

# Future of Public Transit and Shared Mobility: Scenario Planning for COVID-19 Recovery

# Who We Are – UC ITS

The University of California Institute of Transportation Studies (UC ITS) is a network of faculty, research and administrative staff, and students dedicated to advancing the state of the art in transportation engineering, planning, and policy for the people of California. Established by the Legislature in 1947, UC ITS has branches at UC Berkeley, UC Davis, UC Irvine, and UCLA.



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# Presentation Outline

- Background
- Methodology
- Scenario Worlds
- Policy Options by Timeframe
- Policy Strategy Vision
- Research Recommendations
- Proposed Next Steps and Timeline



# Background

# COVID-19 Crisis

- Profound changes to society, including transportation
- Further exposed social equity impacts
- Stay-at-home orders and shutdowns
- Currently witnessing another surge in the U.S.
  - 11.2 million cases
  - 24,700+ deaths
- Vaccine distribution beginning but questions remain on timeline



# Impacts on Public Transit and Shared Mobility

- Dramatic decreases in public transit ridership and revenues
- Drops in customers for most shared mobility modes
- Exposure and spreading concerns
- New sanitation and cleaning approaches
- Reduced services and frayed operations
- Changes to business structures
- Telework and open street impacts on mode split



# Focal Question and Timeframes

What are *sustainable* and *equitable*, short- and longer- term public transit and shared mobility policies for *all communities* under *different scenarios* in the context of the global pandemic and recovery?

- Within 12 months
- One to three years
- Four to six years



# Methodology



# Delphi Approach Across Four Phases

	Phase One	Phase Two	Phase Three	Phase Four
<b>Timeframe</b>	June/July 2020	July/August 2020	September 2020	September 2020
<b>Committee</b>	Steering	Scenario	Policy	Steering
<b>Experts</b>	Seven	18	10	Eight
<b># of Sessions</b>	Four	Four	Two	One
<b># of Hours Total</b>	Seven hours	Eight hours	Six hours	Two hours

# 36 Experts Across U.S. and Sectors



-Public transit



Non-governmental organizations (NGOs)



Academia and research institutes



Transportation consulting and futurists



Local, state, and federal governmental agencies



Private transportation, sustainable design, and shared mobility companies

# Steering Committee

Name	Organization	Organization Type
Amy Ford	ITS America	NGO
Brian Taylor	University of California, Los Angeles	Academia
Dan Sperling	University of California, Davis	Academia
Nathaniel Ford	Jacksonville Transportation Authority	Public Transit
Neil Pedersen	Transportation Research Board	NGO
Sharon Feigon	Shared-Use Mobility Center	NGO
Tim Papandreou	Emerging Transport Advisors	Consulting
Ysela Llort	Renaissance Planning	Consulting

# Scenario Committee

Name	Organization	Organization Type
Andrea d'Amato	Massachusetts Department of Transportation	State Government
Andrew Bata	International Association of Public Transport	NGO
Arjan van Andel	PTV	Consulting
Carol Cooper	King County Metro	Public Transit
Chris Pangilinan	Uber	Private Company
Devin Liddell	Teague	Consulting
Fran Inman	California Transportation Commission	State Government
Gerry Tierney	Perkins + Will	Consulting
Jameson Auten	Kansas City Area Transportation Authority	Public Transit

# Scenario Committee (cont'd)

Name	Organization	Organization Type
Jill Hough	North Dakota State University	Academia
Karina Ricks	City of Pittsburgh	City Government
Lina Fedirko	ClimateWorks	NGO
Lori Pepper	California State Transportation Agency	State Government
Michael Berube	U.S. Department of Energy	Federal Government
Michael Pimentel	California Transit Association	NGO
Rachel Zack	Remix	Private Company
Randy Iwasaki	Contra Costa Transportation Authority	Local Government
Tilly Chang	San Francisco County Transportation Authority	Local Government

# Policy Committee

Name	Organization	Organization Type
Andrei Greenwalt	Via	Private Company
Dorval Carter	Chicago Transit Authority	Public Transit
Emily Warren	Nelson\Nygaard	Consulting
Hani Mahmassani	Northwestern University	Academia
Kari Watkins	Georgia Institute of Technology	Academia
Shin-pei Tsay	Uber	Private Company
Stephanie Wiggins	Metrolink	Public Transit
Steve Cliff	California Air Resources Board	State Government
Tamika Butler	Self-Consultant	Consulting
Vincent Valdes	Southwestern Pennsylvania Commission	Regional Government

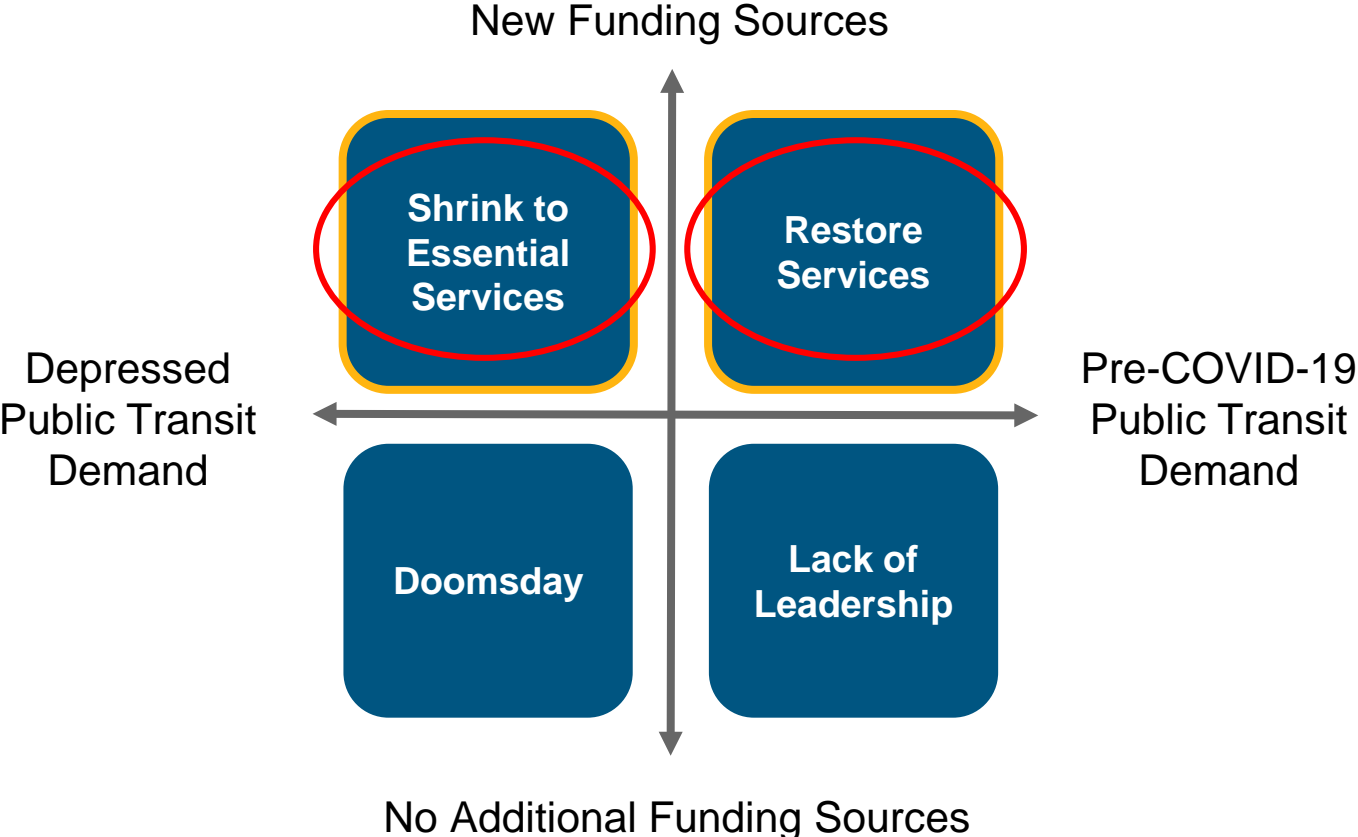
# Scenario Worlds

# Finalized Scenario Worlds and Driving Vectors

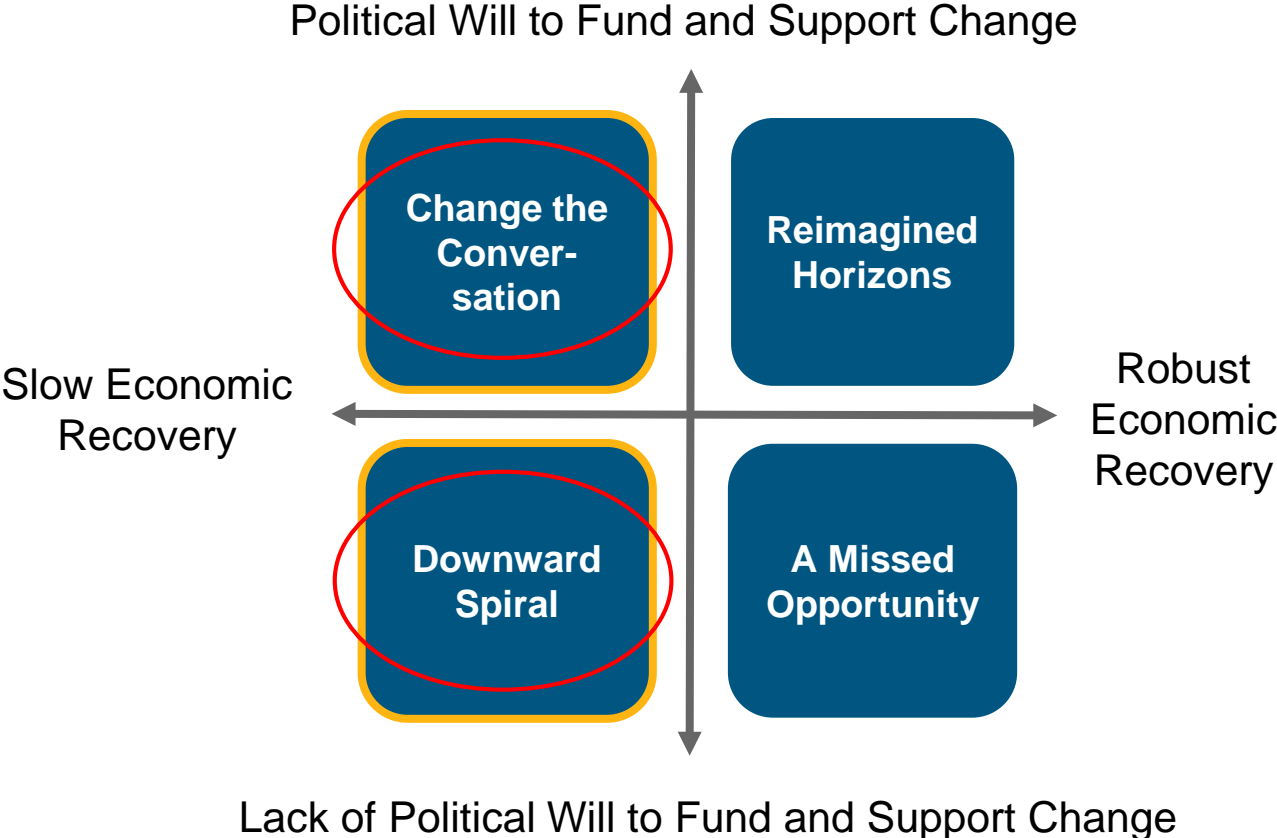
Timeframe	Scenario World	Optimism Level	Driving Vectors
<b>Within 12 Months</b>	Shrink to Essential Services	Less Optimistic	Depressed Public Transit Demand New Funding Sources
	Restore Services	More Optimistic	Pre-COVID-19 Public Transit Demand New Funding Sources
<b>One to Three Years</b>	Downward Spiral	Less Optimistic	Lack of Political Will to Fund and Support Change Slow Economic Recovery
	Change the Conversation	More Optimistic	Political Will to Fund and Support Change Slow Economic Recovery
<b>Four to Six Years</b>	Unguided Incremental Change	Less Optimistic	Sustainability Incrementalism Evolved Business Models
	Business and Policy Evolution	More Optimistic	Sustainability Evolution New Business Models



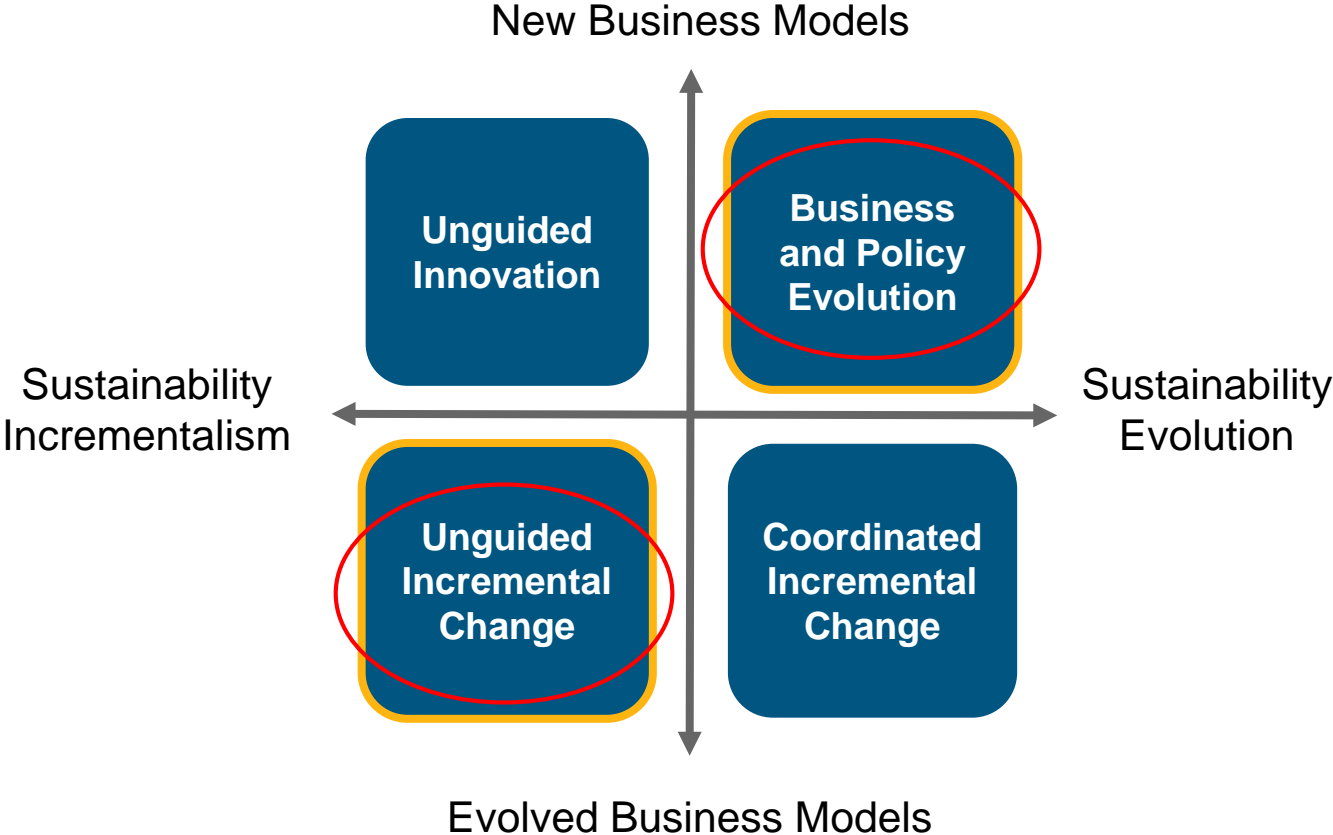
# Within 12 Months - Scenarios



# One to Three Years - Scenarios



# Four to Six Years - Scenarios



# Policy Strategies

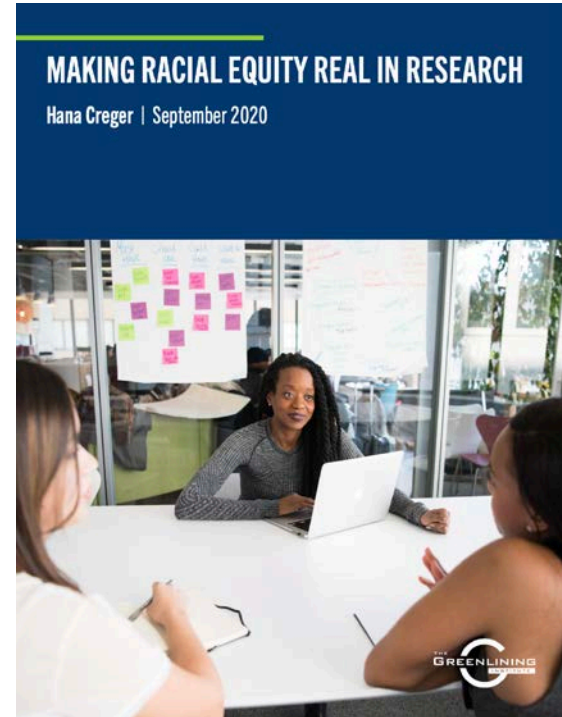
# Policy Strategy Vision



# Research Recommendations

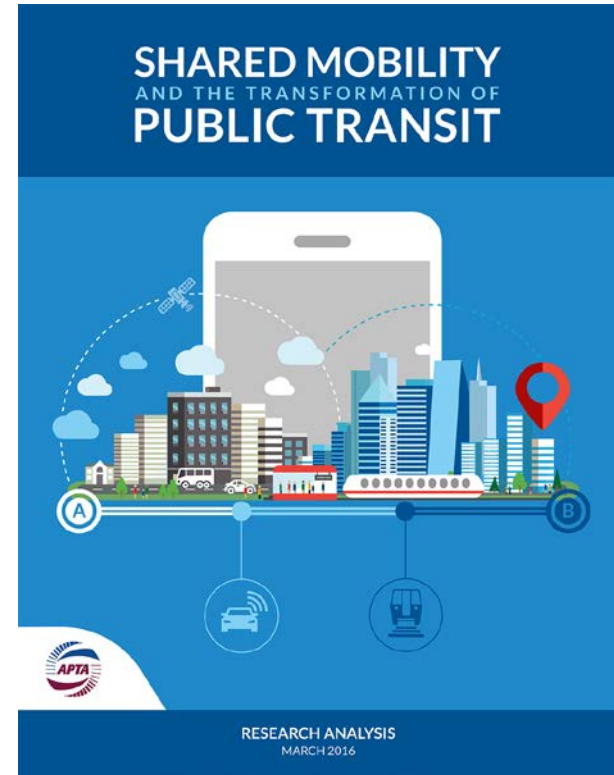
# Multimodal Research Needs

- Travel behavior resulting from work-from-home and telework
- Changes to TDM/employer actions
- Racial and society equity issues
- Barriers to multimodal, cultural change
- New data standards and metrics
- Behavioral changes in e-commerce
- Regulatory inconsistencies across governance levels
- Opportunities to remove regulatory restrictions



# Public Transit and Shared Mobility Research Needs

- Scenario modeling for public transit and shared mobility
- Sliding scales of federal requirements for public transit funding (revisiting 80/20 split)
- Funding mechanisms for public transit
- Social equity, incentives, subsidies
- Opportunities to build affordable housing in public transit rich places
- Innovation and technology through policy, partnerships, new business models, pilot programs and evaluation
- Impacts of telework
- Mechanisms for successful P3s between public transit and private shared mobility operators





# Proposed Next Steps

# Proposed Next Steps and Timeline



1. Convene stakeholders in TRB and UC ITS jointly sponsored workshops to develop strategic actions in partnership with FTA and APTA -- next 12 months
2. Form committees to develop strategic white papers focused on key policy action strategies -- next 12 months
3. Develop supportive research agenda -- up to 1 to 2 years
4. Develop outreach and communications plan, e.g., briefings for FTA, APTA, CTA, AASHTO, NACTO, etc., and key legislative groups -- up to 1 to 2 years
5. Coordinate with APTA in its role in seeking funding and regulatory reform on behalf of public transit industry -- up to 1 to 2 years
6. Seek funding from appropriate sponsors -- up to 1 to 2 years

# Policy Brief & Report

## Public Transit and Shared Mobility COVID-19 Recovery: Policy Recommendations and Research Needs

**Research Team:** Susan Shaheen and Stephen Wong

**University:** UC Berkeley

**Problem Statement:** The novel coronavirus (COVID-19) has profoundly impacted the transportation sector, resulting in some of the most drastic changes in travel in the past century. Since mid-March 2020, public transit ridership for many agencies has fallen by over 60 percent compared to 2019. In Summer 2020, transportation network companies (TNCs), such as Lyft and Uber, reported ridership drops ranging between about 55 percent to 75 percent compared to the prior year. Other shared mobility services – such as carsharing, bikesharing, and scooter sharing – experienced mixed changes in ridership, depending on the geographic area and trip purpose. The COVID-19 crisis has also exposed underlying issues in how public transit and shared mobility services are provided to society. As ridership drops and revenues decline, many public and private providers may respond by cutting service or reducing vehicle maintenance to save costs. As a result, those who depend on public transit and shared mobility services, particularly those without access to private automobiles, will experience further loss of their mobility. Short-term fixes, while critical, will not address issues related to who has access to transportation, poor-quality service, and social equity.

# Thank You!

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