We are not going back to the work world of January 2020. Going forward, perhaps as many as 35 percent of the workforce will work from home at least a few days a week. Nobody anticipated this shift in our work arrangements.

In recent years, major companies such as Amazon, Apple, Facebook, and Google have built new corporate campuses. They hired leading architects to design buildings and outdoor spaces where people would want to spend time, and in doing so, remove both the real and self-defined walls that often separate work, socializing, wellness, and creativity. One Apple executive told *Wired Magazine*, “We don’t want you to feel like you’re in a casino. We want you to know what time of day it is, what temperature it is outside. Is the wind really blowing? That was Steve’s original intention, to sort of blur that line between the inside and outside. It sort of wakes up your senses.” Apple built a 2.8 million-square-foot building that cost billions of dollars. The 175-acre Cupertino campus, Apple Park, opened in 2017 and was filled with 12,000 people.

For much of 2020 and 2021, these buildings have been quiet. The sudden onset of the COVID-19 pandemic in 2020 sent tens of
millions of workers home. A “silver lining” of this national emergency is that millions of workers and many firms have learned how to continue to be productive while working from home (WFH). Such workers have experienced how working from home affects their productivity and their quality of life. The lessons learned in the recent past will influence how workers configure their lives in our post-COVID economy. In this sense, WFH is an “experience good.” This economics term refers to situations where we underestimate how much we value an experience until we try it. When the first *Star Wars* movie was released in 1977, I could never have imagined how much I would enjoy it. A written explanation of the plot would not have conveyed its power and excitement.

This book explores how our recent nationwide experiment with WFH will influence our nation’s economic geography over the next decades. We are more likely to unlock the full potential of this new opportunity if we can anticipate the opportunities and challenges posed for workers, firms, and local governments by the WFH option.

Just before the COVID crisis hit in early 2020, we faced four social challenges. First, we spent too much time commuting. Second, rents were too high in America’s most productive cities. Third, local economies were stagnant in many rural places and in postindustrial cities such as Baltimore. Fourth, many women and many minorities did not have the same economic success and access to opportunities as white men. This book explores how the rise of WFH can improve our quality of life and help us to overcome each of these four challenges.

The gains from WFH differ depending on one’s life goals and responsibilities. As I discuss in chapter 1, a young ambitious person who is eager to make her mark will continue to value the face-
to-face interactions at work as she seeks to build up her skill set, network, and reputation. At the same time, a middle-aged worker who has an aging mother in Iowa may greatly benefit from the flexibility offered by engaging in remote work. These two examples highlight a central theme of this book. We differ with respect to what we gain from working from home. No one expected that millions of us would have the opportunity to engage in WFH. Over the next few years, workers who anticipate having the option to engage in WFH on at least a part-time basis will have strong incentives to reconfigure their plans and to invest in the skills to make the most of this new opportunity.

While the rise of WFH offers potentially large benefits for eligible workers, it also could impose costs on US workers. Such workers will face greater international competition as US workers compete with international remote workers. Economic analysis offers insights here about how younger workers can position themselves in terms of human capital investment to better adapt to the new “rules of the game.”

Economists are debating how our economy will look in the aftermath of the pandemic. Nobel laureate Paul Krugman has argued that our cities and our urban work life will basically return to our pre-pandemic experience. He writes: “So the best bet is that life and work in, say, 2023 will look a lot like life and work in 2019, but a bit less so. We may commute to the office less than we used to; there may well be a glut of urban office space. But most of us won’t be able to stay very far from the madding crowd.”

On one level, I agree with him. Through billions of dollars of past investment in tall buildings and urban infrastructure (including the electricity grid, transit systems, and sewage systems), we have built up durable capital in major hubs like Boston, New York
City, and San Francisco. This durable capital has not been fully utilized in 2020 and 2021 but the excitement and buzz of cities will certainly return. As some people choose to move to more far-flung areas and engage in WFH there, center cities will become more affordable and attract younger people who want to be closer “to the action.” In our diverse society, some people will respond to the rise of WFH and move farther from city centers, but at the same time a type of “musical chairs” occurs that creates new opportunities for those who want to live in center cities. In an economy that is continually upgrading old housing and building new housing, this does not have to be a zero-sum game. The economic geography of our cities shifts over time in response to supply and demand forces.

This book traces the emerging improvements in quality of life made possible by having more freedom over how we allocate our scarce time. On any given day and at any given hour, many people will be working from home. They will have control over their schedules and their lives that will significantly increase their flexibility as to how they live. On a snowy day in February in Chicago, some may choose to work from home. On a March day, a suburban dad may attend his son’s play and work from home that afternoon.

In the recent past, we spent too much time commuting. WFH opens up new possibilities for productively doing our job while making the most of our scarce time. My teacher, Nobel laureate Gary Becker, emphasized the central role of how we spend our time in determining our health and our quality of life. I will argue that the rise of WFH creates new quality-of-life opportunities for workers who do not work from home. WFH workers represent a large enough share of the population such that their choices will shift real estate prices both within and across cities and regions.
As some WFH workers spread out, this creates new opportunities for service-sector workers to move to such areas, which will both lower the rents they pay for housing and expand their menu of lifestyle possibilities.

In the recent past, the United States featured too few centers of economic growth. I will argue that the rise of WFH increases these points on the map. Where exactly these new growth hubs emerge depends on several factors ranging from their “God-given” quality of life (weather, mountains, beauty) and local land use decisions. Will the incumbent property owners welcome new construction or will they use zoning land use rules to limit economic growth? In this sense, both demand- and supply-side conditions determine the emerging new menu of geographic possibilities created by a more footloose workforce. The economic perspective offers new insights here for anticipating shifts in our nation’s economic geography.

**Short-Run Gains for Workers**

WFH workers will gain from having more control over their commuting schedule and by having the option to completely avoid commuting on some days. The time savings will be the greatest for those who have chosen to live the farthest from their place of work. Working parents will be able to spend more time at home, which means children will spend more time with their parents. Most couples wrestle with household “chore wars.” Reduced weekday commuting creates new possibilities for couples to revisit their individual efforts in contributing to the needs of the household. As people spend more time in their home communities rather than at work, people will be more civically engaged.
Those with greater job flexibility will be better able to cope and adapt to the various risks each of us faces, which includes shocks to our own health and shocks to local economies. Over the course of our life, our personal circumstances change as we are confronted with unexpected challenges in coping with our own needs, our children’s needs, and our parents’ needs. The United States is a large nation and people often have family and friends scattered across it. A company’s physical location on the map ties down a worker to that location and raises the transportation and psychic costs of maintaining ties with the other people in one’s life. The possibility of having the option to telecommute creates a new level of freedom and flexibility for meeting all of our life goals and responsibilities.

For decades, young people have chosen to live in cities to engage in a more organic search for job opportunities, friends, romantic relationships, and places to shop and eat. I can imagine a type of science fiction AI world where advanced algorithms quickly figure out the right matches, and young people rarely have to leave their homes to find the right foods and friends and experiences that would be suggested for them. Such a powerful algorithm, combined with internet delivery of services, would substitute for directly experiencing the city. At the early stage of his career, my twenty-year-old son would turn down this offer. While he has the skills to be eligible to work from home, he would rather be close to the action and meet other young people, to network and build up his reputation amidst the challenging and exciting trial-and-error of urban life.

Post-COVID there will continue to be a demand for face-to-face interaction, especially among the young who do not have a rolodex of social capital built up to rely on now while navigating
endless zoom calls. Young people’s creativity, and their ability to inspire and be inspired by others, still relies on in-person communication. Cities facilitate such interaction both at work and at play. The young do not need much private housing space, and they will have an edge and a desire to live in high density to facilitate their ability to meet and interact with each other. In contrast to her grandson, my eighty-year-old mother has thrived while working at home in 2020 as a lawyer in New York City.

Medium-Term Gains for Workers

WFH does not mean that we are going to abandon urban buildings such as New York City’s Empire State Building. While some of us may “head for the hills,” as I will discuss below, many of us will continue to seek out urban life (for both career concerns and amenities). Instead, I will argue that our personal freedom has greatly expanded. In the past, the choices of where to work and where to live were almost always bundled into one “all or nothing” choice because commute times were typically so long (see chapter 2). A key point that I will return to again and again relates to contingencies. While a person who loves California will be willing (if she can afford it) to live and work there, life always features contingencies (taking care of a sick mother, attending a class reunion, or watching a child’s annual school play), and it is because of such contingencies that one would greatly value the flexibility to keep working even when physically distant from the workplace. This is just one example of the new freedom WFH eligible workers now have.

Urban economists study the interplay between where workers and firms locate within and across cities. This book explores how
the rise of WFH will affect the economic geography of our cities and suburbs and will affect the choices made by different types of workers and firms. In the “old” urban economics model, workers know where they work and must choose where to live as they are well aware of the time and transportation costs and agony of the daily commute.

WFH workers have new freedoms to go where they want to go and where they need to go to take care of their family responsibilities. Firms will decide where to locate their companies and how much office space to access. They will face the tradeoff between, on the one hand, the benefits of saving money on office rent and reducing their workforce’s time commuting and, on the other, the challenges of maintaining their organization’s morale and encouraging synergistic teamwork given that a large percentage of their workforce will be geographically dispersed. Firms will need to learn how to reconfigure their operations to continue to be productive while allowing workers to have greater flexibility. For-profit firms retain the option to bring workers back to working full-time at headquarters if such firms are unable to maintain their culture, focus, and profitability when many workers work from home.

In 2019, an ambitious worker was expected to be at the office roughly 200 days a year for twelve-hour stretches of work and commuting. Considering the physical location of offices—such as finance in New York and tech in San Francisco—and the slow commute speeds into and within cities, this worker would have very limited options when deciding where to live. In other words, the traditional pattern of commuting to work demands that an employee live close to a single point on the map, namely the physical location of the employer. When engaging in WFH, the worker is “liberated” and can go where she wants to go or go where she
needs to go to take care of family issues and challenges. This reduces stress and improves her quality of life.

How much one values the right to engage in WFH depends on many factors. Those who live farther from their place of work save more time when they can engage in WFH. In several of America’s most productive cities, like San Francisco and New York City, the local area features high home prices due to high demand to live near a very productive vibrant city and too little new housing being constructed. Middle-class people who work in these productive core areas face high home prices and they are stuck in traffic at rush hour. A commuter moving at a speed of thirty miles per hour who is only willing to commute one and a half hours round trip per day must search for housing within twenty-two miles of where he works. In an expensive local real estate market, this is a costly constraint as the menu of affordable neighborhoods is limited.

WFH workers are no longer tethered to choosing among homes close to where they work. This newfound freedom expands their menu of where they will live. Some will choose to move out to the distant suburbs where homes are newer, larger, and cheaper. In more remote places, real estate developers often have more freedom to build than in center cities that often feature litigious neighbors who block new construction. Other WFH workers will be more adventurous and will move to places that meet their own personal needs. Environmentalists may head to the mountains to be able to spend more leisure time in nature and to live close to like-minded people. Those with responsibilities caring for aging parents may move closer to where their parents live. Those with strong ties to their birthplace community may move back home now that their workplace location no longer acts as such a strong magnet.
The rise of WFH could shrink the gender gap in earnings as women will be better able to remain attached to the labor market. The flexibility offered by WFH will encourage more mothers of young children to engage in part-time work. Such a commitment to the workforce will encourage employers to invest more effort in training such workers. The ability to engage in WFH will increase the set of jobs for eligible women and this will increase workforce attachment. Young women will anticipate that the option to engage in WFH in later life provides an incentive to invest more in skills that offer greater future economic returns.

Remote work creates new employment opportunities for minorities. Cities like Baltimore, Cleveland, and Detroit are home to hundreds of thousands of African Americans. In recent years, these cities have not featured strong private-sector job prospects, but many people have built up social networks there and their families have lived there for generations. Access to remote jobs creates new opportunities for minorities to continue to live in cities where they feel more comfortable and where they have roots while working remotely. The expectation that this new option is created by WFH provides an incentive for young minorities to invest in the necessary skills to compete for these high-paying positions.

How will the quality of life of non-WFH workers be affected by the life choices made by millions of WFH workers? Many less skilled workers are employed in the service sector. Such individuals are often paid close to minimum wages and cannot afford good housing in America’s most productive cities because rents are so high in these cities. As WFH workers spread out across the nation, this creates local demand for services provided by non-WFH work-
ers. These WFH workers will need people to clean their homes and take care of their gardens and babysit their children. Locations far from core cities feature cheaper rents. Low rents effectively raise the purchasing power of non-WFH workers. This example highlights the interdependencies in our economy where richer people demand nontradable services.

The New Geography of Firm Locational Choice

Many prominent American firms have made large recent investments in corporate campuses. Given the billions that were invested, these firms were making a large place-based bet that their companies would be more profitable by locking into that specific location and that amount of physical space. Going forward for both America’s greatest companies and for medium- and small-sized firms, how does the rise of WFH affect where they locate their offices and how much space they demand?

Each firm faces a tradeoff. Given the cost of real estate in America’s greatest cities, firms will reduce their demand for such space if these costs exceed the benefits these firms anticipate they will gain. If most eligible workers are working from home at least two days a week, then overall demand for such real estate will decline.

Startup firms face a key decision regarding where to locate as they seek to achieve several goals. They need access to finance to launch their ideas. They need access to a talent pool to hire the right people. They need to network with industry leaders to build a reputation, and they need to tap into a city’s professional services to have access to lawyers and other service providers to protect
their intellectual property. Many startups seek to be in the “middle of the action.” Such proximity offers greater learning and networking opportunities.

Worker compensation is a firm’s major cost expenditure. The nominal earnings of WFH workers are likely to decline as such workers will enjoy greater hourly flexibility and as they compete with international “offshored” workers for these WFH jobs. The probability that more jobs will be offshored hinges on how domestic workers compete with foreign workers.5 The ability to engage in WFH in a national economy featuring many cities, including some with lower home prices, allows US workers to be more competitive with their cheaper foreign rivals and this helps to maintain our domestic jobs base.

Annual pay is just one part of a worker’s compensation. Workers also value their career development opportunities. WFH potentially poses risks here if the absence of daily face-to-face contact at the office reduces altruism and loyalty within the organization. A firm that anticipates this challenge can adapt by relying on its real-time worker productivity metric data to track how different workers are performing. By experimenting with different strategies for bringing workers together, such a firm will figure out ways to balance the benefits of WFH while reducing the costs such isolation can create for a firm’s culture. A key issue that arises concerns whether face-to-face interaction on a daily basis is key to an organization’s success. Alternatively, there may be a quantity versus quality tradeoff as, during a typical month, workers gain from engaging in WFH most of the time but then are expected to spend a few intense days of interaction at headquarters. Firms have strong incentives to experiment with different working arrangements to optimize their new work rules. Firms that are

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sluggish in adapting their work rules will lose talent, have to pay a “combat pay” wage premium, and will be less profitable.

Will the Rise of Remote Work Weaken Superstar Cities?

Cities compete against each other for footloose educated people and the firms that hire them. In recent decades, New York City, San Francisco, and other cities boomed. Going forward, how will the rise of WFH affect the demand to live in the “superstar cities” versus postindustrial cities such as Baltimore, Cleveland, and Detroit? I examine the emerging competition that will play out between places ranging from Baltimore to Boise to Bozeman as they compete for workers and jobs that in the recent past were concentrated in superstar cities.

Billions of dollars have been invested in durable commercial real estate in major cities such as Boston and Manhattan, with the expectation that major firms and startups would continue to rent expensive space in commercial towers. While WFH is likely to reduce each firm’s demand for commercial real estate, commercial real estate will continue to be demanded. Face-to-face communication continues to be essential for sealing deals, earning a reputation, making new connections, and meeting with the press.

In recent years, in cities like San Francisco and Seattle, the tech boom has led to high local rents, which has displaced local renters. Worried about the negative effects of a boom on local resident quality of life, local elected officials in major tech cities such as San Francisco and Seattle have sought to enact new taxes on major local companies to collect revenue to use for pro-redistribution purposes. As these cities raise their taxes and regulations on local tech firms, this creates a “push incentive” for such firms to threaten...
to downsize locally. In recent years, members of Seattle’s city council have sought to impose new taxes on Amazon to collect roughly $500 million a year to fund transfers to the poor. The ability to hire more remote workers (rather than hiring workers who will work in Seattle at Amazon) gives Amazon executives a credible threat in this firm’s ongoing negotiations with the Seattle city council.

America’s most productive cities tend to be located along the coasts, and these beautiful areas continue to have great consumer city and tourism appeal. If these cities lose mobile WFH workers, the new city would feature a younger population paying more affordable rents. High-amenity cities have proven to be remarkably resilient when hit with major shocks. In recent decades, Manhattan has rallied back several times when it was hit with the job loss it experienced starting in the 1950s as manufacturing jobs vanished and after the damage and horror caused by the 9/11/2001 terrorist attacks. In contrast, other cities such as Detroit have had more trouble rallying after the decline of the local car industry.

New Opportunities for Other Areas

WFH-eligible workers can move to many possible destinations across the United States. Some will seek out the distant suburbs of their employer’s metropolitan area. Others will be more adventurous and move to the mountains or to places close to water. Some may simply seek out low-tax areas such as Florida and Texas that do not have a state income tax. Others may move back to their birthplace area. This migration will spread out talent across the United States.

As WFH workers shop around for where to live, cities and jurisdictions that seek to lure them can reposition themselves by
making a set of strategic investments. While a city cannot build mountains, it can have good schools and safe streets and enforce environmental regulations. A city can offer reliable internet connections and its region can have good airports to allow for easy direct flight access to an HQ. High-amenity places that in the past were not major productivity hubs could enjoy a surge of new local growth. Local land use zoning rules will play a key role in determining whether beautiful areas will become “the next Nashville” or whether a type of moat will be built around the area that limits growth and inflates local real estate prices as buyers bid up the price of relatively few homes.

Beautiful areas often attract environmentalists and nature lovers who may want to preserve their paradise and not change the local culture or its current scale of activity. Incumbent homeowners often vote for land use regulations to slow new construction in order to boost the value of their homes. If a coalition of incumbent homeowners and environmentalists are able to block new real estate development in desirable areas, then the rise of remote work will lead to even higher home prices in such areas.

By influencing the geography of where successful people live across the United States, the rise of WFH creates new possibilities for economic growth to take place in areas that have lagged for decades. Both rural areas and postindustrial cities such as Baltimore have lost population in recent decades. Some WFH workers will reconsider moving to these areas now that they can live in these affordable and familiar places without suffering an earnings penalty. If more college-educated African Americans settle in Baltimore because they can engage in WFH, then a socially beneficial by-product of their own choice is to make Baltimore a more vibrant area as the city, which has been shrinking in population for cities,