CARLINK & CARSHARING EVOLUTION

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Overview

- Carsharing Definition & History
- CarLink Timeline
- CarLink I Overview & Key Findings
- CarLink II Overview & Key Findings
- Carsharing Today
- Future Research

Carsharing Defined

- Individuals Gain Benefits of Private Vehicle Use Without Costs and Ownership Responsibilities.

- Individuals Access Vehicles by Joining Organization that Maintains Fleet of Cars in Network of Locations.

- Vehicles Are Frequently Located in Neighborhoods, at Transit Stations, or Businesses.

- Carsharing Members Typically Pay for Use Through Hourly Rates and Subscription-Access Plans.

Carsharing History

- Developments Began in Switzerland and Germany in the Late-1980s and Spread to 13 Other Countries Across Europe.

- Carsharing Expanded to North America and Asia in the 1990s.

- Australia Launched Three Carsharing Initiatives, Beginning in 2003.

Carsharing Impacts

Benefits Include Transportation, Environmental, Land-Use, and Social Effects

Region	Number of Vehicles Replaced Due to One Carsharing Vehicle	Percent of Participants Who Sold Private Vehicle After Joining Carsharing	Percent of Participants Who Postponed or Avoided Vehicle Purchase Due to Carsharing	Percent of Vehicle Kilometers Reduced Due to Carsharing
Europe	4 to 10	15.6 to 34%	23 to 26.2%	28 to 45%
North America	6 to 23	11 to 29%	12 to 68%	7.6 to 80% (Avg. of 44% across studies)

CarLink I Timeline

1997 to 2000

- Research on Carsharing Concept from 1997 to 1999
- Launch of CarLink I Field Test January 1999
- CarLink I Field Test Ends November 1999
- Final Evaluation Completed in May 2000

CarLink II Timeline

2000 to 2004

- Feasibility and Technology Development Begins March 2000
- CarLink II Pilot Launch August 2001
- CarLink II Transitions to Flexcar August 2002
- Evaluation of One Year Flexcar Transition — 2003
- Final Report Released August 2004

CARLINK

CARLINK-A SMART CAR-SHARING SYSTEM

CarLink I Overview

- Commuter-Based Carsharing Model, Linked to Transit (12 vehicles)
- Public-Private Partnership (Caltrans, PATH, American Honda, BART District, and Lawrence Livermore National Lab)
- Advanced Technologies Introduced
- Three User Groups: Homebased Users, Workbased Commuters, and Day Users

CarLink System

Homebased User

Transit Link

Day User

Workbased Commuter

CarLink I: Key Findings

Demographics:

- 54 Participants
- 67% Male and 69% Married
- 81% Average Yearly Income of > $50,000
- 36% — 24 to 40 Years of Age
- 59% — 41 to 64 Years of Age
- 75% Bachelor's Degree or Higher

CarLink I: Key Findings (Cont'd)

- If a Permanent Service, Several Homebased Users Would Sell Auto
- Net Reduction in Vehicle Miles Per Day (~20 Miles)
- At Least 20 New BART Trips Each Day
- Preferred Parking Major Benefit
- Environment, Reduced Costs, and Increased Convenience Were Key Factors

CARLINK

CARLINK-A SMART CAR-SHARING SYSTEM

CarLink II Overview

- Commuter-Based Carsharing Model, Linked to Transit (19 vehicles)
- Public-Private Partnership (Caltrans, PATH, American Honda, Caltrain, and Six Private Companies)
- Advanced Technologies Developed
- Three User Groups: Homebased Users, Workbased Commuters, and Day Users

CarLink II: Key Findings

Demographics:

• 107 Participants
• 53% Female and 47% Male
• 47% Average Yearly Income of > $100,000
• 79% — 20 to 40 years of age
• 20% — 41 to 64 years of age
• 48% Bachelor’s Degree or Higher

CarLink II: Key Findings (Cont'd)

- Five Participants Sold or Stored a Vehicle During CarLink II
- Net Reduction in Vehicle Miles Per Day (~27 miles); Solo Driving Reduced by 23%
- 24% Increased Transit Use for Non-Commute Trips
- Environment and Reduced Costs Were Key Factors

CarLink II Pilot Transition

- Flexcar Phase I – CarLink II Business Model
- Flexcar Phase II – Modified Business Model
- Flexcar Shutdown in Palo Alto

  ⇒ Downturn in Economy

  ⇒ Inability to Cover Costs

  ⇒ Member Schedule Fluctuations

Carsharing Growth Worldwide

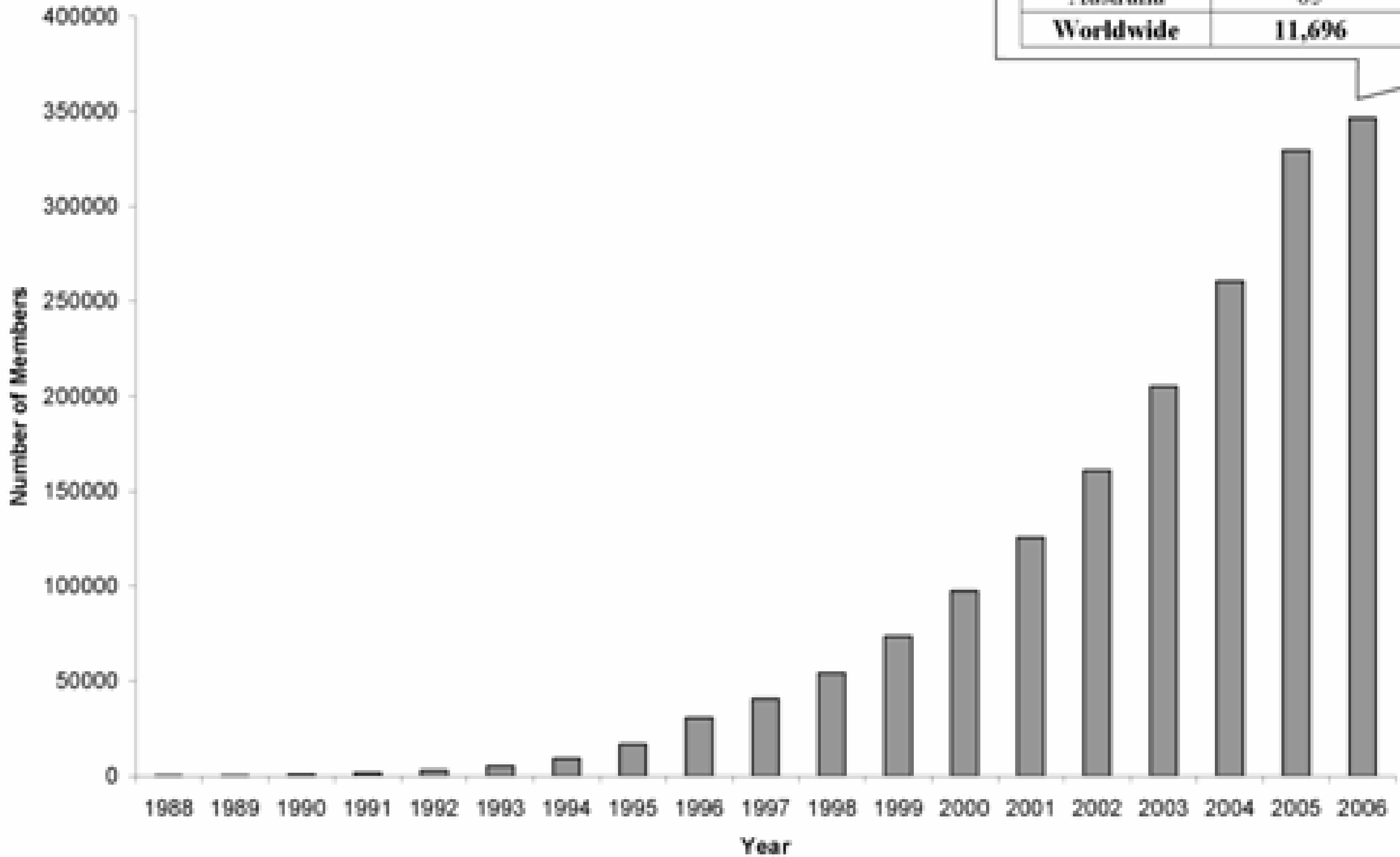
- Approximately 600 Cities

- 18 Nations on 4 Continents

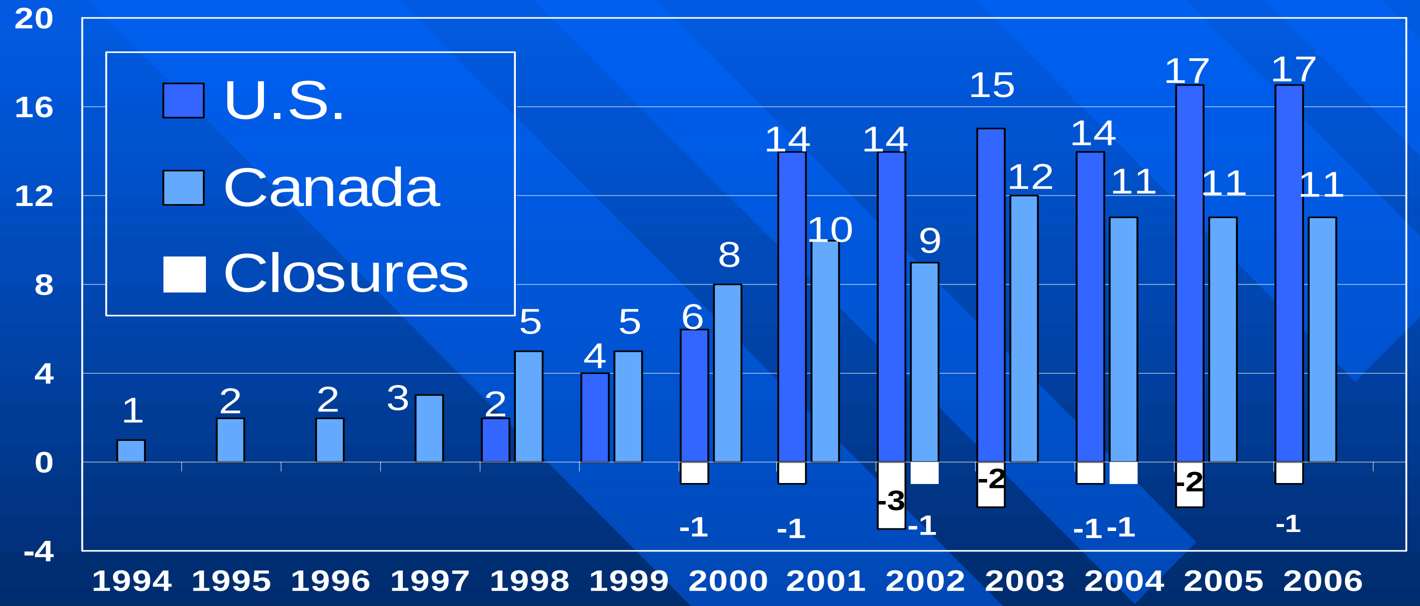
- Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden and Switzerland in Europe; the United Kingdom (Scotland, England, and Wales); Canada and the United States in North America; Japan and Singapore in Asia; and Australia

Growth of Carsharing Worldwide 1988 to Present

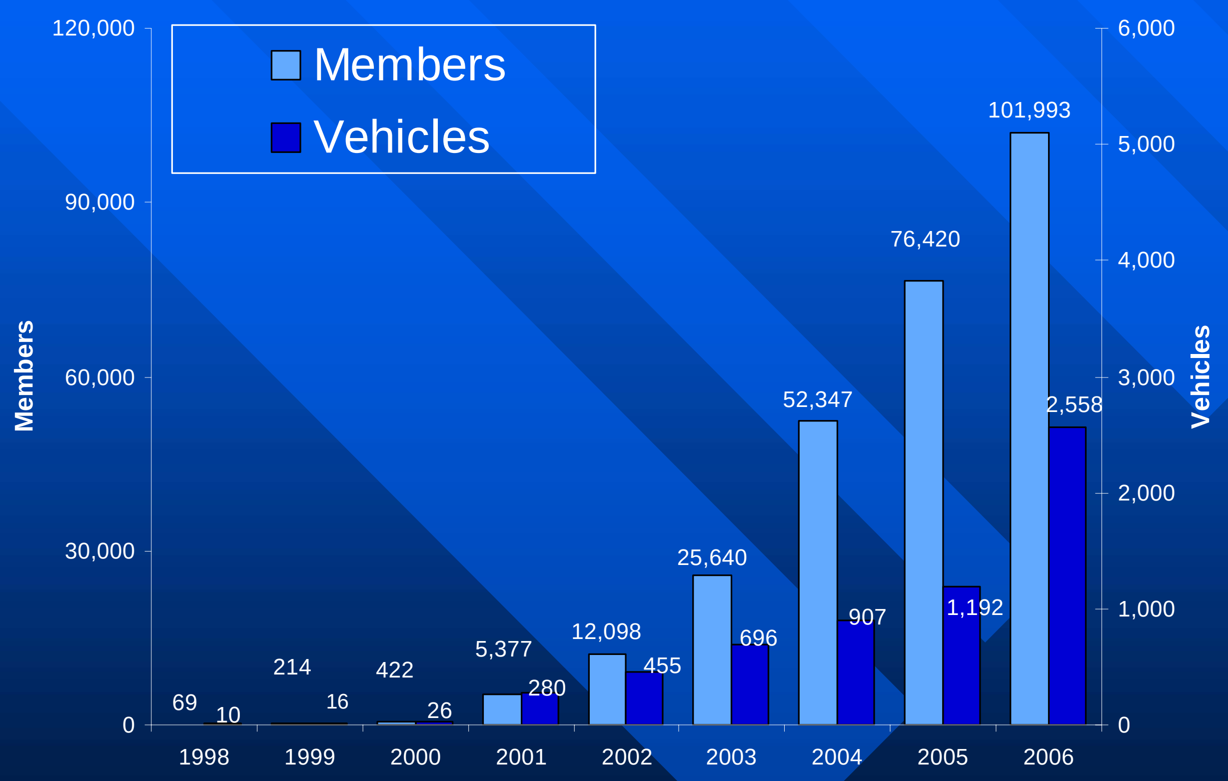
Continent	Estimated # of Vehicles	Estimated Membership
Europe	7,686	213,424
North America	3,337	117,656
Asia	608	15,700
Australia	65	1,130
Worldwide	**11,696**	**347,910**



Carsharing Organizations: North America



U.S. Members & Vehicles



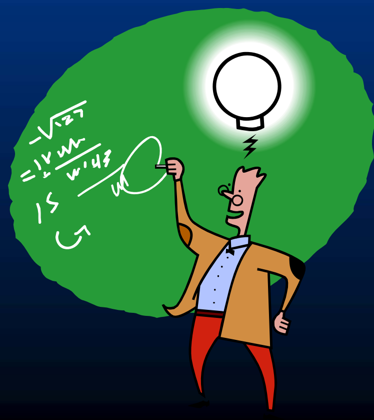
Market Potential

Market potential: 6.9%
Serving 16 CA cities
Market potential: 599,465

Market potential: 12.5%
Serving 31 US cities
Market potential: 1,960,131

More Research Needed

- Parking Subsidies: Benefits & Best Practices
- College Market Potential & Impacts
- Low-Income Market Understanding
- Older Adult Market Understanding
- Business/Fleet Carsharing Impacts
- Transit Smart Card Integration
- Instant Rentals
- One-Way Rentals



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