

San Francisco  
2008

# Carsharing: A North American Update

Susan A. Shaheen, Ph.D.  
Co-Director, Transportation Sustainability  
Research Center (TSRC), UC Berkeley  
[sashaheen@tsrc.berkeley.edu](mailto:sashaheen@tsrc.berkeley.edu)

Rail-Volution 2008  
San Francisco, California  
October 29, 2008

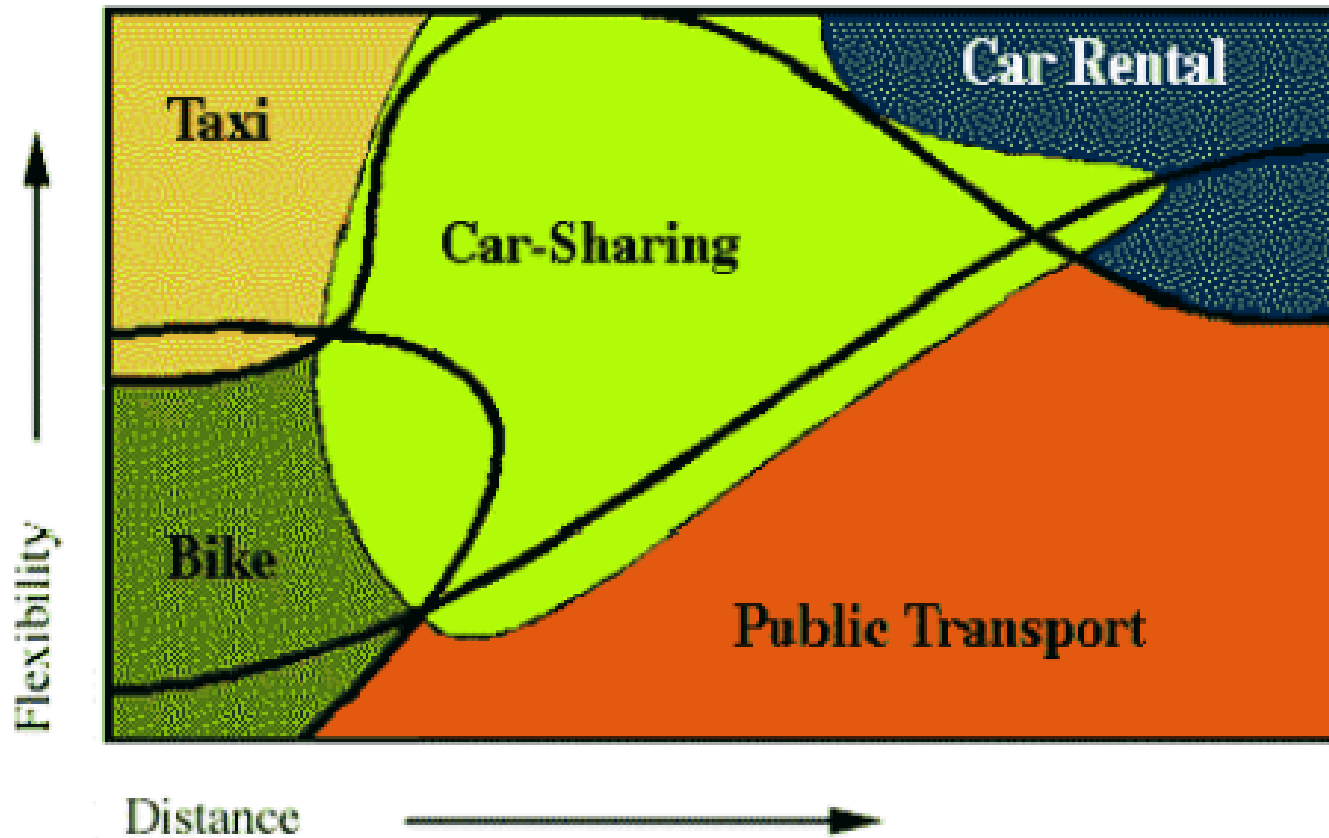
# Overview

- Definition of Carsharing
- Current State of the Industry
- Comparison of Carsharing Studies
- Market Development – Past, Present, and Future
- Carsharing and Policy
- Conclusion

## What is Carsharing?

- Carsharing organizations maintain fleets of cars and trucks in a network of locations.
- Allows households and businesses to access shared fleet on an as-needed basis, at an hourly or mileage rate.
- Individuals gain benefits of private vehicle use without costs and responsibilities of ownership.

# Carsharing's Niche



Source: Britton, E., et al. Carsharing 2000—Sustainable Transport's Missing Link. *Journal of World Transport Policy & Practice*, Special Issue, 2002.

## Some Statistics

July 2008: North America

- 319,000 carsharing members
- 7,500 carsharing vehicles
- 33 programs operational

### U.S.

- 279,174 members
- 5,838 vehicles
- 19 programs

### Canada

- 39,664 members
- 1,667 vehicles
- 14 programs

## Some Statistics (cont'd)

July 2008: Worldwide

- ~600,000 carsharing members
- 4 continents
- 21 countries
- 8 planned

# Carsharing Impacts

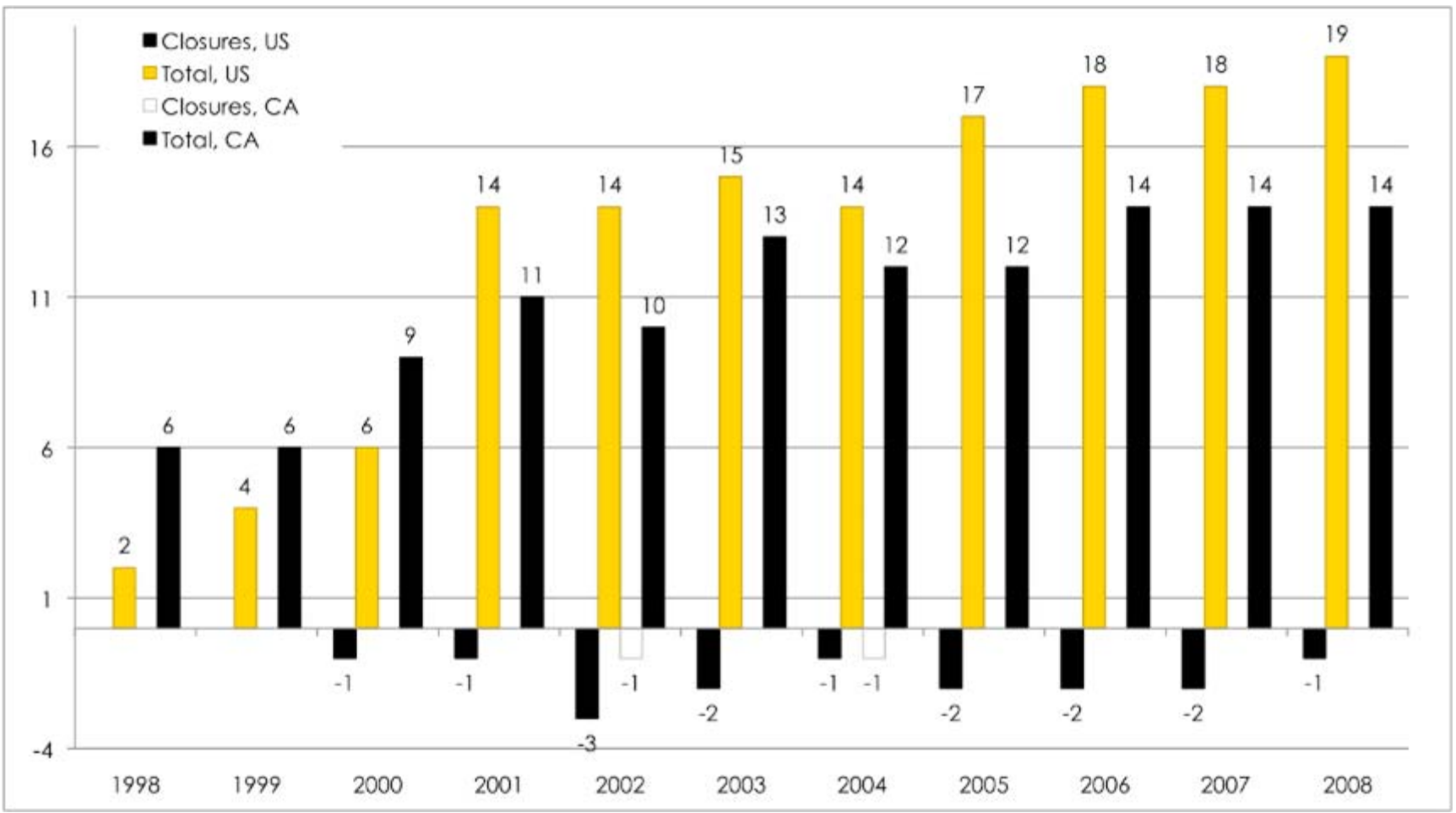
Impact	North America (2008)	Europe (2006)
Cars Replaced Per Carsharing Vehicle	4.6 – 20 cars	4 – 10 cars
Members Who Sold Their Cars due to Carsharing	15 – 32%	15.6 – 34%
Members Who Avoided a Car Purchase due to Carsharing	25 – 71%	23 – 26.2%
VMT/VKT Reduction due to Carsharing	44%	28 – 45%
Decrease in Transportation Costs due to Carsharing	\$154 - \$435/month US	-

## Carsharing Impacts (cont'd)

- Reduces greenhouse gas emissions
  - Via low-emission vehicles, decreased VMT, carbon offset programs
- Reduces parking demand
- Complements alternative transportation modes
  - Public transit, walking, biking, etc.
  - Can help address first mile-last mile problem
- Increases mobility of low-income residents and college students
  - Provides car use without bearing full ownership cost



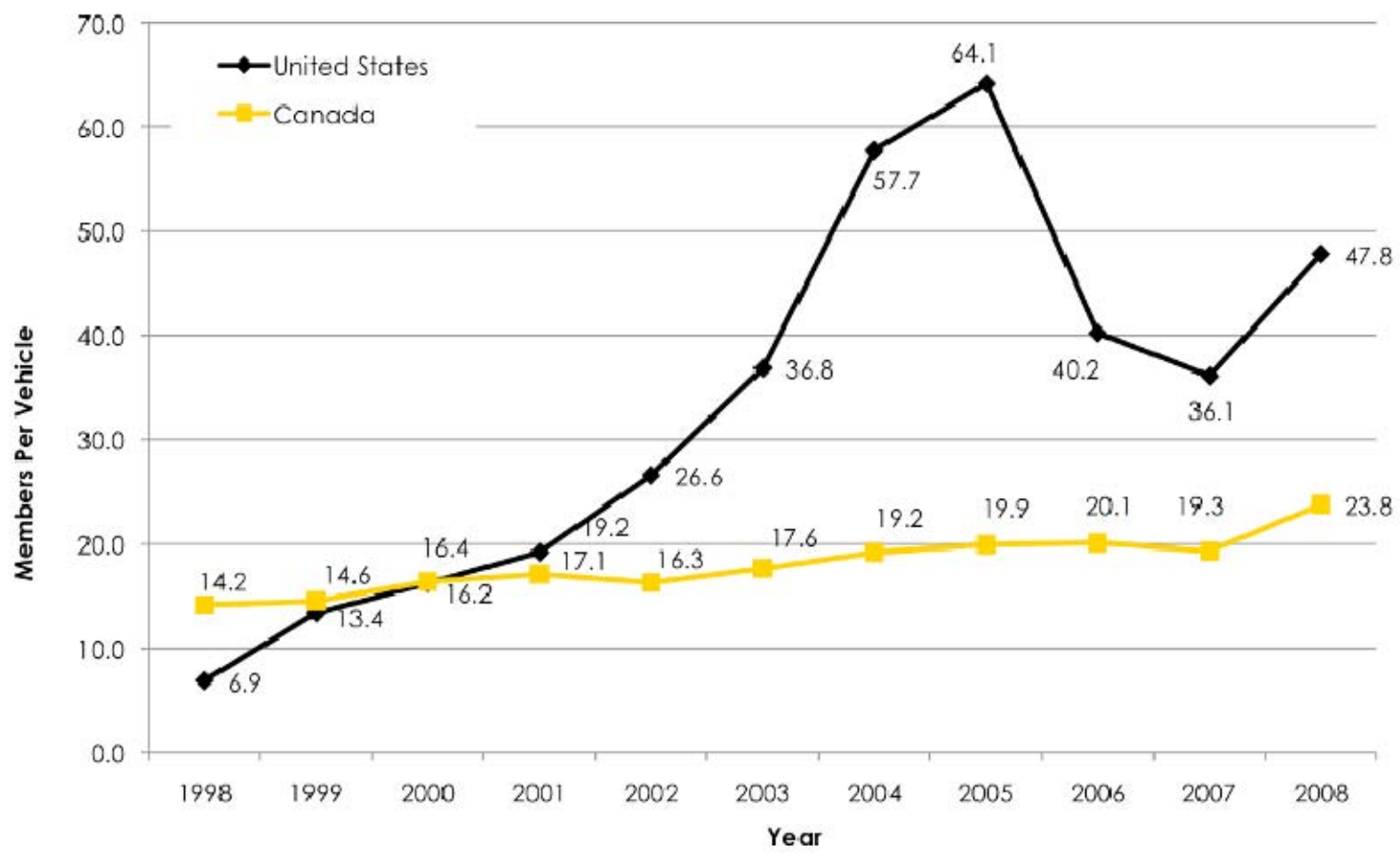
# North American Carsharing Organization Growth



# Member and Vehicle Growth

- Carsharing organization membership has increased
  - U.S. Growth Rate Peak: 1174% from 2000 to 2001
  - CA Growth Rate Peak: 81% from 2000 to 2001
  - Leveled to an average growth rate of 50% for North America in 2008
- Member-vehicle ratios have increased from 1998 to 2008
  - CA MV ratios increased from 14:1 to 24:1
  - US MV ratios increased from 7:1 to 48:1
- Worldwide member-vehicle ratio (2005): 20:1

# Member-Vehicle Ratios



## Business Models

- Four types of carsharing business models exist:
  - For-profits,
  - Non-profits,
  - Cooperatives, and
  - University research.

## Business Models (U.S.)

- Only 5 of 19 (28.6%) U.S. operators are for-profit. They account for 74% of all carsharing members and 81% of carsharing vehicles.
  - This trend has been relatively stable.
  - Non-profit membership continues to expand
    - Top three organizations' membership grew from 6,600 participants in 2005 to 71,000 participants in 2008.

## Business Models (Canada)

- 36% (5 of 14) of Canadian operators are for-profit, accounting for 87% of carsharing members and 84% of carsharing vehicles.
  - For-profits' member-vehicle market share has increased from 2005 to 2008.
  - Canadian non-profit organizations have also grown as U.S. non-profit operators.

## Recent Market Developments

- Increased competition (car rental, hourly rental)
- Program consolidation (Zipcar and Flexcar merger in 2007)
- Market diversification (college)
- Greater operator collaboration (code of ethics, roaming user agreements)

# Growth in North American College Market

- U.S. (July 2008):
  - 130 college campuses served by 11 U.S. carsharing organizations.
    - Represents approximately 9% of U.S. carsharing market
  - Approximately 300 vehicles stationed on-campus in agreements with universities.
    - An additional 220 vehicles within 4-block radius
- Canada (July 2008):
  - 9 operators serve 19 college campuses



## Policy – Taxation

- Supportive
  - Tax benefits, credits, and exemptions
  - For example, Chicago's I-GO exempt from car rental tax
- Unsupportive
  - Car rental tax when carsharing is mistaken to be the same as car rental
  - For example, King County, WA: 18.6% tax on use (8.9% sales tax, 9.7% car rental tax)

## Policy - Parking

- On-street parking allocation
  - Increased visibility, awareness, access, safety
  - Administrative issues
    - Enforcement, street cleaning
    - Fees and regulations vary dramatically by location
- New developments (parking variances and zoning/building codes): reduce parking minimums; increase density (floor area ratios); or substitute parking (convert general use to carsharing spaces)

## Conclusion

- The four largest providers in the U.S. and Canada support 99% and 95.2% of total membership, respectively.
- Continued growth is forecasted, particularly in business and college market.
- North American developments include increased competition (rental car companies, hourly rental), program consolidation, market diversification, and greater operator collaboration.
- High energy costs and increased climate awareness are likely to facilitate carsharing's ongoing expansion.

# Acknowledgements

- Students and Staff: Adam Cohen, Melissa Chung, Brenda Dix, and Martin Brown
- Mineta Transportation Institute
- Honda Motor Company, Endowment for New Mobility Studies at UC Davis



[www.its.berkeley.edu/sustainabilitycenter](http://www.its.berkeley.edu/sustainabilitycenter)