



UNIVERSITY OF CALIFORNIA *Berkeley*
Transportation Sustainability
RESEARCH CENTER

Ridesharing in North America:

Past, Present, & Future

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Overview

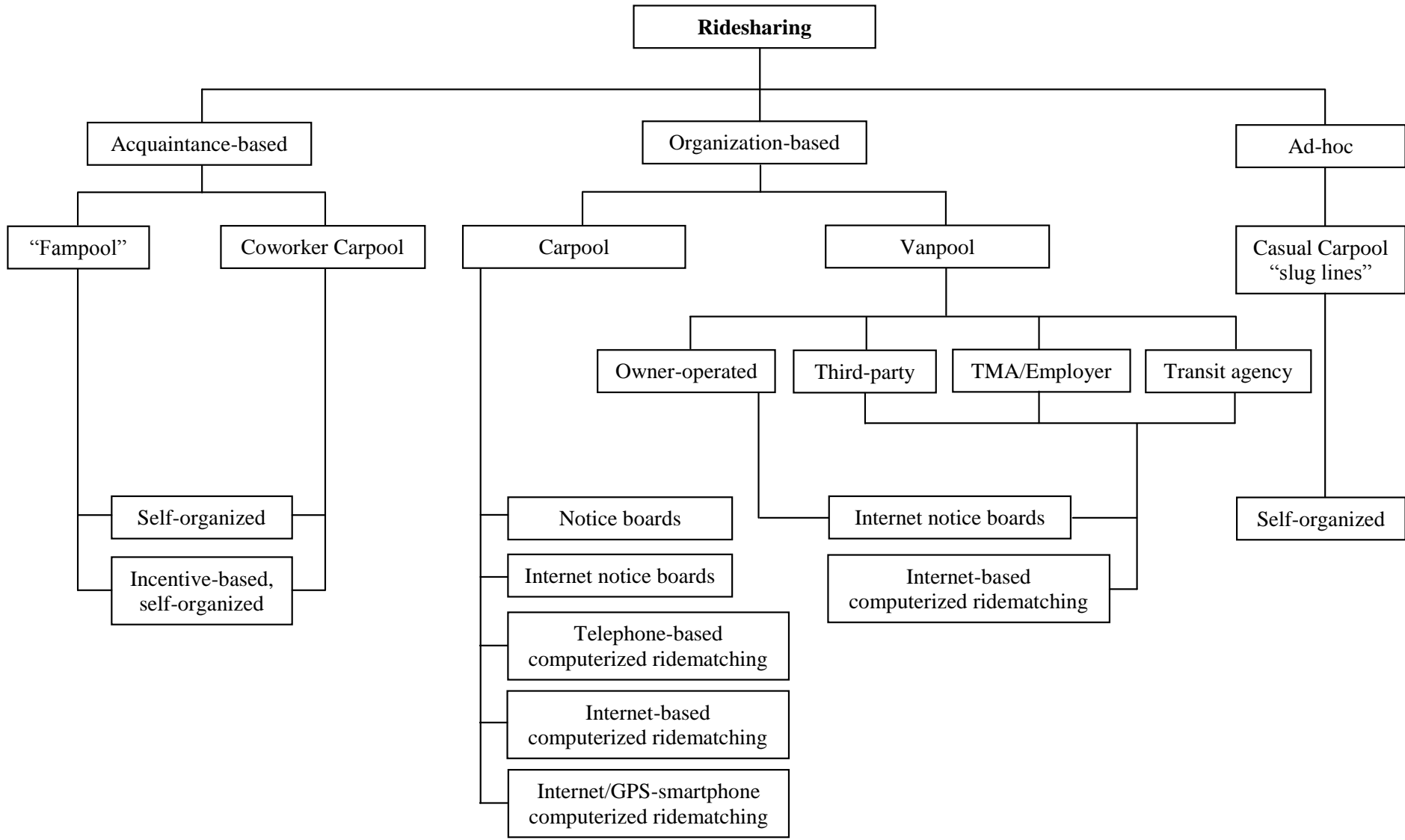
- Background
- Classification
- History of Ridesharing in 4 Phases
- Ridesharing's Phase 5 Today
- The Future



Background

- Powerful strategy to reduce congestion, emissions, and fossil fuel dependency
- Ridesharing mode share drop in U.S.:
 - 20% in 1970
 - 11% in 2008
- Recent increase:
 - 10% in 2004 → 11% in U.S.
 - 7% in 2001 → 8% in Canada





History of North American Ridesharing

Phase 1: WWII Car-Sharing Clubs (1942-1945)

Phase 2: Major Responses to Energy Crises (1970s)

Phase 3: Early Organized Ridesharing Schemes (1980s-1997)

Phase 4: Reliable Ridesharing Systems (1999-2004)

Phase 5: Technology-Enabled Ridematching (2004-present)



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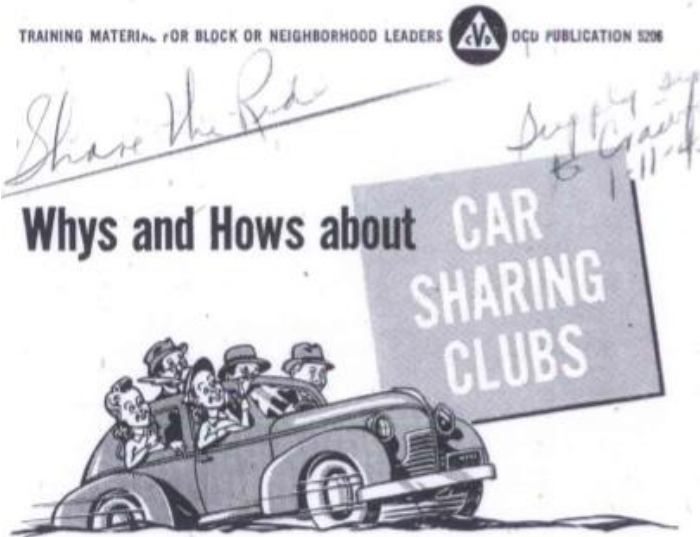
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Phase 1: WWII Car-Sharing Clubs



- 1942 U.S. Office of Civilian Defense regulation
- Ridesharing to workplaces
- Save on gasoline and rubber for the war effort

Why

As a Block or Neighborhood Leader, you have already learned from first-hand experience that Americans demand to know *why* when you ask them to do anything. You know also that the battle for cooperation is won as soon as you supply sensible reasons for your requests. Therefore, the more heavily armed you are with facts when you go from neighbor to neighbor asking them to "share and spare" their cars, the more quickly you will get results.

To get these results, you will need only to convince your neighbor that we must rotate the use of our automobiles because we are not going to get rubber or parts for a long time. There just won't be any differentials, axles, or spark plugs after the supply on hand is gone.

The Achilles heel of the United Nations in World War II is a rubber heel. Nine-tenths of the world's rubber supply is in the hands of the Axis. It is strangely but literally true that, because breechclouted brown men slithered through the jungles the length of the Malay Peninsula, and swarmed off landing barges on the shores of Java, automotive movement in America became suddenly a No. 1 problem.

Gasoline is being rationed throughout the United States, not to conserve gasoline (except in the East) but to *save rubber* and every working, moving part of our cars.





The
CAR SHARING CLUB EXCHANGE
and
SELF-DISPATCHING SYSTEM

Sponsored by the
U. S. OFFICE OF CIVILIAN DEFENSE



SHARE AND SPARE YOUR CAR _____

OCD Publication 5011



U. S. OFFICE OF CIVILIAN DEFENSE
WASHINGTON, D. C.
DECEMBER 1942

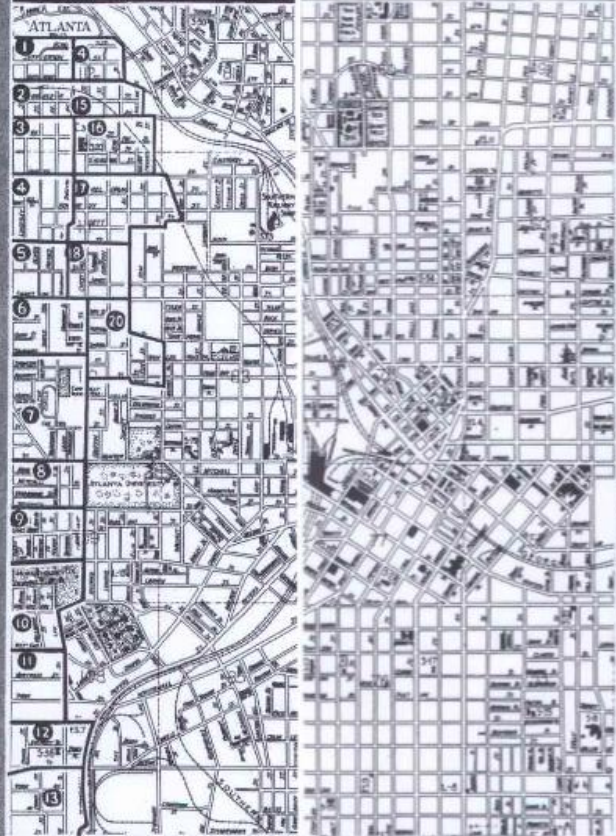


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RIDES WANTED

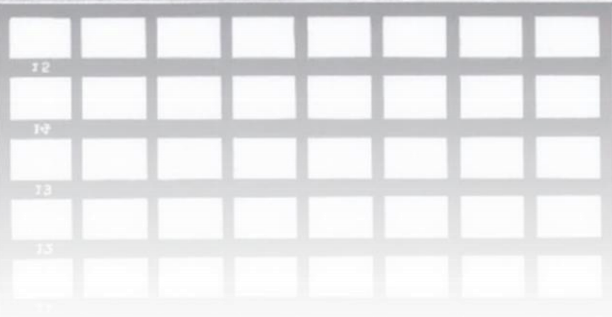
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SHARE YOUR CAR.
SELF-DISPATCHING SYSTEM



PASSENGERS WANTED

1	16				
2	17				
3	18				
4	19				
5	20				
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Phase 2: Major Responses to Energy Crises

- 1973-74 Arab Oil Embargo
- Various federal policies
 - 1974 Emergency Highway Energy Conservation Act
 - 1975 FHWA ridesharing guidebooks
 - 1979 USDOT National Ride-Sharing Demonstration Program
- HOV lanes, casual carpooling (“slugging”), park-and-ride facilities, vanpooling



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Employer-Based Trip Reduction (EBTR) Programs

- Mandatory EBTR programs as trip reduction ordinance (TRO) to combat congestion in suburban office parks
 - Example: Pleasanton, CA TRO 1984
- Air quality districts followed
 - Example: SCAQMD Regulation XV, 1987
- Unclear definition of problem and unrealistic targets



Telephone-Based Ridematching

- Pilot telephone-based studies
 - “Smart Travelers” of 1990s
 - High costs, low use
 - Commuter resistance/misunderstanding of telephone-based, one-time matching
- Internet & E-mail Enhancements
 - More participation, form basis of ridesharing programs today



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“Reliable” Ridesharing Systems

- Commuters with reliable trip schedules
- Initial Online Ridematching
 - Prearrangement necessary
- Traveler Information Services (“511”)



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Phase 5: Technology-Enabled Ridematching

- 4 key developments:
 - Partnerships between ridematching software companies and regions/large employers
 - Financial incentives for “green trips”
 - Social networking
 - Real-time ridesharing



613 North American Ridematching Services



587 carpooling

153 vanpooling



Ridesharing's Future

- Technology interoperability
 - Overcome critical mass barrier
 - Open source data sharing
 - Ridematch aggregator
- Multimodal Integration
 - Connect ridesharing with transit and carsharing
 - Incorporate ridesharing into online mode choice comparison
 - Facilitate transfers between modes
- Agency and company support necessary



Ridesharing's Future

- “Enhanced” casual carpooling
 - Incorporate transponder technology
 - No prearrangement
 - Formalized flexible carpooling
- Supportive public policy
 - Must give travelers tangible incentives



Next Steps

- Full potential still unclear
- More research needed:
 - Behavioral economics
 - Interoperability
 - Multimodal integration
 - Public policy



THANK YOU

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