

SAFE

Increasing Mobility & Access with AVs

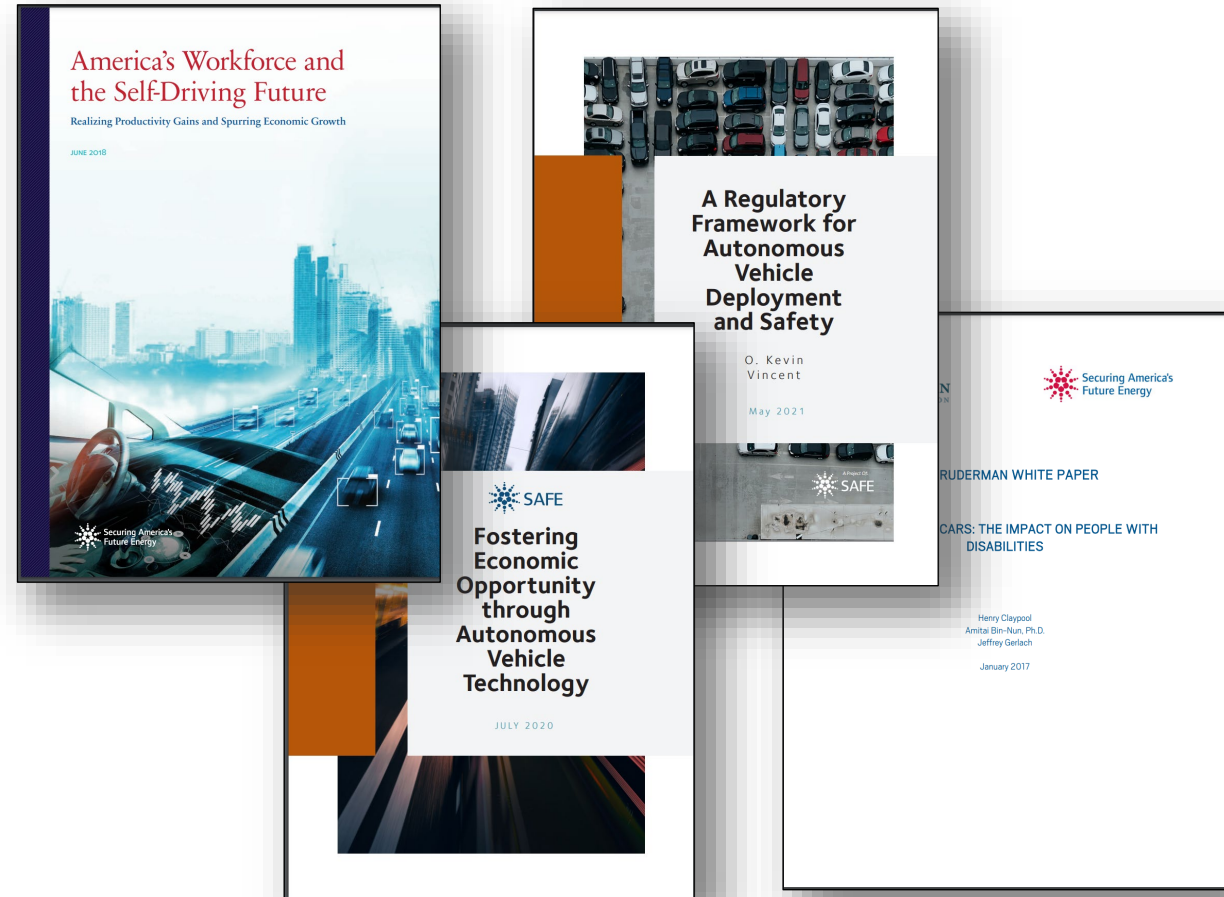
TRB AUTOMATED ROAD TRANSPORTATION SYMPOSIUM, JULY 2023

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AV Initiative Mission & Previous Work

Since 2014, the Autonomous Vehicle Initiative has led the effort to study and quantify many of the benefits that these new technologies can offer and will continue to advocate for well-thought out and safe policy solutions to advance this critical technology.





Problem

The current U.S. transportation system disconnects millions from job, education, and social opportunities and diminishes transit equity.

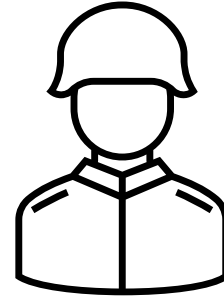
Gaps in transportation means individuals cannot reliably access vital social safety nets and basic necessities.



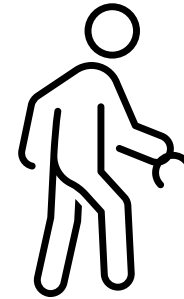
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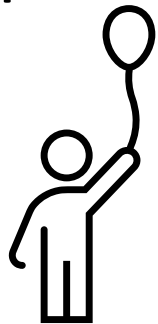
People with
Disabilities



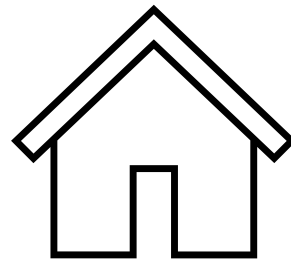
Veteran
Services



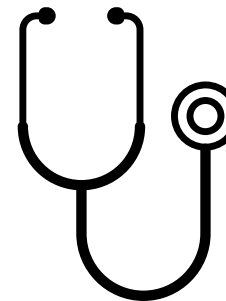
Senior
Care



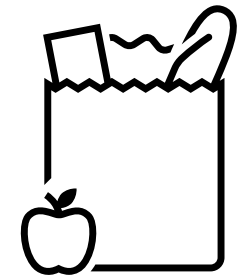
Youth
Care



Housing
Services



Healthcare



Healthy
Food Access

Transportation access is a social determinant of health



- 3.6 million missed medical appointments annually
- Persistent health inequities, including inadequate transportation access, can triple annual healthcare costs

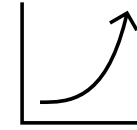
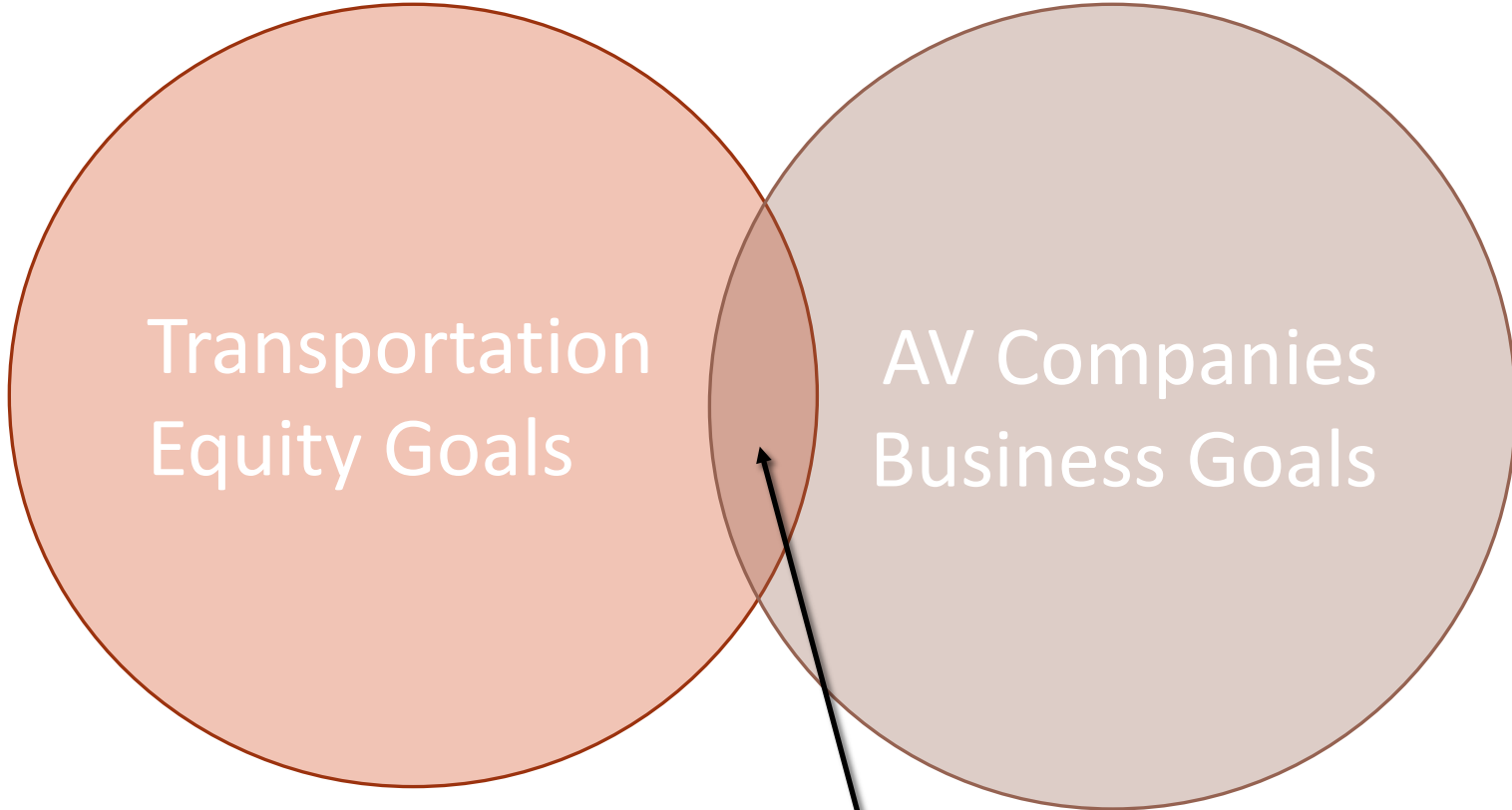
Desired Outcome

Reduce travel cost
as a percent of
Income

Reduce travel time

Increase access to
key destinations

Increase number
of trips at the
individual level



Widescale
Deployment



Profitability

Individuals' needs for flexible, affordable,
accessible transportation

Pathway

Shared, autonomous electric vehicles can address transportation gaps while fulfilling equity goals and achieving private business profitability.



Every city is different....



ROBOTAXIS

SAVs designed to provide on-demand transportation services, functioning similarly to traditional taxi services but without the need for a human driver.



FIRST-MILE LAST-MILE

The use of SAVs to transport people from their starting point to public transit or from the hub to their final destination, providing a solution for the "first and last mile" of a trip.



FIXED ROUTE

SAVs follow a predetermined route to pick up and drop off passengers. Fixed route SAVs can transport communities with a well-defined transportation need.



GOODS DELIVERY

SAVs can move goods such as food and packages to multiple locations improving delivery efficiency and expanding delivery services.

SAVs cannot flourish under the status quo



- Manufacturing limitations for novel AV designs impede benefits to the system
- Current trends in piloting and deployment result in more service to communities already flush with transportation options



Policy

Recommended policy actions to ensure SAVs address connectivity gaps and increase access to opportunity.

#1 Prioritize Government Engagement and Input

- Work with AV companies to develop operation guidelines
- Experiment with different public-private partnerships
- Facilitate community feedback in every step towards deployment



#2 Creating Incentives to Increase Access

- Tie the incentive to access goals
- Set clear parameters around operating cost, service locale, etc.
- Document social and economic impacts



#3 Promote Inclusive Design

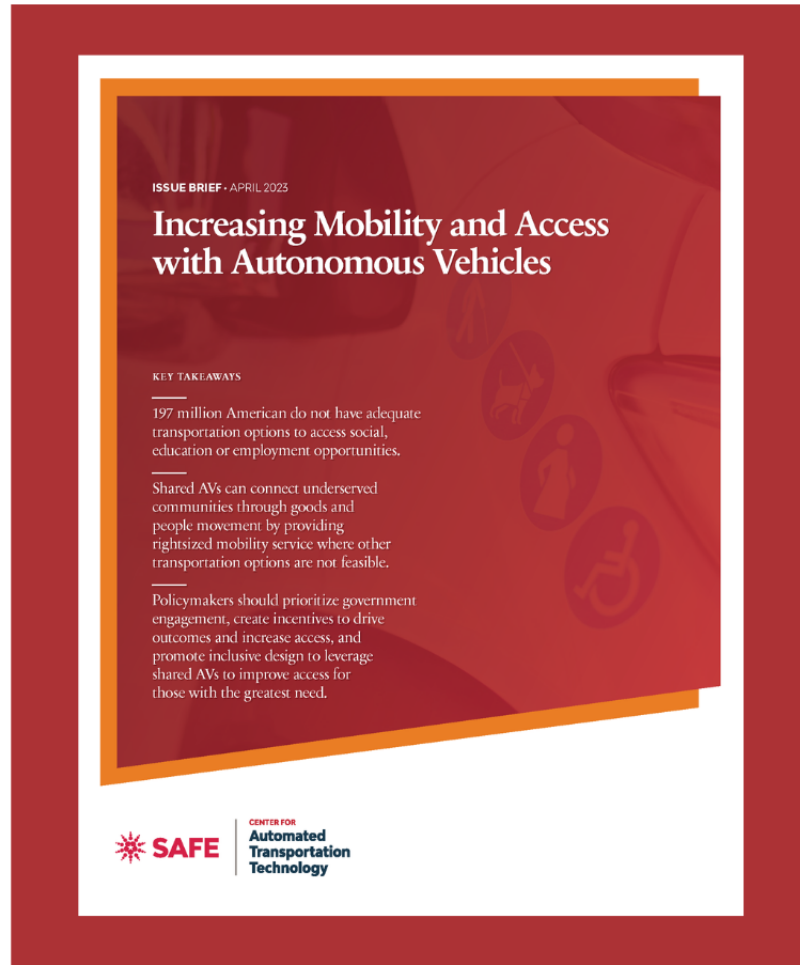
- Consider the needs of all individuals in novel vehicle design
- Gather feedback from a diverse range of members of the disability and aging communities



Key Takeaways

1. There is a transportation gap, SAVs offer a solution
2. Shared automated mobility solutions are abundant but need policies to ensure equitable deployment
3. These three policies will help move the needle towards more transit equity and access





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