geography of work

Decisions of where to live and work, and therefore domestic migration, could change as a result of hybrid working. It may also change decision-making around where employers choose to locate

The flexibility brought about by the new working patterns allows employees to reconsider where they spend their time.

Office jobs in the past have been concentrated in larger cities, but these places are typically more expensive, have longer commuting times, and are not well-suited to everyone's preferences. For those hybrid workers who prefer to live outside of a city, the loosening bond to the workplace could enable them to live farther away from their office in places that are less expensive or more suited to their preferences. This would be even more pronounced for fully remote workers, allowing people to live even farther from town or, indeed, anywhere.

Because hybrid workers attend the office less frequently, they may be more tolerant of longer commute times or prioritise a larger, more affordable property that is more conducive to home working. This would unlock a much wider range of locations for people to live. The maps to the right illustrate how many more places can access a city centre if the commuter is tolerant of a longer travel time. Compared to the UK, considerations about where to live in the US are further influenced by the variation of tax rates between states and even between places within the same state.

Like employees, some employers have also moved locations, especially in the US.

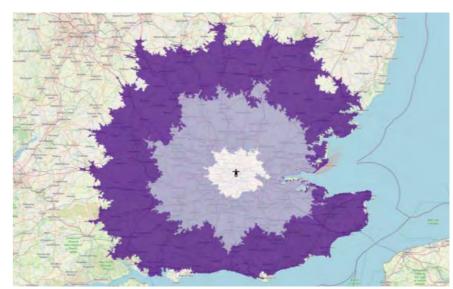
In recent years companies like HP, Tesla and Dropbox have

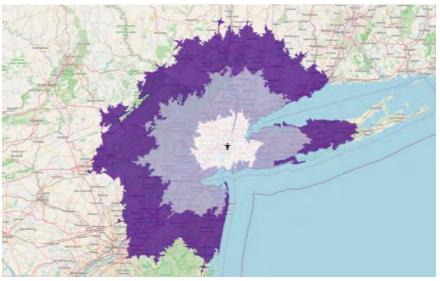
moved from higher-cost places like California and New York to states like Texas and Florida (Kelly 2020). Further evidence and studies are required to determine whether this is the beginning of a long-term trend.

As with employees, there are many factors which contribute to a company's decision of where to locate. Companies are influenced by the location of a strong labour pool, the cost of living and housing and different tax rates between states. The rise of remote working can simplify a company's relocation decision by reducing the implications of a move for current employees.

Many new companies may begin life – and remain – fully virtual, others may opt to do so.

In the future, many newly established businesses may adopt a fully virtual model, and this would change the decision-making process about where to register their business. Fears of a recession and the desire to cut costs could also accelerate changes to where a company locates. IWG's survey of CFOs found that 80% see hybrid working as a key way to save money (IWG 2022e).





30-, 60- and 90-minute drives from Farringdon, Central London (top) and Times Square, Manhattan (bottom) Source: Arup analysis



The pandemic reshaped the decisionmaking framework about whether to move

There was a significant increase in domestic migration during the pandemic.

By June 2020, 22% of adults in the US had a change to their living arrangements because of the pandemic, or know someone who did (Cohn 2020). By November 2020, 5% of all adults had moved house, and 10% had someone else come to live with them (Cohn 2021). This was especially common for younger people. 11% of people aged 18 to 29 years old in the US moved as a result of the pandemic by November 2020 (Cohn 2021). Many of these younger people will have been returning to their parental home, temporarily, influenced by fewer jobs and leisure opportunities in the accommodation, food services, arts and culture sectors as well as a suspension of in-person higher education.

Likewise, in the UK, a September 2020 survey found that 14% of respondents said they were more likely to move and 4% had already moved as a result of the pandemic (Building Societies Association 2020).

This section explores each of the following key trends in migration that occurred during the most intense period of the pandemic, roughly the time period of 2020 to early 2021:

• During the pandemic, there was a significant increase in

domestic outmigration from dense, urban areas. There was also a large drop in in-migration to these areas. These changes were especially pronounced in large and expensive cities like New York, San Francisco, Los Angeles and London.

- Across the US and UK, the people leaving central cities were most likely to go to the suburbs of the same urban area.
- Many people also left their city entirely, moving from large, expensive cities to smaller or less expensive cities or to outlying towns and villages.

These trends began before the onset of the pandemic, and they accelerated at the height of the pandemic in 2020 and early 2021.



A variety of factors contributed to the decision to move, and the pandemic introduced new factors.

These included a fear of contracting the virus and the rise of fully remote or hybrid working. The pandemic also exacerbated existing factors such as a change in economic circumstances like a new job or job loss. In the early months of the pandemic, 28% of people who moved due to the pandemic say the most important factor was to minimise their risk of catching the virus. However, as the pandemic wore on, the fear of the virus had become less acute, and financial reasons had emerged as the most influential factor in a person's decision to move. By November 2020, 33% of people who moved because of the pandemic cited financial reasons as the leading factor in their decision (Cohn 2021).

In some ways, the pandemic may have catalysed a decision to move that an individual was already contemplating. It introduced new reasons to move and simultaneously minimised many of the attractors to stay in a city. It also created conditions, such as fully remote or hybrid working, that made a move easier.

It is also likely that the migration response to the adoption of hybrid working is still unfolding. The decision to move involves a complex array of personal and professional considerations. Individuals may not be comfortable making a large life decision until hybrid working has been established for a longer period of time and demonstrates its longevity.

Domestic outmigration increased from dense urban areas, and at the same time, in-migration decreased

Urban areas in the US had negative net migration before the pandemic, and this attrition tripled in 2020.

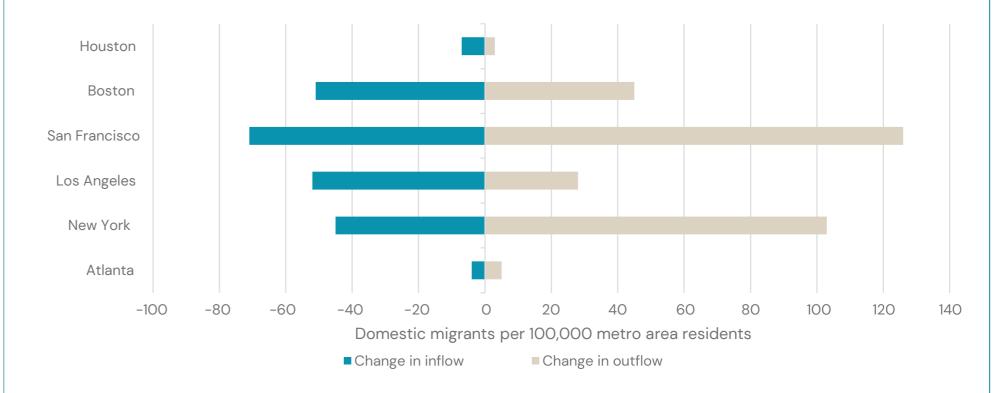
In an average month pre-pandemic, urban areas had a net out-migration of 28,000 people (Whitaker 2021a), increasing to almost 75,000 per month at the height of pandemic (Whitaker 2021b, 1). This trend was due both to an increase in outmigration – people leaving the city – and also a decline in in-migration – people moving to the city. In most American cities (but not New York and San Francisco), it was actually the reduction of in-migration that was the more significant contributor to the net decrease. From April to December 2020, average monthly in-migration declined by 19,000 people per month whilst outmigration increased by 15,000 people per month in the American cities with populations over 500,000 (Whitaker 2021a). Again, many of these will have been younger people, choosing not to move to the city.

In the 12 largest American cities, outmigration was most common in the highest density areas and least common in the lowest density areas.

The total population of the central business districts of these 12 cities declined by 18% between March 2020 and April 2021 (Ramani and Bloom 2021, 8). A similar but less strong trend was apparent for high density areas, and population increased slightly in the lowest density parts of the city (Ramani and Bloom 2021, 22).

This migration from dense, urban areas is at least in part attributable to the ability to remote work.

A study of the 30 largest US cities found a strong relationship between areas which lost population and areas which had a high proportion of local jobs that could be done remotely (Gupta et al. 2021, 17).



Change in domestic migrant inflow and outflow from April to December 2020 Source: Whitaker 2021b

These domestic migration patterns were especially pronounced in large, expensive cities, where people were more likely to migrate outward or to leave the city entirely

Metro areas with more than 5 million residents saw larger increases in net outmigration compared to smaller urban areas (Whitaker 2021a).

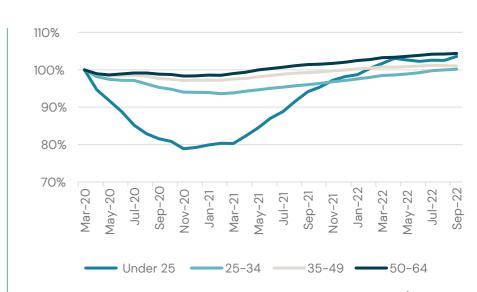
New York, San Francisco and Los Angeles were in the top ten US cities with the largest change in net migration. Unlike other US cities, the more significant driver of change in New York and San Francisco was increasing outmigration rather than decreasing in-migration (Whitaker 2021b, 12). In New York, 149 per 100,000 residents left their urban neighbourhoods, the highest rate of outmigration except for San Francisco. The New York City Comptroller's Office estimates that net outmigration totalled 130,837 between March 2020 and June 2021, a tripling of pre-pandemic trends (New York City Comptroller's Office 2021).



Los Angeles also saw an increase in outmigration, but in line with national trends, its overall change in migration is due more to the decrease in in-migration rather than an increase in outmigration (Whitaker 2021b, 12). Atlanta falls into the other type of large metro areas. It experienced relatively minor shifts in its migration patterns and, like many other Sun Belt cities, continued to be a large attractor of migrants from elsewhere in the US (Whitaker 2021b, 13).

Similar to US cities, London also had an increase in net outmigration during the height of the pandemic.

In the pre-pandemic years, net migration from London consisted of a large outflow to other parts of the UK balanced by high international in-migration (Greater London Authority, 2022, 6). The Greater London Authority estimates that both of these trends changed in 2020 in ways that increased net outmigration from London. The UK saw inflows of international migrants drop from almost 600,000 in 2019 to around 250,000 in 2020, indicating a large drop of in-migration to London (Greater London Authority, 2022, 7). Outmigration from London also accelerated in 2020, indirectly indicated by a 240,000 person decrease in the number of payrolled employees in London in 2020 (Office for National Statistics 2022c). The drop was driven especially by payrolled employees under the age of 25, which declined by over 20% compared to 2019 (Office for National Statistics 2022c).



Indexed change in London-payrolled employees by age group (Indexed: March 2020 = 100)

Source: Office for National Statistics 2022c



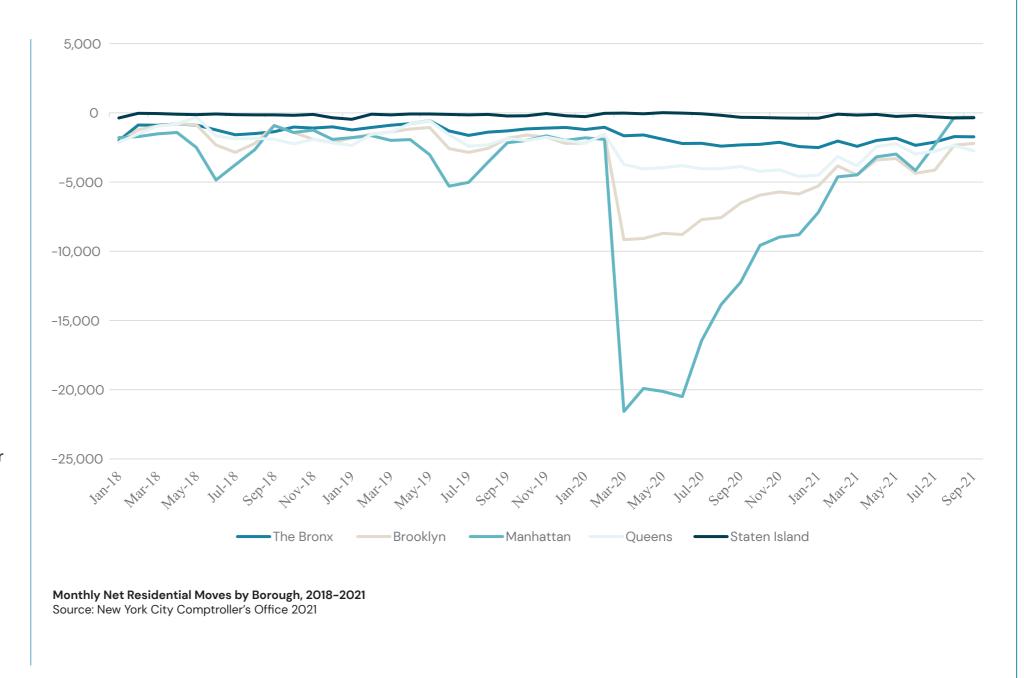
Number of payrolled employees in London, seasonally adjusted (millions) Source: Office for National Statistics 2022c

Domestic migrants were most likely to be young adults, well-educated and/or wealthy and to have a job which allowed for remote working. Their circumstances would also allow them to easily return to the city if desired

The people who left cities at the height of the pandemic were likely to have much in common.

People who lived in the wealthiest 10% of New York's neighbourhoods were almost 5 times as likely to leave the city than others who lived in less wealthy places. Only considering the spring 2020 months at the onset of the pandemic, this same group was over 7 times more likely to leave New York (New York City Comptroller's Office 2021). Put another way, the areas where over 25% of the population moved out of the city had a median household income of \$119,125 compared to \$60,521 in places with fewer movers (Quealy 2020). Wealthy neighbourhoods in Manhattan and Brooklyn experienced some of the highest levels of outmigration.

This trend was also apparent outside of New York. In one study which grouped people with similar characteristics, the group consisting of highly educated, young and single adults was dramatically more likely to move than any other group. In 2020, their likelihood of moving was 43%, an increase from 33% in 2019 (CBRE 2021, 9).



The most common move during the pandemic was from the central city to the suburbs of the same urban area. A significant share of migrants also left large, expensive cities entirely, opting for less expensive cities, smaller cities, towns or the countryside

The most common move was to stay within the same region.

As people left dense urban areas during the pandemic, they relocated to different locations across the US and UK. Based on US Postal Service change-of-address data, in the largest 50 cities in the US, 84% of movers stayed within the same metro area (Patino, Kessler and Holder 2021). Notwithstanding this large majority, a significant number of people moved further away to lower-cost metros, smaller cities, towns or the countryside. This flow was also much larger than in pre-pandemic years.

In addition, there was also an increase in the number of people who left 12 of the most expensive US metro areas altogether. These people went to lower-cost metro areas, mid-sized cities, towns and the countryside.

There was a 5.6% increase in outmigration from 12 large, expensive American cities (including San Francisco, New York, Los Angeles, Washington DC and Chicago) to lower cost, large metro areas like Atlanta, representing a total of over 440,000 migrants (Whitaker 2021c). Outmigration to mid-sized cities from these same 12 cities increased

by 10.3%, and outmigration to small towns and the countryside increased by 9.3% (Whitaker 2021c).

Not only did New York have overall higher rates of outmigration compared to the other cities, but of the people who left, a much higher proportion left the metro area entirely. During the pandemic, the number of people leaving the New York metro area for another location within 150 miles increased by 22%, and the number of people going to somewhere 150 miles or further away increased by 10% (Whitaker 2021c). Other large, expensive cities, particularly San Francisco, Los Angeles, Miami and Boston also had very high increases in outmigration from their metro areas. Migrants from these cities were likely to go to smaller urban areas close to these 12 big, expensive cities, such as Fort Myers, Florida, and Oxnard, California, to the countryside or to lower-cost large metros like Atlanta and Houston (Whitaker 2021c).



840 of movers stayed within the same metro area.

Source: Patino, Kessler and Holder 2021

IWG

Domestic migration patterns changed significantly during the pandemic

Changes in home prices and rents also point to a flight from urban areas

Average rents and home prices bolster the findings that people left urban areas for the suburbs.

Coining the term 'doughnut effect', a study of the 12 largest cities in the US found that rent fell in city centres and grew in low-density parts of the city, resulting in a 20% gap in rent growth by January 2021 (Ramani and Bloom 2021, 6). The same was true for home prices, with almost a 15% difference in price between the high- and low-density areas (Ramani and Bloom 2021, 7).

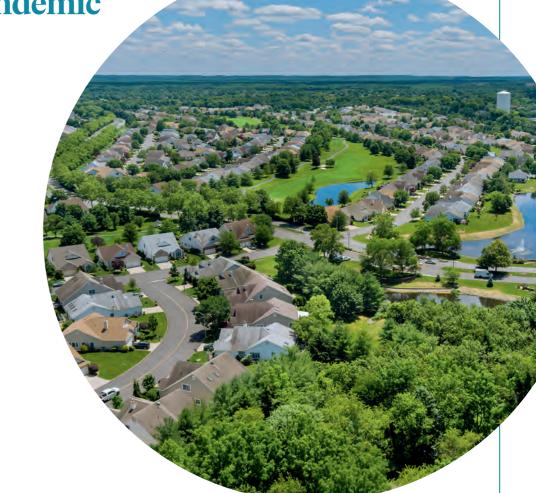
The 'doughnut effect' was strongest in the 12 largest cities in the US and to a lesser extent in the 13th to 50th largest cities, but not in cities smaller than that (Ramani and Bloom 2021, 9). This supports the findings of other studies which show migration to have accelerated most in the largest US cities (Whitaker 2021a).

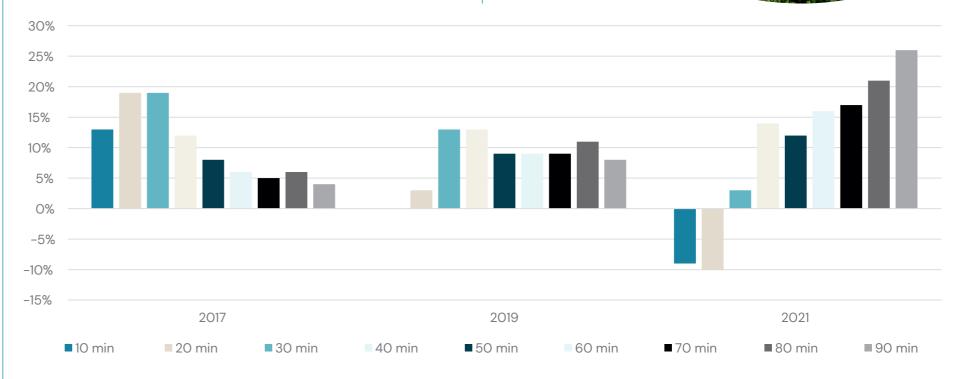
A second study of the 30 largest US cities corroborated the 'doughnut effect', finding that prices for homes in areas 50km from the city centres rose by 5.7% more than those in the city centres and that rents increased by 9.9% more than the city centre (Gupta et al. 2021, 2-3).

Areas with a higher proportion of employees able to work remotely were also likely to have higher levels of migration (Gupta et al. 2021, 17)

and bigger drops in rent and home prices (Ramani and Bloom 2021, 9).

This supports the notion that people who are able to hybrid work will be more likely to move. It is possible that the migration and price changes are strongest in the largest cities because they have the highest concentrations of residents who are able to work remotely and that their higher costs and densities would incentivise residents to move elsewhere (Ramani and Bloom 2021, 9).





Percent change in home value by commute time in New York Source: Zillow 2021

In the UK, London had the highest rates of home working and large decreases in home prices and rents

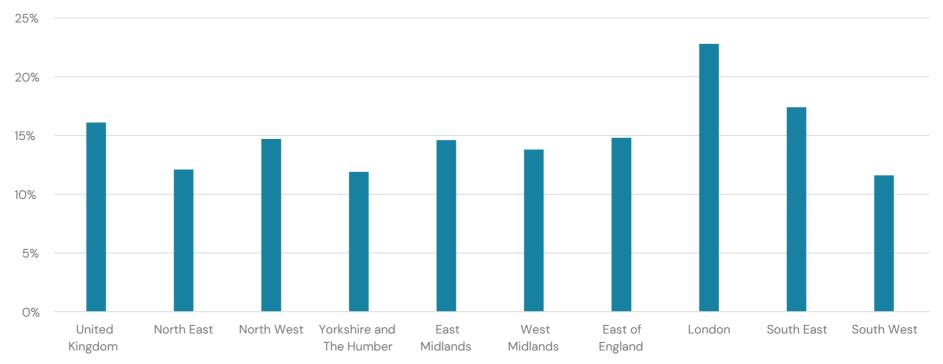
Rents and home prices in London and the surrounding regions provide further evidence of relocation from central cities to less dense suburbs.

In the first quarter of 2021, rents were 14% lower in Inner London and 1.1% lower in Outer London compared with the same time period in 2020 before the height of the pandemic, whereas nationally, rents grew by 4.2%. This mirrors the 'doughnut' pattern in the US (Greater London Authority, 2021, 32). In Greater London as a whole, rents declined by 5% between March 2020 and February 2021 whilst growing by over 5% in the East of England and South East regions (Greater London Authority, 2021, 32).

Likewise, the average sale price for properties in Zone 1 of London in March 2021 was 6% lower than before the onset of the pandemic. The price of a semi-detached family home in Zone 3 of London grew by 10%, and in the East of England and the South East, house prices rose by between 6% and 7% (Gallent and Madeddu 2021, 571–572). Over the same time period, there were also increases in the price of homes in the countryside, such as a 10.2% increase in home prices in South West in 2020 (Gallent and Madeddu 2021, 574). Overall, these price changes provide evidence for a shift in preferences away from flats and towards suburban homes, strong demand in places with good connectivity to London and strong demand for homes in the wider countryside (Gallent and Madeddu 2021, 570). This trend is also demonstrated in the commercial market.

previous reports by Arup (2021) suggested that IWG's plans to expand its portfolio of flexible offices in locations outside of major city centres could be worth £4-£8bn of benefits to non-central locations, although some of this would be abstracted from traditional centres. These findings correspond closely with the trends in America, especially the trend to move from the largest 'superstar' cities such as New York and San Francisco.





Percentage change in home working across regions in England in October to December 2019 and January to March 2022 Source: Office for National Statistics 2022b

Many of the fastest growing areas in the UK were outside of London and its surrounding regions



The price of a house in Greater Manchester increased by 34% from January 2020 to October 2022, rising by almost £60,000. In the City of Glasgow, the average house price rose by £40,000 in the same time period, an increase of 29% (ONS 2023).

Considering a shorter time period from September 2021 and September 2022, seven of the ten local authorities with the fastest increase in housing prices were located within commuting distance of a city other than London. Wigan, Rochdale, Oldham, St Helens and Halton are either in or near Greater Manchester and Liverpool. Wolverhampton and South Staffordshire are within Birmingham's commuter belt. House prices in these local authorities increased by over 11% between September 2021 and September 2022 (Zoopla 2022).

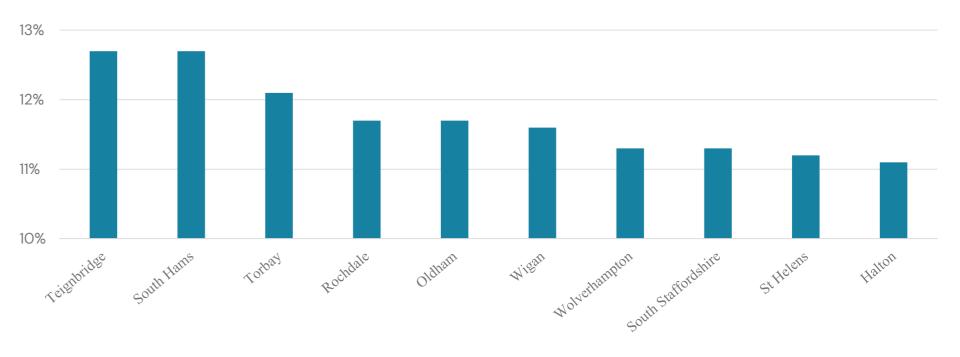
The three local authorities with the fastest growing house prices were located in Devon, close to the sea, national parks and Areas of Outstanding Natural Beauty. South Ham, Torbay and Teignbridge all saw house prices increase by over 12% (Zoopla 2022).

Of the offices in the IWG network, some of the fastest growing locations were outside of traditional city centres.

IWG offices in places like Maidenhead, Hemel Hempstead, Salisbury and Warrington have seen month-over-month attendance increases of over 50%. Many others, including Aylesbury, High Wycombe, Milton Keynes, Woking and Guildford had attendance increases of well over 25% (IWG 2022a, 2022c, 2022f).

Taken together with the rising home prices in the suburbs and countryside, the fast growth in these locations provides further evidence that activity has greatly increased in the areas.





UK highest average house price growth by area (September 2021-2022) Source: Zoopla 2022

Levels of domestic migration were at their peak during the pandemic and are still higher than prepandemic rates

By mid-late 2022, net domestic migration was close to pre-pandemic levels, but higher rates of outmigration for older adults and children may have persisted

The outflow of residents from central cities fell from the highs observed during the pandemic.

As the peak of the pandemic receded, characteristics of life before the pandemic began to re-emerge. Data up to June 2022 show that net outmigration from urban areas across the US had fallen sharply in the latter half of 2021 and the beginning of 2022 to 39,000 people per month, down from a high of close to 75,000, but still above the pre-pandemic average of 28,000. Although outmigration has slowed, in-migration is lagging and is still lower than pre-pandemic levels (Whitaker 2022a, 1-3).

Net outmigration from the 12 largest and priciest cities in the US to lower-cost large cities, mid-sized cities, towns and the countryside fell by 50% by 2022, but there is still significantly higher migration to these areas than in the pre-pandemic period.

In these 12 cities (which had the largest net outmigration of all urban areas during the pandemic), net outmigration is still above pre-pandemic levels, but significantly lower than during the pandemic. For example, migration from these cities to mid-sized cities is still 59% higher than average levels in 2018 and 2019 (Whitaker 2022b, 1). This hints at the potential of a longer-term trend of outmigration (Whitaker 2022b, 2).

US Postal Service change-of-address data for New York, Los Angeles, Chicago, San Francisco and Washington DC also shows net outmigration in the first half of 2022 was lower than net outmigration in 2020, 2021 and even in 2019 (Patino, Kessler and Holder 2021).

In London, there is also evidence of a reversal in the pandemic flight from the city.

The number of payrolled employees in London has returned to pre-pandemic levels, including for those 25 and under, which had seen a drop of over 20% during the pandemic (Greater London Authority 2022, 11–13), indicating that younger people have largely returned. This is perhaps due to the revival of the accommodation, food services, arts and culture sectors and in-person instruction at universities. Registrations of new patients at General Practitioner (GP) offices also show a return to pre-pandemic levels for people aged 18 to 34, but registrations for people aged 35–64 and children have not recovered, indicating that these groups may be continuing to outmigrate from London at a higher rate than before the pandemic (Greater London Authority 2022, 13–14). The number of rooms to rent on a popular flat-sharing

website during the pandemic was significantly higher than the number of people seeking a room, but this has now returned closer to pre-pandemic levels. The number of rooms to rent in the second half of 2021 was roughly equal to the number of people looking for a room (Greater London Authority 2022, 16).



Patients registered at a GP Practice in England Regions Source: NHS Digital 2022

As an indirect measure of migration, rent and home prices also indicate a return to pre-pandemic patterns

By mid-2022, rents and home prices were rising again in central cities and are back to pre-pandemic levels or higher.

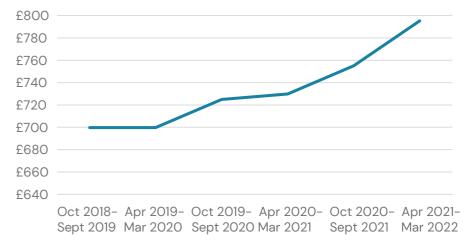
In London, rents in September 2022 far exceeded their pre-pandemic levels. The average rent in March 2020 was £1,673, and after a dip in 2020 and early 2021, these rose to £1,945 in September 2022 (HomeLet 2022).

In New York, the rent in all five boroughs was higher than pre-pandemic prices by July 2022. The boroughs which saw the largest drop in rent values - Manhattan and Brooklyn - have also seen the largest rebounds. Rent has increased faster in New York than in any other large city in the US, driven especially by an increase in rent in Manhattan, which rose from a pandemic low of \$2,790 to £3,998 in July 2022 (New York City Comptroller's Office 2021).

In a February 2021 survey of real estate experts, 64% said they believed the pandemic-induced shifts in the housing market to be temporary.

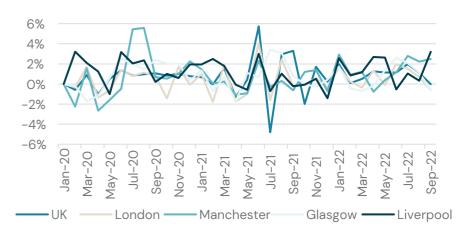
This suggests that the recovery in home and rent prices seen in the last 12 months will continue into the future (Gupta et al. 2021, 32).





Average Rental Values in England Source: Office for National Statistics 2022d

£820



% change in price of residential property in UK cities and as a whole

Whilst larger city centres are still recovering, evidence indicates that suburbs and small towns in the UK have higher levels of activity than before the pandemic

Several measures show that by late 2022, people were more likely to spend their time and money outside of city centres.

Footfall and spend are another indirect measure of where people live and work. While they do not provide good insight into migration – whether people have moved – they do show where people are spending their time and money.

Anonymous phone data used to track visits to over 500 high streets in the UK has shown that small towns, suburbs and seaside locations are significantly busier than in 2019. For example, Morecambe, Budleigh Salterton, Porthcawl and Skegness have all seen footfall along their high streets increase by over 50% (Sillito 2023).

Data on in-person spending is also showing that people are spending less time in city centres. In-person spending in the City of London was 35% lower in September 2022 compared with the same time in 2019. Suburban locations and smaller towns, such as East Lothian and Hastings have seen increases of 26% and 10%, respectively, in the same month. Within London, there was wide variation between central London and the outer zones. Zone 1 had nearly 2% lower in-person spending in September 2022 whilst all other zones saw increases compared with September 2019. Zone 6, the furthest out from the centre saw the largest increases in in-person spending, over 12% higher than pre-pandemic times (Hill and Jacobs 2022).

Likewise, transactions at Pret a Manger in suburban areas, northern regions of England and Scotland were at around 130% of pre-pandemic levels in November 2022, but they had only nearly equalled pre-pandemic levels in central London (Office for National Statistics 2022f).



Weekly transactions at Pret a Manger stores around the UK Source: Office for National Statistics 2022f

Hybrid working has introduced new factors into decisions to move house

The data for the second half of 2021 and into 2022 indicate that the extent of domestic migration during the pandemic was an anomaly and has already begun to recede.

At the same time, the rates of migration were still higher than pre-pandemic levels, and it is possible that some of this will persist.

The factors which influenced migration before the pandemic are likely to re-emerge as the most important considerations going forward.

These include job opportunities, enrolment in education, the price of housing, growth of a family and other personal reasons.

Analysts at the New York Times concluded that, "Migration patterns during the pandemic have looked a lot like migration patterns before it... in general, areas that were already attracting new residents kept attracting them... As disruptive as the pandemic has been in nearly every aspect of life, it doesn't appear to have altered the underlying forces shaping which places are thriving or struggling... Even if the pandemic didn't upend migration patterns, some pandemic-era shifts could endure." (Kolko, Badger and Bui 2021). Others believe the migration

changes to be a "momentary spike in long-term trends in a year when the number of new people moving in to cities was stalled by lockdowns, a flagging economy, delayed college starts and immigration restrictions." (Frey 2021).

But hybrid and remote working will add new elements to decisions about where to live and work.

For some, hybrid working will loosen their connection to central cities, enlarging the 'commuter-shed' for a city. Domestic migrants may choose to settle slightly farther from their company's office because they will be willing to accept a longer, infrequent commute, and they may prioritise larger, more affordable housing which can better support a hybrid working set-up. Whilst not as pronounced as it would be with fully remote working, even hybrid working will support some level of migration to an entirely different city, town or rural area.

The opportunities provided by hybrid working have yet to be fully realised.

Domestic migration is typically a long-term, slow process, and there is inertia behind each individual decision to move. Hybrid working has already changed the decision-making calculus for moving, and early evidence from 2022 indicates that migration may be different, if not dramatically so, from pre-pandemic patterns.

One of the biggest drivers of migration patterns in the Atlanta region is, and will remain to be, housing affordability... Of course, other factors like increased teleworking will play into these migration patterns, but we have not yet seen a fundamental change in locational choices based solely on the ability to work from home.

Interview with Mike Carnathan, Research & Analytics Division, Atlanta Regional Commission

Summary and conclusions

Summary and conclusions

Working patterns have changed, and hybrid working is here to stay. This has already led to changes and opened up new locations for employees to live and work. The long-term pattern is still evolving

The pandemic was a watershed moment in society. It led to the widespread adoption of hybrid working, and it had significant effects on the domestic migration patterns in the UK and US. Since then, domestic migration has slowed down, but there are initial indications that by midlate 2022, it was still higher than prepandemic levels.

The most important migration trends from 2020 to 2022 were:

• In both the US and the UK, a lot of people moved out of cities (and/or didn't move into cities). Accelerated outmigration from urban areas (especially some cities like San Francisco, London and New York) coupled with reduced in-migration combined to create very high levels of net outmigration from urban areas. Young adults were the most likely to leave cities, influenced by fewer jobs and leisure opportunities in the accommodation, food services, arts and culture sectors as well as a suspension of in-person higher education.

- The majority of those moving went to a suburb of the same metro area, but a substantial number of people did move farther away to lower cost, large cities, smaller cities, towns and the countryside.
- These trends were most pronounced in the densest, largest and most expensive metro areas, such as London, San Francisco and New York. These cities had higher levels of outmigration and have also been slower to return to pre-pandemic levels.
- Cities like Atlanta or Houston that experienced population growth before the pandemic continued to be popular destinations for in-migration, but population growth was focussed in their suburbs, not the city centres.
- In-migration to cities, especially for younger people, has resumed, but at slightly lower levels than pre-pandemic.
- The scale of outmigration is lower than 2020 and 2021, but still higher than pre-pandemic levels. By 2022, patterns of outmigration resemble a continuation of pre-pandemic trends and include the loss of population or slower growth in central cities, growth in suburbs and growth in lower cost, large cities.
- There is evidence that migration to smaller US towns and rural areas is continuing at higher levels. There is also some indications that families and middle-aged adults are moving from London at a faster rate than prepandemic times.

- Unlike fully remote working, hybrid working has limitations to where someone can move without changing jobs. Even if people are not able to change where they live, they are able to change how and where they work.
- The migration opportunities presented by hybrid working have not yet been fully realised. There is inertia in decision-making. Up to this point, moves may have been limited by employer policies on hybrid working only just being implemented, fear of reversal of employer policies and personal reasons such as decision-making with a partner, school enrolment and financial situations.
- As such, we expect to see the full implications of hybrid working reveal themselves in the long-term. If the early findings from 2022 are an indication, we may see these elevated migration patterns persist into the next decade.



Summary and conclusions

What could this mean for employees and businesses?

As hybrid working loosens the ties to central cities, there are a number of implications for employers and employees.

Hybrid working has the potential to improve the work-life balance of employees, and if they choose to live farther from city centres, it could also lead to a higher quality of life and a lower cost of living. At the same time, many hybrid workers will still choose to live close to or in city centres because it is a better match for their preferences. Hybrid working can also facilitate major carbon savings and has the potential for significant impact on the climate crisis, reducing carbon emissions by up to 70% in the UK and up to 87% in the U.S (IWG & Arup, 2023). This is the virtue of hybrid working. It opens up more possibilities and options, allowing employees to better shape their lives according to their preferences and personal circumstances, whilst also leading to broader benefits.

It is important to note that hybrid workers are focussed in the office sector and therefore not all are reaping the benefits of new-found flexibility. It is important that policies and societal decision-making support these people with jobs which are not conducive to hybrid working.

Businesses may be able to reduce costs, widen their labour pool, and increase employee satisfaction.

For businesses, hybrid working could provide cost savings on office space, improve employee satisfaction, and because

of the larger 'commute-shed', it could widen the labour pool of potential employees. This could increase the geographic and demographic diversity of their employees. If employers ensure that specific teams attend the office on the same days, then they will still have the benefits of office-based work, namely in-person collaboration, team-building, organisational culture building and knowledge sharing.

In the future, new businesses may be formed as non-office from the outset. Whilst employees at these firms are likely to primarily remote work, these new ways of working could unlock creative new approaches to collaboration and team-gathering.

Longer term, more industries may be capable of hybrid or remote working.

In industries which do not yet have a high-level of hybrid working, they may now have additional incentives to digitise, allowing their workers freedom to work remotely.



The rise in hybrid working will undoubtedly affect our traditional office districts, but this opens up a lot of possibilities as well. Cities - especially New York City - have seen numerous changes to industry patterns and have adapted every time. Manufacturing districts give way to artist lofts, office districts that shut down at 5:00 become 24-7 mixed-use neighbourhoods. New York will adapt to this change also.

Interview with Moses Gates, Vice President, Housing & Neighbourhood Planning, Regional Plan Association, New York

"Allowing people to work close to home, enabling them to split their time between home and a local workplace, has the potential to reduce a worker's work-related carbon emissions by 70%."

Mark Dixon, CEO of IWG

Summary and conclusions

What could be the implications of new migration patterns for cities, towns and the countryside?

A changing geography of where people live and work could have significant effects on our cities, towns and countryside.

Hybrid working will not spell the demise of our cities. They will remain as a keystone in our society and economy. Our governance systems, transport networks, and overall built environment all situate large, dense conurbations at the centre of our societal systems. Cities will continue to be where important in-person decisions are made, and they will remain a key component of social lives, arts and culture. For many, cities will continue to be desirable places to live because of their offer: recreation, job opportunities and entertainment. Policy should continue to support the vibrancy and liveability of our cities. This will be important for attracting investment, supporting population growth and ensuring a high quality of life for city residents.

We will have to find ways of making a hybrid agglomeration work.

Hybrid working will still bring people into city centres for a certain number of days per week, so we will likely continue to see some agglomeration benefits in the wider economy. A long-term question is whether a 5-day work week is necessary to deliver agglomeration benefits or whether these will continue even if we gather less frequently.

There may be significant benefits for close-to-home high streets.

Day-to-day economic activity is also likely to shift with hybrid working. Offices play a role in the livelihood of high streets, and there may be potential to bring coworking spaces and other new uses to unused high street spaces. There will also be a higher local spend near home and local workspaces, leading to a more dispersed geography of local spend and more vibrancy on the high streets of smaller towns, especially in places which had high rates of commuting pre-pandemic. Where employees can perform their jobs in suburbs and smaller towns, there may also be a higher number of economic opportunities in these places.

There are implications for transport networks.

From a transportation perspective, more occasional but longer distance commutes would have implications for the funding arrangements of public transport networks.

For car-orientated cities, if people commute less, it will remove road traffic, and free up car parking spaces. However, if people move farther from less car-orientated city centres and are less connected to public transport, they may use their cars more. Growth in demand for out-of-centre locations would also have to be carefully managed to guard against land consumption and sprawl, and its consequent higher carbon footprints and risks to biodiversity.

Even modest increases in working from home can have huge impacts on the urban form. If the dominant pattern sees office workers working from home two days a week, for example, well that is 40 percent fewer trips on our roads. So what does that mean for transportation infrastructure spending? For public transit? For how office buildings are designed, or will they be repurposed? For meeting our broader climate resiliency goals? Will we need so much surface parking in our downtown areas? Could those spaces be activated for more affordable housing options?

Interview with Mike Carnathan, Research & Analytics Division, Atlanta Regional Commission

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