

TNCs Today: A Profile of San Francisco Transportation Network Company Activity



AC Transit Board
November 8, 2017

Motivations, Purpose & Methodology

- ▶ SF as ground zero for “emerging mobility services and technologies”
- ▶ Perception of great number of TNC vehicles on SF streets, but no data
- ▶ Provide information on number, location, time-of-day in SF
 - ▶ Drivers and vehicles
 - ▶ Trips
 - ▶ VMT (includes in-service and out-of-service)
- ▶ Data
 - ▶ Gathered by Northeastern University
 - ▶ All SF, every 5 seconds for 6 weeks
- ▶ Limitations
 - ▶ Imputed trips: Not directly observed
 - ▶ Intra-SF trips only



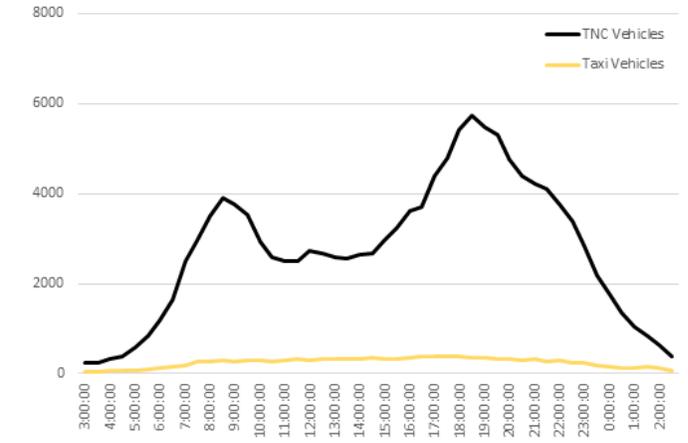
How many TNCs operate in San Francisco today?

- ▶ 45,000 drivers contacted by City
- ▶ 21,000 complied with license registration
 - ▶ Only 29% are SF residents.
- ▶ At peak, approx. 5,700-6,500 vehicles on the road
- ▶ 15 times the number of taxis

Estimated SF-Registered TNC Businesses

	%
Alameda	21%
Contra Costa	12%
Marin	2%
Napa	0%
San Francisco	29%
San Mateo	16%
Santa Clara	6%
Solano	2%
Sonoma	1%
Outside Bay Area	10%
Total	100%

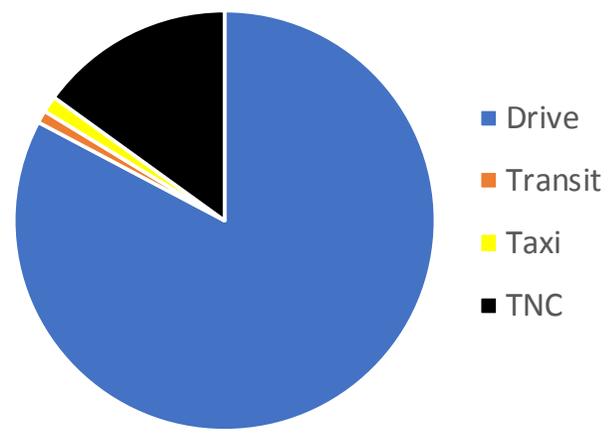
TNC Vehicles on Street by Time-of-Day (Weekday)



How many TNC trips are occurring in San Francisco?

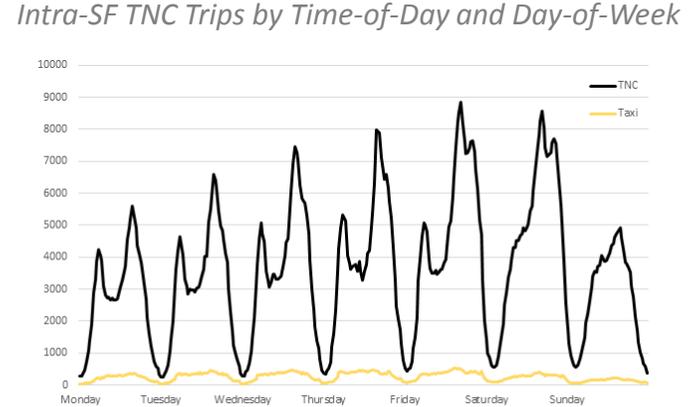
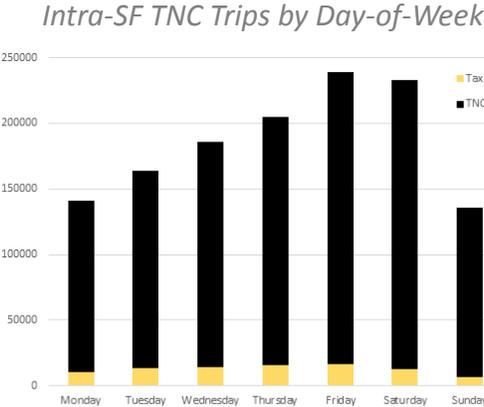
- ▶ 170,000 TNC intra-SF vehicle trips on typical weekday
- ▶ 15% of intra-SF vehicle trips
- ▶ At least 9% of intra-SF person trips
- ▶ Conservative estimate (excludes trips with an end outside SF)

Vehicle Trips by Mode



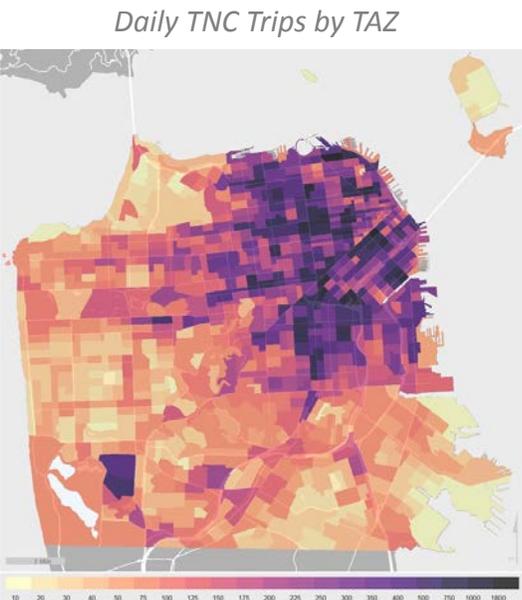
When are TNC trips occurring in San Francisco?

- ▶ **Varies by day-of-week**
 - ▶ 222,500 trips on Friday
 - ▶ 129,000 trips on Sunday
- ▶ **Varies by time-of-day**
 - ▶ During peak when congestion is greatest



Where are TNC trips occurring in San Francisco?

- ▶ **Concentrated in the densest and most congested parts of San Francisco**
- ▶ **At peak periods, TNCs comprise ~25% of vehicle trips in South of Market.**



Daily TNC % of Vehicle Trips By Supervisorial District

DIST	AM %	PM %
1	8%	7%
2	20%	17%
3	19%	20%
4	4%	3%
5	14%	13%
6	25%	26%
7	5%	4%
8	10%	8%
9	10%	9%
10	7%	7%
11	3%	2%

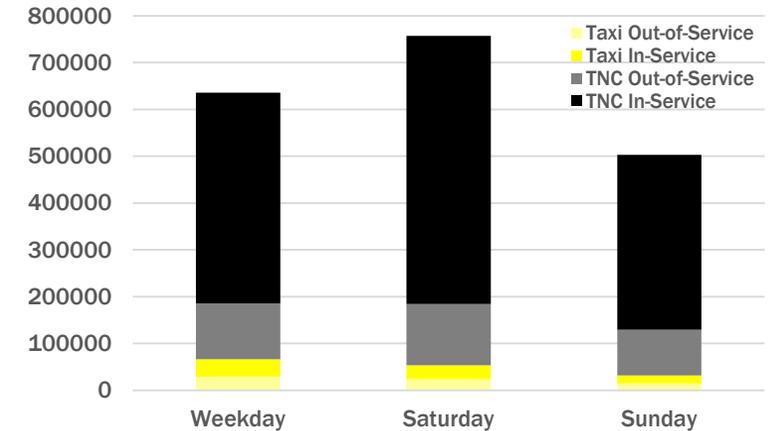
How many vehicle miles traveled (VMT) do TNCs generate within San Francisco?

- ▶ Intra-SF TNC trips generate at least 570,000 VMT on a typical weekday
 - ▶ 20% of intra-SF weekday VMT
 - ▶ 6.5% of total weekday VMT
- ▶ Primarily during peaks

Intra-SF TNC & Taxi Trip Lengths

	TNCs	Taxis
Trips	170,400	14,400
VMT	569,700	65,900
Average Total Trip Length	3.3	4.6
Average In-service Trip Length	2.6	2.6
Average Out-of-Service Trip Length	0.7	2.0
% Out-of-Service Trips Length	21.0%	43.6%

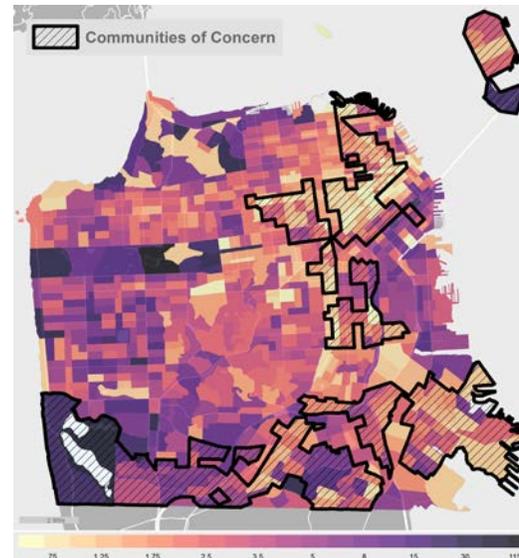
Intra-SF TNC & Taxi VMT by Day-of-Week



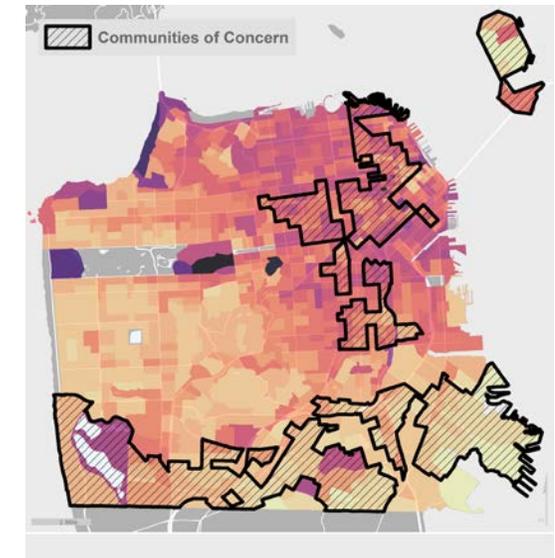
Do TNCs provide a high degree of geographic coverage throughout the entire City?

- ▶ Broader coverage across the city than taxis.
- ▶ Fewer trips per population and employment in southern and southeastern areas of the city

TNC Pickups per Taxi Pickup



TNC Pickups per Population + Employment



Future Research & Costs

▶ Research

- ▶ **TNCs and Safety:** How do TNCs affect the safety of people who use the roads, including transit riders, bicyclists and pedestrians?
- ▶ **TNCs and Transit Demand:** How do TNCs complement, compete with, or otherwise affect transit ridership?
- ▶ **TNCs and Transit Operations:** How do TNCs affect transit service operations?
- ▶ **TNCs and Congestion:** How do TNCs affect roadway congestion, delay, and travel time reliability?
- ▶ **TNCs and Disabled Access:** To what extent do TNCs serve people with disabilities?
- ▶ **TNCs and Equity:** Can TNCs be accessed by all San Francisco residents including communities of concern?
- ▶ **TNCs and Air Quality:** How do TNCs affect air quality emissions?
- ▶ **TNC Policies:** What is the role of government in regulating TNCs?
- ▶ **TNC Best Practices:** What potential impacts of TNCs have other agencies identified, and what policies have they enacted in response?

▶ Costs

- ▶ Northeastern University collected data and shared with SFCTA at no cost
- ▶ SFCTA staff time for TNC Today report approx. \$30K

Questions?

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