



▶ SEEING RED



We're hooked on cars, despite the gridlock. Only powerful incentives will change that, but major employers make it too easy to drive.

**Part 2 of 3**

November 20, 2019

This series was reported by Adam Vaccaro, Rebecca Ostriker, Nicole Dungca, Andrew Ryan, Saurabh Datar, and editor Patricia Wen. Today's story was written by Vaccaro and Ostriker.

“You can’t find the cure for cancer while sitting in traffic.”

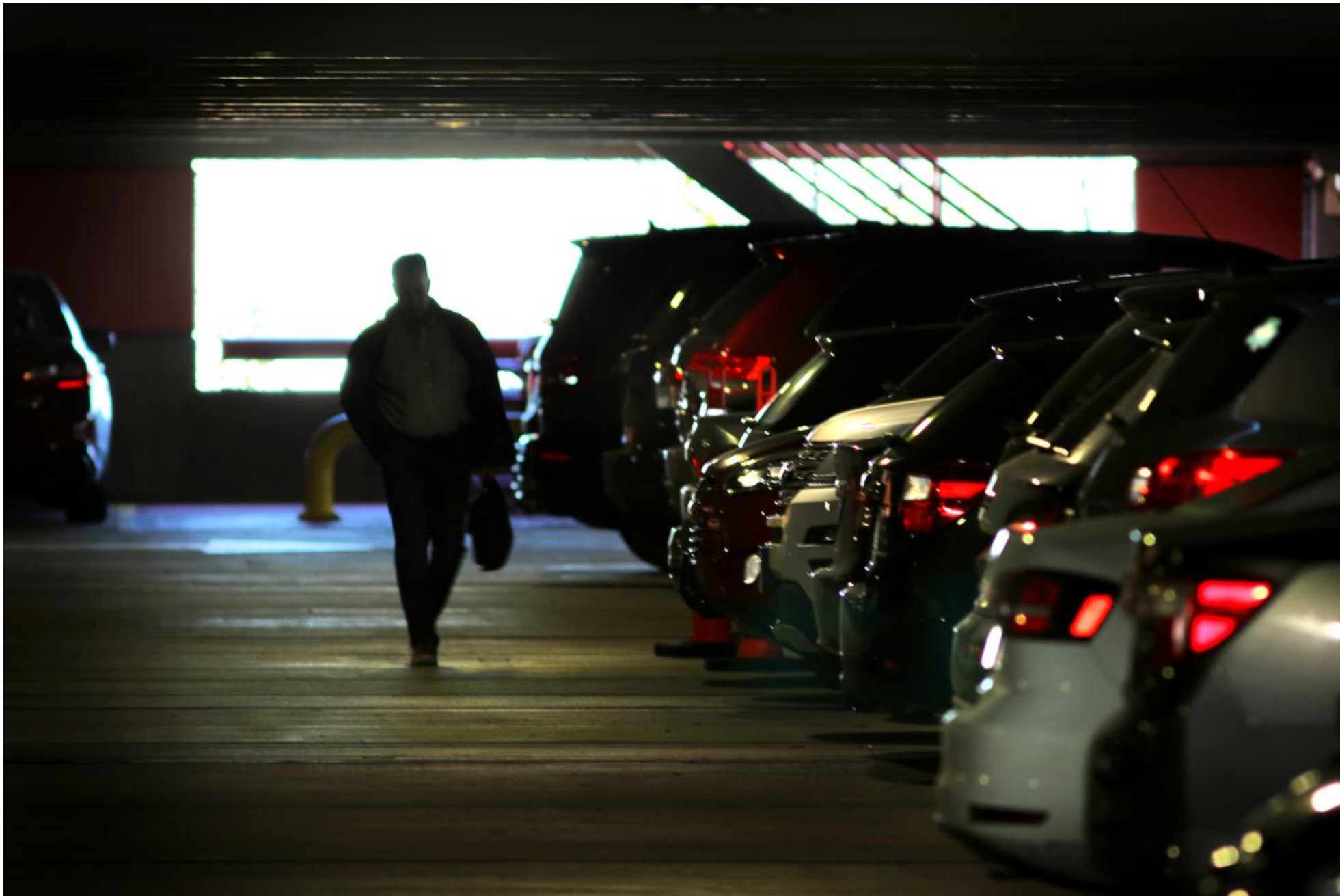
It’s become a persistent refrain for the booming biotech companies of Kendall Square. Yet, sit in traffic is what many of their employees do, fighting their way through some of the country’s worst rush-hour congestion to get on with the work of changing the way we live, and maybe saving lives.

They are miserable about it — miserable, fed up, and increasingly tempted to give up. A recent state [survey](#) from the Massachusetts Biotechnology Council found that 60 percent of biotech workers were so unhappy with their commutes that they would change jobs for a better one, with nearly a quarter considering moving out of state because of the problem.



How are Boston employers responding to this quiet crisis? With [urgent calls](#) for more public funding of mass transit, but actions that undercut their own words: corporate policies that effectively entice many of their workers to drive. Companies that form the core of the region’s “brain” economy are being none too smart when

it comes to this critical calculus — transit or cars? — and government here is doing little to move them to change, a Globe Spotlight Team review shows.



A driver leaves his car in a parking garage on Drydock Avenue in the Seaport District, which has some of the worst traffic in the city. (Lane Turner/Globe Staff)

Biotech giant Biogen, for example, offers both free parking and free or heavily subsidized MBTA passes to employees. It is a lovely perk for workers, outwardly even-handed. But given the choice between jostling in on trains or buses or driving in alone on overcrowded roads, guess which option is preferred nearly 2 to 1? The car.

This is by no means just a Biogen problem.

Join us live to discuss our reporting and possible solutions
to Boston's commuting crisis.

About this event

A Spotlight Team survey of 21 major employers in some of the most congested parts of Greater Boston found that the vast majority offer commuter benefit policies that show little preference for whether workers drive or take mass transit. These companies — from leading hospitals to national giants in finance, technology, and higher education — have the power within their reach to influence the commuting decisions of nearly 150,000 employees, packing as many as 35,600 cars a day into our local streets. But few of these employers step up to the challenge.

Instead, company benefit policies often ignore a brutal truth about the psychology of the American commuter: Most people are hard-wired to prefer the autonomy of driving and won't change without powerful financial and emotional incentives. And the siren call of free or discounted employee parking has become a major contributor to the region's gridlock.

“If you drive to work every day, that's already a habit. You already know this, you're comfortable with this,” said Jon Jachimowicz, a Harvard Business School professor who has studied commuting psychology. “If you're

going to overcome this, you need a really good reason.”



Passengers wait for a Red Line train to stop at Kendall Square Station in Cambridge. (Lane Turner/Globe Staff)

A few employers, including the Massachusetts Institute of Technology, have taken innovative steps. But in the main, the picture is one of policy lethargy, with results that are predictable and unsustainable. At most of the companies surveyed by Spotlight, workers rely on mass transit far less than is the norm in the urban areas where they're located. A federally supported 2016 [report](#) on the Boston region found that in high-density areas, nearly 7 out of 10 people take the bus, subway, or commuter rail to work. But among the major companies Spotlight surveyed, none reported reaching that benchmark. Most had employee transit-use rates of 50 percent or less — in several cases, far less.



Vertex Pharmaceuticals, with headquarters in the Seaport, robustly subsidizes both parking and transit for employees. (David L. Ryan/Globe Staff)

The fast-growing Seaport neighborhood might seem the last place anyone would want to drive during rush hour. But drive many do. Vertex Pharmaceuticals, one of the Seaport's major employers, helps show why. It offers its 1,957 Boston workers a \$300 monthly subsidy for either parking or mass transit — a neutral-sounding policy that has tempted nearly half the firm's employees to drive into this highly congested part of the city.

“If employers offer free parking, it's a monumental task to overcome,” said Andrea Hamre, a transportation analyst in Vermont who studies commuting policies. “When we think about subsidizing both transit and parking, it is an example of policies working against one another.”

It comes down to human nature — and habits that die hard.

Different perks, different outcomes

Some companies offer benefits that favor transit use, while others are more neutral — and end up with more drivers.

PRO-TRANSIT BENEFITS, LOW DRIVING RATES

LIBERTY MUTUAL

Employees: Around 5,600

Results: **5-8 percent drive**, 60 percent take transit, 15 percent walk, 17-20 percent telecommute.

Benefits: No benefit for solo drivers. Discounted parking for frequent carpoolers. Pre-tax payroll option for transit passes or carpool parking.

MIT

Employees: Around 12,700

Results: 18 percent drive, 43 percent take transit, 5 percent use a shared ride, 31 percent bike/walk.**

Benefits: Free subway and bus passes, 50-60 percent subsidy for commuter rail, parking at \$10.50 per day, capped at \$1,995 per year.

NEUTRAL BENEFITS, HIGH DRIVING RATES

BIOGEN

Employees: Around 2,200

Results: 48 percent sign up for parking perk, 28 percent get transit perk.*

Benefits: Free parking, free or heavily subsidized transit, free long-distance buses, \$150 cash a month for those who bike/walk/carpool.

VERTEX PHARMACEUTICALS

Employees: Around 2,000

Results: 47 percent drive, 52 percent use transit, 1 percent other.

Benefits: Company pays \$300 a month for any commuting expense. Free long-distance bus.

*Biogen data across all modes drawn from a sample day: 40 percent drove alone, 25 percent used transit, 11 percent had a shared ride, 8 percent biked/walked, 9 percent telecommuted.

**Survey included graduate students.

Sources: Individual companies
PATRICK GARVIN/GLOBE STAFF

Jeffrey McComish knows. A real estate executive from Marblehead, he gave in to the allure of the no-cost parking space. He said that when he has taken the commuter rail from the North Shore, he has found the ride “really pleasant.” Yet he routinely drives to work, despite traffic that often has him “tearing my hair out,” because he has a nice perk at the end of the ride: free parking in Kendall Square.

“I’m fortunate,” McComish said.

UNPACKING THE PSYCHE

Even those who feel guilty about taking to the road find it easy to point to the practical advantages — easing day-care drop-off and pick-up responsibilities, for instance. Or dealing with life in distant suburbs where housing is more affordable but mass transit has limited reach. Then there’s the MBTA’s reputation of unreliability, they say. And the inconvenient rigidity of fixed commuter-rail schedules.



But those who study the psychology of commuters say that deeply rooted emotional and cultural reasons also play an enormous role. And experts say that even if a magic wand could produce top-notch mass-transit service for all, too many people would still choose the automobile.

Cities with great subways attract people who don't want to drive, "but they do not make the roads flow freely," said Mike Manville, an urban planning professor at the University of California Los Angeles and a native of Reading. "It doesn't work. Never has, never will."



A driver amid a crush of cars heads toward Boston over the Leonard P. Zakim Bunker Hill Memorial Bridge during the morning rush hour. (David L. Ryan/Globe Staff)

Ultimately, cars reign supreme because they offer a powerful sense of autonomy, privacy, and control, researchers say. A sense of freedom and taking charge of one's destiny often trumps all.

“There's always been this attitude of independence,” said Patricia Mokhtarian, a professor at Georgia Institute of Technology who has studied travel behavior. “I need to do what I want to do when I want to do it. It's a free country.”

Freedom also means the right to control your surroundings: “If I'm on transit, I may be next to a smelly person or a noisy person,” Mokhtarian said. “In my car, I can sing at the top of my lungs, I can still smoke if I insist on dying young.”



Although MBTA subway ridership has fallen 10 percent in the past five years, some lines are routinely packed, including this Green Line train during the evening commute at Park Street Station. (Lane Turner/Globe Staff)

“It’s more comfortable than using public transportation,” said Tony Touma, who lives steps from a bus stop in Everett but drives up to 45 minutes to go 5 miles to Boston’s Financial District. “We’re wearing suits every day, and you don’t want to get your clothes dirty.”

Many commuters savor their own personal space, noted Jennifer Kent, a research fellow at the University of Sydney. When people have busy, rushed lives, her research found, time in the car is “sometimes the only time that people described as having time out, that was just theirs,” a nurturing environment where everything from the music to the air conditioning could be controlled. “Carcooning,” it’s known as — a lifestyle phenomenon enhanced these days by such devices as video screens.

And you always get a seat.



Jim Kogler, a software company executive from Quincy, heads toward the Neponset River Bridge. He said driving to his job in Cambridge allows him to pick up his children after work. (David L. Ryan/Globe Staff)

To be sure, some of the automobile's advantages may be more perceived than real. News about train derailments may lead some to believe driving is safer than mass transit. But examining traffic fatalities across the country, a 2014 [study](#) in the Journal of Public Transportation found that riding commuter rail is about 20 times safer than driving, and riding a subway is about 30 times safer.

There's also a perception that driving is usually cheaper. But that's because drivers often conveniently forget the "sunk cost" of the vehicle price itself, as well as maintenance and repair bills, insurance premiums, registration fees, taxes, and finance charges. Add in the price of gas, and, [according to AAA](#), the average annual cost of vehicle ownership hit a new high this year of \$9,282, or \$773.50 a month. That's nearly twice the cost of the most expensive MBTA commuter-rail pass. And compare it to a mere \$90 a month for a CharlieCard.

But such financial facts carry only so much weight, given the power of the car habit and the natural inclination to use a vehicle you've already paid for.



Rush-hour traffic on the Southeast Expressway near the Neponset River Bridge is among the worst in the Boston area. (David L. Ryan/Globe Staff)

Allie Pasquale of Plymouth recently swapped the commuter rail for a spare family car. “I can just hop right in the car and listen to a podcast or the radio,” said Pasquale. “I don’t like to contribute to the traffic, but at the end of the day if there’s an option that works better for me, I’m going to take it.”

GIVING WORKERS A NUDGE

Faced with all these hard-wired tendencies, what can be done? MIT came up with a plan that demonstrates the power of smartly tailored incentives.

To understand what the university did, look at the experience of Juhan Sonin, an MIT lecturer in mechanical engineering.



For years, Sonin paid an ever-increasing flat annual fee for unlimited parking near his MIT lab, where he regularly drove from his Arlington home. He agonized during a commute that could take nearly an hour.

The traffic just kept getting worse, and Sonin knew he needed to do something. Then MIT did something for him.

It was a new commuter benefits policy — one that, in a rare step among employers, borrowed concepts from behavioral economics to create meaningful incentives to leave the car behind.

The 2016 policy's central feature was to give around 11,000 employees unlimited free subway and bus rides through a convenient CharlieCard chip embedded in their MIT ID cards — double an earlier transit discount. MIT also upped its commuter-rail subsidy to 60 percent and covered half the cost of parking at MBTA stations. And in a key move, the university largely eliminated its yearly parking permits in favor of a new system: Pay \$10 a day until you reach \$1,760, an annual cap after which parking is free.

MIT predicted that employees who feel that daily financial pinch would drive less, and without a flat fee, they wouldn't be tempted to drive more often to get their money's worth. It was a "nudge" that behavioral economists suggest can influence behavior.



And it did.

In the two years after MIT launched the program, it saw an approximately 12 percent drop in parking at its gated facilities. The university was able to raze a parking garage to make way for a much-needed 450-bed dorm. And according to a 2018 [MIT study](#), MBTA revenues rose as MIT employee ridership increased about 10

percent. The policy costs the university \$2 million more per year. “It’s basically a win for everybody,” said John Attanucci, a research associate at the MIT Transit Lab.



Juhan Sonin, on his scooter on Massachusetts Avenue in Arlington, wears a very distinctive helmet so drivers will notice him during his commute to his job at MIT.
(David L. Ryan/Globe Staff)

Sonin, the lecturer, is among the winners. He now takes the Red Line with MIT's free MBTA pass, which he calls "a godsend," and uses an electric scooter to get from the Kendall Square Station to work — 20 minutes faster than before.

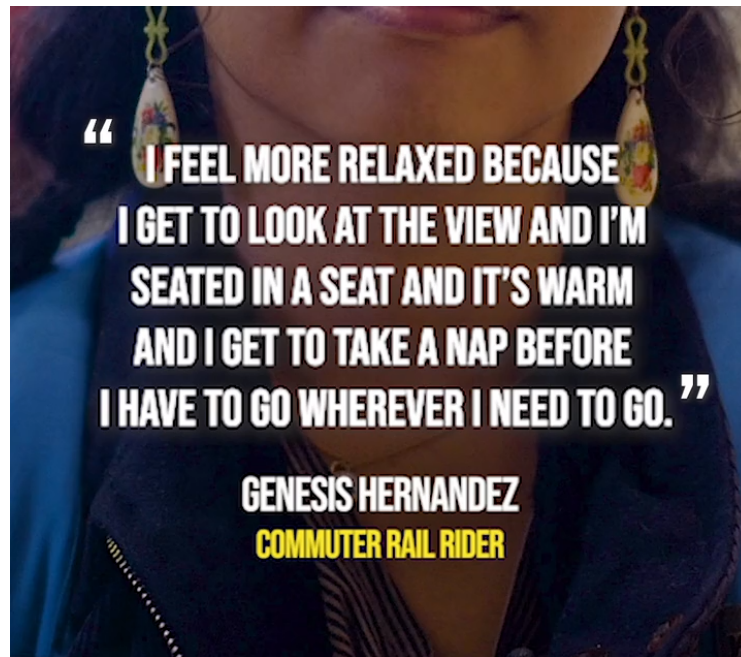
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No other major Boston-area employers surveyed by Spotlight offer commuter incentives with the scale and sophistication of MIT's. But a scattering of pro-transit innovations have come from other companies, including smaller ones. Cell Signaling Technology, a life-sciences company on the North Shore, rewards commuters with up to two paid days off a year if they shift from driving alone to another mode. About 66 of the company's 350 employees there have participated so far — not bad for a company whose offices are at least a mile from the nearest commuter-rail stop.

“It's one thing for us to do it,” said Elias Witman, former manager of Cell Signaling's sustainability programs. “Let's get more companies in Boston to do it. That'll get more cars off the road.”

In the Longwood Medical Area, an employer-funded group offers three months of free transit passes if people put their parking permits on hold that long. Many go back to old driving habits, but nearly four out of 10

Longwood participants stick with the T after the trial, according to the Medical Academic and Scientific Community Organization, which coordinates transportation programs there.



In high-density parts of Boston, nearly 7 out of 10 people take mass transit, including these evening Red Line subway riders at Park Street Station. (Lane Turner/Globe Staff)

Other steps could have broader effects — if they became common in the market. Private shuttles that bring transit riders to job sites. Flexible work schedules. Work weeks of four days of 10 hours each, Mokhtarian noted, would cut car commuting and emissions by 20 percent in a single move.



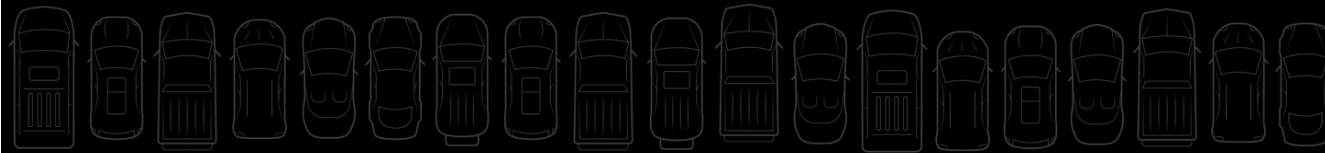


A company's location can also make a difference. In the crowded Back Bay, Liberty Mutual offers the option of a pre-tax payroll deduction to pay for transit but no such benefit for solo drivers. Employees who drive to work face market parking rates of around \$40 a day in the area. The result: Roughly 60 percent flock toward transit, while only 5 to 8 percent regularly drive solo to work.

Similarly, when The Boston Globe moved its headquarters from Dorchester to downtown Boston in 2017, employee commuting patterns were transformed. In Dorchester, the company offered free parking on its property — something unavailable near the Globe's new State Street home. After the relocation, the number of employees who used the company's pre-tax payroll benefit to commute by public transit more than doubled.

Some of Boston's biggest employers do offer significant transit subsidies, and those that have the biggest impact on commuting behavior typically amount to at least 50 percent of the cost of a transit pass. Harvard University, Boston University, Fidelity Investments, Boston Children's Hospital, Beth Israel Deaconess Medical Center, Partners HealthCare's corporate offices, Dana-Farber Cancer Institute, and Brigham and Women's Hospital are among those offering that level of transit subsidy. The result: Transit usage by their employees tends to hover between 40 and 50 percent.

But research shows a generous subsidy for transit can be undermined by one for parking. Take the pharmaceutical giant Sanofi, which subsidizes an impressive 60 percent of the cost of public transit for its Cambridge employees. Sanofi offers an even higher subsidy — a discount of 88 percent — on parking. Not surprisingly, about two-thirds of its approximately 1,750 Cambridge employees drive to work.



TAKING THE LEAP

How do you think we can change Boston's transportation crisis?

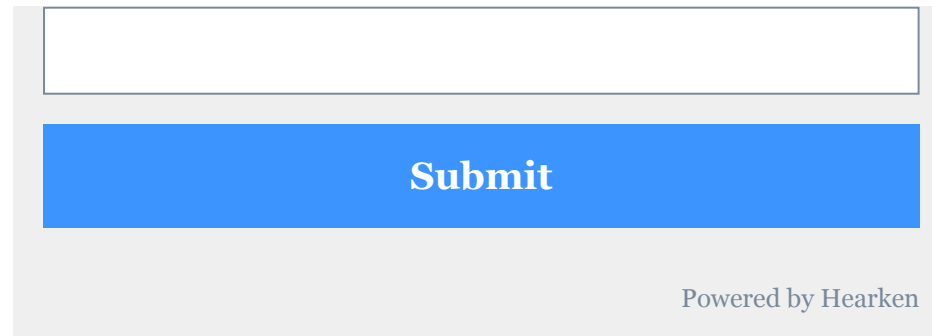
Tell us how you think we can fix Boston's traffic problems. We will run some of the best answers online.

0/3000

Your contact info

Name (will appear next to your submission)

Email address



Submit

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If Boston-area companies' efforts to reduce congestion remain generally lackluster, it may be because they aren't trying to shape transportation choices as much as attract and retain star employees. As a Vertex spokesperson told the Globe, the company aims to offer "best in class" benefits — "the most competitive, the most attractive" across the board. Biogen and Sanofi both emphasized giving employees choices that work for them.

There's something of an unfortunate recruiting arms race with perks, explained C.A. Webb, president of the Kendall Square Association, which has [deployed](#) the "cure for cancer" traffic catchphrase in efforts to find solutions. Companies hesitate to take away parking benefits, she said: "Any one employer doesn't want to take the leap."

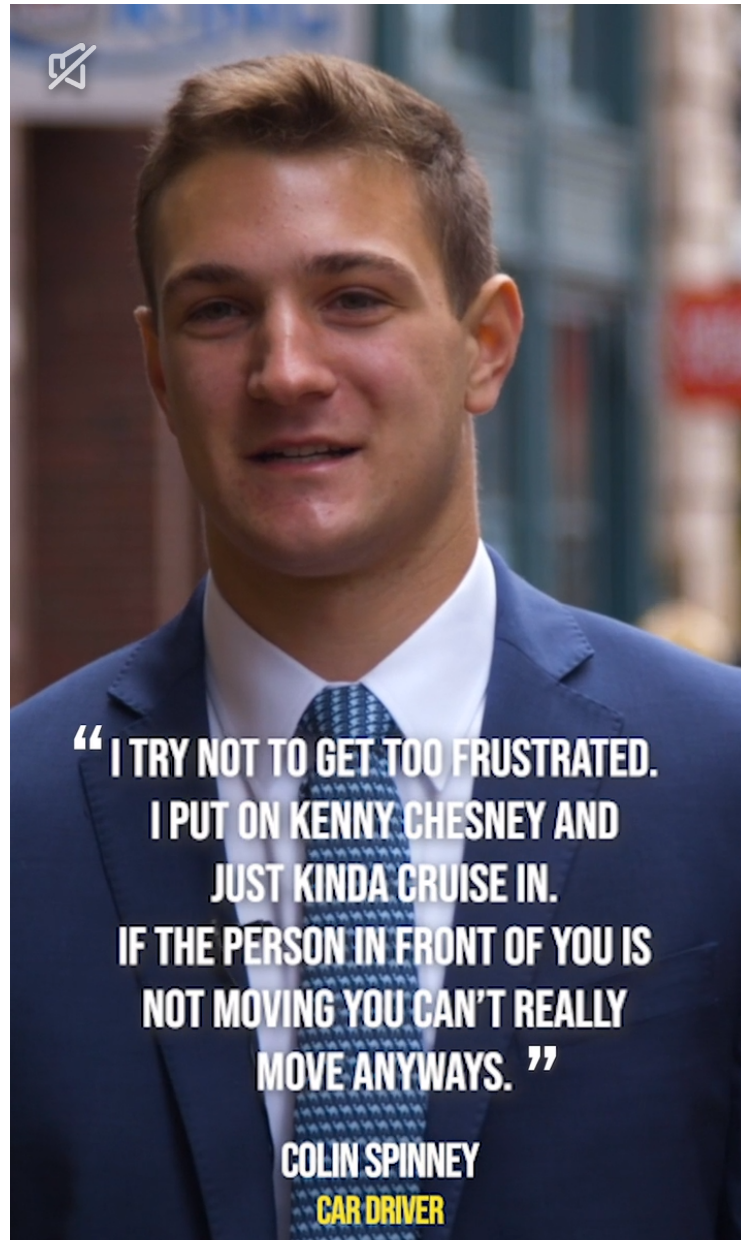
Another factor in the inertia: Companies can get away with it. Effective city and state regulation is largely absent.

So is awareness in high places of how the market actually works — and major employers behave.



Pedestrians cross in front of backed-up traffic on Congress Street in downtown Boston. (Lane Turner/Globe Staff)

Mayor Martin J. Walsh expressed incredulity at the idea that major Boston companies offer employees parking subsidies in their benefit packages. "I never heard of that, this is the first I've heard of this," Walsh said in a recent interview. "There's not many garages left," he declared. "Where do they park?"



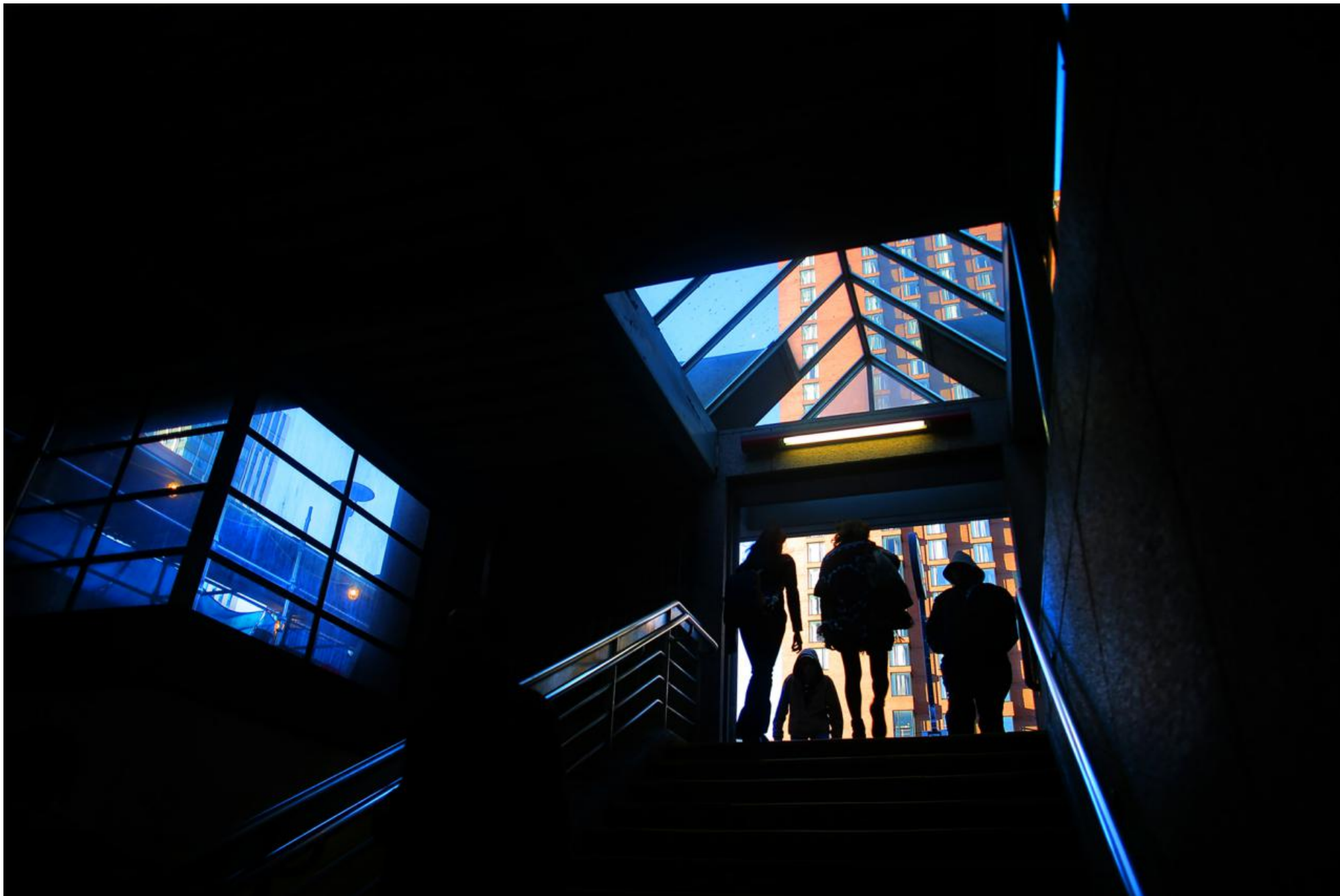


So it is perhaps no surprise that Boston does little to influence employer behavior. About all it has is a decades-old program that asks but doesn't require property owners of major developments to "encourage" tenant companies to offer transit benefits. Even if the policy were stricter, its effect would be limited by the fact that the city is dealing with property owners, not directly with employers.

That may change. Chris Osgood, Boston's top transportation official, said the city recently hired a staffer to work on transportation demand management directly with employers. "There's a huge opportunity for that to be stronger than it is right now," Osgood acknowledged.

Cambridge does monitor many companies' commuter policies and has the authority to compel them to offer more transit-friendly benefits. But no other city in the region has a comparably robust program.

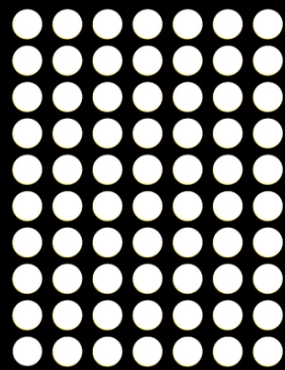
And at the state level, a Massachusetts Department of Environmental Protection program tracks drive-alone rates to large corporate campuses, but critics say it applies to too few employers and includes no serious deadlines or penalties.



Subway riders — shown here at the Kendall Square Red Line stop — represent around 58 percent of all MBTA trips. About 31 percent involve the bus and 10 percent commuter rail. (Lane Turner/Globe Staff)

It isn't that there aren't steps government could take that would meaningfully affect commuting patterns; it is that here they just aren't taken.

Officials in other states have sometimes been bolder — and smarter. In Philadelphia, for example, the transit agency matches employers' transit pass discounts by 5 percent. Several cities across the country require employers to offer pre-tax payroll deductions for transit passes. In Washington, D.C., after a 2000 mandate that federal employers offer transit benefits, the number of employees participating in transit benefit programs nearly doubled in two years, according to a 2005 study sponsored by the Federal Transit Administration.



**Federal employers in Washington, D.C.,
were ordered to offer transit benefits.**

In 1992, California enacted a law requiring that many companies offering free or subsidized parking must give workers the option of taking cash of the same value instead. It's a widely touted incentive known as "[parking cash out](#)." A 1997 [case study](#) by University of California Los Angeles professor Donald Shoup of eight employers that complied found solo driving to work dropped 17 percent, carpooling rose 64 percent, transit use increased

50 percent, and walking and biking rose 33 percent. A federally funded 2017 study found that if a version of the California law were implemented in Massachusetts it might reduce Boston driving by 20 percent.

“Parking cash out is an easy reform because it rewards commuters for doing the right thing, rather than punishing them for doing the wrong thing,” Shoup wrote in a 2005 [report](#) on the plan.



A woman returns to her car in a parking garage in the Seaport District, a neighborhood that has been transformed by an intense building boom. (Lane Turner/Globe Staff)

State officials have acknowledged that their efforts could be improved. But Massachusetts Transportation Secretary Stephanie Pollack said she didn't have "any marching orders" to work directly with employers to reduce driving rates. "It hasn't been a big focus in this world," she told the Globe, noting that the state instead encourages companies to "voluntarily undertake some best practices."

What about adopting a statewide measure like California's parking cash out plan?

Pollack demurred at the notion. Metropolitan Boston has the congestion problem. "We don't have a statewide congestion problem," Pollack replied. "We just don't."

REBRANDING MASS TRANSIT

Another step the government could take? Sell the virtues of transit more forcefully.

Mass transit has its evangelists — and passionate ones. While transit's critics see frustrated subway passengers fuming at long waits on dingy platforms, supporters see contented commuters who can sink their brains into books, watch videos on their phones, or just daydream.



Kim Prendergast uses her time on the MBTA's Framingham/Worcester commuter-rail line to get some work done. (Lane Turner/Globe Staff)

They see people with a savvy urban perspective: They worry about MBTA mishaps, but view them as among the imperfections of all old, big-city transit systems. Boston is a thriving city moving lots of people, so they expect snags in the system. They love their “green” credentials, and as they begin or end a workday, they can take a mental break, with zero neurons devoted to gripping a steering wheel and navigating through horrifying traffic.

“I get my laptop out and get work done. I can read a book or check e-mail,” said Jeff Brubaker, who makes a long daily commute from New Hampshire to Boston on an Amtrak train. “There’s even a cafe car you can go in and unwind after work.”

So some transit officials are working to rebrand public transportation as “cool.” Miami launched the [campaign](#) “Miami’s Never Moved Like This” in 2016, offering coffee giveaways to riders, musical performances, and a competition that wrapped local artists’ work around buses.

Commute calculator

How much time do you spend commuting to work each year? This calculator assumes that you work five days a week, while taking 10 federal holidays and two weeks off each year.



You commute 1 hour daily

You spend

10 days

commuting each year

You will spend

100 days

commuting in the next decade

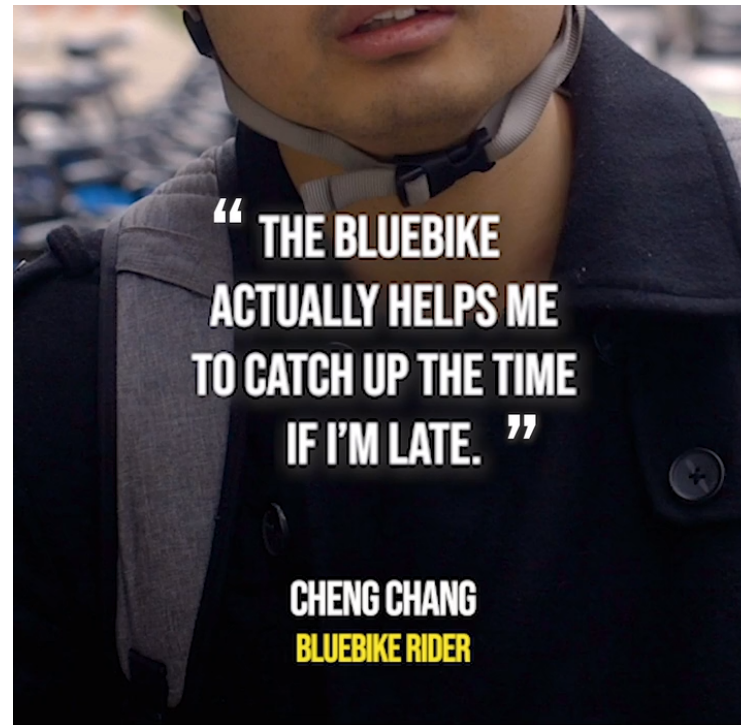
A person who had this commute from the age of 22 to 65 would spend

1.18 years

commuting in a lifetime

The particularly poor perception of buses worries some local transit advocates, because enhanced bus service is being prioritized in and around Boston. State and local officials are working to set aside dedicated bus lanes and add bus service, as other forms of mass transit — subways and commuter rail — take years to put in place and are far more costly.





Recognizing the bus's public relations problem, Toronto officials this year produced a flashy promotional [video](#) that invites the public to "Experience. The Bus."

But in the end, all the sticks and carrots applied by the private and public sector may help only around the margins. Some believe the forces that drive commuters to cars can only be beaten back with government's ultimate blunt stick: tolls on drivers who want to enter the most packed urban areas, a form of congestion pricing. It is a notion, used in such cities as London and Stockholm and planned for New York, that has so far gone nowhere here.

And so we lean almost entirely on individual choices, on the simple hope that more will shed cars for trains and buses. Or bicycles — the vehicle of choice for some of the happiest commuters on the street.



A cyclist rides on Boylston Street in downtown Boston. Cyclists represent only about 1 percent of all commuters in the region, but more within the city. (Lane Turner/Globe Staff)

Jim Kogler of Quincy knows this personal dilemma well. A self-described “huge fan” of public transit, he cares deeply about the carbon emissions damaging our environment. He is a father of two who wants to do what is best for the next generation. Still, every day, in his daily calculation of whether to walk to his nearby Red Line stop and head to Alewife or get into his Mazda, he gets into his car.

The software company executive said he is almost looking for a reason to become a devoted T rider.

Some days, he said, “I am rooting for my drive to get worse.”



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Share your comments

BACK TO TOP

SEEING RED

We endure some of the nation's worst rush-hour traffic. Our aging transit system is maddeningly unreliable. It is a crisis — a very slow moving crisis — that puts our region's economic prosperity at risk. Who is to blame? Can anything be done? The Globe Spotlight Team investigates.

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PART 1

POLITICAL GRIDLOCK

As commutes become intolerable, political leaders cling to an old car-first mentality

PART 2

THE EMPLOYER PROBLEM

Top companies bemoan traffic, yet many effectively entice employees to make it worse

PART 3

TECH AND CONSEQUENCES

Companies like Uber, Lyft, and Amazon intensify gridlock, with little government pushback

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