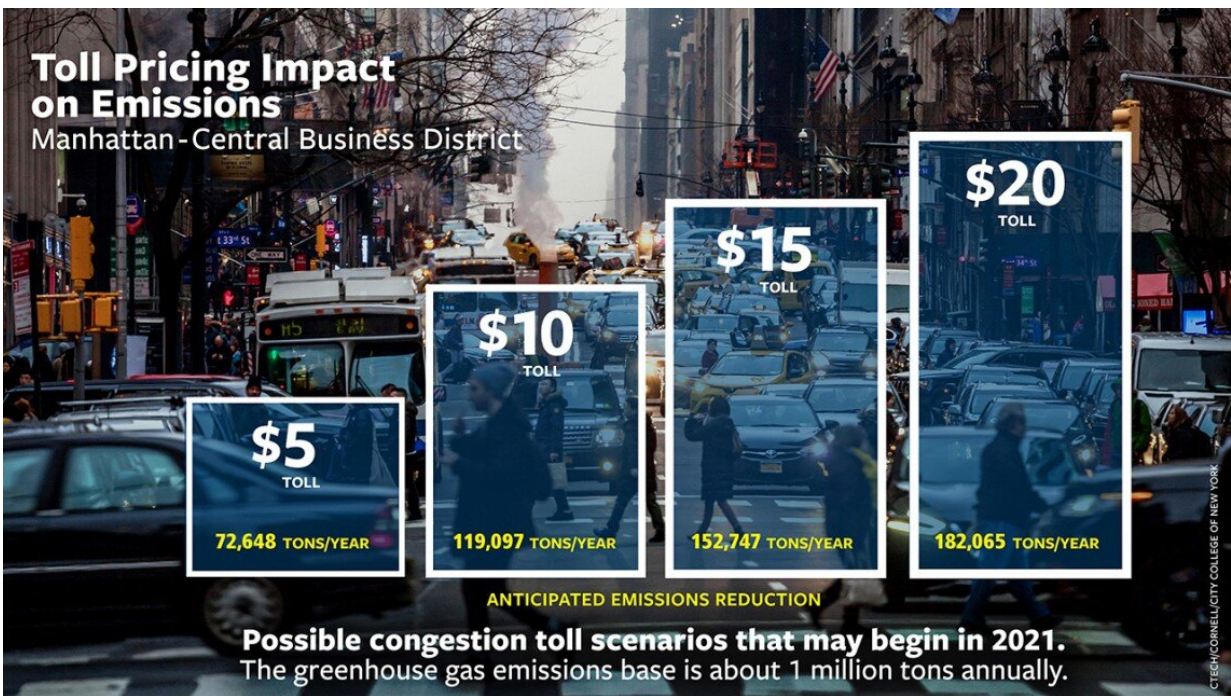


Steep NYC traffic toll would reduce gridlock, pollution

June 24 2020



New research by Cornell University and the City College of New York (CCNY), shows that by enforcing a \$20 toll for cars and taxis to enter the central business district of Manhattan, traffic congestion could be reduced by up to 40%, public transit ridership could grow by 6% and greenhouse gas emissions could be reduced by 15%. Credit: Cornell University

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the central business district of Manhattan, traffic congestion could be reduced by up to 40%, public transit ridership could grow by 6% and greenhouse gas emissions could be reduced by 15%.

"If we charge a high dollar amount of tolls, we can decrease the number of cars and taxis, shrink gridlock, bring down [carbon dioxide emissions](#) and reduce [particulate matter](#)," said Oliver Gao, professor of engineering and director of Cornell's Center for Transportation, Environment and Community Health. "This is good news for the environment and from a public health perspective."

About 1 million tons of greenhouse gas emissions—mostly carbon dioxide—come from automobile and truck traffic in lower Manhattan annually. In modeling different scenarios using air quality processing software, the researchers determined exhaust emission reductions based on the tolls charged to enter the central business district of Manhattan. A toll of \$5, they found, would result in a reduction of 72,648 tons of greenhouse gas emissions annually. For a \$10 toll, the reduction would be 119,097 tons, and a \$15 toll would yield a 157,747-ton drop.

A \$20 toll would eliminate 40% of midtown traffic and reduce [greenhouse gas emissions](#) by 182,065 tons per year.

Entrance tolls will also drop the volume of particulate—soot and other tiny particles measuring less than 2.5 micrometers that are linked to poor health and give Manhattan a hanging haze, according to the paper.

The research, "Evaluating the Traffic and Emissions Impacts of New York City Cordon Pricing," was published in the journal *Sustainability*.

More information: Amirhossein Baghestani et al, Evaluating the Traffic and Emissions Impacts of Congestion Pricing in New York City, *Sustainability* (2020). [DOI: 10.3390/su12093655](https://doi.org/10.3390/su12093655)

Provided by Cornell University

Citation: Steep NYC traffic toll would reduce gridlock, pollution (2020, June 24) retrieved 6 May 2024 from <https://phys.org/news/2020-06-steep-nyc-traffic-toll-gridlock.html>

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