The New York Times

THE NEW HEALTH CARE

Stuck and Stressed: The Health Costs of Traffic

The physical and psychological toll of brutal commutes can be considerable.

By Austin Frakt

Jan. 21, 2019

Sometimes the seemingly small things in life can be major stressors.

Nobody likes sitting in traffic, for example. According to one study, commuting is one of the least pleasant things we do. But it's not just an annoying time waster — there's a case that it's a public health issue.

According to analysis by the Texas A&M Transportation Institute, the average American commuter spends 42 hours per year stuck in rush-hour traffic. In the Los Angeles area, the figure is nearly twice that, equivalent to more than three days. A 2015 Los Angeles Times poll found that among residents of that city, traffic concerns exceed those pertaining to personal safety, finances or housing costs.

The total cost of traffic associated with lost time and wasted fuel exceeds $100 billion per year. As time slips away, idling vehicles add pollution, which has environmental and health consequences, including contributions to climate change. Long-term exposure to vehicle exhaust is associated with respiratory problems, especially in children.

Another toll is to psychological well-being, stemming from the sense of helplessness we experience in traffic, and its unpredictability. This, too, can be quantified. One study found that to save a minute of time spent in traffic, people would trade away five minutes of any other leisure activity. Another study found that we deal better

with the commuting delays that we can anticipate.

Stressed-out people can take out their frustration on others. We've probably all experienced or seen road rage, but aggressive behavior can carry over beyond a commute.

A recent analysis of Los Angeles traffic, published in the Journal of Public Economics, documented a link between congestion and domestic violence. From 2011 to 2015, the study found, extreme evening traffic on two major highways — I-5 and I-10 — increased the incidence of nighttime domestic violence by about 9 percent.

What the researchers, Louis-Philippe Beland, an economist at Louisiana State University, and Daniel Brent, an economist at Penn State, mean by "extreme traffic" in their study is best explained with an example: The average evening commute along I-10 for residents of Santa Monica in their study was 45 minutes. Extreme traffic would increase this to 87 minutes.

"Life stressors act as emotional cues," Mr. Beland said. "What our work shows is that in extreme cases some people's responses to those cues can be quite large, leading to violence."

Teaching children how to manage stress and traumatic events from a young age can be important. "Throughout life, mindfulness, healthy eating, sleeping and exercise, and hobbies that blow of steam all help," said Rebecca Mooney, director of Melrose Alliance Against Violence, which raises awareness about domestic violence and related issues in and around Melrose, Mass.

Officials are not powerless before the problems that stressful commutes can cause. Los Angeles has put in a system that charges solo drivers more to use certain lanes of the I-10 and I-110 highways during periods of heavy traffic. This encourages drivers to move their commutes to less congested times or routes. A study of congestion pricing on Seattle's SR-520 Bridge found that drivers using the route and its alternatives were less stressed and more satisfied with their commutes after the pricing change.

In addition, many states have been replacing tollbooths with electronic and cashless tolling systems like E-ZPass. More employers are allowing people to work remotely. Troubled transit systems in some cities may be partly behind an increase in car ownership in those areas, but certain West Coast cities are making sweeping expansions of their public transit systems, and many cities are adding bike lanes.

Those who can walk or bike to work tend to have a double advantage. Not only do they avoid the harmful consequences of traffic, but they can also improve their health through exercise. Younger people are more likely to prefer that style of commuting, and are driving less than previous generations.

There may be more good news in coming decades for those who loathe gridlock. Although self-driving cars won't cure traffic woes on their own — the way that economics-based approaches like congestion pricing can — they may be able to reduce stress.

If you're crawling along in traffic and are late to an appointment, but are allowed to take a nap, play video games, watch your favorite TV show or sip on a cocktail, will that reduce your stress? We don't know for sure, but we look forward to the studies on that.

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