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Innovative Mobility: Carsharing Outlook

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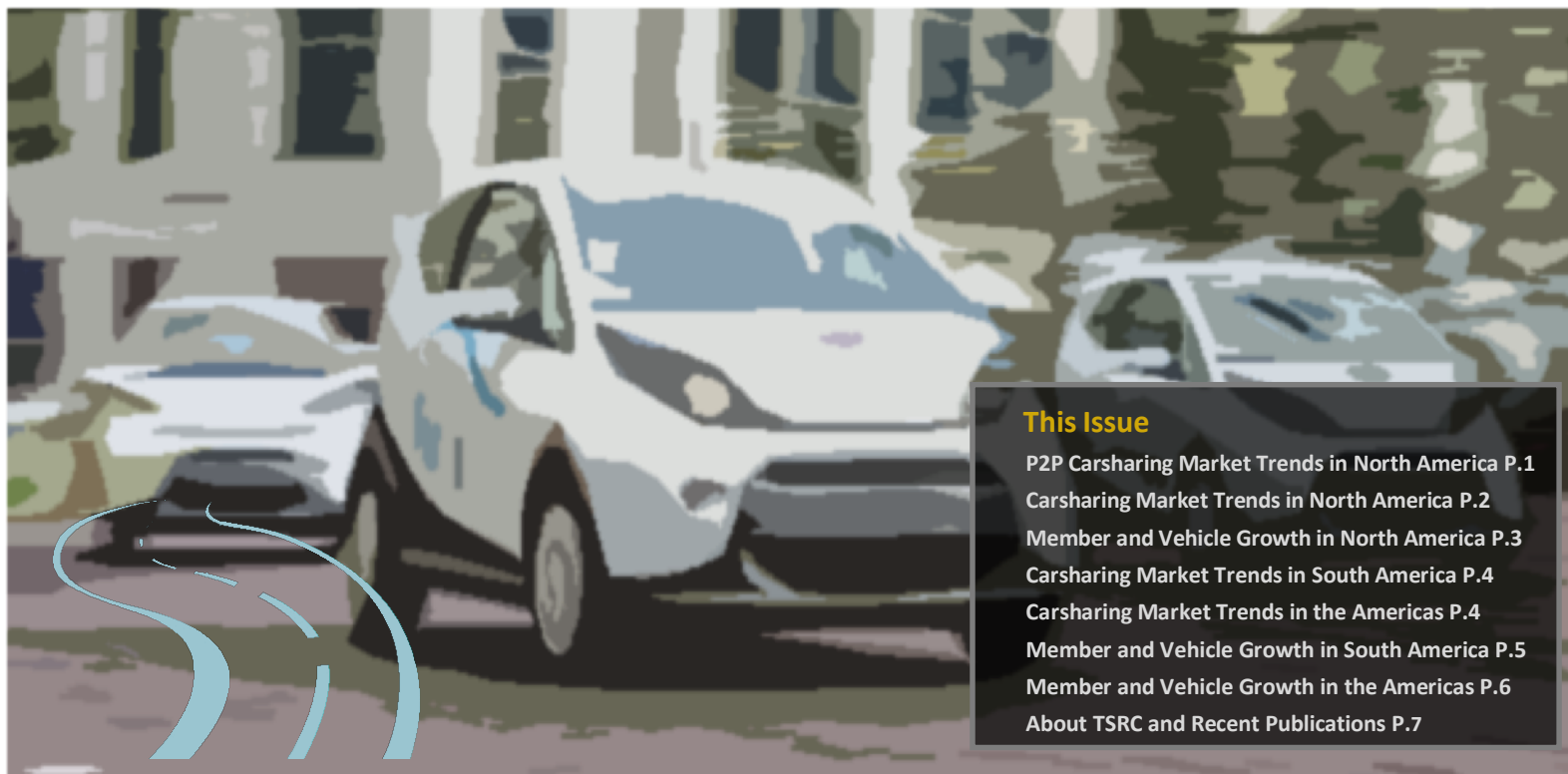
INNOVATIVE MOBILITY: CARSHARING OUTLOOK

CARSHARING MARKET OVERVIEW, ANALYSIS, AND TRENDS ▪ Winter 2018

TRANSPORTATION SUSTAINABILITY RESEARCH CENTER - UNIVERSITY OF CALIFORNIA, BERKELEY

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PEER-TO-PEER CARSHARING MARKET TRENDS IN NORTH AMERICA

Peer-to-peer (P2P) carsharing employs privately owned vehicles made temporarily available for shared use by an individual or members of a P2P carsharing network. Expenditures, such as insurance, are generally covered by the P2P operator during the access period. In exchange for providing the service, operators keep a portion of the usage fee. Members can access vehicles through a direct key or combination transfer from the owner or through operator-installed technology that enables “unattended access.” Although P2P carsharing is more commonplace in the United Kingdom, Netherlands, Germany, and other parts of Europe, the market continues to grow steadily in North America. For instance, the P2P carsharing operator, Turo, expanded into Canada in April 2017, becoming the first American P2P operator to enter an international market.

As of January 2017, six P2P operators were active in North America and one in South America. Two more are planned for launch in North America. However, some operators reported ongoing legislative and insurance challenges, which pose barriers to expansion. TSRC researchers collected P2P carsharing data and fleet size / member estimates from the media, and primary sources from January 2016 through January 2017. As of January 1, 2017, a total of six P2P carsharing operators shared 131,336 vehicles with 2,904,180 members. Between January 2016 and January 2017, P2P carsharing membership increased 111%, and the number of P2P carsharing vehicles increased 80%. All P2P operators surveyed were for-profit operations. For more information on P2P service models, please refer to US Department of

Transportation Primer (2016) *Shared Mobility: Current Practices and Guiding Principles*. See:

http://innovativemobility.org/?page_id=2762.

P2P In North America (n=6)	Jan. 2016	Jul. 2016	Jan. 2017
Members	1,378,124	2,034,203	2,904,180
Vehicles	72,989	98,546	131,336

Note: proxies via media were used for one out of six P2P operators in North America.



Courtesy: Gig Car Share

CARSHARING MARKET TRENDS IN NORTH AMERICA

Since 1998, 94 carsharing programs have been established in North America - 40 are operational and 52 defunct. As of January 1, 2017, there were 18 active programs in Canada, 21 in the United States (U.S.), and one program in Mexico. Together, operations in Canada, the U.S., and Mexico totaled approximately 1,927,228 carsharing members sharing 24,629 vehicles. The three largest carsharing operators in the U.S. and Canada supported 94.8% and 82.6% of the total membership, respectively. One operator provides service in Mexico.

Membership: As of January 1, 2017, 18 Canadian operators claimed 511,654 members and shared 7,412 vehicles. In the U.S., 1,405,447 members shared 17,178 vehicles among 21 operators. Mexico had 39 vehicles and 10,127 members. Between January 2016 and January 2017, carsharing membership increased 7% in the U.S. and 17% in Canada. In Mexico, membership increased by 28%. (Note: multi-national programs with operations in both the U.S. and Canada are counted as an individual operator in each country.)

Fleet Size: Additionally, between January 2016 and January 2017, carsharing fleets decreased 1% in the U.S., grew 6% in Canada, and declined 44% in Mexico.

Member-Vehicle Ratios: Member-vehicle ratios are an important metric, which can be used to assess how many customers are being served per vehicle, and the relative usage level of carsharing members. As of January 2017, U.S. member-vehicle ratios were 82:1, representing an 8.7% increase over the previous year. In Canada, the ratio was 69:1, which was a 10.4% increase over the previous year. In Mexico, the ratio was 260:1, representing a 130% increase over the same period. During this time, average member-vehicle ratios across North America increased to 78:1, representing an 9.0% increase from January 2016.

Business Model: In January 2017, U.S. for-profit programs (12 of 21) represented 57.1% of the operators and accounted for 99.4% of the members and 98.9% of vehicles. In Canada, for-profit programs (7 of 18) represented 38.9% of the operators and accounted for 97% of the membership and 99% of the fleets deployed. There is one operator in Mexico, a for-profit program. Across North America, for-profit programs claimed 98.3% of members and 98.7% of shared vehicles.

Note: Numbers include roundtrip and one-way carsharing and do not include P2P carsharing. Proxies via media were used for five out of 32 roundtrip operators.

GROWTH OF AUTOMAKERS, ONE-WAY, AND RENTAL CARS IN NORTH AMERICA

Automakers: In North America, four automaker programs collectively represented 43.8% and 31.7% of the carsharing membership and fleets deployed, respectively, in January 2017.

One Way: One-way (or point-to-point) carsharing allows members to pick-up a vehicle at one location and drop it off at another. As of January 2017, 38.1% of North American fleets were one-way trip capable, and 48.9% of members had access to these fleets. As of January 2017, car2go, Communauto (select markets), Zipcar (select markets), BlueIndy, Evo Car Share, ReachNow, and WaiveCar offered one-way services in North America.

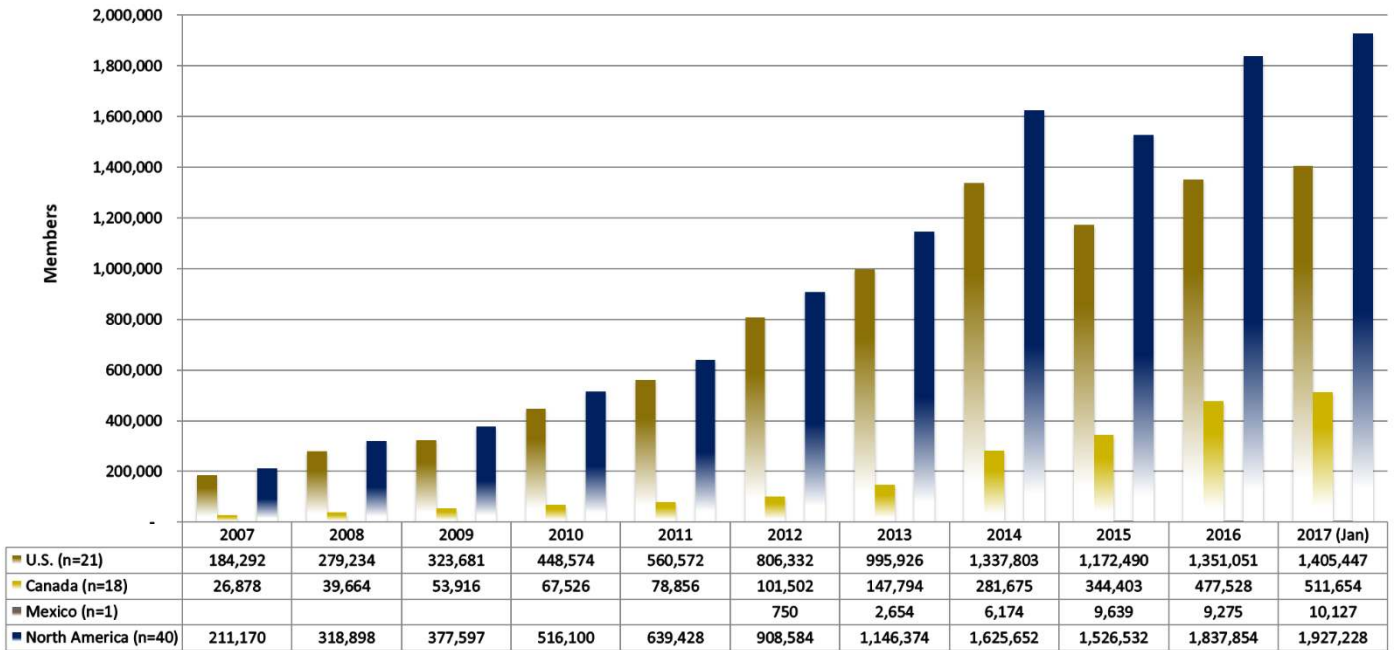
Rental Car Brands: In North America, three rental car programs (Avis Budget Group's Zipcar brand, Enterprise Holdings, and UHaul) represented 48.8% and 52.4% of the carsharing membership and fleets deployed, respectively, as of January 2017.



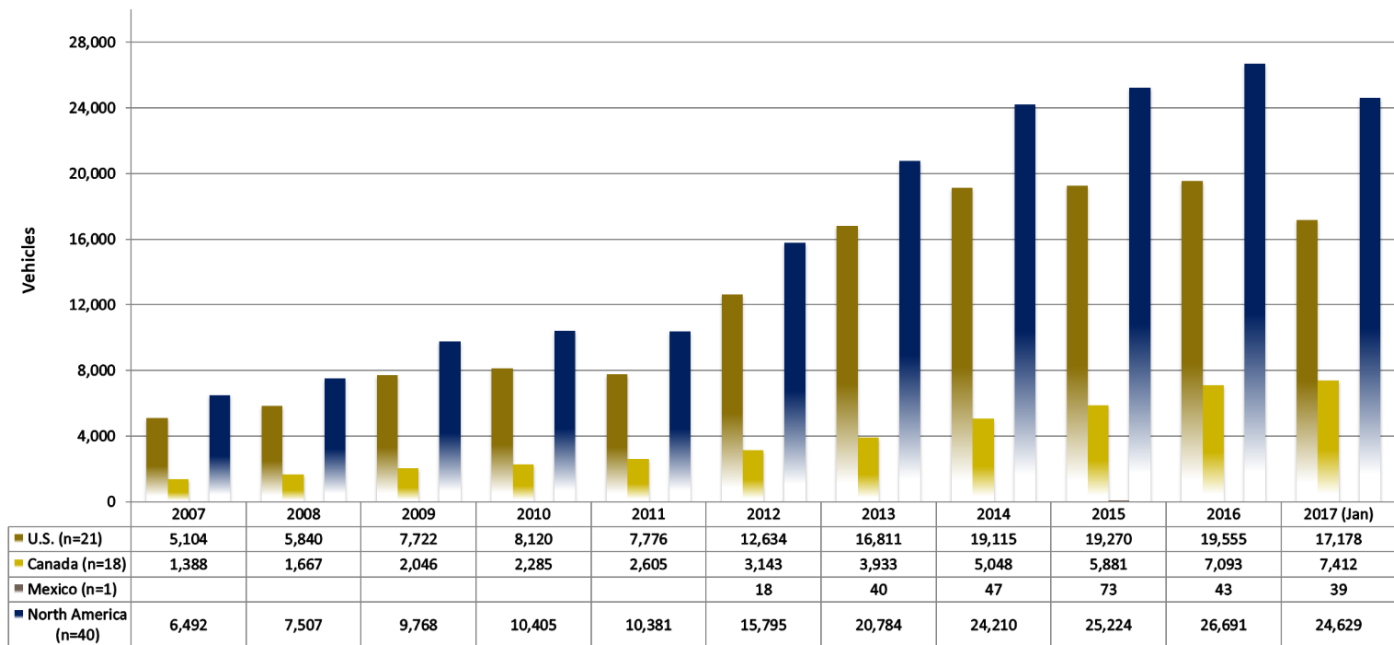
Courtesy: BlueIndy Carshare

CARSHARING MARKET TRENDS IN NORTH AMERICA

Member Growth in North America*



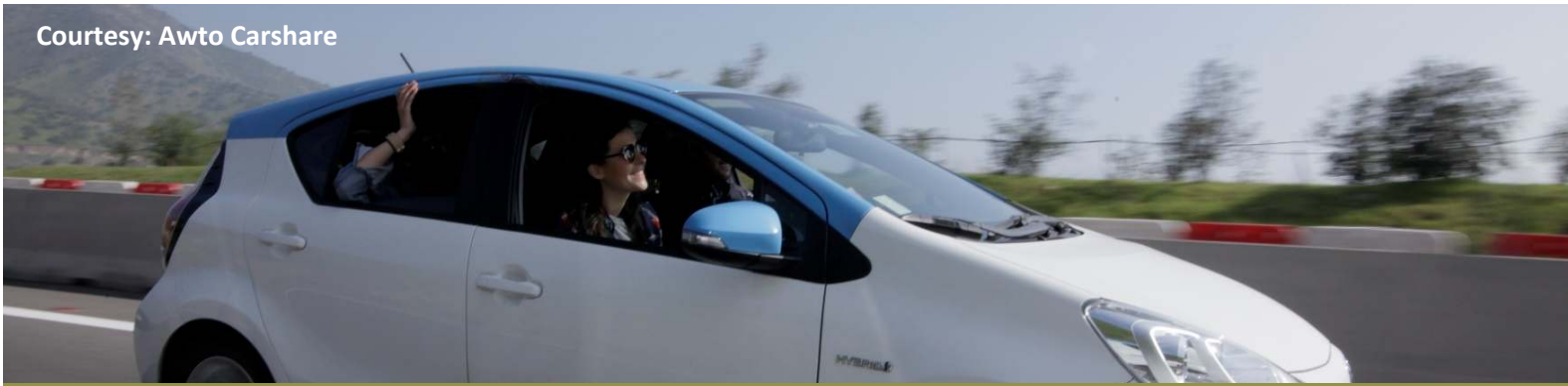
Vehicle Growth in North America*



* Data depict July of each year, and "n" reflects number of operators as of January 2017. Numbers include roundtrip and one-way carsharing. Numbers do not include P2P carsharing. Proxies via media were used for five out of 32 roundtrip operators.



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CARSHARING MARKET TRENDS IN SOUTH AMERICA

Since 2010, six carsharing programs launched in South America, with one additional carsharing operation planned. Five are still active, with one defunct. As of January 1, 2017, there were two active programs in Brazil, one operation in Chile, and one program planned in Columbia. Brazil totaled approximately 8,200 carsharing members sharing 80 vehicles. Carsharing operations in Chile totaled 1,100 carsharing members with 50 carsharing vehicles.

Membership and Fleet Size: As of January 1, 2017, two operators in Brazil claimed 8,200 members and shared 80 vehicles. In Chile, 1,100 members shared 50 vehicles through one operator. Between January 2016 and January 2017, carsharing membership increased 154% in South America. Additionally, between January 2016 and January 2017, carsharing vehicles increased 113% in South America. This is largely due to an expansion of carsharing programs in select markets.

Member-Vehicle Ratios: Member-vehicle ratios are an important metric, which can be used to assess how many customers are being served per vehicle and the relative usage level of carsharing members. As of January 2017, Brazil member-vehicle ratios were 103:1, representing a 51.5% increase over the previous year. In Chile, the ratio was 22:1, during their first half-year of operation. Between January 2016 and January 2017, average member-vehicle ratios in South America increased to 72:1, representing a 20% increase from January 2016.

Business Model: As of January 2017, for-profit programs (three of three) represented 100% of the operators, members, and vehicles in South America.

Service Model Updates: As of January 2017, no rental car providers offered carsharing services in South America. One operator in South America expanded from a hybrid roundtrip and one-way model to a station-based, one-way service in late-June 2017.

Pilot Programs: As of January 2017, two automaker-pilot programs in Brazil shared a total of 15 cars between 2,600 members in limited markets.

Note: Numbers include roundtrip and one-way carsharing and do not include P2P carsharing.

Proxies via media were used for one out of three operators.

CARSHARING MARKET TRENDS IN THE AMERICAS

Since UC Berkeley's TSRC began tracking P2P, one-way, and roundtrip carsharing in January 2016, 49 business to consumer carsharing operators were active across North and South America as of January 1, 2017.

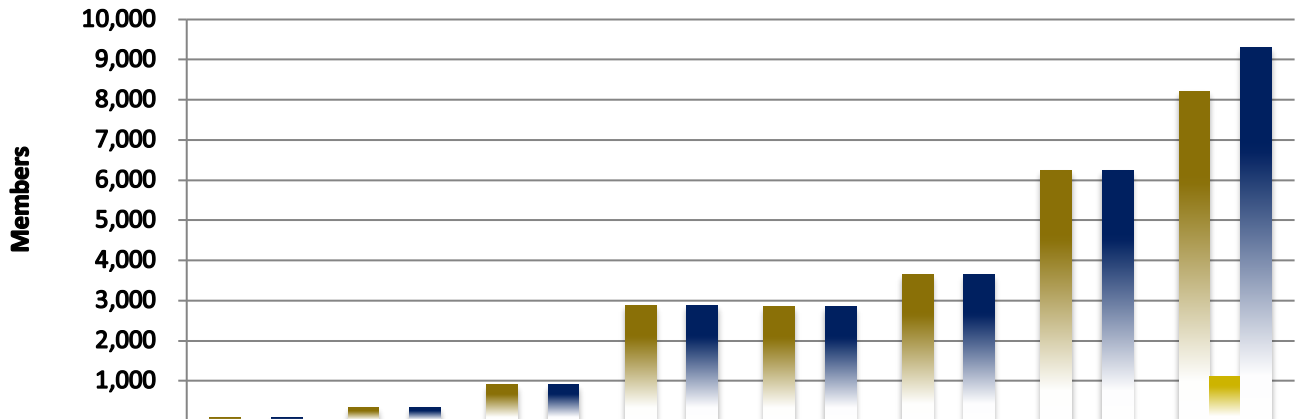
Market Share: As of January 1, 2017, P2P carsharing operators claimed approximately 2,905,634 members (60% of all members) and 131,713 vehicles (84% of all carsharing vehicles) across the Americas. One-way carsharing operators claimed 918,168 members (19% of all carsharing members) and 9,428 vehicles (6% of all carsharing vehicles). Roundtrip carsharing operators claimed 1,018,359 members (21% of all members) and 15,331 vehicles (10% of all carsharing vehicles) in the Americas.

Member-Vehicle Ratios: Member-vehicle ratios are an important metric, which can be used to assess how many customers are being served per vehicle and the relative usage level of carsharing members. As of January 2017, P2P carsharing member-vehicle ratios were 22:1, a 17% increase from the previous year. One-way member-vehicle ratios were 97:1, representing a 18% increase from January 2016. Roundtrip member-vehicle ratios were 66:1, representing a 1% increase over the previous year. Member-vehicle ratios for the Americas were 31:1, representing a 4% decrease over the previous year.

Note: proxies via media were used for one out of 7 P2P operators, five out of 34 roundtrip operators in the Americas.

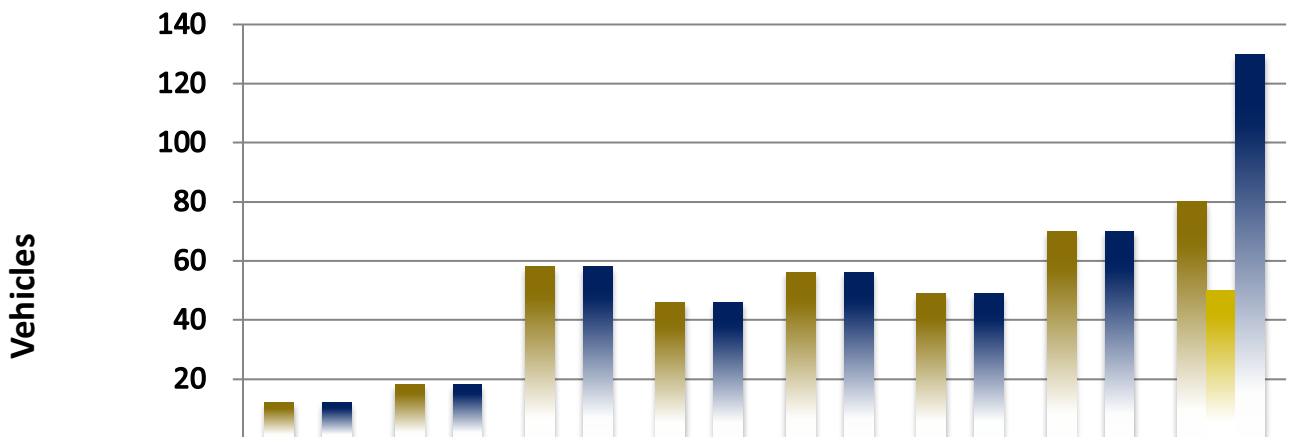
CARSHARING MARKET TRENDS IN SOUTH AMERICA

Member Growth in South America*



	2010	2011	2012	2013	2014	2015	2016	2017 (Jan)
Brazil (n=2)	98	347	910	2,884	2,857	3,658	6,250	8,200
Chile (n=1)							-	1,100
South America (n=3)	98	347	910	2,884	2,857	3,658	6,250	9,300

Vehicle Growth in South America*



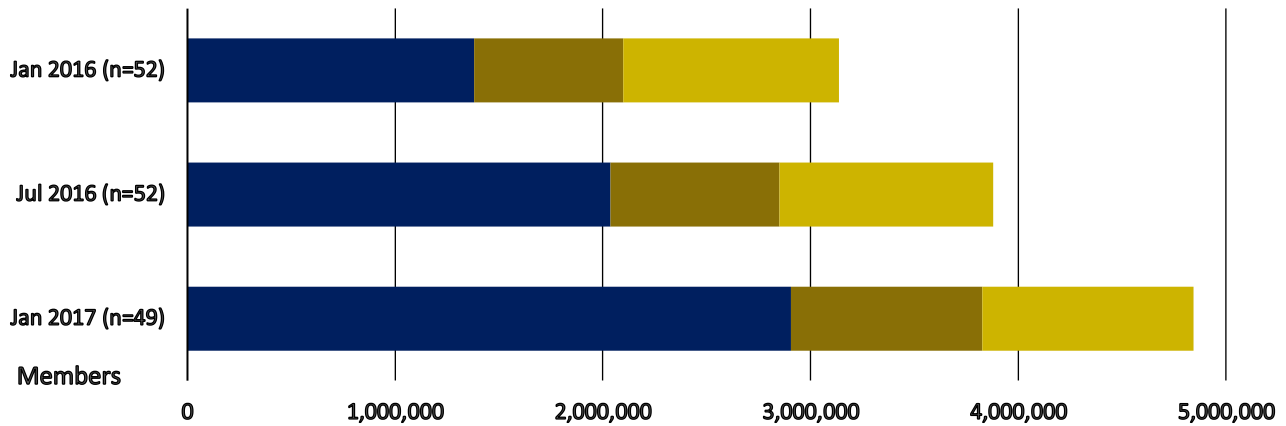
	2010	2011	2012	2013	2014	2015	2016	2017 (Jan)
Brazil (n=2)	12	18	58	46	56	49	70	80
Chile (n=1)								50
South America (n=3)	12	18	58	46	56	49	70	130

* Data depict July of each year, and “n” reflects number of operators as of January 2017. Numbers include roundtrip and one-way carsharing. Numbers do not include P2P carsharing. Proxies via media were used for one out of three operators.



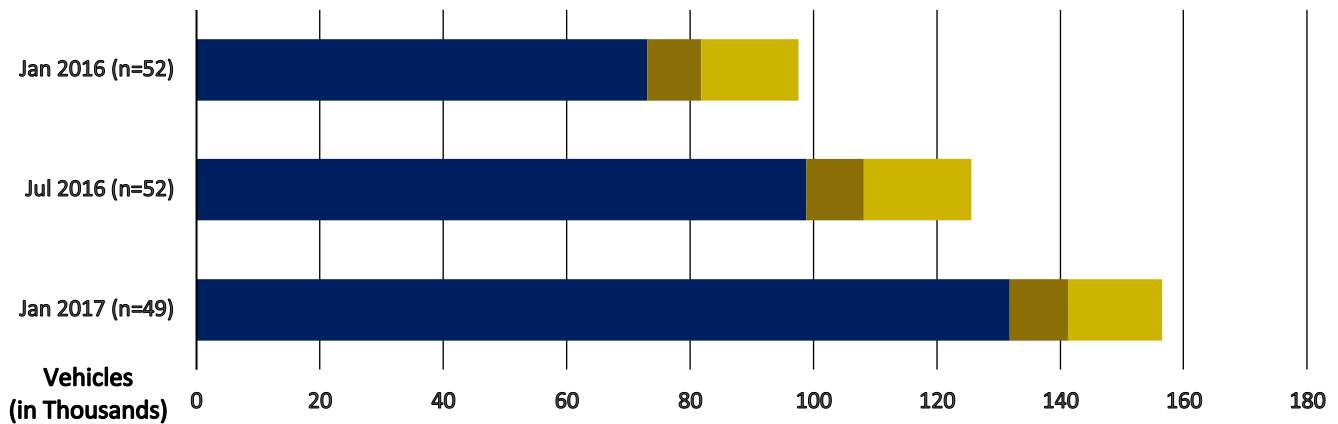
CARSHARING TRENDS IN THE AMERICAS

Member Growth in The Americas*



	Jan 2017 (n=49)	Jul 2016 (n=52)	Jan 2016 (n=52)
■ P2P	2,905,634	2,034,890	1,378,318
■ One-Way	918,168	812,440	717,873
■ Round-Trip	1,018,359	1,031,663	1,038,500
Total Members	4,842,162	3,878,994	3,134,692

Vehicle Growth in The Americas*



	Jan 2017 (n=49)	Jul 2016 (n=52)	Jan 2016 (n=52)
■ P2P	131,713	98,786	73,039
■ One-Way	9,428	9,313	8,745
■ Round-Trip	15,331	17,448	15,736
Total Vehicles	156,472	125,547	97,520

* "N" reflects number of operators. Hybrid operators that offer both roundtrip and one-way carsharing were asked to distinguish between one-way / roundtrip carsharing members and one-way / roundtrip fleet vehicles. Countries benchmarked include: U.S., Canada, Mexico, Brazil, Chile. Proxies via media were used for one out of seven P2P operators and five out of 34 roundtrip operators.





ABOUT TSRC

The Transportation Sustainability Research Center (TSRC) was formed in 2006. TSRC is managed by the Institute of Transportation Studies of the University of California, Berkeley. It is headquartered at Berkeley's Global Campus at Richmond Bay.

TSRC uses a wide range of analysis and evaluation tools including: questionnaires, interviews, focus groups, automated data collection systems, GIS, and simulation models to collect data, perform analyses, and interpret data. The center develops impartial findings and recommendations for key issues of interest to industry and policy makers to aid in decision making. TSRC has assisted in developing and implementing major California and federal regulations and initiatives regarding sustainable transportation including: zero emission vehicle credits for carsharing vehicles as part of the Zero Emission Vehicle (ZEV) Mandate in California, the California Global Warming Solutions Act (AB 32), the Low Emission Vehicle Program, the California Clean Cars Program (AB 1493), Low Carbon Fuel Standards policies, Sustainable Communities and Climate Protection Act (SB 375), and the federal Energy Independence and Security Act of 2007.

Innovative Mobility Updates

To stay up to date with the shared mobility field, please subscribe to our weekly newsletter and updates at: http://innovativemobility.org/?page_id=1297 (bottom of page).

Recent Publications

Shaheen, Susan; Bayen, Alexandre; Cohen, Adam; Forscher, Teddy. 2018. Policy Briefs. Institute for Transportation Studies, UC Berkeley.

Available at: http://innovativemobility.org/?page_id=2762

Shaheen, Susan; Cohen, Adam; Yelchuru, Balaji; and Sarkhili, Sara. 2017. Mobility on Demand Operational Concept Report. U.S. Department of Transportation. Report # FHWA-JPO-18-611. Available at: <https://rosap.ntl.bts.gov/view/dot/34258>

Shaheen, Susan; Bell, Corwin; Cohen, Adam; and Yelchuru, Balaji. 2017. Travel Behavior: Shared Mobility and Transportation Equity. U.S. Department of Transportation. Report # PL-18-007. Available at: https://www.fhwa.dot.gov/policy/otps/shared_use_mobility_equity_final.pdf

TSRC Methodology

Data include one-way carsharing unless otherwise stated. We now have a separate category for P2P carsharing, starting in January 2016. Roundtrip carsharing data exclude P2P carsharing numbers except for hybrid P2P carsharing due to data availability. In hybrid P2P carsharing, individuals access vehicles by joining an organization that maintains its own vehicle fleet but also includes privately owned cars. Member-vehicle numbers in the Americas are collected biannually, in January and July of every year. Data are collected from each carsharing operator, with the exception of noted proxies. Note there may be inconsistencies with a few data points in prior publications due to updated numbers provided by experts after a publication was released.

Please note TSRC never releases disaggregated data without the express permission of the respective operator(s). The authors would like to thank all of the operators, experts, and associations who provide data and feedback. Data and insights from this outlook should be attributed to TSRC, UC Berkeley. For more detailed market analyses (e.g., longitudinal growth numbers in the Americas), please see: <http://imr.berkeley.edu>.

TSRC Shared Mobility Research Team

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TRANSPORTATION SUSTAINABILITY RESEARCH CENTER



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