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Innovative Mobility: Carsharing Outlook; Carsharing Market Overview, Analysis, and Trends

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Authors

Shaheen, Susan, PhD

Cohen, Adam

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INNOVATIVE MOBILITY: CARSHARING OUTLOOK

CARSHARING MARKET OVERVIEW, ANALYSIS, AND TRENDS ▪ Spring 2020

TRANSPORTATION SUSTAINABILITY RESEARCH CENTER - UNIVERSITY OF CALIFORNIA, BERKELEY

By Susan Shaheen, Ph.D. and Adam Cohen

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This Issue

Worldwide Carsharing Growth P.1

Regional Carsharing Market Trends P.2-4

Asia and Europe P.2

North and South America P.3

Oceania and Africa P.4

Global Carsharing Market Trends P.5

About TSRC P.6

Worldwide Carsharing Growth

In October 2018, carsharing was operating in 47 countries and six continents, with approximately 32 million members sharing over 198,000 vehicles. Asia, the largest carsharing region measured by membership, accounted for 71.4% of worldwide membership and 54.4% of global fleets deployed. The world's second largest carsharing market, Europe, accounted for 21.2% of worldwide members and 30.6% of vehicle fleets.

As of October 2018, one-way carsharing accounted for 49.63% of global membership and 42.02% of global fleets deployed (based on data provided through expert interviews). The 2018 global one-way market share represented a 238% increase in membership and a 103% increase in fleets since 2016. In October 2018, roundtrip carsharing accounted for 50.37% and 57.98% of global membership and fleets deployed, respectively. Regionally, Europe had the largest percentage of one-way membership, representing 72.3% of the region's carsharing membership. Oceania had the greatest percentage of one-way fleets regionally, representing 80.91% of the continent's carsharing fleets.

The number of carsharing countries increased from 46 in 2016 to 47 as of October 2018. Notably, carsharing expanded to Columbia in July 2017. Please note in February 2020, ShareNow discontinued services in North America (Montreal, New York, Seattle, Washington DC, and Vancouver). ShareNow will continue in some European cities.

Save the Date

CommuteCon

Come hear from the leaders in in transportation demand management discuss trends shaping the future of commuter transportation. CommuteCon is a free annual online conference that unites members of the commuter management and TDM community.

April 1, 2020

9 AM to 2 PM PST / 12 PM to 5 PM EST

<https://commutecon.com/>

The Carsharing Association Conference

Rescheduled – April 8 to 9, 2021

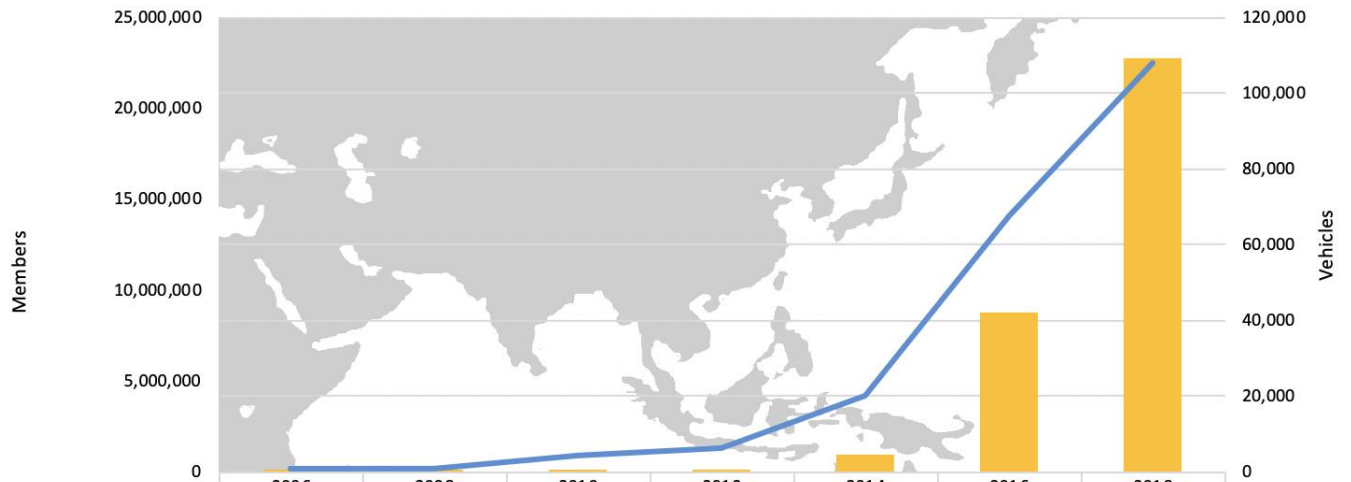
Vancouver, Canada

For more information:

<http://conference.carsharing.org/>

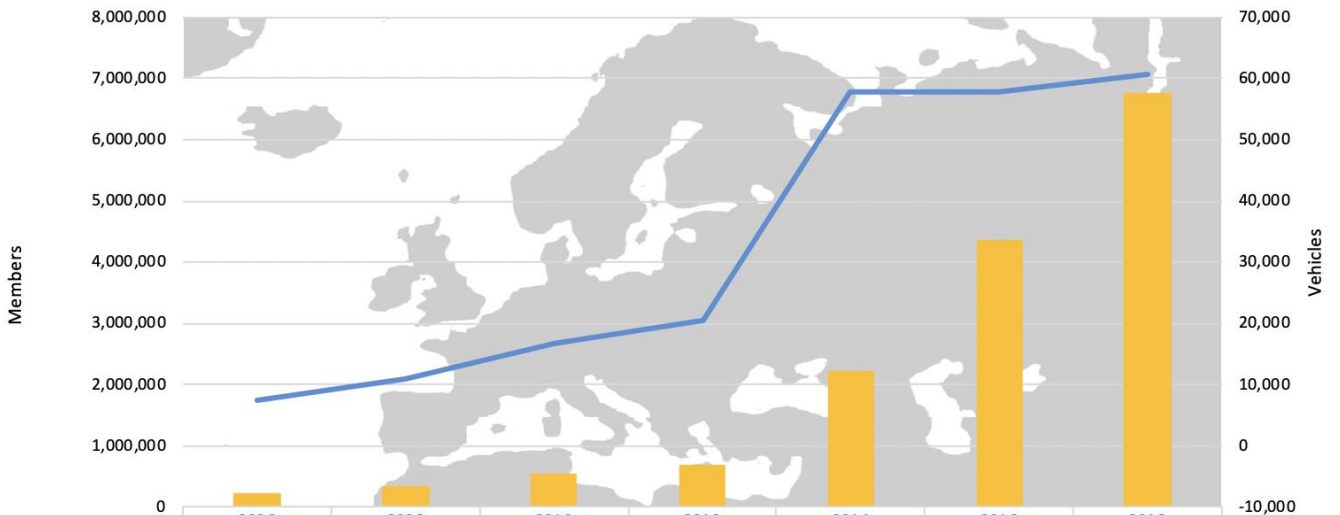
REGIONAL CARSHARING MARKET TRENDS

Asian Trends (n=10)



	2006	2008	2010	2012	2014	2016	2018
Members	15,700	12,546	81,817	160,500	955,880	8,722,138	22,707,000
Compound Annual Member Growth Rate (2 yr)	0%	-11%	155%	40%	144%	202%	61%
Vehicles	608	810	4,315	6,155	20,344	67,329	108,097
Compound Annual Fleet Growth Rate (2 yr)	0%	15%	131%	19%	82%	82%	27%
Member-Vehicle Ratio	25.8	15.5	19.0	26.1	47.0	129.5	210.1

European Trends (n=27)

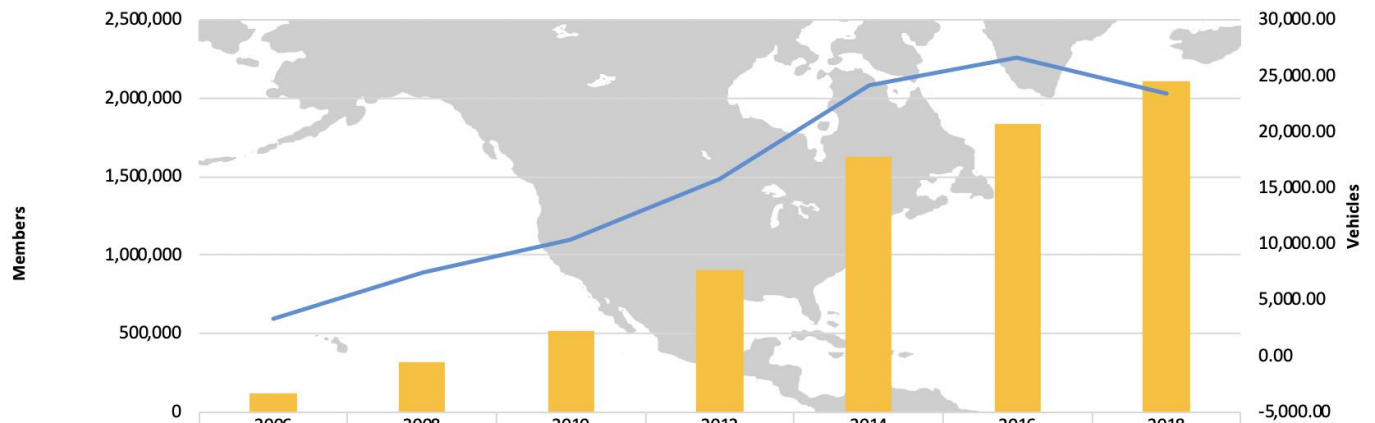


	2006	2008	2010	2012	2014	2016	2018
Members	212,124	334,168	552,868	691,943	2,206,884	4,371,151	6,761,688
Compound Annual Member Growth Rate (2 yr)	0%	26%	29%	12%	79%	41%	24%
Vehicles	7,491	10,833	16,779	20,464	57,947	57,857	60,622
Compound Annual Fleet Growth Rate (2 yr)	0%	20%	24%	10%	68%	0%	2%
Member-Vehicle Ratio	28.3	30.8	32.9	33.8	38.1	75.6	111.5

* Data depict October of each even numbered year. Numbers do not include P2P carsharing. Proxies from reports and media sources were used for four of 10 nations surveyed in Asia and 12 out of 27 nations in Europe. "n" denotes the number of countries in each respective region.

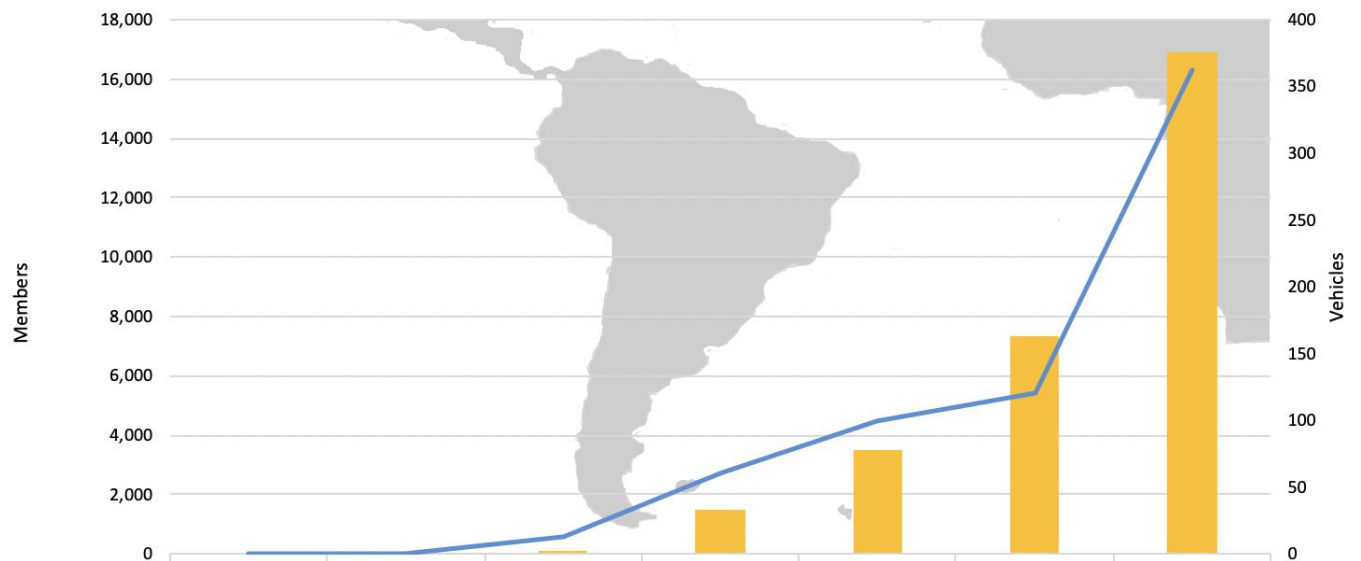
REGIONAL CARSHARING MARKET TRENDS

North American Trends (n=3)



	2006	2008	2010	2012	2014	2016	2018
Members	117,656	318,898	516,100	908,584	1,625,652	1,837,854	2,110,111
Compound Annual Member Growth Rate (2 yr)	0%	65%	27%	33%	34%	6%	7%
Vehicles	3,337	7,505	10,420	15,795	24,210	26,691	23,376
Compound Annual Fleet Growth Rate (2 yr)	0%	50%	18%	23%	24%	5%	-6%
Member-Vehicle Ratio	35.3	42.5	49.5	57.5	67.1	68.9	90.3

South American Trends (n=3)

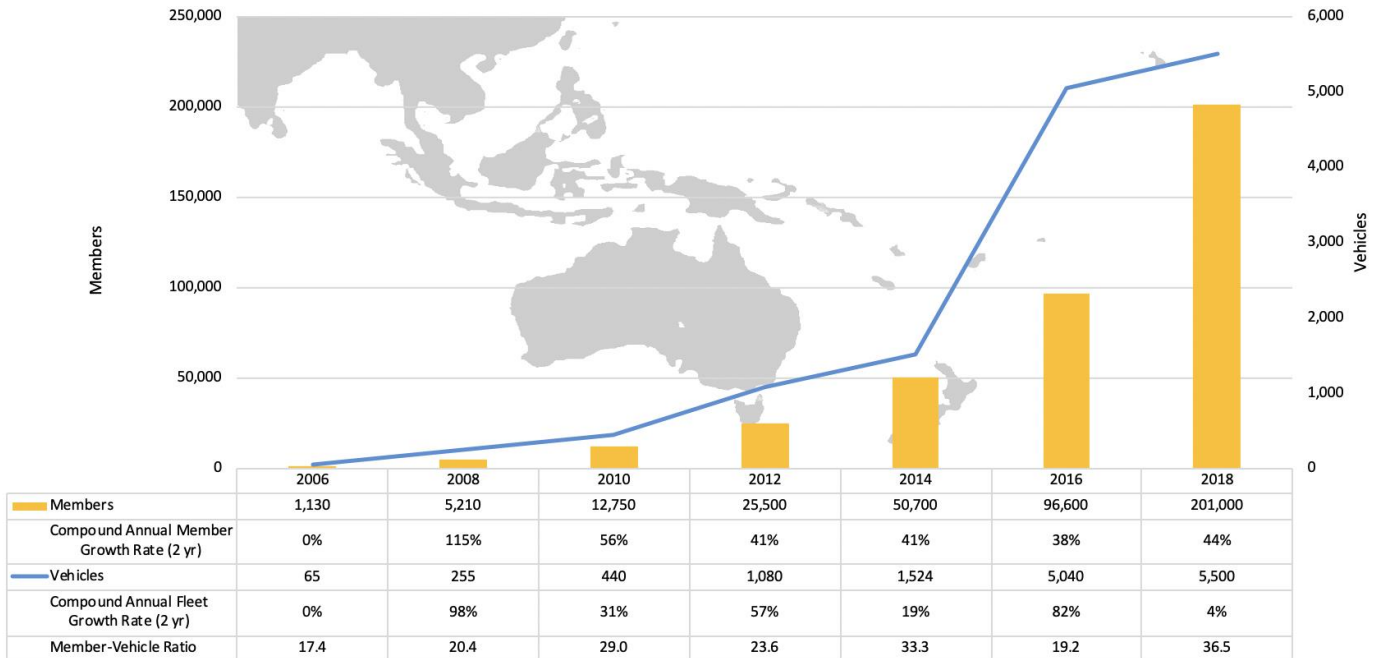


	2006	2008	2010	2012	2014	2016	2018
Members	0	0	110	1,500	3,500	7,350	16892
Compound Annual Member Growth Rate (2 yr)	0%	0%	0%	269%	53%	45%	52%
Vehicles	0	0	13	60	100	120	363
Compound Annual Fleet Growth Rate (2 yr)	0%	0%	0%	115%	29%	10%	74%
Member-Vehicle Ratio	0.0	0.0	8.5	25.0	35.0	61.3	46.5

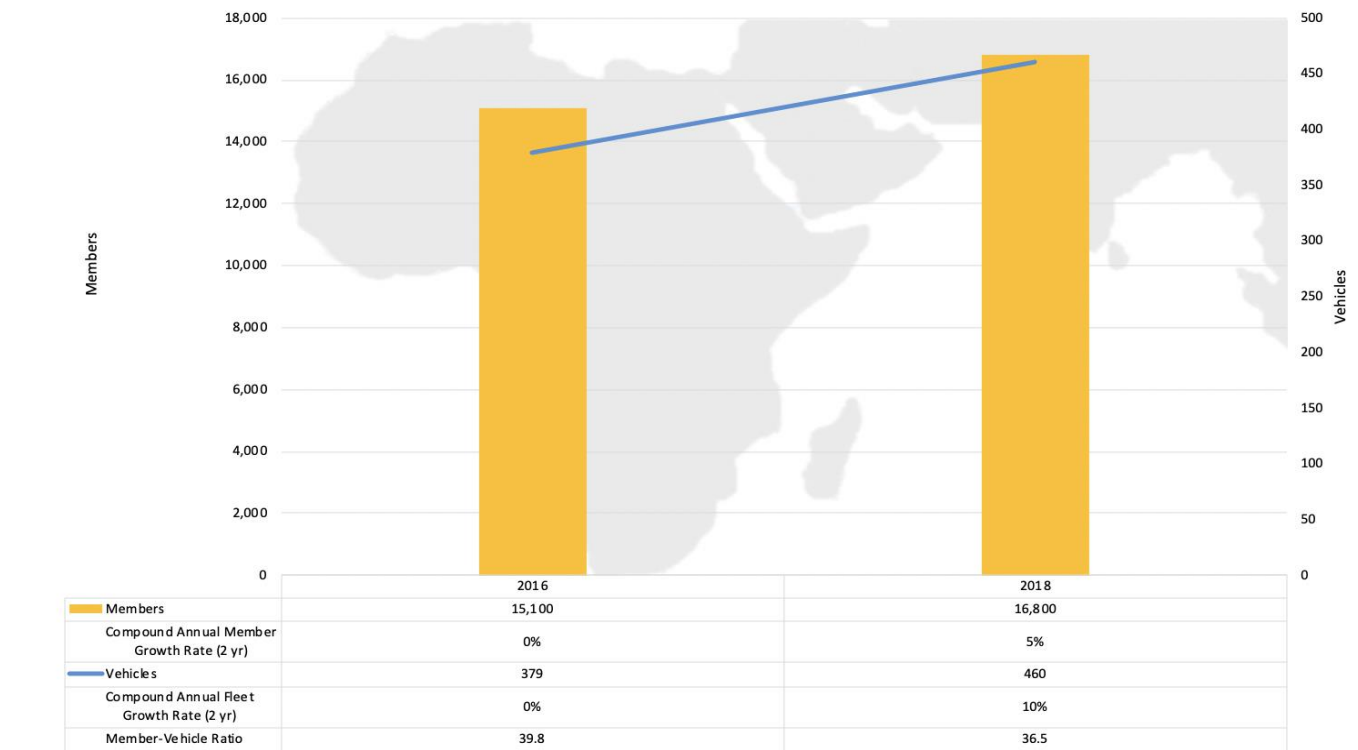
* Data depict October of each even numbered year. Numbers do not include P2P carsharing. Proxies from reports and media sources were used for two out of three nations surveyed in North America and one out of two nations in South America. "n" denotes the number of countries in each respective region.

REGIONAL CARSHARING MARKET TRENDS

Oceania Trends (n=2)



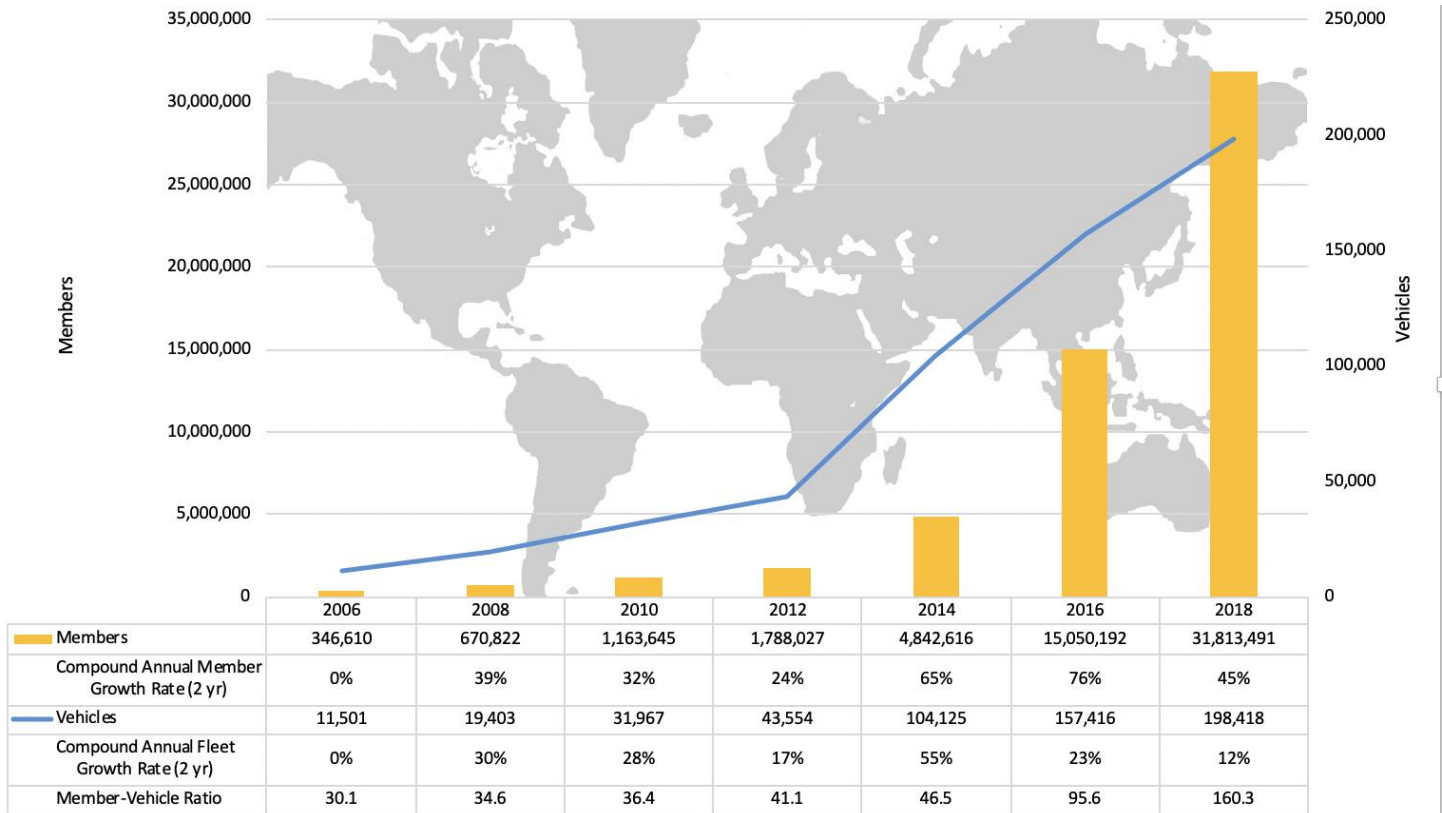
African Trends (n=2)



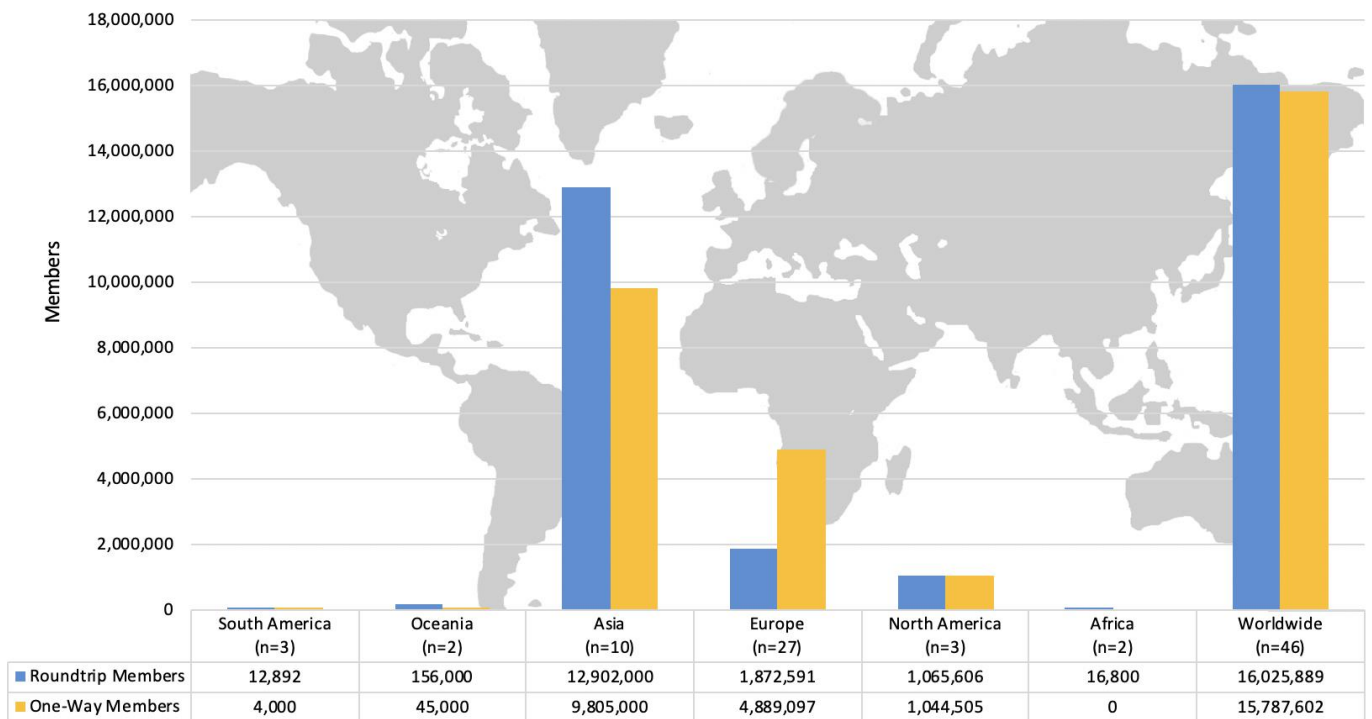
* Data depict October of each even numbered year. Numbers do not include P2P carsharing. Proxies from reports and media sources were used for one out of two nations in Africa. "n" denotes the number of countries in each respective region.

GLOBAL CARSHARING MARKET TRENDS

Global Trends



Global Roundtrip and One-Way Membership Trends



* Data depict October of each even numbered year. Numbers do not include P2P carsharing. "n" denotes the number of countries surveyed in each respective region. One-way includes both station-based and free-floating models.

Recent Publications

Shaheen, S., E. Martin, and H. Totte (2019). "Impacts of Zero-Emission Vehicle Exposure Within U.S. Carsharing Fleets and Impacts on Sentiment Toward Electric-Drive Vehicles," *Transport Policy*, 10 pages. <https://escholarship.org/uc/item/95j7g71k>

Shaheen, S., E. Martin, and M. Hoffman-Stapleton (2019). "Shared Mobility and Urban Form Impacts: A Case Study of Peer-to-Peer (P2P) Carsharing in the U.S.," *Journal Urbanism Design*, 17 pages. <https://escholarship.org/uc/item/34z556p2>

Shaheen, S., A. Cohen, M. Dowd, and R. Davis (2019). *A Framework for Integrating Transportation into Smart Cities*. San Jose. <https://transweb.sjsu.edu/sites/default/files/1705-Shaheen-Framework-Transportation-Smart-Cities.pdf>

Shaheen, S., A. Cohen, and E. Farrar (2019). *Chapter Five: Carsharing's Impact and Future*. *Advances in Transport Policy and Planning, Volume 4*. ISSN 2543-0009, pp. 87-119. <http://escholarship.org/uc/item/2f5896tp>

Shaheen, S. and A. Cohen (2018). "Shared Ride Services in North America: Definitions, Impacts, and the Future of Pooling," *Transport Reviews*, pp. 1-17. <https://escholarship.org/uc/item/46p6n2sk>

TSRC Methodology

Data include one-way carsharing unless otherwise stated. Carsharing data exclude personal vehicle sharing numbers except for hybrid peer-to-peer (P2P) carsharing. In hybrid P2P carsharing, individuals access vehicles by joining an organization that maintains its own vehicle fleet, but it also includes private autos throughout a network of locations. Data include 47 countries: Australia, Austria, Belgium, Brazil, Canada, Chile, China, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Kazakhstan, Lithuania, Luxemburg, Malaysia, Mexico, Monaco, Morocco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovenia, South Africa, Spain, South Korea, Sweden, Switzerland, Thailand, Turkey, United Arab Emirates, United Kingdom, and United States.

Worldwide member-vehicle numbers are collected through expert estimates and industry benchmarking through national and regional carsharing associations. In select circumstances, the authors augment data provided by national associations with data from large, non-member operators to obtain a more accurate estimate. In North America and in smaller markets with a limited number of operators, the authors collect member/vehicle data from each organization. Note, there may be inconsistencies with a few data points compared to prior publications due to updated numbers provided by experts after publication. In several cases, proxies were used employing publicly available data sources.

TSRC never releases disaggregated data without the express permission of the respective operator(s). The authors would like to thank all of the worldwide operators, experts, and associations who provide member-vehicle numbers, other data, and feedback. Data and insights from this outlook should be attributed to TSRC, UC Berkeley. For more detailed market analyses (e.g., longitudinal U.S. and Canadian growth numbers), please see www.imr.berkeley.edu.

TSRC Shared Mobility Research Team

Susan Shaheen, Ph.D.; Adam Cohen; Elliot Martin Ph.D.; Jacquelyn Broader; Emily Farrar

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. 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 and perform analysis 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. Others include 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), the California Clean Miles Standard and Incentive Program (SB 1014), and the federal Energy Independence and Security Act of 2007.

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TRANSPORTATION SUSTAINABILITY RESEARCH CENTER

Innovative Mobility Research Group
Transportation Sustainability Research Center
408 McLaughlin Hall
University of California, Berkeley
Berkeley, CA 94720
www.innovativemobility.org