

Science

Do bike lanes really cause more traffic congestion? Here's what the research says

Studies from around the world show bike lanes ease congestion, reduce emissions and are a boon to businesses

[Nicole Mortillaro](#) · CBC News · Posted: Oct 22, 2024 1:00 AM PDT | Last Updated: October 22



A cyclist rides on a bike lane past the Royal Ontario Museum in Toronto. Ontario's premier has introduced legislation to limit cities' ability to build new bike lanes. (John Rieti/CBC)

The subject of bike lanes can be a contentious one, particularly in a busy city like Toronto. Last week, the Ontario government proposed legislation that would require municipalities to get provincial approval to install any bike lanes that would remove a lane of vehicle traffic, which resulted in a firestorm of [debate and protests](#).

The legislation was introduced on Monday.

While advocates look at dedicated bicycle lanes as encouraging more people to travel by bike — resulting in less traffic congestion, safer commutes for cyclists and reduced greenhouse gas emissions — some motorists blame them for causing more congestion.

But research shows that dedicated bicycle lanes are not behind perceived traffic congestion and can have many benefits.

Build it and they will come

One would think that building more roads with more lanes for cars would reduce congestion, but [research shows that's not the case](#), thanks to something called induced demand. The more traffic lanes that are put in, the more it appeals to people who may not otherwise have chosen to drive, thereby putting more cars on the roads and increasing congestion.

"So for a short period of time, there might be a slightly improved [reduction], but within a year or two, or perhaps three, traffic is as bad or worse than it was before the lanes were added in the first place," said David Beitel, data services lead at Eco-Counter, a Montreal company that collects and analyzes pedestrian and bicycle traffic data.

- [Ontario tables legislation that includes ban on some bike lanes across province](#)
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Conversely, if you put in more dedicated bike lanes, people tend to feel safer and demand for use increases, said Shoshanna Saxe, an associate professor at the University of Toronto's department of civil and mineral engineering and Canada Research Chair in sustainable infrastructure.

"As soon as you build a bike lane, within a year, two years, the latent demand shows up," she said.

Bike Share Toronto statistics show that ridership on its network of shared bikes has increased dramatically since 2015, when 665,000 bike trips were made annually. In 2023, that shot up to [5.7 million trips](#).



Bike Share Toronto says its ridership has increased from 665,000 bike trips annually in 2015, to 5.7 million trips in 2023. (Michael Wilson/CBC)

In 2016, the European Commission's CIVITAS program published a [study examining traffic congestion](#) that looked at several cities around the world.

For example, in New York City, the authors shared figures from the city's transportation department that showed in 2010, before bike lanes were installed on a major midtown thoroughfare, it took the average car 4.5 minutes to travel from 96th Street to 77th Street. After the bike lanes were installed, it took just three minutes — a 35 per cent decrease. One of the reasons they cited for the change was the installation of a left-turn lane, which not only kept cyclists moving but also stopped cars from holding up traffic.



A study looking at bike lanes in New York City found a 35 per cent decrease in travel time for motorists on a stretch of road in Manhattan where the lanes were installed. (Xackery Irving/Shutterstock)

In Copenhagen, which introduced its first "green wave" meant to encourage cycling in 2007, the city reported that "the large number of bicycles, for example, makes it easier for necessary basic motor transport such as tradesmen, goods transport and buses to get through more easily." In fact, there is so much bike use that the city has had to add more bike corridors to cut down on bicycle congestion.

- [City officially installs painted bike box at intersection where cyclist was killed](#)
- [Halifax adding protected bike lanes on Morris Street and University Avenue](#)

Other case studies found either no impacts on traffic, or minimal delays — anywhere from a few seconds to just over a minute.

Then there's Paris. The city saw a [54 per cent increase in bike use](#) from 2018 to 2019. And for the first time, car use [decreased by five per cent](#) between 2010 and 2018.

- ***Would you like to see more or fewer bike lanes in cities? Tell us why, or why not, in an email to ask@cbc.ca.***

"They went all-in on bike lanes, and it's been wildly popular. Thirty per cent of trips now are made by bike in Paris," Saxe said.

"People [in Canada] will say we're not Europe. We're really no different. Cities all over the world invested in doing things by car for decades, and then basically all the big cities have realized this doesn't work."

In some Canadian cities, particularly Montreal, Vancouver and Edmonton, bike lanes are widely used. Montreal has a whopping [1,065 kilometres](#) of bike lanes, and Edmonton has more than [800 kilometres, with more planned](#).

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Ontario has introduced a controversial bill that could grant the province more power over bike lanes. The Doug Ford government claims the legislation would help reduce gridlock, but critics argue it's a political overreach.

Other factors contribute to car traffic

So why do people tend to blame bike lanes for traffic?

"I think there is a correlation-versus-causation issue here," Beitel said. "I think we see bike lanes, we see more people riding, we want to associate this with the causes of traffic, and I really think that's a misguided approach."

Instead, Beitel said, it's more about our cities growing.

"Most parts of our metropolitan areas have grown in population. They've swelled over the past few decades," he said. "Stats Can [reported] 23.6 million registered vehicles in 2000 and 35.7 million in 2019. That's a 50 per cent increase in 20 years."

In Toronto, the city recently [released a report](#) looking at a section of the Bloor West thoroughfare where it installed bike lanes and other measures to make the area more cyclist- and pedestrian-friendly. It compared traffic from a period before the lanes were added, November 2022 to March 2023, with the same period one year later, and found "average increases in motor vehicle times ... from 2.4 to 4.4 minutes eastbound and 1.5 to 3.6 minutes westbound for travel between Runnymede Road and Aberfoyle Crescent, depending on the time of day and the direction of travel."

But Saxe said those findings are misleading.

"The before travel time for those bike lanes was measured in 2022 ... we still had [COVID-19] shutdowns regularly," she said. "Travel times have gone up all over the city, not because of bike lanes, but because we've had a recovery from the pandemic. We go out more, we go to work more."



Aerial images show the evening commute along Toronto's Bloor Street West, where bike lanes have been installed. (Patrick Morrell/CBC)

Bike lanes have also been shown to [decrease speeds on roads](#), making them safer for not only cyclists, but also pedestrians. And with fewer cars on the road, emissions are reduced, helping in the fight against climate change.

Finally, according to a [2019 report looking at the impacts of bike lanes](#) on a different stretch of Bloor Street, local businesses reported getting more customers since the lanes were installed.

"Building bike lanes is about giving people another choice," Saxe said.

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