

Why a hybrid office needs to understand and support employee commutes with transport information

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Abstract

Commuting will always be a point of friction between employers and employees. It is often cited as the worst part of an employee's day, and as a critical factor when considering leaving a job or taking a new job. Now, for nearly two years, the traditional home-to-office commute has not been part of the daily routine for a large fraction of the population. As a result, employee sentiments about the return to office are heavily influenced by perceptions of commuting. Employers find themselves in a challenging situation: How to encourage employees to return to the office even a few days a week, while avoiding an increase in turnover, particularly in the currently heated job market? This paper introduces a system of 'office employee archetypes' for easier understanding of how employee roles relate to their in-office requirements — and how those employees experience demands to return to commuting. It discusses trends in transportation, hybrid and distributed work, and sustainability that will shape post-pan-demic corporate real estate. In addition, it explains how employers can take advantage of the opportunity for a 'fresh start' by supporting employees with transportation information software, facilities improvements, benefits, and partnerships with service providers — and how this will increase willingness to return to the office.

Keywords: workplace experience, transport, parking, commuting, hybrid office, ESG, sustainability

Employee's Pre-Pandemic Perspectives on Commuting

To understand employee mindsets on returning to the hybrid office now and in the near future, we must look at the most significant barrier: the commute. Surveys show that commuting is the number one reason employees do not want to return to the office full-time. Eighty-four per cent of respondents in a survey said that not commuting is the number 1 benefit of working from home;¹ cost savings (largely from not commuting) was number 2, beating out even safety from COVID-19, time away from family and childcare and parenting responsibilities (see Figure 1).

Employees Dislike Commuting

Employers and other workplace stakeholders such as commercial real estate professionals may traditionally think of the workday as only what happens within the office, but everyone, including them, commutes. Empathising with the employee's point of view as a commuter puts the proper emphasis on tolerable commuting conditions.

Not having to commute is the #1 benefit of remote work, and #2 is cost savings from not commuting

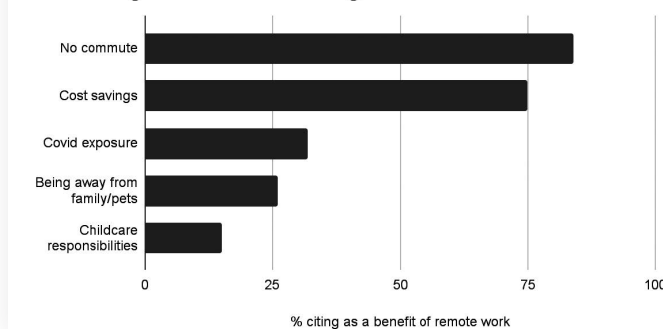


Figure 1 Benefits of remote working (%)

Employees rate the commute as the worst part of their day, according to research by Nobel Prize-winning behavioural economist Daniel Kahneman.² Commuting is made worse if they are driving alone and experience the tedium of driving interspersed with stressful traffic conditions. Miserable commutes do not just lead to rough mornings, they lead to depression, weight gain, costly expenses and decreased productivity. Before the pandemic, the average American commuter lost nearly ten days of productivity every year commuting by car, according to statistics reported by the US Census Bureau; however, it is estimated that American commuters saved

a collective US\$750m per day because of remote work during the pandemic.³

Employees view commuting as part of their workday, because work is the reason they are making the trip.⁴ Commuting is the first and last part of an employee's workday, making it more significant and memorable due to cognitive biases like primacy and recency that emphasise a person's first and last experiences.⁵

Nearly a quarter of employees have left jobs because of their commutes, according to a 2018 survey.⁶ In 2020, four times more employees cited commute as a reason for quitting than in 2010.⁷ Employee turnover is a costly problem, as slack needs to be made up by other employees, which creates more strain in already strenuous situations. Considering factors like recruiting expenses, loss of expertise and time loss due to retraining, the average cost of replacing a single employee is 30 per cent of that employee's salary.⁸ So, if employers put too much pressure on their employees to return to the office regularly, against their employees' wishes, they need to prepare for an increase in employee churn and related expenses. According to a survey from April 2021, one in three professionals currently working from home (and one in two Gen Z professionals) would look for a new job if required to be in the office full-time.⁹

The Modern Commute is Historically Exceptional

For most of the history of cities, commutes rarely exceeded 30 minutes.¹⁰ But over the late 20th century, US commutes began to get longer, eventually growing 10 per cent per decade,¹¹ and 'megacommutes' over 90 minutes entered the picture.¹² This trend was initially driven by the migration of white Americans to the suburbs, followed by the growth of suburban job centres, and was amplified by the concentration of knowledge work in larger 'talent magnet' cities such as New York, Atlanta, Boston, Chicago, Los Angeles, San Francisco, Seattle, Toronto and Washington DC.

These development patterns greatly increased 'spatial mismatch', ie the mismatch between where people live and where jobs are. Spatial mismatch can be found between downtown office districts and their workers, but also between suburban job centres and their workers

(every workday, the equivalent of a small city of 50,000 people travels counter-clockwise around the Washington, DC beltway to Tysons Corner, returning every evening). Spatial mismatch most acutely affects lower-income workers, because they are often unable to afford to live near job centres and may lack fast and reliable transport.

In response to spatial mismatch and car-centric expectations, employers began providing free or subsidised parking, at a taxable cost of thousands of dollars to employers (current average cost for a parking space in Washington, DC is US\$3,000 per year, or US\$15 per workday).¹³ But employers are not the only ones paying, as there are also numerous costs associated with driving daily, such as car payments, depreciation, insurance, fuel and maintenance. All these costs are often underestimated by employees – especially depreciation, which often amounts to thousands of dollars per year.

Cities Began to Regulate Employers, With Some Notable Success

Cities began to act to combat increasing traffic times and poor commuting conditions. This is where transportation demand management (TDM) comes into play. TDM is a set of strategies that reduce demand for (car) transport, typically implemented by employers or developers. The result is lasting behavioural change in an individual's commuting habits, more sustainable commutes and lower drive-alone commute rates.

In 1991, the state of Washington put the Commute Trip Reduction (CTR) law in place. The goal of the programme was, and still is, to reduce the number of drive-alone commuters and improve air quality and emissions. The CTR law in Washington state applies to any employer with 100 or more employees who report to work on a traditional office schedule at a single site. To comply with the law, several requirements must be met.¹⁴ Starting in 2020, the city of Seattle put its commuter benefits ordinance in place. This programme requires businesses with 20 or more employees to offer the opportunity to make a monthly pre-tax payroll deduction for transit or vanpool expenses. The results of these programmes, coupled with city investment in public transport and biking (but not new roadways or parking) and buy-in from major employers, are impressive. Between 2010 and 2017, 60,000 jobs were added to the downtown area of Seattle,

while drive-alone commuters decreased from one in three workers to only one in four.¹⁵

New Transport Modes Enter the Picture

In regions where public transport was lacking (for example, much of Silicon Valley, where low-density office park developments are the norm), companies began to offer private shuttle transport. In 2004, Google implemented its company shuttle programme. These luxurious shuttles are outfitted with snacks, Wi-Fi and electrical outlets, allowing employees to begin their workday during their commute. Before long, more notable names, including Tesla, Facebook, Apple and many more, created private shuttle systems for their employees. A 2020 estimate counted over 1,000 private shuttles, effectively a private transport system with a US\$250m/year budget.¹⁶ The net effect of these shuttles was to remove commuter car trips from the road while increasing the productivity of employees. They thus proved quite popular.

Beginning around 2009, 'new mobility' transport choices emerged. In most US cities, taxis were not a viable commuting choice. The development of ride hailing like Uber and Lyft offered predictable service and, while expensive, it could be reliable enough to be used as a commute option.

Bike-sharing programmes, and then scooter-sharing networks, continued the proliferation of choices for urban commuters. In theory, these mobility modes can also provide a 'first-mile' and 'last-mile' connection between a transit service and home or work, but the potential here has not yet been realised — there simply are not enough vehicles available at peak commute times when everyone is going the same direction.

Understanding Employees' Perspectives on the Hybrid Office: Office Employee Archetypes

The hybrid office is, for now, the 'new normal'. A LaSalle Network survey found that 77 per cent of organisations plan to adopt a hybrid work model¹⁷ and a McKinsey survey of 100 executives across industries and geographies found nine out of ten organisations will be

combining remote and on-site working.¹⁸

We have developed a system of four ‘office employee archetypes’ to help employers understand how employee roles relate to their in-office requirements — and equally important, how employees with those roles experience employers’ demands to return to commuting, and the effect of transport amenities on tools on their willingness to return.

Essential Team Member

Most of the corporate world began working from home overnight in March 2020. Offices shut down, houses turned into offices and kitchen tables turned into desks. But that was not true for everyone. Essential workers, including nurses, doctors, restaurant staff, warehouse and logistics workers, delivery personnel and facilities and operations staff, were needed in person and never stopped commuting.

With traffic at record lows and plenty of space available on public transport (although service levels decreased in some cities), many of these workers experienced the smoothest commute of their lives — which slightly diminished the stress of being essential workers during a pandemic. Once more of the workforce begins returning, their commutes are going to change for the worse. Another challenge is that growing sites, such as distribution centres, are often distant from their workers (high spatial mismatch), resulting in high turnover. Long-term commute solutions, such as carpools, vanpools and even new transit routes,

can reduce the potential for turnover.

Highly Collaborative Team Member

Highly collaborative team workers’ roles typically require interaction with other team members. Some examples include sales and creative roles and management.

As recently as five years ago, these roles were extremely challenging to perform remotely, but the development of real-time collaboration applications such as Google Docs, Slack and Microsoft Teams, coupled with the growth of videoconferencing, has made it possible. Still, many of these workers found during the pandemic that remote tools created significant barriers to continuous learning and informal collaboration. They will likely be willing to commute again, even if their experience changes, if the office environment can provide them with the stimulation and learning they seek.

Occasional Collaborator

Much of occasional collaborators’ work is individual, and they may have experienced higher productivity during remote work due to lack of interruption (eg from open office environments) and the saving of commute time. They are likely to wish to preserve some of this productivity through hybrid or remote work.

While they may be willing to return to the office a few days a week, they will need something in return, whether interactions with people they wish to collaborate with, support or encouragement. Amenities can help tip the



Figure 2 A system of ‘office employee archetypes’ can help understand how employee roles relate to in-office requirements such as physical presence and in-person collaboration.

scale for these individuals and learning what they want and need and making accommodations will help ease the process of coming back. Whether it is a commuting stipend so they can easily adopt a new commuting option, or fully subsidising their transit passes, more effort needs to be made with this group to get them to return to the office.

Solo Contributor, or Specialty Hire

These employees work most often in a solitary manner or fill a role that gives them substantial bargaining power. Examples include high-value relationship sales and highly technical roles like software engineers. These employees may have ‘set their own hours’ before the pandemic, and the pandemic increased their level of autonomy.

Amenities may be the primary driver for their return to office. These employees are also making daily ‘commutes’ around their home to obtain some of the services that are provided in the office. Helping them achieve the same level of productivity and focus, or greater due to the higher level of psychological separation in the workplace, is essential.

Employee Expectations Have Changed

With these new segments of workers that had not always existed before the pandemic, expectations have changed. A full-time in-office work schedule was the norm prior to the pandemic; even in tight talent markets like Silicon Valley, if you did not commute to the office, you did not have a job. Before the pandemic, remote work and hybrid office schedules were perks that progressive companies offered to attract talent. Now these benefits are standard practice, and almost expected by employees. Before COVID-19 hit, approximately only 6 per cent of employees worked remotely on a full-time basis.¹⁹ As companies return to the office, however, the current expectation is that employees will continue to work from home several days per week or even full-time.

From the employee’s perspective, the overnight shift to a work-from-home model was a success in providing many office jobs that can (largely) be done from home. Because employees made such an abrupt modification to their life — providing office space and amenities previously provided by the employer — many want the freedom to keep the once-temporary situation more permanent. The expectation has shifted, and in the current tight job

market, employers must match the market when it comes to work preferences. Between June 2019 and June 2021, searches for remote work positions rose by a whopping 460 per cent.²⁰ Confidence in the job market also rose, as 4m people quit their job in June 2021, citing confidence in finding a new job with better pay and more flexible work schedules.²¹

Post Pandemic Trends

Return-to-Office Plans Must Include Commute Management

While companies are building return-to-office strategies, employers need to set clear expectations, while practising high levels of empathy. Companies are asking a lot of their workforce for the return to the office. They will be forced to forfeit the flexibility they have become accustomed to while working from home. They may be deprived of the privacy their homes have afforded them. Schedules will need to shift again to allow for new morning and evening routines, including changes to childcare drop-off and pickup. Most of all, employees will once again be asked to spend significant time and money just commuting from home to work and back again.

Although employees may commute less frequently in a hybrid model, there still need to be investments in commute management. Traffic congestion is likely to remain high, and the push for alternative modes of commuting is just as important now as it was before the pandemic. Return-to-office plans need to be thoroughly fleshed out and backed up with excellent communication. If processes are rushed and disconnected, employees may leave for better opportunities.²²

New Models for Corporate Real Estate May Change Commutes

One emerging trend is smaller office spaces, with more companies considering new models like hub-and-spoke for their real estate portfolios.²³ The hub-and-spoke model is when companies have one central office (the hub) and smaller office locations to accommodate employees who cannot easily access the main location (the spokes). Some of these spoke locations could be shared (like coworking) between multiple companies to provide shared amenities

at a reduced cost. This model could add complexity to employee commutes, as they may travel to multiple sites regularly.

Public Transport: Potentially a Slow Recovery

Unfortunately, commuting is expected to become more difficult as offices begin to reach higher capacities. Even though there is no evidence of subways and buses being a catalyst for the spread of coronavirus, commuters — especially in the US — are still wary when it comes to public transport due to perceived safety concerns. The American Public Transportation Association (APTA) released a study in September 2020 citing no direct correlation between the use of public transport and COVID-19 outbreaks.²⁴ Although several studies from around the world have presented similar findings, transit ridership is still down significantly compared to pre-pandemic times. In the first quarter of 2021, total US transit ridership was down nearly 60 per cent,²⁵ and even after the widespread availability of vaccines, recovery continues to be gradual.

Transport agencies around the country are reconfiguring their services to increase demand. DC Metro is creating pricing incentives, while systems such as Chicago's Metra rail are offering more frequent service outside peak commute hours. Meanwhile, bike sharing and scooters continue to boom, but only constitute a small fraction of commute trips.²⁶

For now, transport funding remains robust, and agencies are even investing in service. If ridership does not recover; however, service cuts may result, potentially burdening office owners and large occupiers with the need to subsidise routes or provide their own alter-native, such as private shuttles.

Traffic and Parking Will Get Worse

While transit ridership remains low, traffic is already reaching pre-pandemic levels in much of the country. New York City took the lead from Los Angeles for having the worst traffic conditions in the country, ending a 30-year run.²⁷ The greater New York area is not the only place seeing rising traffic times. Commuters in the greater Washington DC area are getting reacquainted with traffic, with weekday traffic times only down 3–8 per cent from pre-pandemic,²⁸ like most metropolises in the US. These

numbers are even more concerning because of the still low occupancy rates in offices located in these same cities. The average occupancy rate of office buildings across the country is only 37 per cent as of the end of October 2021, according to data from access control provider Kastle Systems, and the only cities with higher occupancy near 50 per cent are in Texas: Houston, Dallas and Austin.^{29,28}

Traffic congestion is expected to peak around midweek in-office days. Traffic and rush hour patterns will not disappear, just shift. Instead of morning and evening rush hour five days a week, one likely scenario is late morning and early afternoon rush hour, Tuesday through Thursday.³⁰

Subsidised employee parking continues to contribute to congestion. If parking was a subsidised or free benefit before the pandemic, it will also be expected when employees return. As more commuters decide to drive, more parking spots will be needed, leading to higher expenses for employers.

In offices where employees pay for parking, some employees will expect to only have to pay for parking for the days they are in the office (such as Tuesday–Thursday) rather than paying for Monday–Friday monthly parking. Office owners and private garages may be reluctant to accommodate more flexible parking, as they will be unable to sell those spaces on Monday and Friday. In the long run, office owners lack alternative uses for their parking garages and occupiers may find ways to negotiate parking flexibility into their leases, which will unlock more flexible and efficient employee commutes.

Rising Expectations in Corporate Sustainability Will Include Commute

Surprisingly, commuting in cars to an office building uses more energy than operating a building; a workforce of drive-alone commuters uses 11 per cent more energy than a new, code-compliant building and 16 per cent more than an older, existing building.³¹

Given that employers are the ones requiring employees to commute, they are likely to be viewed as the responsible party for carbon emissions. Soon, employers will need to monitor and reduce Scope 3 emissions from commuting and business travel. (Scope 3 emissions are the result

of activities from assets not owned or controlled by the reporting organisation which the organisation indirectly impacts in its value chain.³²) Transport demand management strategies provide a cost-effective path to reduce commute emissions.

One might expect remote work would naturally reduce emissions, but surprisingly, remote work may increase driving. It turns out remote employees are ‘commuting’ elsewhere — running personal errands or driving to lunch. When employees are in urban offices, destinations and amenities are closer and rarely require car trips. When employees run these same errands in suburban neighbourhoods, they may feel the need to drive instead.³³

Employees Need to Re-Onboard, Which Provides an Opportunity for Positive Change

For non-essential workers, commutes for the past year and a half have been the distance from bedroom to kitchen, home office or makeshift workspace. Many employees will be commuting novices when they return to the office and will no longer know what is best for them and their trip into the office. Meanwhile the transport landscape remains dynamic, and employees will not be fully aware of shifting traffic patterns or altered transport schedules.

Employers must re-onboard employees to their commuting programmes, provide accurate communication and internal marketing collateral and even handholding during the re-adoption of their commutes. This re-onboarding process also creates an opportunity for employers to make the commute less of a burden and influence commuting behaviours. Employers have had a year and a half to audit their commuting programme and make necessary improvements for this exact moment. Now, they need to present and effectively communicate new programmes and benefits.

Employees now have an opportunity for a fresh start to commuting. The ‘fresh start effect’ in behavioural science tells us people are more likely to change their behaviour (like how they commute) just after a temporal landmark that feels like a fresh start (change of home, office or a return to the office after a pandemic). This fresh start can help employees adopt more sustainable commutes and lifestyles.³⁴

Employees Suffer from an ‘Information Gap’ About Transport

Especially with so many changes afoot, employees cannot be assumed to be fully informed about commute options, any more than they can be assumed to be experts on retirement savings vehicles, health plans and flexible spending accounts (FSAs)/health savings accounts (HSAs). In fact, several very recent studies showed that 10 per cent of employees changed their commutes after receiving personalised commute plans, suggesting that a lack of information had led them to make suboptimal commute choices.³⁵

In theory new employee onboarding is a time when information can be shared about commute options and benefits, although given competing priorities it is rare to see as much as five minutes of coverage. Meanwhile, tenured employees are left out completely. To avoid this gap, there needs to be constant communication with employees, informing them of new subsidies, benefits or commuting mode options. It may be helpful to segment employees by previous commute preferences, office employee archetypes or job roles. Commuter benefits are one of the few pre-tax benefits that can be elected at any time — not just during open enrolment for health insurance. So, there is considerable benefit to re-onboarding employees every 3, 6 or 12 months — at the very least, during open enrolment for health insurance.

For efficiency and equity, it is important to make sure every employee is aware of the current commuting landscape. As transport technology evolves, a generational divide has emerged, and younger employees accustomed to apps and technology are more likely to adopt innovations such as scooters, bikeshares and transport information apps into their daily commutes. Older employees, especially those who have been commuting the same way for most of their career, can benefit the most from employer-provided transport information.

Passive information resources such as company intranets will not necessarily reach employees and will rapidly become out of date. Automated software such as tenant experience (TeX) apps and advanced commute education software is better able to provide targeted information to employees.

Transportation Information Supports Commuters in the Hybrid Office

Commute Planning and Education Software Closes the Information Gap

When employers leave commute planning up to employees, they often fail to plan altogether and just take the default option of driving.

If they do plan, they typically rely on consumer tools such as Google Maps, which fail in several critical ways. First, they are entirely unaware of employer-provided transport such as shuttles and major modes like park and ride, where suburban employees drive to a station and transfer to a train, bus or subway. Second, they do not inform about employer commuter pre-tax benefits and subsidies, which reduce the cost of transit commutes by 30–100 per cent. Third, they fail to disclose the true time and money costs of driving and parking — ignoring vehicle depreciation and petrol costs, and the time required for parking. Fourth, employees may make the common mistake of using these tools at low traffic times: at 10.00 pm, a car commute will appear much better than in peak traffic the next morning.

Advanced commute education software such as Actionfigure Insights can be used to close the information gap. Actionfigure Insights provides employees with personalised door-to-door commute plans considering all relevant information including office amenities, employer benefits and subsidies and available transit fares and passes (see Figure 3). Employees can express their preferences including time, cost, CO₂, wellness and degree of social interaction, ‘shop for commutes’ using best-fit recommendations powered by artificial intelligence (AI) and ‘purchase a commute’ by enrolling in transit benefits or gaining access to parking or bike facilities.

Employees in hybrid workplaces benefit from short commutes that give them the flexibility to go into their office as collaboration requirements dictate. The commute time calculators found on residential real estate site Redfin, and on some apartment listing sites, allow employees to search for homes with shorter commute times, although their transport data is less complete and limited to major public transport.

Real-Time Transport Information is Crucial to the Beginning-of-Trip Experience

Commutes change from day to day, especially in a hybrid environment. The beginning-of-trip is when employees are preparing for the morning trip to the office and real-time transport information is crucial to helping them have the smoothest trip and enter the office ready for work at the expected time.

Employees who drive need to know about traffic delays and options, and employees who do not drive need to know when the next train or bus will arrive, how close the nearest scooter is, or how many bikes are still at the closest bike share dock. Some transport agencies have started providing crowding information for public transport vehicles to give passengers the ability to avoid crowded vehicles. Likewise, real-time departure information can help employees avoid waiting in crowded subway or train stations. Both can help make employees more comfortable getting back on public transport.

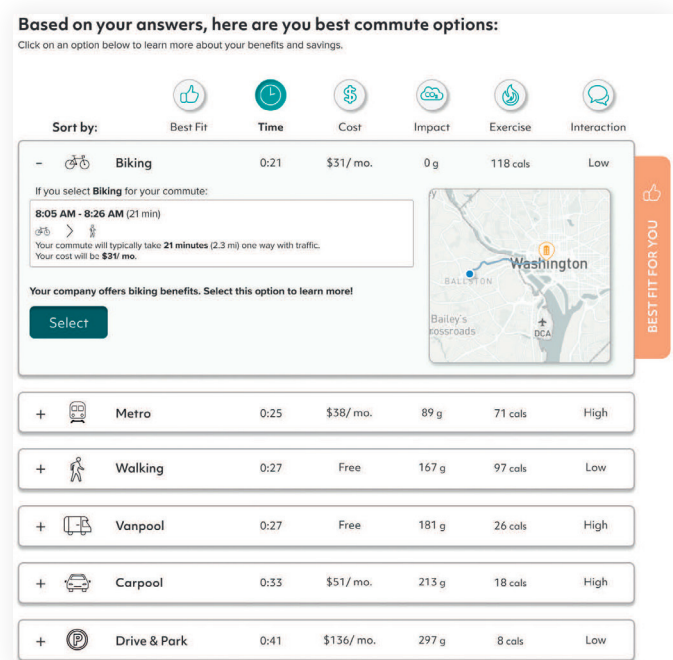


Figure 2 Shopping for commutes using Actionfigure Insights

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Actionfigure Mobile offers real-time transport information on-the-go (including crowding information) for subways, trains, buses, employee shuttles, company-managed parking, public parking, scooters, e-bikes and more. It is available both as a standalone app and integrated into tenant experience and workplace experience apps.

Outages in transport services can be highly disruptive to employee commutes and result in considerable lost productivity. Increasingly volatile weather from climate change is likely to disrupt commutes — both directly through extreme weather events and poor air quality from wildfires, and through damage to infrastructure such as highways and transport systems. Employers will increasingly be asked to manage communications about transport disruptions, providing information to affected employees before they begin their trips, through transport apps like Actionfigure or emergency management apps like Everbridge.

Facilities Improvements Enhance the End-of-Trip-Experience

In addition to the beginning-of-trip experience, employers and property managers need to address the end-of-trip experience for non-drivers. Employees are often unaware of these amenities and how to utilise them, so it is important to provide this information via transport apps or workplace experience apps.

Being sweaty and uncomfortable at work after biking or

walking is a major roadblock for commuters; employees are five times more likely to bike to the office if they have access to showers and changing rooms.³⁶

For employees who use personal bikes or scooters in urban environments, having a vehicle stolen is highly disruptive to their commute, so secure parking is essential and helps with peace of mind. One of the easiest measures a building can implement is secure mobility parking for employee bikes, e-bikes and scooters. This can be a dedicated room with its own exterior access, or it can be a room or cage in the garage. In some buildings that lack parking, employers can convert extra office space to dedicated employee mobility parking. Given the changes in work schedules, there is bound to be extra space in the office. The use of passenger elevators for transporting personal vehicles can be contentious, but sometimes freight elevators are an option.

Working with landlords to implement new infrastructure now, while buildings remain partially occupied, is a great place to start. As much as end-of-trip infrastructure helps individual employers and tenants, these measures are also great selling points for bringing in new tenants or retaining existing ones.

Parking Cash-Out Incentivises Sustainable Commutes

Parking cash-out programmes are another way for employers to encourage their employees to commute by means other than driving. Parking cash-out is simply paying employees for every day they do not use a parking spot. Paying employees a portion of the monthly cost of a spot can save employees money and avoids incentivising them to drive alone to work because they 'already paid for parking'. Starting in 2023, Washington, DC will begin requiring employers with 20 or more employees to implement parking cash-out programmes. If employers do not meet the requirements, they will have to implement alternative TDM programmes, or pay fines.³⁷

E-Bikes and Bikes are Rapidly Becoming a Good Commute Choice

E-bikes are emerging as a game-changing option that can replace cars for moderate distance urban trips such

as 2–10-mile commutes. E-bikes are significantly faster than their traditional counterparts, maintaining speeds of 20 mph and sometimes higher. They also significantly reduce the exertion required for pedalling, which allows employees to avoid the need to shower or freshen up afterwards, while still allowing for moderate exercise. The e-bike industry has seen astronomical growth since the beginning of the pandemic of almost 2.5 times year over year,³⁸ and employers such as Amazon are now offering large incentives to employees who lease or purchase an e-bike.³⁹

E-bikes have similar perceived safety challenges as other bikes, however, so providing informational resources is still important. Employer and property-run bike programmes are popular benefits in Europe and making their way to the US. Bikes Make Life Better is a San Francisco-based company that works with many large tech employers to implement bike programmes for their employees. Their goal is to take the burden off the company, as well as the individual commuter. Many potential bike commuters have concerns about safe routes to work, and user-friendly information and education about safe bike routes and amenities (such as local bike shops) can address their concerns.

Partnering with Office Owners and Local Organisations Adds Capacity

Providing tools to make the commuting experience better must be a joint effort between owner, property manager and occupier. Most of the installation responsibilities will fall on the property owner or management team, but employers will need to encourage their employees to take advantage of the tools and amenities made available. Creative synergies exist — for example, many bikeshare operators will allow owners to subsidise a new station at a property, while employers can purchase bikeshare memberships for employees. Thus, the owners make capital improvements, while occupiers create demand that increases the value of the improvements. Private bikeshare and scooter fleets are also offered by some vendors.

One key to safe and sustainable return-to-office strategies is embracing the role of transportation demand management organisations. These organisations, including transportation management associations (TMAs) and sometimes business improvement districts (BIDs), can

provide community-benefiting transport services that municipal governments do not yet provide, or lobby the government to provide them. For example, the Greater Valley Forge TMA in suburban Philadelphia advocates for transport improvements on behalf of multiple employers — both long-term, such as a new commuter rail route, and short-term, such as improved lighting and maintenance of bicycle routes and transport shelters.

Commuting Has Positive Benefits for Wellness and Work/Life Balance

Commuting is an important way to keep work and home life separate when the lack of a barrier between home and work contributes to burnout. Social interaction at work is a positive experience for many, especially younger workers who may depend on work to provide a social network, and this can extend to commutes. And many employees missed the benefits of cities during the pandemic, such as local restaurants and neighbourhoods; commutes facilitate these urban experiences.

Commuters who bike, ride high-quality transport like an express bus or employer-provided long-distance shuttle, or walk often experience a healthy and positive commute.⁴⁰ Commutes that forego walking or biking have been shown to contribute to an increased likelihood of developing cardiovascular disease or cancer.⁴¹

A 2001 study found that most people prefer a commute that is around 15 minutes.⁴² In a very creative survey, people who biked or walked to work were asked if they would want to instantly teleport to the office if given the opportunity. Astonishingly, one in three said they would prefer to bike or walk.⁴³ Contrary to popular belief, many employees are ready to begin commuting again, especially if employers treat them as a partner in this journey and ensure they are fully informed through transport information and communications.

REFERENCES

(1) Melin, A. and Egkolfopoulou, M. (June 2021), 'Employees Are Quitting Instead of Giving Up Working From Home', Bloomberg, available at <https://www.bloomberg.com/news/articles/2021-06-01/return-to-office-employees-are-quitting-instead-of-giving-up-work>

from-home (accessed 3rd November, 2021).

(2) Kahneman, D. and Krueger, A. (Winter 2006), 'Developments in the Measurement of Subjective Well-Being', *Journal of Economic Perspectives*, Vol. 20, No. 1, pp. 3–24.

(3) Ozimek, A. (August 2020), 'Where Remote Work Saves Commuters Most', *Upwork*, available at <https://www.upwork.com/press/releases/where-remote-work-saves-commuters-most> (accessed 3rd November, 2021).

(4) Useem, J. (July/August 2021), 'The Psychological Benefits of Commuting to Work', *The Atlantic*, available at <https://www.theatlantic.com/magazine/archive/2021/07/admit-it-you-miss-your-commute/619007/> (accessed 3rd November, 2021).

(5) Plous, S. (1993), *The Psychology of Judgement and Decision Making*, McGraw-Hill, New York.

(6) Robert Half (September 2018), 'Nearly One-Quarter of Workers Have Left a Job Due to a Bad Commute, According to Robert Half Survey', *PR Newswire*, available at <https://www.prnewswire.com/news-releases/nearly-one-quarter-of-workers-have-left-a-job-due-to-a-bad-commute-according-to-robert-half-survey-300716675.html> (accessed 3rd November, 2021).

(7) Work Institute (2020), '2020 Retention Report: Trends, Reasons, Costs & Recommendations', available at <https://info.workinstitute.com/hubfs/2020%20Retention%20Report/Work%20Institutes%202020%20Retention%20Report.pdf> (accessed 3rd November, 2021).

(8) *Ibid.*, ref. 7.

(9) Robert Half (April 2021), '1 In 3 Remote Workers May Quit If Required To Return To The Office Full Time, Robert Half Survey Finds', available at <https://rh-us.mediaroom.com/2021-04-06-1-in-3-remote-workers-may-quit-if-required-to-return-to-the-office-full-time-robert-half-survey-finds> (accessed 3rd November, 2021).

(10) English, J. (August 2019), 'The Commuting Principle That Shaped Urban History', *Bloomberg*, available at <https://www.bloomberg.com/news/features/2019-08-29/the-commuting-principle-that-shaped-urban-history> (accessed 3rd November, 2021).

(11) Census Bureau (March 2021), 'Census Bureau Estimates Show Average One-Way Travel Time to Work Rises to All-Time High', Release No. CB21-TPS.29, available at <https://www.census.gov/newsroom/press-releases/2021/one-way-travel-time-to-work-rises.html> (accessed 3rd November, 2021).

(12) Rapino, M. and Fields, A. (2021), 'Mega Commuting in the U.S.', Poster session presented at Association for Public Policy Analysis and Management (APPAM) Fall Conference, 8th–10th November, Baltimore, MD, available at <https://www.census.gov/content/dam/Census/library/working-papers/2013/demo/SEHSD-WP2013-03.pdf> (accessed 3rd November, 2021).

(13) SpotHero, 'Washington D.C. Monthly Parking', available at <https://spothero.com/city/monthly/washington-dc-parking> (accessed 3rd November, 2021).

(14) Seattle Department of Transportation, 'Commuter Trip Reduction Program', available at <https://www.seattle.gov/transportation/projects-and-programs/programs/transportation-options-program/commute-trip-reduction-program> (accessed 3rd November, 2021).

(15) Griffin, J. (July 2019), 'Employer TDM Requirements in Seattle', *TransitScreen* blog, available at <https://actionfigure.ai/blog/employer-transportation-demand-management-regulations-seattle-employee-transportation-coordinator-guidelines/> (accessed 3rd November, 2021).

(16) Stone, Z. (February 2020), 'Inside a Secretive \$250 Million Private Transit System Just for Techies', *Medium*, available at <https://onezero.medium.com/only-the-elite-have-nice-commutes-in-silicon-valley-8b2761863925> (accessed 3rd November, 2021).

(17) LaSalle Network (2021), 'Office Re-entry Index', available at <https://www.thelasallenetwork.com/wp-content/uploads/2021/03/LaSalle-Network-Office-Re-Entry-Index.pdf> (accessed 3rd November, 2021).

(18) Alexander, A., Cracknell, R., De Smet, A., Langstaff, M., Mysore, M. and Ravid, D. (May 2021), 'What Executives Are Saying About the Future of Hybrid Work', *McKinsey*, available at <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/what-executives-are-saying-about-the-future-of-hybrid-work#> (accessed 3rd November, 2021).

(19) Coate, P. (January 2021), 'Remote Work Before, During, and After the Pandemic', *National Council on Compensation Insurance*, available at https://www.ncci.com/SecureDocuments/QEB/QEB_Q4_2020_RemoteWork.html (accessed 3rd November, 2021).

(20) Iacurci, G. (August 2021), 'Pandemic Pushes search for Remote Jobs Up 460%', *CNBC*, available at <https://www.cNBC.com/2021/08/26/covid-pandemic-pushes-hunt-for-remote-jobs-up-460percent.html> (accessed 3rd November, 2021).

(21) Lui, J. (August 2021), 'Another 3.9 Million People Quit Their Jobs in June – and Many Are Getting Higher-Paying Roles', *CNBC*, available at <https://www.cNBC.com/2021/08/10/another-3point9-million-people-quit-their-jobs-in-june.html> (accessed 3rd November, 2021).

(22) *Ibid.*, ref. 1.

(23) CBRE (2021), 'How the Hub & Spoke Model Could Evolve into the Office of the Future', available at <https://www.cbre.us/canada/about/advantage-insights/articles/how-the-hub-and-spoke-model-could-evolve-into-the-office-of-the-future> (accessed 3rd November, 2021).

(24) Kendrick, S. (October 2020), 'Public Transit a Safe Way to Travel During the COVID-19 Pandemic', *American Public Transportation Association*, available at <https://www.apta.com/research-technical>

resources/research-reports/public-transit-and-covid-19-pandemic-global-research-and-best-practices/ (accessed 3rd November, 2021).

(25) American Public Transportation Association (June 2021), 'Public Transportation Ridership Report', available at <https://www.apta.com/wp-content/uploads/2021-Q1-Ridership-APTA.pdf> (accessed 3rd November, 2021).

(26) Hu, W. and Marcius, C. R. (October 2021), 'As E-Scooters and E-Bikes Proliferate, Safety Challenges Grow', *New York Times*, available at https://www.nytimes.com/2021/10/11/nyregion/electric-scooters-bikes-new-york.html?campaign_id=9&emc=edit_nn_20211011&instance_id=42546&nl=the-morning®i_id=125378454&segment_id=71318&te=1&user_id=10e7d503fb605bc5c26e4493fb48fef1 (accessed 3rd November, 2021).

(27) Carlin, D. (June 2021), 'New York City Overtakes Los Angeles To Top List Of Worst Traffic In The Country, Survey Says', *CBS*, available at <https://newyork.cbslocal.com/2021/06/30/new-york-city-worst-traffic-in-the-country/> (accessed 3rd November, 2021).

(28) Roussey, T. (July 2021), "'It's going to be worse": Pre-Pandemic Traffic in DC area is Making a Return', *ABC*, available at <https://wjla.com/news/local/pre-pandemic-traffic-in-dc-area-is-making-a-return> (accessed 3rd November, 2021).

(29) Kastle Systems (October 2021), 'Getting America Back to Work', available at <https://www.kastle.com/safety-wellness/getting-america-back-to-work/> (accessed 3rd November, 2021).

(30) Zipper, D. (April 2021), 'What if Working at Home Makes Us Drive More, Not Less?', *Slate*, available at <https://slate.com/business/2021/04/post-pandemic-commutes-cars-driving-more.html> (accessed 3rd November, 2021).

(31) Wilson, A. and Melton, P. (November 2018), 'Driving to Green Buildings: The Transportation Energy Intensity of Buildings', *BuildingGreen*, available at <https://www.buildinggreen.com/feature/driving-green-buildings-transportation-energy-intensity-buildings> (accessed 3rd November, 2021).

(32) EPA (2021), 'Scope 3 Inventory Guidance', available at <https://www.epa.gov/climateleadership/scope-3-inventory-guidance> (accessed 3rd November, 2021).

(33) *Ibid.*, ref. 30.

(34) Price, L., Coulter, R., Strizhakova, Y. and Schultz, A. (June 2018), 'The Fresh Start Mindset: Transforming Consumers' Lives', *Journal of Consumer Research*, Vol. 4, No. 1, pp. 21–48, available at <https://doi.org/10.1093/jcr/ucx115> (accessed 3rd November, 2021).

(35) Whillans, A., Sherlock, J., Roberts, J., O'Flaherty, S., Gavin, L., Dykstra, H. and Daly, M. (2020), 'Nudging the Commute: Using Behaviorally-Informed Interventions to Promote Sustainable Transportation', *Harvard Business School*, available at <https://www.hbs.edu>

hbs.edu/ris/Publication%20Files/21-002_d78ef6ca-b99a-4b13-93eb-be1027914a18.pdf (accessed 3rd November, 2021).

(36) Buehler, R. (October 2021), 'Determinants of Bicycle Commuting in the Washington, DC Region: The Role of Bicycle Parking, Cyclist Showers, and Free Car Parking at Work', *ScienceDirect*, available at <https://www.sciencedirect.com/science/article/abs/pii/S1361920912000594> (accessed 3rd November, 2021).

(37) Griffin, J. (April 2020), 'Washington D. C. Passes Parking Cash-Out Bill', *TransitScreen blog*, available at <https://actionfigure.ai/blog/washington-d-c-passes-parking-cash-out-bill-transitblog> (accessed 3rd November, 2021).

(38) Sheldon, S. (March 2021), 'Electric Bike Sales In The U.S. Grew 145% From 2019 to 2020', *Cycling Industry News*, available at <https://cyclingindustry.news/e-bike-sales-3-7m-17m-2030-industry-experts/> (accessed 3rd November, 2021).

(39) Schlosser, K. (July 2021), 'Amazon Offering New \$170 Monthly Benefit to Employees Who Commute to Work by Bike', *GeekWire*, available at <https://www.geekwire.com/2021/amazon-offering-new-170-monthly-benefit-employees-commute-work-bike/> (accessed 3rd November, 2021).

(40) Smith, O. (July 2016), 'Commute Well-Being Differences by Mode: Evidence from Portland, Oregon, USA', *Journal of Transport & Health*, available at https://ppms.trec.pdx.edu/media/project_files/Smith2016_CWB_differences_by_mode_Y0x9VIs.pdf (accessed 3rd November, 2021).

(41) Celis-Morales, C., Lyall, D., Welsh, P., Anderson, J., Steell, L., Guo, Y., Maldonado, R., Mackay, D. F., Pell, J. P., Sattar, N. and Gill, J. M. R. (March 2017), 'Association Between Active Commuting and Incident Cardiovascular Disease, Cancer, and Mortality: Prospective Cohort Study', *The BMJ*, available at <https://www.bmj.com/content/357/bmj.j1456> (accessed 3rd November, 2021).

(42) Jaffe, E. (August 2014), 'The Ideal Commute Is Not Actually No Commute', *Bloomberg CityLab*, available at <https://www.bloomberg.com/news/articles/2014-08-06/the-ideal-commute-is-not-actually-no-commute> (accessed 3rd November, 2021).

(43) Alpert, D. (February 2020), 'Would You Rather Teleport to Work? If You Walk or Bike, Maybe Not', *GreaterGreaterWashington*, available at <https://ggwash.org/view/76340/would-you-rather-teleport-to-work-if-you-walk-or-bike-maybe-not> (accessed 3rd November, 2021).