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ASSESSMENTS

Asphalt, Gridlock and Common Sense

It's clear that adding lanes to urban expressways or building new ones doesn't reduce congestion. Sometimes it makes things worse. So why do we keep doing it?

May 4, 2021 • Alan Ehrenhalt

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Sometimes in government, the best-laid strategies of policymakers and

consultants are much less rational than ordinary common sense. Nearly everyone in America believes, correctly, that workers shouldn't be yoked to their employers for health insurance, even though we can't seem to change that. Nearly all of us can see that our zoning laws are a hodgepodge of outdated rules that ban mixed uses in neighborhoods badly in need of them. I could make a much longer list.

Other times, however, what seems the most elementary common sense turns out to be wrong. Nothing looks more obvious to most people than the idea that when a highway is choked with traffic, the solution is to expand it or build another road nearby. It looks like plain common sense, but it doesn't work. A whole slew of examples from recent history is sufficient to prove the point.

There is, to cite one clear case, the Interstate 405 freeway in Los Angeles. In the first decade of the new century, it was such a traffic-clogged mess that people would leave social engagements hours early with the excuse that they needed a head start on the 405. So it was widened in a five-year project ending in 2014 at a cost of $1.8 billion. The benefits? Not very many. Travel times actually increased once the project was finished, although rush hours shortened slightly.

But the mother of all examples has to be the Katy Freeway in central Houston, expanded in 2011 to more than 20 lanes in some segments, making it one of the widest highways in the world. That project cost $2.8 billion. When it was finished, travel times out of downtown increased, by some estimates as much as 30 percent, during the busiest portions of the day.

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With more than 20 lanes in some segments, Houston's Katy Freeway is one of the widest highways in the world.
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FIASCOES LIKE THESE run into the reality of "induced demand," the phenomenon that lures more vehicles and more congestion to a highway after it is expanded than were there before. The idea goes back to the 1960s, when the economist Anthony Downs promulgated what he called "the law of peak-hour expressway congestion." "On urban commuter roads," Downs argued, "peak-hour congestion rises to meet maximum capacity." Traffic planners, especially those in state highway departments, refused to believe it. They went with what they considered common sense and kept expanding and widening. They made a costly mistake.

What the numbers invariably show is that highways are vulnerable to latent demand — people who haven't been using them start to fill them up once the capacity is expanded, especially at rush hour. Some are commuters who had been using public transportation; some are drivers who shift their trips to rush hour rather than the middle of the day; and some who hadn't been making trips at all take to the highway. The combined result, in many cases, is more traffic than existed prior to the expansion.

But it isn't just drivers suddenly venturing onto the highway. Expanded capacity means more development — new trucking depots and large numbers of employees who commute to work; new housing developments and shopping centers at the exits. All of this contributes to making a situation, if not greatly worse, then demonstrably no better.

Several years ago, a thorough study conducted by the University of California, Davis, for Caltrans, the state transportation agency, concluded that a 10 percent increase in the capacity of a highway led in the short term to an increase of 3 to

6 percent in traffic congestion on that road. Several years later, the study found, the additional traffic amounted to 6 to 10 percent. Other studies have found that the problem is worst on large urban highways, like the Katy Freeway or the 405. Smaller communities do sometimes get some relief from adding a lane or two to their roads. But it is in the large metro areas where most of the ambitious highway projects are launched.

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IN THE FACE OF ALL THE EVIDENCE, one would think that a new common sense would have evolved by now: Stop doing this. It's counterproductive.

Remarkably, that hasn't been the case. Most big cities seem to have caught on and are no longer seeking to expand the highways within their borders. But quite a few state transportation agencies have failed to get the message, or are simply ignoring it. They are run by traffic engineers who received their training in the "add more asphalt" era and have not bothered to change their minds to meet reality.

Texas is, by all odds, the worst offender. In the past few years, the state has unveiled plans for massive and costly highway expansions in Austin, Dallas and Houston. The master plan for Houston was to spend an estimated $7 billion to widen Interstate 45 for 25 miles in and around the center of the city. This project has been stalled by state-city legal disputes, and it may fall victim to the less highway-friendly stance of the Biden administration. Even so, the city filed suit against the project just a few weeks ago on the grounds that it would destroy hundreds of homes and discriminate against minority residents.

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The Dallas project, an expansion of urban Interstate 30, was based on an estimate by the state that if nothing is done, traffic on the road could increase by as much as 63 percent in some sections by 2035, compared to levels in 2007. But subsequent research confirmed that there has been no significant increase

in the past few years, calling the entire enterprise into question. Lately, the state and city have been working together on ways to mitigate the effects, making the new stretch of highway more parklike and in some places more pedestrian-friendly. But nothing is settled as of right now.

One might chalk all this up to sheer Texas bravado, but highway-expansion fever is also affecting places that would seem less amenable to it. In Portland, Ore., a pioneer in creating a walkable, human-scale downtown and a haven for transit experiments, state transportation officials want to expand Interstate 5 in a busy section of the city, based on the statistic that a 1.7-mile stretch of the highway experiences the 28th-worst traffic bottleneck in the country. This project would cost an estimated $800 million, run through a dense mixed-income neighborhood and possibly eliminate a local public school. The plan has provoked second thoughts even among some state lawmakers and will be under review for quite some time. But it isn't dead yet.

THERE ARE, OF COURSE, MANY THINGS that can be done about congestion besides pouring asphalt. None of them are easy to bring off, but all of them are, to a greater or lesser extent, feasible.

We all know about toll roads. The past decade has given us a plethora of toll-road experiments, some of them financially viable but many others failing to draw a significant volume of traffic away from the free (and presumably more congested) lanes. It's clear that a sizable number of drivers simply don't want to pay more than a token charge to get out of the slow lanes, even at rush hour. When Interstate 66 in northern Virginia went to dynamic toll pricing a few years ago, the cost of entering the toll lanes at some peak hours was over $30. Needless to say, far more people laughed at that than paid the money. High-priced toll lanes, or "Lexus lanes" as they are more commonly known, seem destined to be a boutique phenomenon.

There is, of course, one variant of toll pricing that has yet to be tried seriously in this country: congestion charges for cars entering the busiest central-city districts during the busiest hours. Congestion pricing significantly reduced traffic in London more than a decade ago, although the benefits have appeared to erode in recent years. Former New York City Mayor Michael Bloomberg tried to create a congestion-pricing system for lower and midtown Manhattan in

2007, but was shot down by suburban commuters and their representatives in the state Legislature. A similar plan finally won state approval in 2017, but it's not clear when it will begin to operate. When it does, a car trip into the congestion-pricing zone could cost drivers $10 to $15.

At this point, it remains uncertain what effect the coronavirus pandemic might have on the congestion-pricing idea. Traffic is lighter in Manhattan and other urban centers than it was at the end of 2019, and that could weaken the support for a pricing regime. But concern over carbon pollution in cities has grown stronger over the same period, and that could give the idea renewed credibility. We will just have to see.

IN ADDITION TO ALL THIS, there remains the "nuclear option" of transportation planning: the deliberate demolition of traffic-choked and often unsightly freeways. The view of traditional traffic engineers has always been that this is a recipe for gridlocked disaster, but the relatively few experiments with it have not borne this out. New York's West Side Highway collapsed in 1979 and was never rebuilt; the street-level thoroughfare that replaced it isn't always a picnic to drive on, but it doesn't seem to have made traffic any worse. Along some sections, it is as much a boulevard as it is a freeway.

But the prime exhibit for the nuclear traffic option is the Embarcadero in San Francisco, reduced from a highway to a boulevard after the old oceanfront freeway collapsed in the 1989 earthquake. The Embarcadero is now easy for pedestrians to cross, and the waterfront has become a major tourist attraction and center for retail shopping.

None of this is to suggest than urban planners ought to launch an orgy of freeway destruction in our big cities. We still need most of those roads. Teardowns are likely to remain a limited, if promising, radical option. But the evidence suggests that the conventional engineering wisdom on teardowns was seriously wrong, just as it was for induced demand.

Urban transportation needs many things, but it doesn't need more asphalt. We should all understand that by now. It's common sense.

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