



TA Community Advisory Committee
Meeting of February 4, 2025

Correspondence as of January 24, 2025

Subject

1. Traffic Evaporation: reducing road capacity does not cause congestion
2. Following up from John's Member comment last meeting

Traffic Evaporation: reducing road capacity does not cause congestion

From Giuliano <giuliano@carlini.com>

Date Sat 1/18/2025 6:35 PM

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Hi all,

I just bumped into the term "Traffic Evaporation". The opposite of induced demand. Folks adjust.

Which makes sense. A few things I recall from news stories over the years:

In LA in 1984, during the LA Olympics, when the city experienced dramatically more visitors. And restricted roadway capacity to locals. And congestion went down. I lived there at the time. It was fantastic. Then everything returned to "normal", and traffic was hell. And folks talked about "why don't we go back to what we did during the Olympics ..." but no body with power did anything to make that happen.

After the Northridge quake, part of the 10 collapsed. No significant increase in traffic occurred. Again, I was there at the time. Heading into downtown should have been impossible. But folks adapted, and congestion was really no worse than before.

After the '89 earthquake the Embarcadero freeway collapsed. San Francisco dealt with it just fine. Ditto needing to tear down part of the Central freeway. And now after learning that this could be done, folks there push to remove the rest of it.

Recently the 10 in LA was damaged and closed due to a fire. Congestion did not increase.

In June 2023 the I-95 collapsed in Philadelphia. Congestion was "[close to normal](#)".

Google Scholar links for "traffic evaporation":

- https://nacto.org/docs/usdg/disappearing_traffic_cairns.pdf
This paper reports on two phases of research, resulting in the examination of over 70 case studies of roadspace reallocation from eleven countries, and the collation of opinions from over 200 transport professionals worldwide. The findings suggest that predictions of traffic problems are often unnecessarily alarmist, and that, given appropriate local circumstances, significant reductions in overall traffic levels can occur,
- <https://www.sciencedirect.com/science/article/pii/S2213624X22002085>
Traffic evaporation – i.e. the opposite of induced traffic – is acknowledged as a well-established phenomenon
- <https://www.researchgate.net/publication/376521935>

Results suggest that irrespective of buffer size, the impact of temporal 10 road pedestrianization on cross-sectional traffic flow of surrounding roads is negligible.

- <https://www.research-collection.ethz.ch/bitstream/handle/20.500.11850/693886/1/v965.pdf>

page 13

Concept of traffic evaporation is opposite of induced demand

- <https://www.onestreet.org/resources-for-increasing-bicycling/115-traffic-evaporation>

Traffic evaporation is a phenomenon that has resulted from strategic removal of road space previously dedicated to motor vehicles. This is not the expected result.

- https://www.onestreet.org/images/stories/Disappearing_traffic.pdf

allocating roadspace from general traffic, to improve conditions for pedestrians or cyclists or buses or on-street light rail or other high-occupancy vehicles, is often predicted to cause major traffic problems on neighbouring streets. ... The findings suggest that ... significant reductions in overall traffic levels can occur,

- https://www.onestreet.org/images/stories/Price_of_Anarchy_in_Transp_Networks.pdf

Uncoordinated individuals in human society pursuing their personally optimal strategies do not always achieve the social optimum. Instead, strategies form Nash equilibria which are often socially suboptimal... simply blocking certain streets can partially improve the traffic conditions..

- <https://thecityfix.com/blog/traffic-evaporation-what-really-happens-when-road-space-is-reallocated-from-cars/>

evidence shows that road building, instead of reducing congestion, actually increases traffic.

...

When lanes were reassigned from car traffic to higher-capacity modes – sidewalks, bike lanes and bus or rail lanes – traffic issues were less severe than expected, and traffic volumes were significantly reduced.

...

There was not a traffic apocalypse. Traffic was reduced not only for the roads where lanes were reassigned, but on nearby streets too in most cases.

- <https://rapidtransition.org/stories/reducing-roads-can-cause-traffic-to-evaporate/>

In April 2019 a heavily-used bridge across the River Thames in London was closed indefinitely due to structural problems. Local media were full of alarm, warning about the likely traffic congestion that would result. But, curiously, several months later, the signs are that the opposite may be happening. Pollution levels in key nearby centres have gone down, a strong indication that fewer cars are on the roads. Could this be the latest sign of one of the best kept, and counter intuitive secrets in urban planning, that less road space doesn't increase congestion but leads to a drop in vehicle numbers? In a world looking to quickly cut carbon emissions it's an insight that could prove revolutionary.

Imagine if we closed some roads to cars and traffic congestion actually reduced as a result. This sounds counter-intuitive; yet, it is exactly the effect that was revealed by research in the 1990s in a number of cities around the world. This result was described as 'traffic evaporation' in the seminal 1998 UK study of 100 locations

giuliano

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Drive a bike a bit more often and cars a bit less. You'll be healthier and happier, and so will our world.

Following up from John's Member comment last meeting

From John Fox <jd_fox@att.net>

Date Fri 1/24/2025 12:08 PM

To cacsecretary [@smcta.com] <cacsecretary@smcta.com>

Cc Peter Skinner <SkinnerP@samtrans.com>

📎 1 attachment (10 MB)

CPSC-2024-0008-0157_attachment_1.pdf;

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Lauryn - is it OK for you to send this around to the CAC as a follow-up to my Member Comment? If so thanks.

At the CAC meeting I mentioned I was trying to follow some of the safety issues with school age children and young adults riding E-Bikes, and how some communities are trying to enforce the California laws.

Here are a couple links for those who are interested, the California laws on E-bikes did change in the last 2 years. I am trying to find out if any Police or school agency in San Mateo county has tried to act to improve safety as it seems Marin county, and some municipalities, are trying to both educate and enforce.

<https://www.saferoutestoschools.org/education/e-bike-education/>

<https://www.srpd.org/press-release.php?id=771>

This Comment to the CPSC is lengthy but I think makes excellent points.