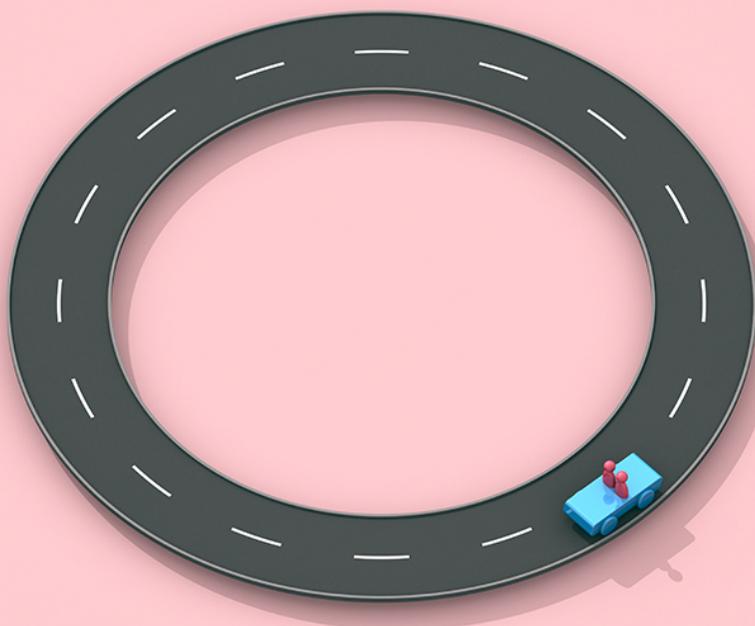


SUSTAINABILITY

Why It's So Hard to Change People's Commuting Behavior

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American employees spend, on average, 200 hours a year commuting to work, and 3/4 of these commuters drive to work alone. Commuting alone by car is not just bad for the environment (24% of global energy-related CO₂ emissions come from transportation), it's also bad for business. Car commuters report higher levels of stress and lower job satisfaction compared to train commuters — in large part because car commuting can involve driving in traffic and navigating tense road situations.

Some employers are trying to get involved and reduce car commuting. But how can organizations encourage their employees to commute differently?

To try to answer this question, we conducted a study with an airport outside a major European city. This airport employs more than 70,000 people, half of whom drove to work alone during our study in early 2015. The airport wanted to understand whether they could shift employees' commuting behavior from driving alone to more active modes like carpooling, taking public transit, biking, or walking. This would help the organization meet its sustainability and capacity goal of reducing congestion.

We gathered data from the airport's employee survey on commuting, and we interviewed dozens of employees about what would make them more likely to switch to more active and sustainable modes of commuting. Based on their responses and the most recent behavioral science evidence at the time, we designed a series of experiments to "nudge" employees to change how they commute.

We focused on behaviors employees told us that they wanted to engage in. For example, we knew that these employees *wanted* to carpool: They told us that they would carpool if they could find someone with a similar route and shift pattern.

So, one of our "nudges" was to play matchmaker. We sent letters to 15,000 employees encouraging them to sign up to their workplace's existing private carpooling system. This system helped match employees and provided benefits that made carpooling seem more appealing, such as priority parking and a free 24/7 emergency ride home service.

Despite employees' stated interest, however, fewer than 100 employees signed up for the carpooling service after receiving our letters. Only three employees were using it a month later. There was clearly a mismatch between what employees said they wanted and what they were able or willing to do.

We also wanted to evaluate common approaches organizations take to change commuting behavior, such as offering discounted passes for public transportation. We ran two additional experiments with a total of 7,500 employees. In one, we looked at whether providing one week of free bus tickets would increase the purchase of discounted transit passes. In another, we followed up with employees that had not used the free bus tickets and reminded them they were leaving money on the table. Neither of these strategies had an effect on the use of transit passes.

In another experiment with more than 1,000 employees, we evaluated the impact of personalized travel plans — customized pamphlets that told employees all of the different ways that they could commute to work to save both time and money. These pamphlets highlighted potential carpool partners, different bus and train routes and times, and provided information for discounted travel passes. Yet again, we found no effect on reducing single occupancy vehicle (SOV) use.

Overall, we found a whole set of interventions — many of which are used regularly in corporate settings — that *failed* to shift people's commuting behavior. Why didn't these approaches work? After all, employees told us they wanted to find better ways to commute.

We believe that these nudges weren't effective for three reasons:

First, employees didn't have to bear the full financial cost of car commuting, since the organization offered their employees free parking spaces (the true cost of which is thousands of dollars a year), and they were not paying for the environmental costs of driving. The nudges that we tried would likely have been more successful if employees had to bear the full costs of their commuting decisions.

Second, taking transit or carpooling can benefit society, but it is often less convenient for an individual commuter. People can be slow to take up more sustainable commutes because of the time it takes to plan public transit and carpool, at least in the beginning.

Third, these approaches required changing a habitual behavior, which is notoriously difficult to change. Nudging is particularly effective at shaping one-off behaviors, such as getting flu shots, but it hasn't yet been shown to be as reliably effective at changing decisions that require daily actions, like exercise.

Our infrastructure, financial incentives, and social norms strongly favor driving alone to work. Against this backdrop, our data suggest that light-touch nudges, which might seem easy for companies to implement, are not enough to make a difference. Instead, if companies want to shift habitual commuting behavior, we recommend trying the following options:

Make the full cost of driving salient for employees: Avoid subsidizing parking or other infrastructure that masks the full cost of driving to work alone. This does not just mean taking away free parking; it could also involve giving employees the monetary equivalent of parking as a bonus, and then allowing employees to choose to use the bonus to pay for a parking spot or to keep the cash and choose alternative modes of travel.

Make driving harder, and make other forms of commuting easier: By making driving and parking less convenient (e.g. cut the size of parking lots in half; provide remote parking lots for those who drive alone, compared with parking next to the front door for those who share rides), you can enhance the convenience, safety, comfort, and cost-savings of other modes like carpooling. More substantial cash and non-cash incentives could also be used to motivate riders to shift their commuting behavior from driving alone to taking public transit.

Change the default work arrangement: You can also change the norm by only letting employees park at work three out of five days per week, and/or allowing them to work from home or work from anywhere, so they commute to the office less often. It's also worth considering schemes that help employees relocate to places that make a non-driving commute more feasible (sometimes called location-efficient mortgage schemes or relocation assistance).

Think about timing: If organizations continue to deploy “nudge” techniques, they may be more successful if they leverage key moments of change. Because people are more likely to change their commuting behavior when they move or start a new job, or when there is a serious disruption that forces them to temporarily abandon their habits, these are the times when employers could try using behaviorally informed messaging and light-touch incentives. If an organization wanted to rely solely on “nudges,” perhaps it could try reaching out once new employees accept a job at the firm to encourage different commuting habits from the outset.

Of course, employees do not like organizations restricting choices, or taking away benefits like parking. But the long-term health and happiness of employees, and the planet, could fundamentally depend on it.

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Laura Meirelles 7 months ago

We have a successful case of changing staff commuting behaviour significantly.

We recently moved to a new office in North Sydney, which is located just 1.3km from our previous address. Despite the short distance of the move there has been a disproportionate change in staff travel mode.

Driving, which was in excess of 75% in our previous location, was reduced to less than 6% since the move to North Sydney. We estimate that this translates to 8.2 tonnes of carbon dioxide emissions saved on an annual basis.

The main driver for this change was the fact that there isn't free unrestricted parking in the vicinity of the new address. Corroborating the authors' arguments that making driving more expensive/harder is an effective way of influencing commuting behaviour.

We have written an article about our experience. Check out more details here:
<https://www.ptccconsultants.co/staff-travel-carbon-emissions/>

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