Airports’ Response to Transportation Network Companies

Challenges and Lessons Learned

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Transportation network companies (TNCs) are changing the way that passengers travel to and from airports. The changes are disrupting traditional airport ground access operations and are affecting airport revenues. To maintain secure, safe, comfortable, and efficient operations while allowing passengers to select their preferred travel mode, airport staff are implementing creative programs to accommodate, regulate, and manage these new services.

What Is a TNC?
Companies such as Uber and Lyft offer door-to-door, nonstop transportation at the request of customers via smartphone applications, or apps, that the companies offer and operate. The apps allow customers to connect with and to pay drivers. The transportation services are primarily provided by independent drivers in their personal cars—UberX is an example—although some services, such as UberBlack, offer transportation services using commercially licensed limousines and drivers. UberX is considered a TNC, but UberBlack is not, because UberBlack is licensed and regulated as a traditional limousine service.

UberBlack and other luxury car services are conducted by commercially licensed limousine drivers.
Regulating For-Hire Vehicles

Taxicabs, limousines, and other commercial vehicles—such as buses, vans, and courtesy vehicles—and their drivers are regulated by city, county, or state regulatory agencies, as well as by airports. Local regulatory agencies establish minimum standards for vehicle safety and appearance, driver qualifications and experience, insurance, the transportation of passengers with special needs, and other aspects of operations. These agencies typically also establish maximum fares or rates, and in some communities, they may set the number of taxicab permits or medallions to ensure appropriate service availability and driver income.

Airport operators supplement city and state rules governing commercial vehicles and their drivers to ensure the safety and security of airline passengers and of the airport roadways. Because the Federal Aviation Administration requires airports to be financially self-sufficient, airports frequently issue permits and charge fees to individual commercial vehicle owners and their drivers; this allows the airport to recover operating and administrative costs and recognizes that vehicle owners receive benefits from access to airline passengers.

TNC Challenges

Since their introduction in 2012, TNCs have increased in popularity, particularly in communities underserved by taxis. Customers who began to call on TNCs expected to be able to use them for travel to and from airports.

At first, the city and state agencies and the airports did not regulate TNCs. To ensure passenger safety and security and to maintain efficient roadway traffic operations, however, some airports attempted to require that TNCs obtain an airport permit to drop off or pick up customers. This raised several challenges.

First, unless the appropriate regulatory agency had authorized the operation of TNCs, most airports were reluctant to require or issue permits. Second, TNCs maintained that any permits would have to be issued to the company, not to the individual drivers or vehicles—a change from the taxis, limousines, and other commercial vehicles at most airports.

In addition, the companies preferred not to share driver names and vehicle identifications and balked at the prospect of regulators limiting the number of drivers and vehicles or setting maximum fares. The companies initially objected to proposed insurance requirements, as well as to airport fees.

Despite these challenges, in October 2014, Nashville International Airport became the first to negotiate successfully with the companies and issued a TNC permit. More than 50 airports now issue permits to TNCs, and more are expected in the next year. Once regulators enact rules governing TNC vehicles and drivers and allowing TNCs to operate legally in the state or city, the airports can issue permits and establish fees.

TNC companies have agreed to provide the requested amounts and types of insurance and to pay the fees established by airports for customer pickup and, at some airports, for drop-offs. The fees frequently are calculated according to the number of TNC vehicle trips recorded crossing a geofence—a virtual boundary around an airport defined by GPS coordinates. Several challenges remain for airport operators, including confirming the number of self-reported vehicle trips, assuring driver compliance with airport regulations, and licensing shared-ride services, such as LyftLine and UberPool, which do not yet have legal status at some airports.
Emerging TNC-related evidence shows a decline in taxicab trips from airports.

**Effects on Airport Travelers**

Because TNCs have been operating legally at airports for less than two years, the data available on their effects are scant. Initial data and anecdotal information provided by the operators of the airports serving Denver, Colorado; Portland, Oregon; and San Francisco, California (see Figure 1, below), and Washington, D.C., Dulles International suggest that the following changes have occurred in the use of traditional airport travel modes:

- **Fewer taxicab trips**—Taxicab trips from airports declined by 5 percent to 15 percent. Trips to the airports experienced a larger reduction, because of the increasing popularity of TNCs in downtown areas. Approximately half of passengers arriving by TNC had previously traveled to the airport in taxicabs. With the decrease in downtown trips, many taxicab drivers choose to wait at airports for potential customers, increasing the need for space to stage waiting vehicles and driver wait times.

- **Fewer shared-ride van trips**—The availability of nonstop, door-to-door TNC services at fares comparable to those charged by shared-ride vans has led to a 20 percent to 25 percent reduction in the number of customers choosing the van services.

- **Little change in prearranged limousines**—Limousine customers are more likely to request UberBlack or similar services than UberX or Lyft.

- **Less public transit ridership**—Approximately 21 percent of TNC customers previously used scheduled buses or trains, according to the available data.

- **Less use of rental cars**—Rental car transactions have declined 5 percent to 10 percent annually since the permitting of TNCs.

- **Less use of private vehicles**—Approximately 17 percent of TNC customers previously traveled in private vehicles, some of which required parking. The number of parking transactions—entries and exits—per airline passenger has declined by 5 percent to 10 percent at some airports since the permitting of TNCs.

**Effects on Revenues**

Several airports receive annual revenues of nearly $1 million from TNCs; San Francisco International receives more than $12 million. These revenues often
exceed the previous total revenues from taxicabs, shared-ride vans, and limousines.

Revenues from TNC customers who previously were dropped off or picked up by family members or friends or who took public transit represent a new source of revenue. The available information, however, suggests that TNCs are causing a decline in parking and rental car revenues per airline passenger. Parking and rental cars are the largest sources of non-airline revenues at airports; any loss in these revenues not offset by revenues from TNCs would be a concern for airport management.

**Effects on Operations**

Airports require TNC drivers to display decals identifying the company with which they are affiliated and to carry an electronic identification to confirm their licensing to the police. To avoid curbside congestion, airports have worked with the TNCs to establish geofence boundaries so that drivers without customers do not wait at curbsides but in designated hold areas.

Airports typically require TNCs to comply with the state and city regulations for driver background checks and vehicle inspections. By replacing multiple-occupant vehicles and vehicles that were parked, TNCs are increasing curbside requirements and adding to curbside congestion.

Airports are testing alternative customer drop-off and pick-up configurations, including the use of adjacent parking structures or a designated curbside level. Airports are also introducing software allowing enforcement officers to track TNC vehicles on airport property.

**Lessons Learned**

The recent history of TNCs indicates that the past is not a good predictor of the future and that innovation and technology quickly can change customer preferences and affect airport operations. Point-to-point carsharing services, self-parking vehicles, and ultimately autonomous vehicles are in development, and airport operators likely will need to be flexible in responding to the changes in travel patterns and operations that may result.

The Transportation Research Board’s recently published Special Report 319, *Between Public and Private Mobility: Examining the Rise of Technology-Enabled Transportation Services*, examines the policy effects of TNCs, and an Airport Cooperative Research Program Synthesis project is addressing the challenges and opportunities that TNCs present for airport operators. Additional research is needed to explore the impacts on airport revenues and facilities and to develop programs to address the impacts.