



- HOME
- TOPICS
- DEEP DIVE
- OPINION
- LIBRARY
- EVENTS
- JOB

Get Supply Ch

The free newsletter cover

Enter your work email



By signing up you agree to our

DEEP DIVE

New York City's next big congestion challenge hides in plain sight

Crowd-sourced logistics gives average drivers a new way to make extra cash and presents an already bursting city with a new traffic cha

By [Emma Cosgrove](#)

Published Nov. 12, 2018

[in POST](#)
[f SHARE](#)
[t TWEET](#)

The distance between the Whole Foods Market at 57th Street and Second Avenue and the West Side Highway that runs along the Manhattan is two miles. In an empty city that drive would take five minutes. On an unremarkable Friday morning in October, it tak

New York City is tied with Moscow for the second-most congested city in the world (after Los Angeles). But it's not the big, noisy parts o are causing the most problems.

With e-commerce fully integrated into our everyday lives and more goods moving around New York's already congested streets, last-mile steadily increase like a frog slowly boiling in water — except instead of a dead frog, New York City's streets just slowly come to a stop.



There's a massive amount of infrastructure and organization that goes into keeping trucks in New York City from interrupting traffic while industries. Third-party logistics providers and city authorities are working on new ways to manage both traffic and curbside interference

Sure, delivery vans have had carte blanche in recent years, but there's a new form of on-demand delivery on the rise that's much harder much harder to blame: enter crowd-sourced logistics.

Crowd-sourced logistics

The food world knows this model well: Doordash, UberEats, Deliveroo and Postmates, among others, all use independent contractors to pick up deliveries job-by-job at will. These carriers sometimes use cars, but because of the nature of food delivery (it's gotta stay hot), distances tend to be shorter and more easily handled by bicycle, motorbike or on foot.

Fetchr, Deliv, Roadie, Amazon Flex, Hitch and other contemporaries are offering the same service for parcels, and that small tweak in the model could have an outsized effect on congestion.

"In crowd-sourced logistics, there are two trade-offs that happen" explained Alison Conway, associate professor of civil engineering at City College of New York, who has conducted several pilot studies on travel behavior and e-commerce. The first is the person making the trip for the orderer, who may or may not already be heading in that direction. And then there's the person who ordered, who can use that time to make yet another cart trip.

In Conway's eyes, the model is less efficient than making a trip to the store or even traditional e-commerce that relies on third-party logistics, she told Supply Chain Dive. But there are a few reasons why it is an attractive option for shippers, said Mark Gorlin, CEO of Roadie.

Where crowd-sourcing seems to function best for shippers at least, is when existing delivery capacity is maxed out or otherwise challenged, according to the UPS [Road to Sustainable Logistics Report](#).

On top of on-call delivery capacity, Gorlin said that Roadie's specific model aims to recruit drivers already headed in the direction of the delivery, catching deliveries whenever possible. Early recruiting efforts, for example, targeted airport staff who frequently exit their base airport and drive to residential communities where lost and left bags almost certainly need to go.

Get supply chain news like this in your inbox daily. Subscribe to Supply Chain Dive:

 SIGN UP

By signing up you agree to our [privacy policy](#). You can opt out anytime.

For this reason, most Roadie drivers don't work "shifts" like [Amazon Flex](#) drivers do. Instead, they work in a little extra money-making to the trips they already need to make — or at least that's the goal. Roadie calls it "on the way" delivery.

"That's our destination — does it happen every time? No absolutely not. But it happens more now than it did two years ago. Our system is going to try to pick who is most likely going in that direction," Gorlin told Supply Chain Dive.

According to Conway, there's not much research and even less real data mapping the impact of crowd-sourced parcel delivery on urban areas. But companies like Home Depot are starting to warm up to the concept to get large format items like appliances delivered faster and is working with Roadie and Deliv on [same-day deliveries](#).

Gorlin said that when retail employees take Roadie deliveries on their way home, the driver may even come with some expertise included.

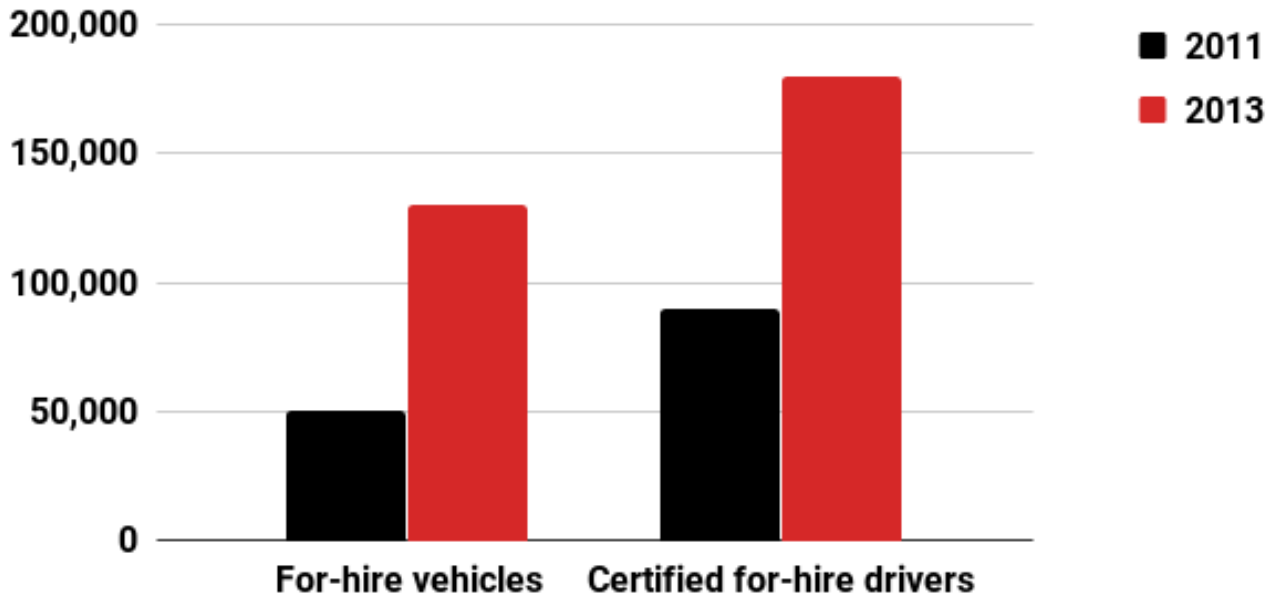
Is traffic really getting worse?

If crowd-sourced delivery drivers really are "on the way," the their impact on congestion could be minimal, but not all companies operate this way, and even Gorlin admits that Roadies doesn't meet the standard with every trip. Whether or not crowd-sourced logistics adds to or decreases road congestion, traffic is indeed getting worse already.

A [2017 report from the supply chain firm MHI](#) projected that urban freight delivery would grow 40% by 2050. And the growing problem of congestion isn't even primarily attributed to delivery vans and trucks.

[For-hire vehicles](#) on New York streets have ballooned from 50,000 in 2011 to 130,000 now, and certified drivers have grown in number from 90,000 to 180,000 with the vast majority of the growth coming from ride-share services, like Uber and Lyft, according to the mayor's Taxi and Limousine Commission chair in May.

For-hire vehicles have taken over New York City's streets



 Credit: Emma Cosgrove, Supply Chain Dive / Data: Taxi and Limousine Commission

In April, the state imposed a \$2.75 surcharge on single-passenger ride-share trips in a large chunk of Manhattan, and a \$2.50 surcharge for taxis. And in April, the city created a [new type of license](#) just for ride-share drivers (applicable to those driving for companies making more than 10,000 trips per day) and put a cap on the number. The move made New York the first city to restrict ride-shares in this way.

So drivers need a license to transport people, but they don't need a permit to transport goods.

"Based on the field observations we did, we did see an increase in the number of smaller vans and smaller vehicles delivering to especially the really high-density locations," said Conway, who explained that the problem with that is, again, efficiency. "Those vehicles are occupying space less efficiently than a traditional van used by UPS or FedEx making those deliveries," she added. So how does a city incentivize efficiency?

Congestion pricing to the rescue?

To move the needle on road congestion, New York City is closer than it ever has been to a congestion charge.

A congestion pricing bill that would institute a charge for entrance to central Manhattan failed to pass in the New York State Legislature earlier this year, but is still gaining support. Ride-share companies like Uber and Lyft are actually in favor of congestion pricing because they see it as a [favorable alternative](#) to putting caps on the number of ride-share drivers on the road, which has been considered by New York in the past.

New York's governor Andrew Cuomo recently called congestion pricing "[the only realistic option](#)" and the [New York Times Editorial Board](#) is in favor as well, but the bill still lacks support from Mayor Bill de Blasio.

A Riders Alliance analysis found that the plan would drastically reduce the drive time to midtown Manhattan from New York's outer boroughs, especially [Brooklyn and Queens](#). But, the effect on the supply chain is likely to be small if London's congestion pricing is any kind of guide.

A [2014 study](#) of freight carriers' reactions to London's congestion charges from 1994 to 2012 found that carriers either ate the cost or passed it on to customers, but did not decrease trips and actually benefited from less overall traffic in congestion zones.

The study did find however, that traditional carriers consolidated their loads to squeeze more deliveries out of every congestion charge — an option not available to a single delivery gig market.

"No evidence was found of re-routing of freight traffic or avoidance traffic around the charged zone," said the study, which found that most carriers passed on the charge to their customers who passed it on to consumers.

What *can* help?

Data is what can really help. The problem is figuring out how to get it.

Location data harvested from phones can help to understand overall movement around the city, but not the purpose or efficiency of the movement.

Uber has historically shared its trip data with the city of New York to facilitate better traffic flow and in September it pledged to spend \$10 million to help cities develop more efficient transportation policies and reduce congestion and vehicle emissions.

Right now, most modern delivery fleets are equipped with GPS tracking and navigation that dispatchers can control to keep drivers on the fastest, most efficient course. Gig-driving companies, whether it be transporting people or things, do this too.

But unless the companies provide this data to the city, researchers like Conway can only model behavior based on observation — a tall order because crowd-sourced delivery vehicles hide in plain sight.

Follow Emma Cosgrove on [Twitter](#)



Filed Under: [Regulation](#) [Logistics](#) [Technology](#)

Top image credit: Getty Images

MOST POPULAR

- DIVE AWARDS**
The Supply Chain Dive Awards for 2018
- US, Mexico and Canada sign new trade deal
- Flexible warehouse schemes emerge to meet supply chain demands
- To optimize fulfillment, logistics have to play along
- DIVE AWARDS**
Company of the Year: UPS

STAFF PICKS

Timeline: How the US ended up in a global trade war

What you need to know about smart manufacturing

Moving parts: How the automotive industry is transforming

Trump warns of tariffs on another \$267B imports from China

What you need to know about order fulfillment

Get Supply Chain Dive in your inbox

The free newsletter covering the top industry headlines

SIGN UP

By signing up you agree to our [privacy policy](#). You can opt out anytime.

EXPLORE

[Submit A Tip](#)

[Editorial Team](#)

About
Newsletter
Article Reprints
Press Releases

What We're Reading
Advertising
Contact

RELATED PUBLICATIONS

Marketing Dive

Retail Dive


GET THE APP



FOLLOW



FEEDBACK

 I'm not a robot  reCAPTCHA
Privacy - Terms