

For the past decade, Transportation Network Companies (TNCs), such as Uber and Lyft, have offered ride-hailing services in the San Diego region. TNCs have revolutionized transportation by utilizing smartphone applications to request rides in real-time. Access to this newer form of on-demand transportation provides a valuable transportation option for tourists and residents.

In December 2021, the SANDAG Board of Directors adopted San Diego Forward: The 2021 Regional Plan, a blueprint that outlines a transformative vision for how our region will grow through 2050 and beyond. Flexible Fleets are one of the plan's "5 Big Moves" or key transportation strategies. Flexible Fleets are shared mobility services such as TNCs, other on-demand services, rideshare, bikeshare, and scootershare that provide last-mile connections or fulfill complete trips. Flexible Fleets can connect San Diegans to transit or enable travel where transit is not readily available. Understanding TNC usage patterns in the San Diego region, including how often they're used, when, why, and by whom, is essential for developing plans, programs, and policies that will ensure TNCs and other Flexible Fleets are equitably and sustainably integrated into our transportation system.



Currently, TNCs contribute to traffic congestion, competition for curb space, and greenhouse gas emissions while idling and circling, awaiting their next fares, or "deadheading" (traveling without passengers).<sup>1</sup> According to the California Air Resources Board's (CARB) 2018 Emissions Inventory Report, 38.5% of total TNC Vehicle Miles Traveled (VMT) in California can be attributed to deadhead miles, making this the second greatest factor that can impact CO<sub>2</sub> emissions from these services.<sup>2</sup> These impacts and others present challenges for local agencies working to create an environmentally sustainable multimodal transportation system.

### Did you know?



Around 1 in 4 individuals who use TNC do so at least weekly.



3 in 5 TNC users are between the ages of 18 and 34.



2 in 5 TNC trips are made by individuals with household incomes less than \$50,000.

<sup>1</sup>San Francisco County Transportation Authority. (n.d.). *TNCs and congestion*. <https://www.sfcta.org/projects/tncs-and-congestion>  
<sup>2</sup>California Air Resources Board. (2019, December). *SB 1014-2018 base-year emissions inventory report*. <https://ww2.arb.ca.gov/resources/documents/2018-base-year-emissions-inventory-report>

## About the TNC ride-hailing study

In 2019, SANDAG, with the Southern California Association of Governments (SCAG) and the San Francisco Bay Area’s Metropolitan Transportation Commission (MTC), partnered to conduct a survey on TNC ride-hailing consumers and their travel behaviors. Because this study was conducted in 2019, it serves as a pre-pandemic baseline to further ride-hailing research amid changing economic conditions, transportation and fuel costs, hybrid work styles, and travel preferences. This InfoBits report presents findings about TNC ride-hailing behavior, explores how TNCs fit into the transportation landscape, and provides insights on how these data can inform SANDAG decision-making, policy development, and long-range regional transportation planning to ensure ride-hailing services and other forms of new mobility are deployed in a way that supports our regional goals.

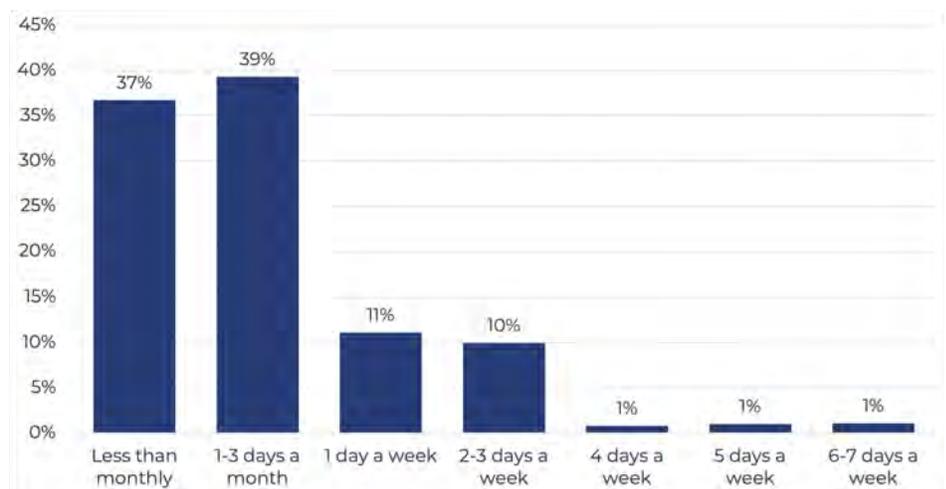
Nearly 2,400 San Diegans participated in the TNC study during May and June 2019.<sup>3</sup> Data were collected using rMOVE™, a location-aware smartphone app through which each participant kept a detailed travel diary for seven days. Participants provided demographic information (age, sex, race/ethnicity, and household income), employment status, and number of persons and vehicles in their households. For every trip taken by participants during the seven day, the app collected excursion details, including transportation mode used, GPS traces, trip purpose, cost/fare, and how they traveled to transportation and ultimately, to their final destinations.

## TNC RIDE-HAILING BEHAVIORS IN SAN DIEGO

### How often are San Diegans using TNCs?

A majority of the San Diegans (51%) surveyed considered themselves TNC users, with most estimating that they hail TNCs 1 to 3 times a month or less than monthly (Figure 1). However, actual TNC use during this study was reported in just 1% of all weekend trips and less than 1% of all weekday trips (Figure 2). The possible disparity between perceived use and actual use can be explained by several factors, such as inconsistent or streaky user demand for TNCs throughout the year, the observation period being limited to seven days, and the availability of alternative transportation during that period.<sup>4</sup>

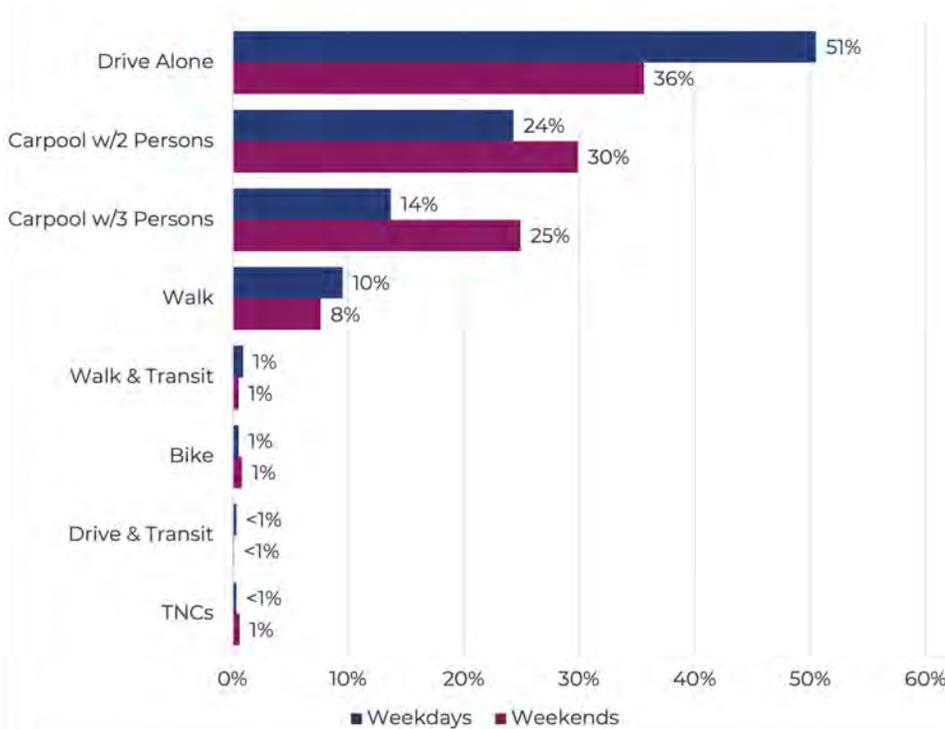
**Figure 1 : San Diegans perceived usage of TNCs**



<sup>3</sup>Study subjects were recruited through a random mass mailing of 67,439 invitations across the San Diego region, with 2,997 recruited (4.4%) and 2,382 recruited subjects completing the study (79.5% conversion). To increase the likelihood of reaching frequent TNC ride-hailing service customers, oversampling occurred in census tract block groups with individuals and households possessing the demographic characteristics most correlated with ride-hailing service usage.

<sup>4</sup>TNC study participants in the San Francisco Bay Area and in Los Angeles and Orange Counties had slightly higher TNC use on weekdays (1% each, compared to <1% in San Diego) and the same use on weekends (1%).

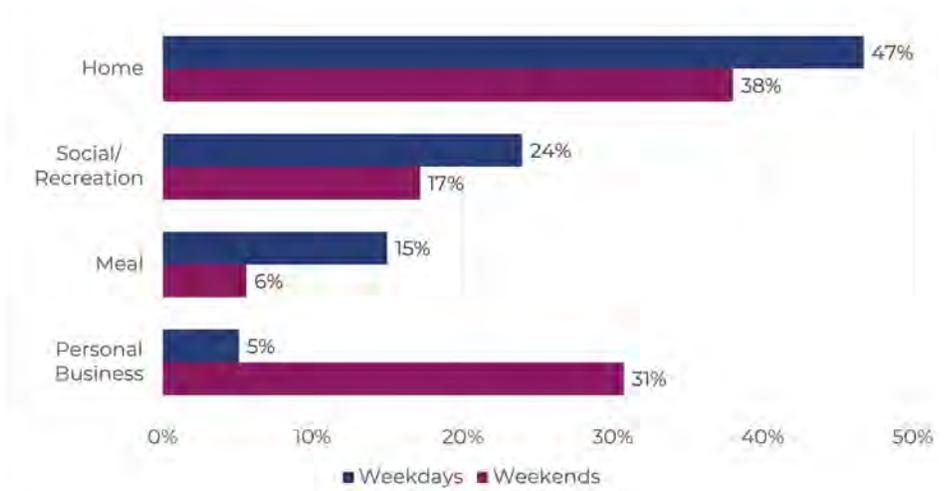
**Figure 2: Transportation modes used during San Diego study**



## Why are San Diegans using TNCs?

As Figure 3 shows, San Diegans reported travelling home as their primary reason for using TNCs on both weekdays (47% of all trips) and weekends (38%). The second most common reason was Social/ Recreation on weekdays, but personal business on weekends. Traveling to get a meal represented 15% of weekday trips, but only 6% of weekend trips.

**Figure 3: Weekday transportation modes during San Diego study**



## What are the typical characteristics of San Diego TNC ride-hailing trips?



Most TNC users scheduled rides right before (37%) or within an hour (33%) of their trips.



TNC trips peaked on Saturdays (28%). More than two in five (44%) of all TNC trips were on Fridays and Saturdays (Figure 4).



On weekdays, 6 p.m. was the peak time for TNC use (Figure 5).

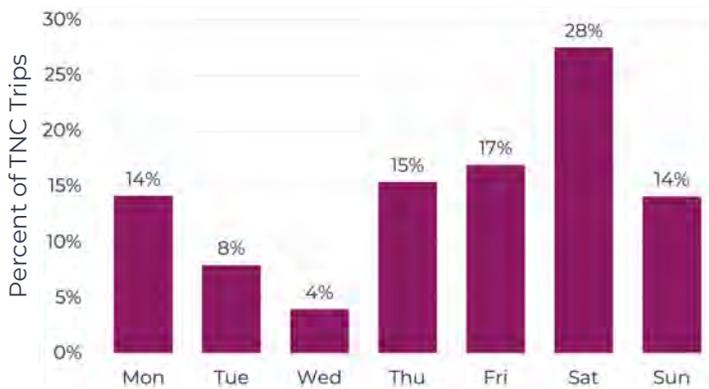


Just over one in five (21%) of TNC trips were hailed as “pooled” service; 71% as “regular” service; and 7% hailed as a “premium” service.<sup>5</sup>

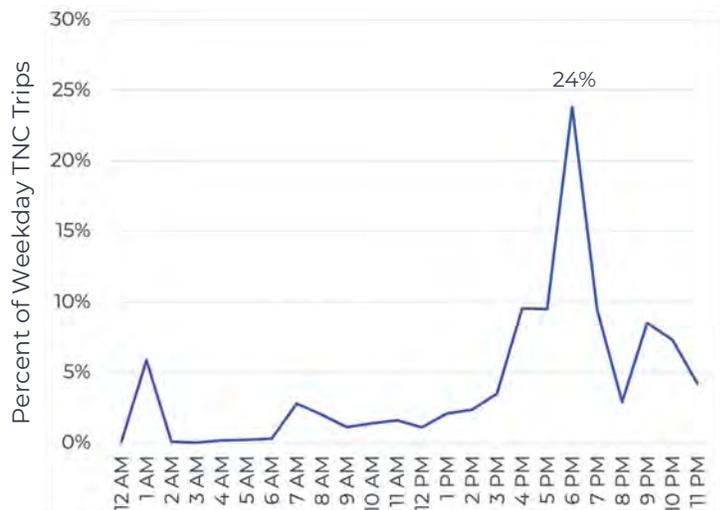


Regular TNC trips, on average, had a higher passenger occupancy than pooled TNC trips. Nearly three out of four (73%) regular TNC trips had more than one passenger. Most pooled TNC trips (58%) had a single passenger, suggesting that this option is not being used as frequently as it could.

**Figure 4: TNC Trips by Day**



**Figure 5: Weekday TNC trips by hour**



<sup>5</sup>TNCs typically offer three service types with varying price points. “Regular” refers to service hailed by a single traveling party. “Pooled” refers to service in which more than one traveling party can share at least part of a trip, often resulting in savings. “Premium” refers to service provided with luxury or large-capacity vehicles, with fares higher than regular service.

## Are San Diegans using TNCs with transit to complete trips?

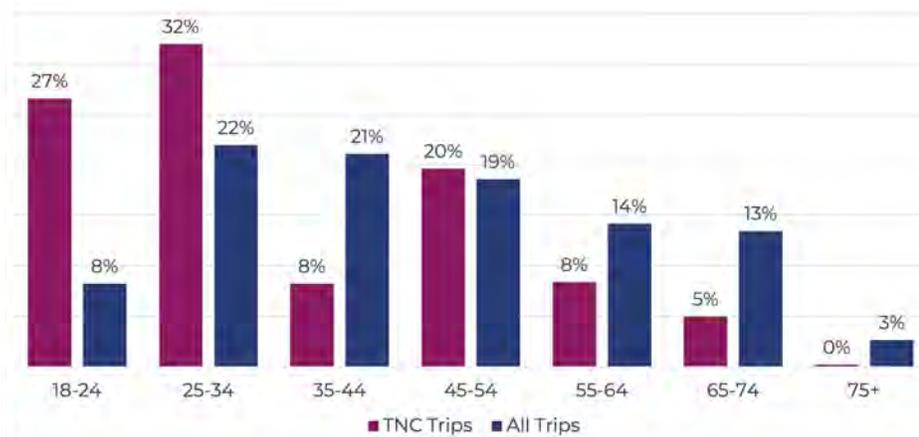
Study data showed that San Diegans very rarely use (<1%) TNCs either to get to public transit or upon exiting transit to complete their trips. Most participants walked (75%) or drove (4%) to and from transit during the study. Finding innovative ways to encourage TNC use with transit could help promote transit ridership and other forms of ridesharing that can reduce VMT.

## What transportation modes are TNCs replacing?

When TNC riders were asked how they would have made the same trip if Uber, Lyft, or similar services did not exist, most study participants (63%) said they would have taken a taxi. Respondents, who were allowed to select multiple alternatives, reported they would have also considered driving their cars (45%); taking transit (30%); or walking/biking (20%). SANDAG could explore fees, incentives, and gamification to encourage individuals to select more sustainable modes like transit, walking, and biking and promote the pooled TNC service option when feasible.

## What are the demographic characteristics of San Diego TNC users?

**Figure 6: Trips by Age**



Compared with the characteristics of all San Diego study participants across all trip modes, TNC users, on average, were younger, more likely to be White, and more likely to have a household income less than \$75,000. As Figure 6 shows, TNC use was much more pronounced among participants ages 18 to 34, who composed 30% of all trips, but 58% of all TNC trips.

**Figure 7: Trips by Race/Ethnicity**

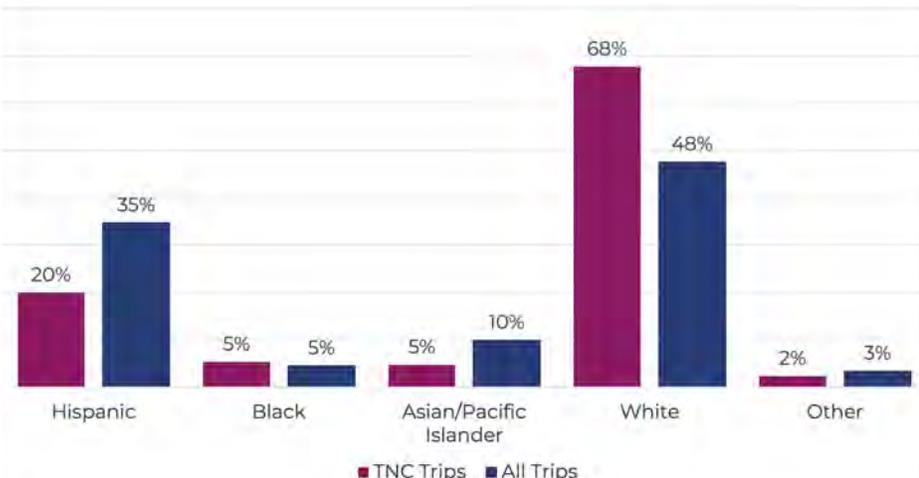


Figure 7 illustrates that Hispanics and Asian/Pacific Islanders were underrepresented in TNC ridership (Hispanics took 35% of all trips but only 20% of TNC trips; Asian/Pacific Islanders took 10% of all trips but only 5% of TNC trips). Whites were overrepresented (48% of all trips, 68% of TNC trips).

Figure 8: Trips by Household Income



Regarding income, 2 out of 3 (66%) TNC trips were taken by individuals who reported a household income of less than \$100,000, which is approximately San Diego's median household income<sup>6</sup> (Figure 8).

## PLANNING FOR TNC USE IN THE SAN DIEGO REGION

Flexible Fleets are a key component of the 2021 Regional Plan. SANDAG is proactively planning and implementing Flexible Fleet pilot projects to ensure services such as TNCs are effectively integrated into the transportation system. [The Flexible Fleet Implementation Strategic Plan \(FFISP\)](#) will develop a roadmap for Flexible Fleet pilot opportunities across the region that advance the region's transportation, climate, and equity goals. Key takeaways from the TNC survey provide valuable insight about TNC rider behavior that will inform the FFISP and future planning for Flexible Fleets:

- San Diegans showed a strong preference for the on-demand convenience, flexibility, and responsiveness of TNCs, with about 70% of TNC users booking rides right before their trips. This finding supports the valuable niche TNCs have in the mobility market as a convenient mobility option.
- Passenger occupancy was higher during “regular” TNC service, suggesting that “pooled” options are being underutilized as a method of reducing VMT. Programs that incentivize pooling may help encourage ridesharing among passengers that are headed to similar destinations. Employers can consider implementing commuter-benefit policies to incentivize pooling or ridesharing at workplaces to help reduce VMT and parking supply demands.
- Other than traveling home, the top purposes for TNC trips were social/recreation, personal business, and meals. Coupled with findings showing peak demand around 6 p.m. on weekdays, these data can inform curb space management at popular destinations during peak demand. Coordinating curb activity and optimizing under- or overused curb space will decrease congestion on streets and improve safety conditions for pedestrians, cyclists, and drivers.
- Less than 1% of San Diegans used TNCs to/from transit. Using TNCs to connect to transit can encourage greater transit use, thereby reducing VMT, congestion, and greenhouse gas emissions. In January 2022, the North County Transit District (NCTD) launched [NCTD+](#), a pilot with TNCs (Uber, Lyft, and TripShot) to provide discounted first- and last-mile connections for commuters using Sorrento Valley and Carlsbad Poinsettia COASTER stations. Expanding these discounts to additional transit stations and an integrated multimodal trip planning and trip payment mobile application could encourage TNC use as a connection to transit.

This 2019 TNC study serves as a valuable baseline for further research about TNC ride-hailing behaviors in a post-pandemic San Diego amid the rising popularity of hybrid work styles, soaring gas prices, escalating automobile purchase and maintenance costs, among other factors that could influence transportation mode selection. These study data provide a snapshot of TNC usage in an evolving environment, creating a great opportunity for SANDAG and other metropolitan planning agencies to plan, program, and develop policies that will shift how TNCs are used and operate.

<sup>6</sup>In 2019, the area median income for San Diego was \$92,500, according to the U.S. Department of Housing and Urban Development.