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FEATURE

The economics of postpandemic work patterns

COVID-19–driven changes to how we work are sending ripple effects throughout the US economy

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The pandemic brought work into the home for many and changed the nature of much in-person work as well. What could it mean for the US economy if these patterns persist?

ONE OF THE hallmarks of the "age of COVID-19" has been a sharp rise in the number of people working remotely, along with the reorganization of how much in-person work is conducted. Adapting to this reality has set into motion waves of follow-on impacts that flow through much of the US economy. Even after we see a retreat from the current level of remote work, some of these changes will likely persist.

The current state of working from home

Currently, much COVID-19–induced remote work is done on a full-time basis, with employers limiting access to work facilities. More than 30% of respondents to a December 2020 survey said they were working from home every day that month.[1] Once enough of the population has been vaccinated and business facilities are able to fully reopen, the question will be how much work will continue to be done from home. The results of this "forced experiment" will yield different answers at different organizations and for individual workers. If remote work was a success on both sides, employers and workers may continue with flexible work arrangements that allow workers to remain remote either full-time or return to the office only a few days a week. Estimates of the percentage of the US workforce that will continue to work from home at least part of the time postpandemic range from 16% to as high as 25%–30%,[2] up from about 3.4% before the pandemic.[3]

With in-person work not returning to prepandemic levels, working from home will continue to drive changes across the economy, causing shifts in everything from demand for residential housing and commercial buildings to personal and government budgeting decisions.

Work-from-home's surprising economic impacts

Work-from-home works better in single-family houses. About two-thirds of US households live in single-family houses.[4] That leaves over 40 million households in multifamily housing that might consider moving to a single-family home to get that extra space so everybody can work in peace. If just 5% of the households living in multifamily housing decided to switch to single-family houses, builders would have to build more of them. How many more? In 2020, builders started about 1 million new single-family houses, a little more than in previous years.[5] But if 5%, or 1.6 million, of those 42 million households now living in multifamily housing move to single-family houses, construction workers would have to get busy—because that's equivalent to another year and a half of construction beyond the "normal" 1 million level. And if 20% of households in multifamily housing decided to move to single-family houses, builders would have to get very busy—it would take an additional 3.6 years' worth of house construction to catch up to the new demand.

Of course, the flip side of people moving into single-family houses would be empty multifamily units. Vacancy rates (assuming no new construction) could rise as high as 25% if one-fifth of the households in multifamily housing decide to move out.[6] Even if only 5% of households leave multifamily houses, the vacancy rate in multifamily buildings would rise by over 10%.[7] That's quite a bit above the long-term average.

Not all single-family houses are the same—and, especially, don't cost the same. But in a world of virtual work, there's no need to commute, so people have more freedom to live where they want. That can vastly cut the cost of moving into a single-family home. For example, the value of a standardized quarter acre plot in California (enough room to socially distance from neighbors, we think) ranges from breathtakingly expensive in Los Angeles to trivial in Susanville.[8] If work doesn't compel you to live in Los Angeles, why not move where land (and therefore housing) is cheap, and where "in a single day, one can take in the smell of pine trees, hike mountain trails, hear various streams or the lapping of lake waves, and let the desert sand run through your fingers"?[9]

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It's not just housing—remote work has changed spending patterns. Consumer spending fell by 3.9% in 2020[10] as fears of contracting the virus and the pandemic's economic impact drove people to cut down.[11] Although spending revived in the second half of the year, the pickup wasn't enough to offset the sharp fall in the first half. Services suffered the most as people stayed away from travel, recreation, and restaurants. Spending on recreation fell by 31.7%, transportation by 23.3%, and food services and accommodations by 21.9% in 2020.[12] Spending on durable goods, however, spiked as people who were working from home spent on home office equipment, personal gyms, and recreational goods and vehicles, the last of which went up by 18% last year.[13] With their homes now equipped for fitness training, not everyone may want to go back to gyms when the pandemic eases.[14]

Increased spending on goods aided a late-2020 recovery in retail sales, but that recovery has been uneven. With people stocking up on provisions and having more meals at home due to the pandemic, sales at grocery stores grew strongly last year. But remote work and staying indoors meant that spending on clothing and footwear fell.[15] And if remote work continues to be widespread, the shape of the clothing industry could change considerably. Call it the triumph of "athleisure" over the business suit.

Remote work is also likely to benefit online sales. In the first three quarters of 2020, the share of e-commerce in total retail sales was 14.1%, up from 10.8% in the same period in 2019.[16] If people keep on working from home, the convenience of online purchases may continue to lift e-commerce sales at the expense of brick and mortar.

Will office buildings suddenly become overbuilt? When people work at home, they aren't in the office. And those offices take up a lot of space—and a lot of nonresidential capital (the total value of all machines, buildings, and ideas that US companies use to produce goods and services). Fully 8% of that capital—almost one-tenth—is office space.[17]

If they have lot of excess office space because people are working at home, few companies are going to want to buy even more. Of course, many companies may trade up to nicer space for those employees still coming to the office. But low demand for office buildings will likely hit the construction business hard. If office construction falls by 50% over the course of 2021, total nonresidential construction (including everything from factories to churches) will fall by 3.7%, decreasing to 14.2% below the November 2019 peak of US$501 billion by December 2021.

And let's not forget what goes in the office. For example, businesses account for over half the US$110 billion market for furniture and related products in the United States.[18] It will certainly prove more challenging to sell 100 fancy chairs to home-based workers than to sell the lot to a corporate buyer. There will also be substantial impacts on service businesses, many of them small, that cater to office workers. Even if workers go back to their offices a few days a week, the economic prognosis for lunch counters, coffee shops, parking garages, and dry cleaners with a permanently diminished customer base seems grim.

What's likely to happen to all those empty offices? It's already happening: conversion to residential buildings. In the past few decades, US builders have gained considerable experience transforming old commercial buildings—offices, factories, or even retail space—into residences.[19] The only problem is that, while office buildings can be renovated into beautiful multifamily apartments, work-at-home trends may cut the demand for such buildings, as people will likely prefer single-family houses that provide more privacy and more room.

Local tax collectors will notice the shift in where economic activity takes place. When workers go to the office, many of them work in different towns, cities, counties, and even states from where they live. This means that some areas have much higher "daytime" populations than resident populations. New York City, for example, sees its daytime population grow by over half a million as workers stream into the five boroughs (and particularly into Manhattan, where the daytime population almost doubles). The surrounding counties in New York State—despite having their own large employment centers—see their daytime populations fall as workers leave the county.[20]

Those daytime workers mean more tax revenue for the jurisdictions in which they work. These taxes come partially from sales taxes (on purchases such as restaurant lunches and commuters' shopping), but mostly from property taxes on the office space those workers require: Soaring office buildings yield soaring tax revenues. More than 40% of New York City's total tax revenue came from commercial and industrial property taxes.[21] If tax revenues on those properties falls by 25%, the city will be looking at a 5% hole in tax collections—a substantial loss just from reductions in property tax. Add in lower sales tax revenues, and New York's government will face a pretty significant financial adjustment.

Of course, most local governments don't depend on commuters as heavily as New York. But some localities, especially in the Midwest and mid-Atlantic, collect taxes on commuters' incomes, which may seem fair (if you live in such a jurisdiction) or not (if you work but don't live there). A decline in commuting is expected to hurt the finances of local governments that depend on such taxes. Once again, New York will face problems—but so will commuter-attracting cities in states like Kentucky, Maryland, and Ohio.

Just because you're back at the office doesn't mean you're going back to 2019

Will we still think that "those who travel safest travel alone?" In January 2021, nearly a year after the pandemic began, data collected by the US Census Bureau indicated that more than half of adults who use ride-sharing or public transit were making fewer trips than they were pre–COVID-19.[22] Mobility restrictions and working from home explain part of the decline in transit usage. But many Americans are probably still, unsurprisingly, concerned about the safety of sharing a ride. Even post–COVID-19, it seems unlikely that all in-person workers will resume traveling the way they used to before the pandemic. The deep scars left by the pandemic and increased awareness about the risk of infectious diseases could cause a permanent change in how in-person workers commute.

An increased dependence on private automobiles is a strong possibility. Sales of new cars, though still down from a year ago, bounced back strongly in the final quarter of 2020.[23] And used car sales exploded in 2020. Strong demand for used vehicles pushed the Manheim Used Vehicle Value Index, an indicator of used car prices, up by 8.4%.[24] Some consumers might have substituted the planned purchase of a new vehicle with a used vehicle, but many were probably persuaded by the pandemic to substitute a car for public transit.

Together with the increase in remote working, this growth in car ownership might have a long-lasting effect on ride-sharing companies. Uber and Lyft both reported deep declines in ridership in Q3 of 2020. The number of Uber trips and Lyft's active riders fell by 35% and 44%, respectively, from Q3 2020.[25] A permanent shift in commuting choices might force ride-sharing companies to innovate in a different direction.

Public transportation systems—whose funding is always fragile—are also under pressure. The first three quarters of 2020 saw public transportation ridership halve relative to the same period a year before.[26] Commuter fares currently fund 25% of total expenses in public transportation systems.[27] The new funding gap caused by a decline in commuting and the likely increase in private cars will put financial pressure on local governments, which fund 37% of the total expenses in public transportation systems.[28]

You may be willing to go to the office, but will you want to travel for business—and will your employer want you to? The extent to which business travel recovers will determine the fate of a variety of enterprises, from restaurants to sports franchises (who do you think buys those box seats to wow their clients?), airlines (who do you think is sitting in those business class seats?), and hotels.

Business travel accounted for 30%, or US$334 billion worth, of total travel dollars in 2019, split

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between general business travel (US$195 billion) and meetings, events, and incentive travel (US$139 billion).[29] Much of this spend occurs at the higher end of the market. For example, according to one estimate, on some routes "business passengers represent 75% of an airline's profits despite only being 12% of their total passengers."[30]

The pandemic changed all that. US air travel, as measured by the Transportation Security Agency's count of the number of passengers going through security, was still down more than 60% year-over-year in January 2021.[31] Even after a partial recovery from their near collapse in April, sales at restaurants and bars are still 15% lower than they were in February 2020.[32] The true toll on these industries can be seen in the employment numbers: Between February 2020 and January 2021, employment in food and drinking establishments was down by 2.4 million workers, or 19.2%, while employment in the accommodations industry fell by 701,000 workers (33.3%) and employment in arts, entertainment, and recreation contracted by 811,000 workers (32.4%).[33]

It's not just business travel that suffered during the pandemic. Personal travel was also curtailed, adding to the woes of airlines, restaurants, bars, and hotels. But the general consensus seems to be that personal and leisure travel will pick up as soon as people feel it is safe, although health worries may change the mix of destinations—maybe not as many trips to exotic locales and more trips to visit family a few states over.

A total recovery in business travel seems less certain. Businesses have learned to manage with less travel, and may be more careful about travel spending in the future.

So, you went back, but what about your customers? Over the last several months, employees, organizations, and their customers have become used to shopping and obtaining services virtually. In the post–COVID-19 world, even if organizations return to in-person functioning, customers may continue to prefer the convenience of remote interaction.

The probable pickup in customers' remote engagement patterns will accelerate a trend that was already underway. For example, telehealth had been slowly gaining traction before the pandemic, but COVID-19 greatly accelerated its adoption. Between January and April 2020, the percentage of consumers using virtual visits jumped from 19% to 28%: Not only are more consumers signing up for virtual visits, they are discovering that they like the idea. A majority of consumers (80%) who have had a virtual-care visit would choose to have another.[34] After all, patients can save about two hours, on average, with a virtual visit compared to a physical visit.[35] Telehealth also expands consumer and clinician access to remote or rural locations and enhances care coordination.

This change is not limited to health care. The government agency/citizen relationship is also undergoing a fundamental shift. Public agencies in the United States are dramatically increasing digitization and virtual contact as the pandemic forces them to provide new services and support a much higher volume of requests for existing services. From digital unemployment insurance applications to virtual approval of permits and licenses, many government agencies have entered a new phase of digital interaction.[36] Citizens will be particularly happy to know that dealing with the authorities that license automobiles and drives will become much easier—a traditional pain point for Americans. They soon will have less to complain about: In California, 97% of its Department of Motor Vehicles transactions can now be completed online, at home, or at remote kiosks and other automated locations. Driving- and vehicle-licensing offices that are reopening are prioritizing appointments for services that can be conducted only in person.[37]

Being a digital customer is not universally a good thing, however. In education, for instance, experts agree that students, particularly the youngest, need to get back into classrooms with their teachers and friends. Further, the abrupt shift to distance learning highlighted and worsened inequalities in access to education. For example, the US Census Bureau's Household Pulse Survey found that

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lower-income households were less likely to report computer and internet availability for educational purposes, compared with higher-income households.[38] Also, a gap exists between private versus government-run educational institutions in their readiness to provide digital learning experiences. As households, students, and educational institutions prepare for the next school year with some uncertainty, these digital divides will need to be addressed.

Planning for a work-from-home economy

Americans have worked at home before. In fact, in the Early Republic, most people worked at home—either on farms or in workshops attached to their houses. Now, technology is allowing at least some workers to once again experience a world in which work and home are not physically distinct. Perhaps, then, we can think of working at home as returning to an older economic model.

But working at home means a lot more than just plopping down on the couch with a laptop. It promises to change where Americans live, how they spend their money, what cars they buy, what taxes they pay, and how they interact with businesses and local governments. If America experiences a permanent shift toward working from home, leaders will need to think ahead with imagination about how their business model might have to change.

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