Car Sharing in Planned Communities

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Transit Oriented Developments (TOD)

- Density and parking are among the biggest challenges facing TODs & Planned Communities
- Most parking requirements are not TODfriendly
- Meeting certain parking requirements encourages high vehicle ownership rates
- Complying with some local & State requirements defeats the intent and purpose of smart growth
- Developers are shying away from TOD projects

Case Study – Residential Development

- Prior Gas Station site in New Jersey
- Site currently under-utilized and dilapidated
- Site has been vacant for many years
- In a very desirable area and near train station
- 60 units needed to make the project viable
- Parking requirements dictate about 120 spaces
- Challenge: parking/access/automobile ownership

CarSharing – The Solution

- One car shared by many
- Fully automated system
- Technology based on Internet, wireless, and GPS
- Once subscribed, reserving a vehicle is done in seconds
- Provider pays for gas, tolls, insurance, maintenance, car washing….
- Virtual concierge system

CarSharing – How it Works

- Reserve on-line or by phone
- Data is wirelessly transmitted to the vehicle
- The technology logs the vehicle usage and vital driver and vehicle information.

CarSharing - History

- CarSharing programs launched successfully in Europe in the mid-1980s
- In North America, car sharing began in the 1990s
- Zipcar has 767,000 members and 11,000 vehicles, Car2Go has 900,000 members and 12,000 cars.
- About 18 non-profit and for-profit operations in 30 states, over 150 college campuses, and many commercial businesses

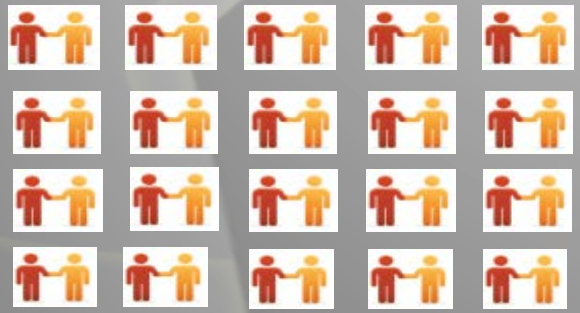
Sources:
"Zipcar Reports 2012 Third Quarter Results" (Press release). Ir.zipcar.com. 8 November 2012. Archived from the original on 22 January 2013. Retrieved 6 February 2016.
Jump up ^ Gibbs, Nick (13 November 2014). "Car2Go poised to top 1-million users". Automotive News. Retrieved 6 February 2016

CarSharing - Benefits

Studies have shown 1 CarShare vehicle:

- Removes up to 31 private vehicles off the road
- Eliminates the need for up to 30 parking spaces

71% of CarShare members avoid purchasing a second vehicle



We all share the same vehicle . . .

Sources:

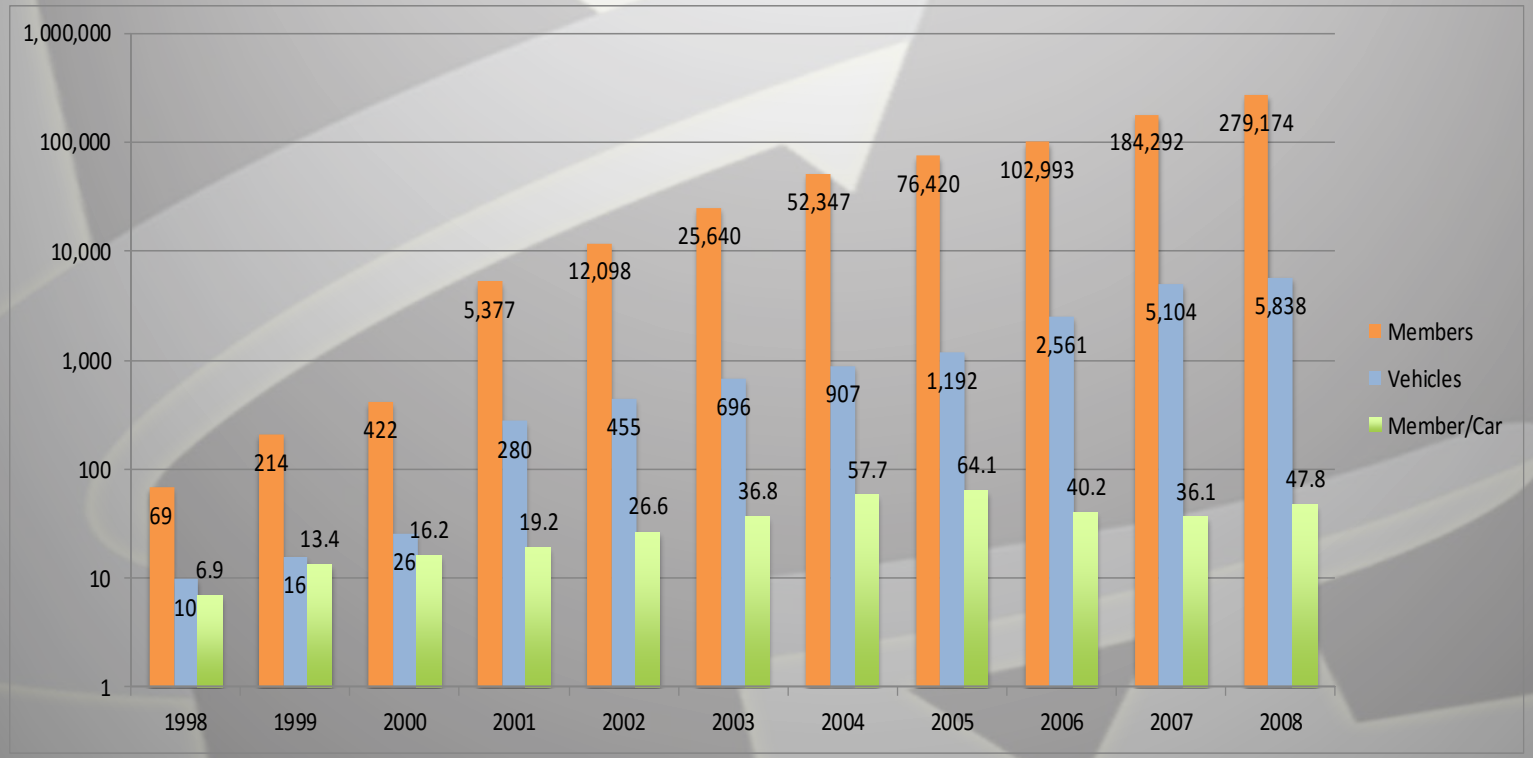
Elliot Martin, PhDPost-Doctoral Research Engineer, Transportation Sustainability Research Center University of California, Berkeley

Susan A. Shaheen, PhDResearch Associate, Mineta Institute Honda Distinguished Scholar in Transportation, University of California,

Davis, & Acting Co-Director, Transportation Sustainability Research Center (TSRC) University of California, Berkeley

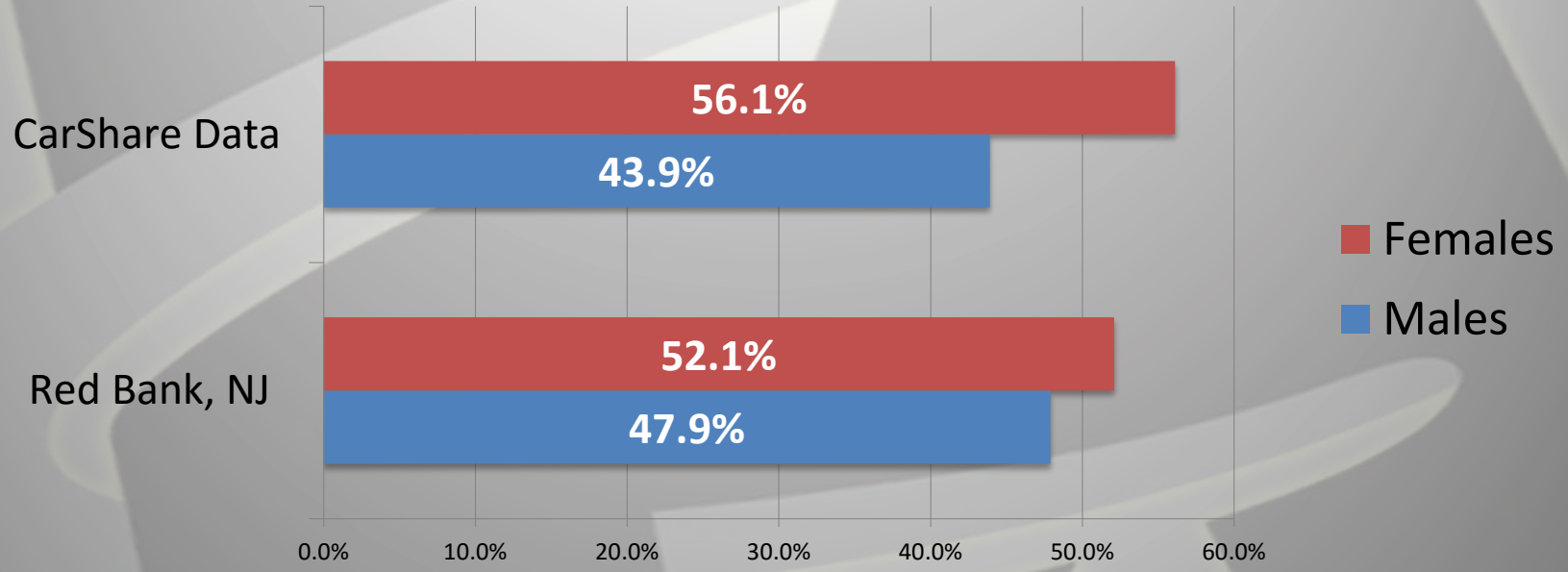
NYC Planning Board Amendment of 2010

Car Sharing - Utilization



Sources: Shaheen, Cohen, and Chung. TRB 9-3688 **NORTH AMERICAN CARSHARING: A TEN-YEAR RETROSPECTIVE**

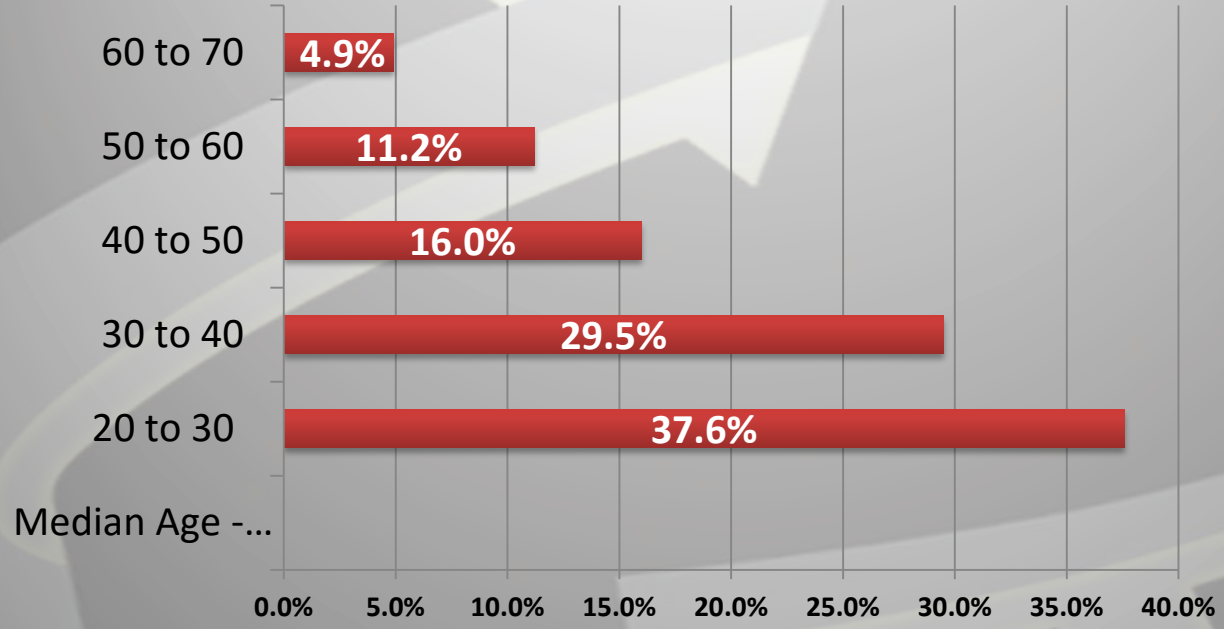
CarSharing - Demographics



Sources:

City Data.com / Shaheen, Cohen, and Chung. TRB 09-3688 **NORTH AMERICAN CARSHARING: A TEN-YEAR RETROSPECTIVE**

CarSharing – Age Distribution

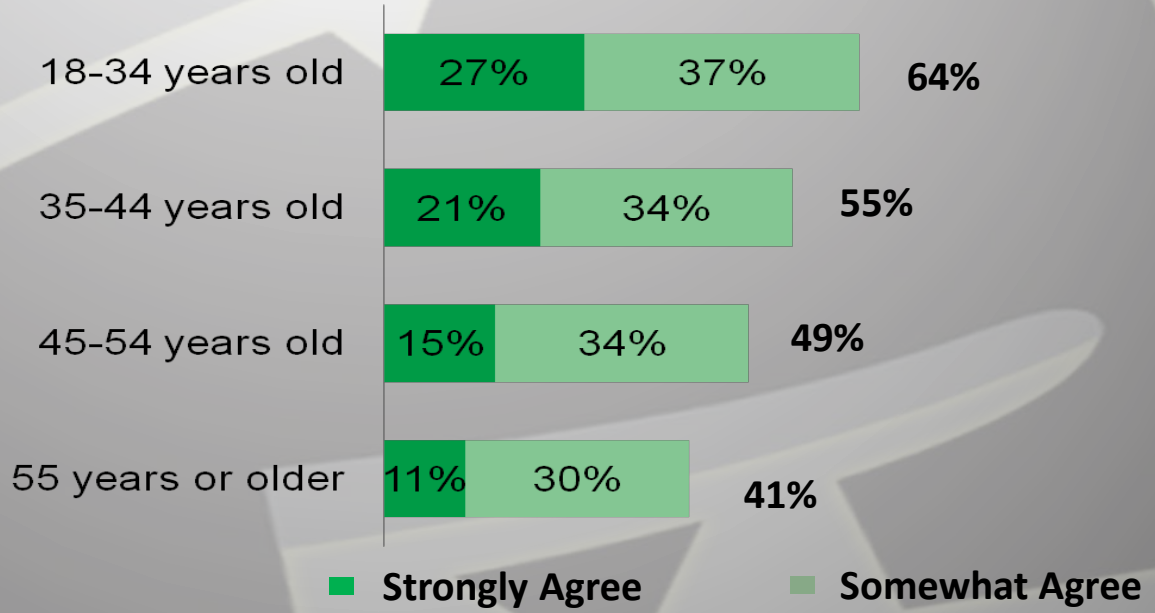


Sources: City Data.com / Shaheen, Cohen, and Chung. TRB 09-3688 **NORTH AMERICAN CARSHARING: A TEN-YEAR RETROSPECTIVE**

Y Generation Survey

If there were more options in my area such as public transportation, car sharing or convenient carpooling, I would drive less than I do now.

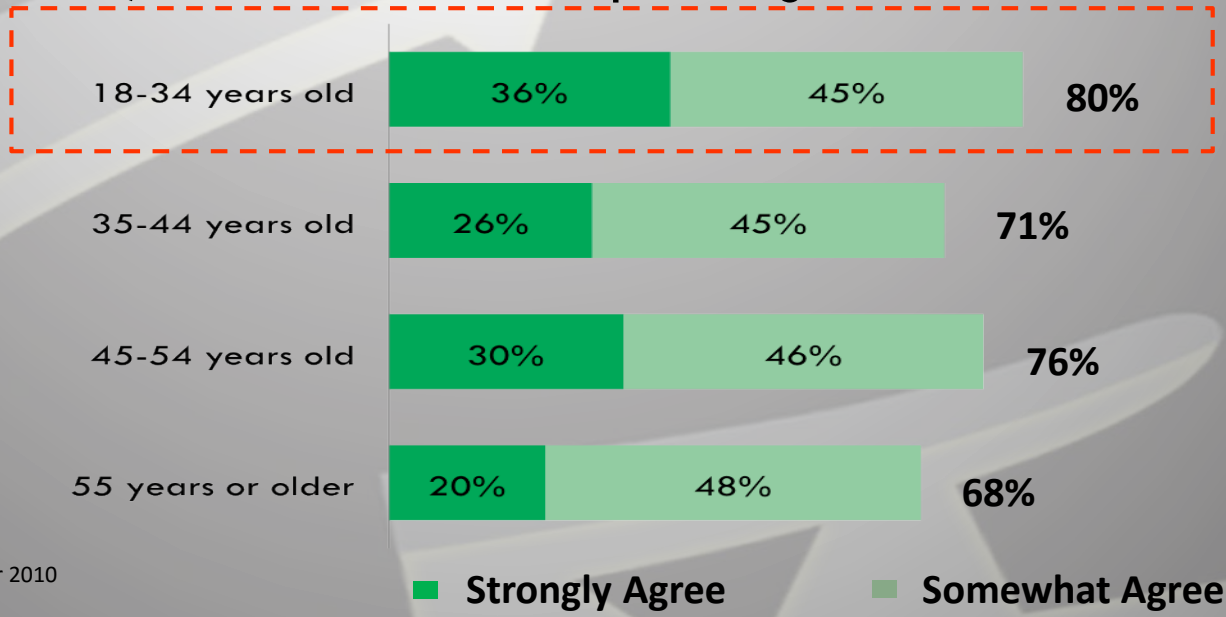
- Online survey of 1,025 adults
- Ages 18 and over
- 966 licensed driver
- Conducted October 2010



Sources: Zipcar Millennial Survey October 2010

Survey Findings

In today's economy, it can be difficult to own a car because of the high cost of gas, insurance, maintenance and parking.



Sources: Zipcar Millennial Survey October 2010

CarSharing – Individual Benefits

	Car Owner	CarShare Member
Car payment	$288	included
Finance charges	$67	included
Insurance	$84	included
Gas	$100	included
License, registration & tax	$49	included
Maintenance	$44	included
Parking	$150	included
Total:	$782/mo *Monthly cost based on small – mid-size car	$144/mo avg. (6 two hour trips & 2 four-hour trips)

Sources: Data based on 2010 AAA study of average driving cost Zipcar www.zipcar.com

The Red Bank Project

- 2 CarSharing vehicles
- 1 space per unit, 4 spaces for visitors
- Parking reduced by about 55 spaces
- Cool Project Concept: Bicycles, solar energy, virtual concierge…

Virtual Concierge

Integrating transportation with other needs/services

- Transportation needs
  - Car/Mass Transit/Air
- Personal schedule
- Personal services
- Home control
- Entertainment & food

Questions

- How many Parking Credits per shared car?
- What are the characteristics of a suitable location?
- Will the cars be available to the general community?
- How is the system managed?
- How much does it cost?
- How about electric cars?
- How is the virtual concierge paid for?