

Overview of Shared Mobility

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KEY TAKEAWAYS

Shared mobility impacts everyone, not just users.

Clear and consistent definitions can help to clear confusion about modes and service models.

Public-private partnerships can lead to a stronger, more robust transportation network that improves access, livability, and quality of life.

Transportation should be accessible and equitable. Public agencies should ensure social, interregional, and intergenerational equity to meet the basic transportation needs of travelers.

TOPIC/ISSUE

What is Shared Mobility?

Shared mobility—the shared use of a vehicle, bicycle, or other travel mode—is an innovative transportation strategy that enables users to have short-term access to a transportation mode on an as-needed basis (1). Shared mobility includes various service models and transportation modes that meet diverse traveler needs. Shared mobility can include roundtrip services (vehicle, bicycle, or other travel mode is returned to its origin); one-way station-based services (vehicle, bicycle, or other mode is returned to a different designated station location); and one-way free-floating services (vehicle, bicycle, or low-speed mode can be returned anywhere within a geographic area).

RESEARCH FINDINGS

In 2016, one national study defined shared modes based on interviews and a literature review (1). Figure 1 provides an overview of the shared mobility service models. Table 1 provides definitions of the most common shared mobility models.

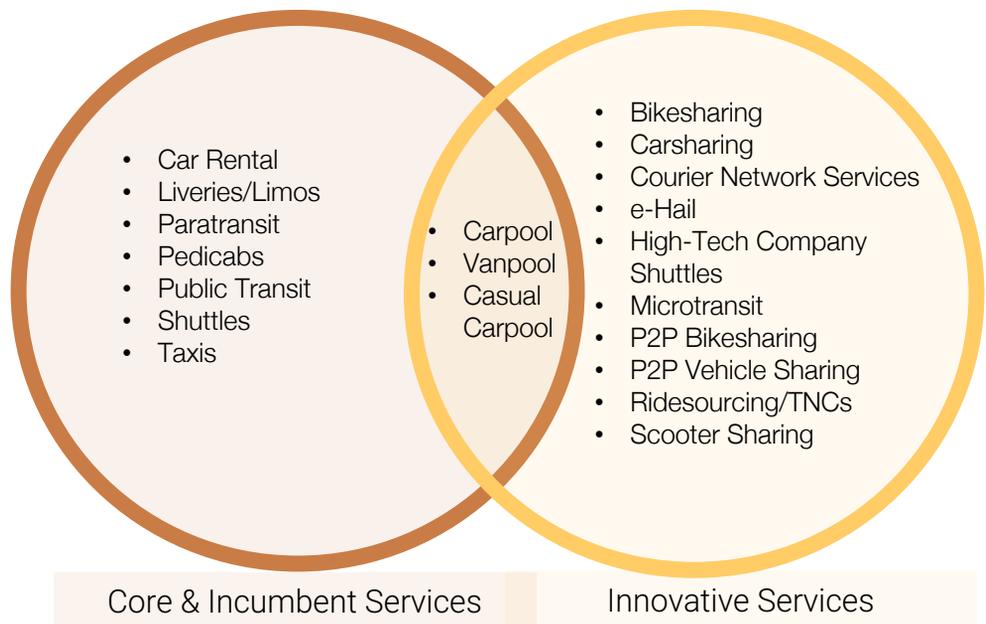


Figure 1 (1)

“Consistent definitions across a suite of shared mobility service models **can guide public policy and distinguish between types of services** for users.”



RESEARCH FINDINGS (continued)

Bikesharing	Users access bicycles on an as-needed basis for one-way (point-to-point) or roundtrip travel. Station-based bikesharing kiosks are typically unattended and concentrated in urban settings and offer one-way service (i.e., bicycles can be returned to any kiosk). Dockless bikesharing offers users the ability to check out a bicycle and return it to any location within a predefined geographic region. Generally, trips of less than 30 minutes are included with many bikesharing membership fees. Users can access a bikesharing program on an annual, monthly, daily, or per-trip basis (1).
Carsharing	Individuals gain the benefits of private-vehicle use without the costs and responsibilities of ownership. Individuals typically access vehicles by joining an organization that maintains a fleet of cars and light trucks deployed in lots located within neighborhoods and at public transit stations, employment centers, and colleges and universities. Typically, the carsharing operator provides gasoline, parking, and maintenance. Generally, participants pay a fee each time they use a vehicle (1).
Courier Network Services	These services provide for-hire delivery of packages, food, or other items for compensation. They use an online-enabled application or platform (such as a website or smartphone app) to connect delivery drivers using a personal transportation mode (2).
e-Hail Apps	Smartphone apps that connect taxi drivers with passengers (2).
Ridesharing	Ridesharing (carpooling and vanpooling) facilitates formal or informal shared rides between drivers and passengers with similar origin-destination pairings (1).
Ridesourcing/ Transportation Network Companies (TNCs)	Ridesourcing services (also known as TNCs) provide prearranged and on-demand transportation services for compensation, which connect drivers of personal vehicles with passengers. Smartphone applications are used for booking, ratings (for both drivers and passengers), and electronic payment (2).
Microtransit	Microtransit can include fixed-route or flexible-route services as well as offer fixed schedules or on-demand service. In its most agile form (flexible routing and scheduling), microtransit and paratransit can be bundled under the category of flexible transit services.

Table 1 (1)

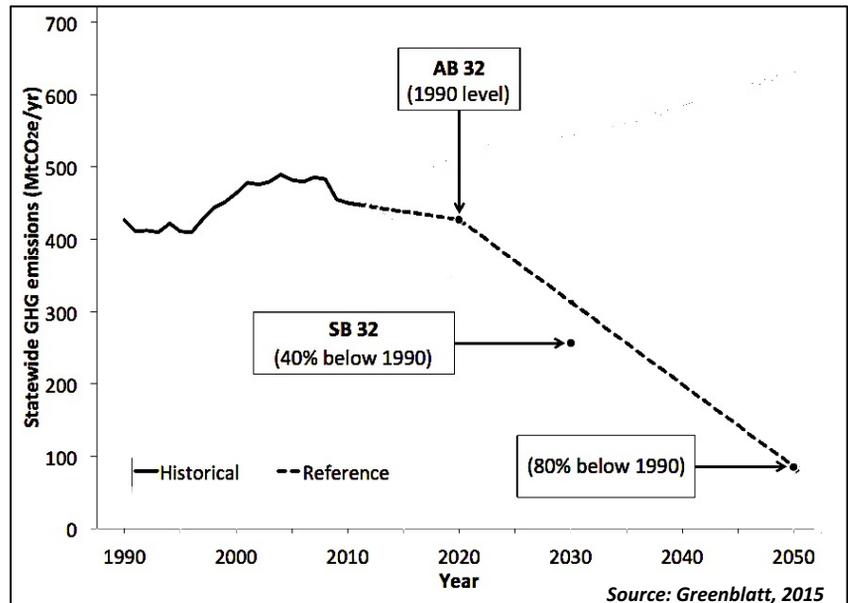
APPROACH

Shared mobility directly influences and is influenced by numerous transportation, housing, labor, and environmental policies in the State of California.

- **Transportation:** Shared mobility can influence travel patterns, such as modal choice, vehicle occupancy, and vehicle miles traveled. Policymakers can leverage positive impacts to aid in congestion mitigation, greenhouse gas reductions (e.g., AB 32 and SB 32) and incorporate shared mobility into regional sustainable communities strategies (e.g., SB 375).
- **Zoning, land use, and growth management:** Shared mobility can affect land use-related planning factors including: zoning requirements (e.g., parking minimums), parking demand, and the use of public rights-of-way. As such, shared mobility can represent a key strategy to encourage sustainable communities.

APPROACH (continued)

- Housing:** Shared mobility can support affordable housing strategies by potentially reducing parking demand and allowing for reduced minimum parking requirements at new developments.
- Economic development:** Shared mobility can create new opportunities for employment and generate revenue from underused resources.
- Healthy Lifestyles:** Shared mobility can support healthy lifestyles by promoting walking and cycling, providing active first-and-last-mile connections to public transportation.
- Environmental policy, conservation, and climate action:** Shared mobility has the potential to reduce the negative impacts commonly associated with surface transportation, such as GHG emissions and can help California agencies achieve AB32 and SB32 GHG reduction targets.



CONCLUSIONS AND RECOMMENDATIONS

Insights into shared mobility can aid California agencies in understanding impacts on public infrastructure, implementing supportive policies, and making informed transportation and development decisions.

The Legislature should consider the following:

- Establish statewide definitions of shared modes consistent with federal definitions.** Establishing consistent definitions is essential for mainstreaming shared mobility and enabling public agencies to clarify policies related to insurance, taxation, rights-of-way, parking, and zoning.
- Expand transportation and sustainable communities funding for shared mobility pilots and risk-sharing partnerships.** To augment the California Air Resources Board Low Carbon Transportation programs, California should consider incorporating shared mobility into the Strategic Growth Council's (SGC) Affordable Housing and Sustainable Communities Program (AHSC) and Transformative Climate Communities (TCC) Program.

References

- Shaheen, S.; Cohen, A.; and Zohdy, I. (2016). *Shared Mobility: Current Practices and Guiding Principles*. FHWA Report 16-022. U.S. Department of Transportation: Washington, D.C.
- Shaheen, S.; Cohen, A.; Zohdy, I.; and Kock, B. (2016). *Smartphone Applications to Influence Travel Choices*. FHWA Report 16-023. U.S. Department of Transportation: Washington, D.C.

This policy brief was generously funded by the State of California Public Transportation Account.