

How Traffic Jams Help the Environment

Efforts to lighten a city's car load can reduce subway ridership; the eco-upside of stalled traffic
By DAVID OWEN

By requiring car drivers to pay a fee to drive in a city at peak hours, congestion pricing reduces traffic and raises money that can be used to support public transit—both worthy goals.

Yet congestion pricing has dubious environmental value. Traffic jams, if they're managed well, can actually be good for the environment. They maintain a level of frustration that turns drivers into subway riders or pedestrians.

Getty Images; A New York traffic snarl

Jay H. Walder, the man appointed this week as chairman and chief executive officer of New York's Metropolitan Transportation Authority, helped design London's congestion pricing scheme. New York certainly has plenty of congestion. At the busiest times of the day, cars on side streets in midtown move so slowly that they appear almost to be parked, and taxi passengers often watch in dismay as pedestrians outpace them and disappear into the distance. Mr. Walder has said he isn't planning to bring up congestion pricing again for New York, but the fact that he was chosen for the job suggests that it's at least a possibility.

In 1949, only 3% of American families owned more than one car; in 2001, for the first time, the number of cars in the United States exceeded the number of licensed drivers. The resulting traffic jams look like an ecological disaster. And they are one, but not for the reasons that people usually assume.

Congestion isn't an environmental problem; it's a driving problem. If reducing it merely makes life easier for those who drive, then the improved traffic flow can actually increase the environmental damage done by cars, by raising overall traffic volume, encouraging sprawl and long car commutes. A popular effort to curb rush-hour congestion, freeway entrance ramp meters, is commonly seen as good for the environment. But they significantly decrease peak-period travel times—by 10% in Atlanta and 22% in Houston, according to studies in those cities—and lead to increases in overall vehicle volume. In Minnesota, ramp metering increased overall traffic volume by 9% and peak volume by 14%. The increase in traffic volume was accompanied by a corresponding increase in fuel consumption of 5.5 million gallons.

Traffic jams can actually be environmentally beneficial if they turn subways, buses, car pools, bicycles and walking into more-attractive options. Residents of the New York metropolitan area are extraordinarily committed transit users—they account for almost a third of all the public-transit passenger miles traveled in the United States. Making a cab ride seem more efficient than the subway, by reducing the congestion on the streets, would be a loss for the environment.



Eyevine/Zumapress London's Congestion Charge zone in February, 2007

The traditional solution to traffic congestion is to create additional road capacity. But projects like those almost always end up making the original problem worse because they generate what transportation planners call "induced traffic": every mile of new, open roadway encourages existing users to make more car trips, lures drivers away from other routes and tempts transit riders to return to their automobiles, with the eventual result that the new roads become at least as clogged as the old roads.

Congestion pricing is basic economics. The idea is that if you have a sporadically scarce commodity, such as space in automobile lanes, you can eliminate distribution bottlenecks by adjusting prices in counterpoint to variations in demand. Hotels do this by raising room rates when travel is popular and lowering them when travel is not. That helps to smooth fluctuations in reservation rates, enabling the hotels to make better use of their existing rooms and to increase total revenues without building new capacity, much of which would end up being empty except during periods of peak travel.

The concept works the same way with cars. Rather than attempting to eliminate congestion by laying new asphalt, planners seek to make existing roads more efficient by imposing fees that are high enough to discourage significant numbers of drivers from traveling in the most popular places at the most popular times. This often does open up clogged streets—and London is the example that proponents usually cite—but the overall result is not necessarily a gain for the environment or for public transit. If the result of congestion pricing is simply to spread traffic out, thereby maintaining or increasing total traffic volume while also making driving more pleasant for those who continue to do it, then its putative environmental benefits are fictitious.

NY Daily News Jay Walder, the former managing director for finance and development of London's public transit system, who this week became chief of New York's Metropolitan Transportation Authority.



Time lost to traffic delays has an obvious cost—all those stalled commuters could be working at their desks or interacting with their children instead of fuming at other drivers—but perceptions of productivity are among the factors that commuters weigh when they consider where to live and how to travel to work. Reducing congestion increases the productivity of solo driving, and that increases the incentive to drive—a bad result for the environment. In 1999, the Australian researchers Peter Newman and Jeff Kenworthy concluded that "there is no guarantee that congestion pricing will simultaneously improve congestion and sustainability," and mentioned several ways in which congestion pricing can defy the expectations of its supporters, among them by causing motorists to "drive exactly as they always have if the congestion charge is covered by their firms (e.g., a majority of London's peak-hour commuters have company cars and perks)."

Advocates of congestion-fighting strategies usually argue that traffic jams waste gasoline. That's true, but the energy waste and carbon output attributable to idling cars is smaller than that attributable to the overall transportation network. There's nothing green about fighting congestion if, by distributing traffic more efficiently, it results in an overall increase in traffic volume and extra miles driven by vehicles avoiding the fee areas.

Which is not to say that making drivers pay is a bad idea. It is absurd, in New York, that the East River bridges still don't charge tolls and that curbside parking in much of the city is free.

A truly effective traffic program for any dense city would impose high fees for all automobile access and public parking while also gradually eliminating automobile lanes (thereby reducing total car traffic volume without eliminating the environmentally beneficial burden of driver frustration and inefficiency) and increasing the capacity and efficiency of public transit.

—David Owen, a staff writer at The New Yorker, is the author of "Green Metropolis: Why Living Smaller, Living Closer, and Driving Less Are the Keys to Sustainability," from which this piece is adapted.

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