Do Ride Hailing Platforms Increase Congestion?

- Transportation network companies (TNCs) like Uber and Lyft have grown substantially, with further gains likely despite some policy guardrails.
- There is anecdotal evidence that TNCs have induced an increase in demand for miles traveled, resulting in more congestion and CO₂ emissions.
- At the same time, some analysts have found that it is contributing to a decline in public transit ridership.
- Access to TNC anonymized, big data would facilitate better research and understanding of economic and energy effects.

It was 1968 and anyone who traveled the streets of New York City knew that the Jimi Hendrix guitar riff on congestion was real and personal. His hit called “Crosstown Traffic” depicted the challenge of traversing Midtown Manhattan — the slow, grinding traffic in vehicles that were getting average fuel economy of 12.2 miles per gallon.

Fast forward 50 years to 2018 and the traffic is “as bad as it ever was.” The fuel economy of all vehicles has improved: by 2016, it had risen to 17.9 MPG (see 1st chart).

- A 2016 study by a former NYC transportation official Bruce Shaller provides some insights into the issue. The city has seen significant increase in TNC licensed vehicles and ridership (see 2nd chart).
- Since 2013, 600 million miles of additional travel (netting out the decline in taxi and limos as well as personal vehicle trips) was attributed to TNCs.
- His study shows that in NYC, TNCs have likely induced new demand for travel services and contributed to congestion.
- The University of Texas Transportation Institute estimated that NYC metro area congestion costs already exceeded $14 billion in 2014 (before the TNC growth hit) with nearly 50% of time spent in traffic jams during the peak commuting hours.

More recently a researcher at the National Renewable Energy Laboratory decided to get behind the wheel, collect data, conduct a survey of customers, and gauge TNCs impacts on urban areas.

- Alejandro Henao licensed as an Uber and Lyft driver and conducted 416 rides and 311 passenger surveys.
- He found over 40% of his time was listening to Grateful “deadheading,” i.e., no passengers.
- His survey indicated that over 22% of customers indicated that Uber/Lyft ride was substituting for public transport.
- More research is needed on the energy impacts from this change in travel behavior.