

Putting Taxis and TNCs in Context

Considerations for the Public Sector

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Transportation Research Board of the National Academies of Science, Engineering, and Medicine

- Convened committee of experts to examine the rise of smartphone-based mobility services
- Committee formed, vetted, and began work in June 2014

Committee Members

Brian Taylor, UCLA (chair)

Ryan Chin, MIT

Melanie Crotty, San
Francisco Bay Area MTC

Jennifer Dill, Portland State
University

Lester Hoel, University of
Virginia

Michael Manville, Cornell
University

Steve Polzin, University of
South Florida

Bruce Schaller, Consultant

Susan Shaheen, UC
Berkeley

Daniel Sperling, UC Davis

Marzia Zafar, California
Public Utilities Commission

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Committee Overview

- Committee members had expertise in:
 - Urban planning and transportation policy
 - Transit and shared use services
 - Regulatory and economic analysis
 - Transportation operations and technologies
 - Taxi operations and regulations
- Held 4 two-day meetings in 2014 and 2015 to gather information and draft the report

Information Gathering

- Committee staff reviewed journalistic and scholarly inquires
 - Relatively little of the latter
- Committee heard from:
 - Representatives of the taxi industry
 - Firms and regulators
 - Uber and Lyft
 - Carsharing operators
 - Insurance providers and regulators
 - City council members
 - Developers of other innovative services
 - Public transit representatives

Presentations Roadmap

- Brian Taylor
 - Overview of taxi and TNC economics
 - Drawing on work by committee member Michael Manville
 - Brief comments on several public policy issues examined in report
 - Committee Recommendations (at the end)
- Susan Shaheen
 - New mobility services: Implications for travel behavior
- Bruce Schaller
 - The future of the taxi industry in a post-TNC world

Where is this all headed? 2 Views

1. This is the tip of the iceberg
 - Real-time decision-making about trips, options, time provides quick, reliable, convenient ride service
 - Fare reductions and shared rides will accelerate current growth
 - The sky is the limit
2. Big changes, but for a niche market
 - The changes are significant for a few people, but not widespread changes in travel

From ridesharing to for-hire transport, information is a big challenge

- Getting a ride from someone else requires lots of information
 - Coordination
 - When/where will the rider & driver meet up, where will they go?
 - Negotiation
 - Can the rider & driver agree on terms?
 - Trust
 - Will rider and driver be safe sharing a ride?
- Regulation has emerged over the years to address each of these information problems

Why TNCs Thrive

- Peer-to-Peer app reduces information costs *and* upfront entry costs
 - Driver provides the vehicle in response to market demand
 - App removes need for dispatch service
 - Real time information for both driver and passenger
 - Driver/vehicle picture and ratings
 - Cashless transaction, digital footprints for trip
 - Information gleaned from all app users goes into setting real-time prices that can minimize shortages

What Surge Pricing Does

- Price *and* supply vary with demand
 - No price controls
 - No quantity or location controls
- Flexible employment means large pool of potential drivers on reserve
- Rising prices both *increases supply* and moderates demand



Could TNCs Become Monopolists?

- Uber and Lyft have significant market power
- But it may be difficult for them to restrain competition
 - Low entry barriers
 - People can drive for multiple firms



Security and Public Safety

- New services provide more information for both passengers and drivers
 - “Closer” to safety outcomes than vetting
 - This can increase safety for both drivers and passengers
- The effectiveness of various approaches to driver vetting has been curiously understudied
 - Determining the most cost-effective approaches to driver vetting requires more study
- Consistency across services is desirable

Labor Issues

- Number of drivers is growing rapidly
 - Growth in part-time drivers in new services
- Income and benefits can vary greatly
 - Limited employment security and benefits is common across the for-hire ride industries
- Independent contractors vs. employees
 - These labor issues are economy-wide, transcending shared mobility services

Insurance issues

- Taxis typically have full-time commercial coverage
- TNC coverage generally varies by stage of the ride
- Insurance products available tend to lag the evolution of mobility services
 - But are starting to catch up

Equity and Access

Four Dimensions of Equity in Public Policy Debates over Technology-Enabled Mobility Services

<i>Equity Dimension</i>	<i>Issues Raised</i>
Firms, markets, and competition	Market dominance, unfair competition, regulatory capture
Regulations, subsidies, and social services	Regulatory consistency, public subsidy of winners and losers, social service transportation obligations
Geographies and jurisdictions	Service in high- versus low-demand areas; service in poor, minority neighborhoods
Stakeholder groups	People without smartphones, “unbanked” populations, workers, etc.

Committee Recommendations



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Committee Recommendations

- Reassessment of regulations for all for-hire vehicle services is likely needed
 - market entry
 - geographic coverage
 - span of service

Committee Recommendations

- Public safety requirements should be consistent across each type of service (street hail/taxi stand, dispatch/app) and gauged to risks

Committee Recommendations

- Policy makers and regulators should consider whether TNC and taxi services may be better regulated at the state, regional, or local level, while ensuring consistency and effective enforcement

Committee Recommendations

- Systematic evaluations of safety requirements are needed

Committee Recommendations

- Accessibility of services to all travelers should be a priority

Committee Recommendations

- Basic service information for effective planning and regulation should be required of all mobility services

Committee Recommendations

- Employment classifications need to be carefully assessed

Committee Recommendations

- TNCs and other innovative services should be integrated with existing transportation systems and planning

For additional information

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