# EMERGING TECHNOLOGIES TRANSPORTATION NETWORK COMPANIES (TNCS)

## **DEPLOYMENT FACTS:**

- TNCs started in the US in 2009. In 2018 US annual ridership reached **4.2 billion rides.**<sup>1</sup>
- Taxi trips have decreased while TNC trips have increased, and overall number of for-hire trips has increased significantly.<sup>1</sup> (See Figure 1)
- Globally, in 2019 there were 996 million users, an increase of 260 million users from 2017.<sup>2</sup>
- Peak hours of use for TNCs in the US are: 7am-9am and 5pm-7pm weekdays, 10am-12pm and 5pm-7pm on weekends.<sup>3</sup> (See Figure 2)

#### Fig. 1: TNC and Taxi Ridership in the US, 1990-2017



Source: Based on The New Automobility. Schaller, 2018

#### Fig. 2: Peak Ridership Hours (Uber)



#### **RIDERSHIP:**

- Overall US Ridership in 2018:<sup>5</sup>
  - **36% of total US population** used TNCs. Up from 15% of total US pop. in 2015.
  - **51% of US millennials** used TNC services. Up from 21% of US millennials in 2015.
  - 19% of US rural residents + 45% of US urban residents used TNC services.

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#### Fig. 3: US TNC Ridership Demographics 2017



% of US Population: 0% 10% 20% 30% 40 Source: Based on Disruptive Transportation. Clewlow + Mishra, 2017



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#### **MODE SHIFT**:

- 60% of TNC users report that they would have used transit, walking or biking for trips were a TNC not an option.<sup>1</sup>
- Each year after a TNC first enters a market there is a 1.3% reduction in heavy rail ridership and 1.7% reduction in bus ridership.<sup>6</sup> (See Figure 4)
- Nationally, only 7% of TNC users combine their TNC trips with public transit on a weekly basis. 35% do so occasionally.<sup>6</sup>

## **IMPACTS:**

- In some major US cities like Washington, Boston, and San Francisco, 7-13% of total traffic in the core county is attributed to TNCs, despite 2-3% of regional trips being TNCs.<sup>7</sup> (See Figure 5)
- Using publicly available data, Schaller found that the average private TNC trip is 63% longer than a private auto trip. Using this as a baseline, he then modeled different scenarios for switching to TNCs. In each case, switching from private auto travel or other modes actually increases total vehicle miles traveled (VMT.)<sup>1</sup> (See Figure 6)
- TNC drivers spend a significant portion of time traveling to other destinations or waiting to be hailed, which is known as the **cruising rate**.
- In New York City, the cruising rate for ride hailing services was 41% in 2018. NYC attempted to cap cruising rates at 31% by 2020, but was sued by Uber and blocked by the courts.<sup>8</sup>

Fig. 4: Change in Transit Ridership after TNCs Enter a Market



Data source: Understanding the Recent Transit Ridership Decline. Graehler, Mucci, & Erhardt, 2018.

#### Fig. 5: Percentage of TNC Traffic in San Francisco



Data Source: Estimated TNC Share of VMT in Six Metropolitan Regions. Fehr & Peers, 2018

## Fig. 6: Change in Overall Mileage from TNC Private and Shared Ride Trips



Source: Based on The New Automobility. Schaller, 2018

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UNIVERSITY OF OREGON TNCs | January 2020 | 2

### **SOURCES:**

Graphic design by Urbanism Next, data sourced from:

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