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Above: In Jordan, a study shows that children are a major influence on morning commute times for travelers with private cars. Many socioeconomic factors affect women's mobility patterns across the globe.

here is a growing awareness that gender-sensitive transportation data collection, although challenging, cannot be ignored by urban mobility policy makers and planners. A review of the literature confirms that sociodemographics—a critical determinant of travel behavior by gender—have been studied

inadequately (1-2).

For example, a study in Amman, Jordan, investigated travel-related decisions made by private car, bus, and taxi commuters. The results indicate that morning departure time decisions are influenced by the presence of young children only for commuters who use private cars. After work, bus and taxi commuters pursue household maintenance activities and do not pursue a chain of activities; private car commuters, on

the other hand, are more likely to carry out a chain of activities after work (3).

This study would have been even more informative to policy if gender differences in travel behavior and trip patterns had been examined. The literature review does confirm, however, that the socioeconomic



In studies from 1988 and 2016, data show that women seek jobs closer to home because of family responsibilities and that they often choose cheaper transportation methods.



Photo: Gaurav Ganguly

Women avoid using a bus shelter in Cairo, Egypt.

gap between men and women—leading to low employment rates, part-time jobs, and low wages—still is significant and affects women's mobility patterns (4–5).

In 1988, Wachs indicated that women are involved in complex activities because they retain their family obligations as nurturers, shoppers, and homemakers, and most often seek jobs closer to home (6). Ng and Acker's 2018 study in eight cities—Auckland, New Zealand; Dublin, Ireland; Hanoi, Vietnam; Helsinki, Finland; Jakarta, Indonesia; Kuala Lumpur, Malaysia; Lisbon, Portugal; and Manila, Philippines—also indicated that women still travel differently than men, using cheaper transportation alternatives and traveling shorter distances (2).

Research Gaps

A review of the current literature further shows 1) a scarcity of gender mobility data and statistics, 2) the need both to broaden the understanding that gender-friendly mobility services are beneficial and to develop flexible transportation alternatives, and 3) inadequate resources to study gender mobility and accessibility disparities around the world (7–9).

Transportation policies that affect both men and women require multiple data collection methods to ensure appropriate statistical analysis. Faulty methodology in data collection (e.g., incorrect sample size, sampling methods based on sociodemographic characteristics, bias in questions about travel patterns, or inadequate effort to supplement quantitative data with qualitative data) can lead to inadequate inferences about travel patterns and needs.

A 2004 study using 2001 U.S. National Household Travel Survey (NHTS) data compared the travel patterns of foreign-born adult women living in the United States with those of native-born women. The study showed that foreign-born women are less likely to drive and more likely to use public transportation than native-born women. The authors of the study admitted that the survey data were not enough to indicate why these differences exist, however (10).

The complexity of women's travel activities make gender a key sociodemographic determinant of daily mobility, but most transportation policies assume that women and men keep the same travel patterns and have equal access to different transportation modes (2). Also, these policies overlook the socioeconomic differences in travel behavior by gender, thereby inadequately serving women's travel needs.

For example, women's use of public transportation can be affected by the



Photo: Mohammed Danish Hussain

This photo, taken in Jaipur, India, shows women traveling in auto rickshaws, or modified scooters that generally carry two passengers in the rear seat. More passengers can be squeezed in to cut costs, however; in this case, a female passenger has been accommodated in the front in a manner that is culturally inappropriate.

physical and practical considerations relating to the structural design of bus stops (see photo at top of page). Also, vehicle design may not address women's preferences or safety needs (see photo above).

Better Awareness for Better Data

At the 2019 TRB Annual Meeting, the Standing Committee on Women's Issues in Transportation hosted a workshop, Bridge the Gap: Eliminating Gender Bias in Transportation Research. Cosponsored with

several other standing committees, the workshop examined the data and presenters concurred that transportation needs for non-work-related trips are underevaluated in conventional assessments that focus on work commutes (11). Speakers and attendees suggested that gender bias occurs because researchers' stereotypes and prejudices about gender—for example, that women are caregivers rather than commuters—become implicit in the data collection methods.

For example, the photo at right depicts a woman traveling with a child strapped to her back. If researchers do not capture her traveling while caregiving, this type of mobility data would never get collected.

One possible reason why these data are not captured is that fewer women are involved in transportation decision-making, planning, and operations (5, 12). TRB standing committees and subcommittees plan to broaden and mobilize awareness to collect more comprehensive and useful data on women's travel patterns and caregiving trip activities. Through these collaborative efforts, gender data ideally will become richer and more useful, reflecting the multiple mobility roles assumed by women so that future transportation infrastructure and policies can be responsive to their needs.

REFERENCES

- Maffii, S., P. Malgieri, and C. Di Bartolo. Smart Choices for Cities: Gender Equality and Mobility— Mind the Gap! CIVITAS, Brussels, Belgium, 2014.
- Ng, W., and A. Acker. Understanding Urban Travel Behaviour by Gender for Efficient and Equitable Transport Policies. Discussion Paper No. 2018-01. International Transport Forum, Paris, France, 2018.
- Hamed, M. M., and H. H. Olaywah. Travelrelated decisions by bus, servis taxi, and private car commuters in the city of Amman, Jordan. Cities, Vol. 17, No. 1, 2000, pp. 63–71.
- Women's Median Earnings as a Percent of Men's Median Earnings, 1960–2017 (Full-Time, Year-Round Workers) with Projection for Pay Equity in 2059. Report Q073. Institute for Women's Policy Research, Washington, D.C., 2018.
- Viswanathan, K., R. Straub Anderson, and C. Pronello. Value of Travel Survey Data with Respect to Gendered Differences in Travel. Presented at 98th Annual Meeting of the Transportation Research Board, Washington D.C., 2019.
- Wachs, M. Men, Women, and Urban Travel: The Persistence of Separate Spheres. In Car



Photo: Rohit Anand

An example of caring mobility from the Gold Coast in Elmina, Ghana. Few data are available on the number of women traveling with children strapped to their bodies.

- and the City: The Automobile, The Built Environment, and Daily Urban Life (M. Wachs and M. Crawford, eds.), University of Michigan Press, Ann Arbor, 1992, pp. 86–100.
- Kunieda, M., and A. Gautier. Gender and Urban Transport: Smart and Affordable— Module 7a. In Sustainable Transport: A Sourcebook for Policy-Makers in Developing Countries. Deutsche Gesellschaft fuer Technische Zusammenarbeit, Eschborn, Germany; Bundesministerium fuer wirtschaftliche Zusammenarbeit und Entwicklung, Bonn, Germany, 2007.
- Fernando, P., and G. Porter (eds.). Balancing the Load: Women, Gender, and Transport. Zed Books, London, 2002.
- Rosenbloom, S. Understanding Women's and Men's Travel Patterns: The Research Challenge. In Conference Proceedings 35: Research on Women's Issues in Transportation—Volume 1, Conference Overview and Plenary Papers.

- Transportation Research Board of the National Academies, Washington, D.C., 2006.
- Bose, J., and J. T. Jones. Travel Characteristics of Native- and Foreign-Born Women in the United States. In Conference Proceedings 35: Research on Women's Issues in Transportation— Volume 2, Technical Papers. Transportation Research Board of the National Academies, Washington, D.C., 2005.
- Di Ciommo, F. Rethinking the Link Between Travel Behavior and Transport Planning Through the Lens of Caring Mobility. Presented at 98th Annual Meeting of the Transportation Research Board, Washington D.C., 2019.
- Minster, C., J. Armoogum, and S. Bricka. Travel Behavior of Men and Women in France, Germany, and the United States: An International Comparison. Presented at 98th Annual Meeting of the Transportation Research Board, Washington D.C., 2019.