Mashrur Rahman

Ph.D. Candidate
Community and Regional Planning
School of Architecture
University of Texas at Austin

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Education

University of Texas at Austin. Ph.D. candidate in Community and Regional Planning (in progress)
Expected graduation: July 2023
Dissertation: *Does context shape preference? A longitudinal study of built environment reverse impacts on travel behavior and attitudes*

University of Texas at Austin. MS in Statistics
May 2023

University of California Irvine. Institute of Transportation Studies (ITS)
MS in Transportation Science (2018)
Project: *The First and Last Mile of Public Transportation: A Study of Access and Egress Travel Characteristics of Dhaka's Suburban Commuters*

Bangladesh University of Engineering and Technology. MS in Urban and Regional Planning (2017)
Thesis: *A Study of Mode Choice Behavior of Commuter's Living in Dhaka's Suburban Areas*

Bangladesh University of Engineering and Technology. BS in Urban and Regional Planning (2014)
Undergraduate Thesis: *A Spatiotemporal Analysis of Dhaka's Development over 400 years*

Journal Articles

Published Papers

1. Rahman, M. (2023). Commute mode switch and its relationship to life events, built-environment, and attitude change. **Transportation Research Part D: Transport and Environment**, 120, 103777. https://doi.org/10.1016/j.trd.2023.103777

2. Liu, H., Rahman, M., & Karner, A. (2023) Bus network redesign and public transit equity analysis: Evaluating system-wide changes in Richmond, Virginia. *Travel Behavior and Society* 31, 151-165. https://doi.org/10.1016/j.tbs.2022.12.002

3. Rahman, M. & Sciara, G.C.S. (2022) Travel Attitudes, The Built Environment and Travel Behavior Relationships: Causal Insights from Social Psychology Theories. *Transport Policy,* 123, 44-54. https://doi.org/10.1016/j.tranpol.2022.04.012

4. Rahman, M., Akther, S. and Recker, W. (2022) The First and Last Mile of Public Transport: A Study of Access and Egress Mode Choice Behavior of the Commuters Living in the Suburban Areas of Dhaka. *Journal of Public Transportation*, 24, 100025. https://doi.org/10.1016/j.jpubtr.2022.100025

5. Rahman, M., Kockelman, K. & Perrine, K. (2022) Investigating Risk Factors Associated with Pedestrian Crash Frequency and Injury Severity in Texas. *Traffic Injury Prevention*, 23 (5): 283–289. https://doi.org/10.1080/15389588.2022.2059474

6. Rahman, M., Gurumurthy, K.M. and Kockelman, K. (2022) Impacts of Flextime on Departure Time Choice for Home-Based Commuting Trips in Austin, Texas. *Transportation Research Record: Journal of the Transportation Research Board,* 2676 (1): 446-459. https://doi.org/10.1177/03611981211035757

7. Rahman, M. & Akther, M.S. (2022) Intercity Commuting in Metropolitan Regions: A Mode Choice Analysis of Commuters Traveling to Dhaka from Nearby Cities. *Journal of Urban Planning and Development,* 148(1). 05021060. https://doi.org/10.1061/(ASCE)UP.1943-5444.0000777

8. Hasan, M.M.U., Quium, A., Rahman, M., Khatun, F., Akther, M.S., Haque, A., Jahan, S., Islam, I., Ahmed, T., Shubho, T.H. (2022) A Methodology for Planning and Prioritization of Rural Roads in Bangladesh. *Sustainability*, 14(4), 2337. https://doi.org/10.3390/su14042337

9. Rahman, M. & Hasan, M.M.U. (2022) Pavement Dweller Center (PDC) – An Innovative One-Stop Service for Homeless People: The Case of Sajida Foundation's Amrao Manush Project. *Community Development Journal*. https://doi.org/10.1080/15575330.2022.2028300

10. Sciara, G.C.S., Rahman, M., and Walthall, R. (2021) A Seat at the Table? Transit Representation in U.S. Metropolitan Planning. *Transport Policy*, 114, 165-173. https://doi.org/10.1016/j.tranpol.2021.09.011

11. Rahman, M. M., Barua, U., Khatun, F., Islam, I., & Rafiq, R. (2018) Participatory Vulnerability Reduction (PVR): An Urban Community-based Approach for Earthquake Management. **Natural Hazards**, 93(3), 1479-1505. https://doi.org/10.1007/s11069-018-3364-2

12. Rahman, M., Zaman, K. B., & Hafiz, R. (2016) Translating Text into Space for Mapping the Past Territory of a City: A Study on Spatial Development of Dhaka during Mughal Period. *City, Territory and Architecture* 3(1), 1-16. https://doi.org/10.1186/s40410-016-0036-y

13. Rahman, M., & Neema, M. N. (2015) A GIS based Integrated Approach to Measure the Spatial Equity of Community Facilities of Bangladesh. *Aims Geosciences*, 1(1), 21-40. https://doi.org/10.3934/geosci.2015.1.21

Working Papers/ Forthcoming or Under Review)

Rahman, M., and Sciara, G.C.S. Does moving to a compact walkable neighborhood lead to changes in travel attitudes? A Retrospective Study of Mueller Community, Austin, Texas.

Rahman, M. Life Events, Residential Relocation, and Travel Behavior: Testing Habit Discontinuity Hypothesis.

Rahman, M. & Zhang, M. Impacts of High-Speed Rail (HSR) on Spatial Equity: Accessibility and Equity Analysis of Proposed HSR in Texas Triangle Megaregion.

Rahman, M., Sciara, G.C.S. & Ryerson, M.S. (2023) Airport Competition and Megaregional Impacts: Challenges and Opportunities for Planning Institutions.

Conference Presentation

Rahman, M. (2023) Change of commute mode choice: A longitudinal analysis of mode switching behavior, life events, built environment and attitude change. Presented at the 102nd Annual Meeting of the Transportation Research Board. Washington DC, USA, 2023.

Rahman, M. & Sciara, GCS (2022) Does context shape preference? A longitudinal examination of the relationships among attitudes, the built environment and travel behavior. Paper presented in the ACSP Annual Conference. Toronto, Canada, November 2022.

Rahman, M. & Sciara, GCS and Ryerson, M.S. (2021) Airport Competition and Megaregional Impacts: Challenges and Opportunities for Planning Institutions. Paper presented at the 101st Annual Meeting of the TRB. Washington DC, January 2022. And at the ACSP Annual Conference. October 2021.

Rahman, M. & Sciara, GCS (2021) Self-selection debate in the built environment-travel behavior connection: A review of theories and empirical research on causality. Paper presented in World Symposium of Transportation and Land Use (WSTLUR), August 2021.

Rahman, M., Kockelman, K. & Perrine, K. (2021) Predicting Pedestrian Crashes and Injury Severity in Texas. Paper presented in the 100th TRB Annual Meeting, 2021. Presented at the North American Regional Science Council Conference, November 12, 2020.

Liu, H., LaRue, S., Mysorewala, R., Rahman, M. and Karner, A. (2021) Bus Network Redesigns and Public Transit Equity Analysis: Evaluating System-wide Changes in Richmond, Virginia Paper presented in the 100th TRB Annual Meeting, 2021.

Sciara, G.C., Rahman, M. and Walthall, R. (2020) Representing Public Transportation Providers in Metropolitan Planning (P20-20751). Paper presented in the 99th TRB Annual Meeting, 2020.

Rahman, M., Akther, S. and Recker, W. (2019) The First and Last Mile of Public Transport: A Study of Access and Egress Mode Choice Behavior of the Commuters Living in the Suburban Areas of Dhaka. Paper presented in 98th Annual Meeting of TRB.

Analytical Skills

Travel demand modeling, statistical and spatial analysis techniques, econometrics, data science, machine learning, and urban informatics

Software: Travel demand modeling- *TransCAD, CUBE, VISSIM*; GIS- *ARCGIS, QGIS*; Statistical analysis- *STATA, SPSS, MPLUS, AMOS*

Programming languages: R, Python, SQL

Professional Experience

Research Experience

Airport Governance in U.S. Metro Regions. Graduate Research Assistant (GRA); PI: Dr. Gian-Claudia Sciara, Dr. Megan Ryerson. **USDOT-funded project. Cooperative Mobility for Competitive Megaregions (CM2), The University of Texas at Austin.** (May 2020 – September 2021).

Identify Risk Factors that Lead to Increase in Fatal Pedestrian Crashes and Develop Countermeasures to Reverse Trend. PI: Dr. Kara Kockelman. **TxDOT-funded project. University Transportation Center (UTC). University of Texas at Austin**. (May 2020-September 2020).

Transit Operators in Metropolitan Transportation Decision-making. Graduate Research Assistant (GRA); PI: Dr. Gian-Claudia Sciara. **USDOT-funded project. Cooperative Mobility for Competitive Megaregions (CM2), The University of Texas at Austin**. (September 2018- September 2019).

Planning and Prioritization of Rural Roads in Bangladesh. Researcher. **UKAID-funded project. Local Government Engineering Department (LGED)**. **Gov. of Bangladesh**. (Jan 2016- Aug 2017).

Teaching Experience

Teaching Assistant (2019-2022)
Community and Regional Planning, School of Architecture, The University of Texas at Austin
    CRP 384: **Sustainable Land Use Planning**. Spring 2022, Spring, 2020
    CRP 380: **Public Economics and Finance**: Fall 2021, Fall 2019

Lecturer (2015-2017)
Department of Urban and Regional Planning Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh
    Courses instructed:
    Plan 204: **Social and Physical Surveys**
    Plan 293: **Statistics**
    Plan 321: **Housing and Real Estate**
    Plan 343: **Transportation Policy and Planning**
    Plan 361: **GIS and Remote Sensing**

Scholarly and University Activities

Editorial Board Member, *Planning Forum*. An annual journal published by Community and Regional Planning Program at The University of Texas at Austin.

Referee. *Transportation Research Record* (2021-2023)
Referee. *Journal of Urban Planning and Development* (2021-2022)
Referee. *Journal of Transportation Planning and Technology* (2022-2023)

Secretary, Board of Undergraduate Study, Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh.

Honors and Awards

Graduate School Continuing Fellowship Award (2022-2023) University of Texas at Austin.

ACSP Global Planning Educators Interest Group Student Travel Award 2022.

Best Interdisciplinary Project in Transportation, 2019. Cooperative Mobility for Competitive Megaregions (CM2), USDOT Tier 1 University Transportation Center

Graduate School Recruitment Fellowship Award (2018-2020) School of Architecture, The University of Texas at Austin

Fulbright Scholarship (2017) - U.S. Department of State's Bureau of Educational and Cultural Affairs.

Prime Minister Gold Medal Award (2017) - Highest Award for Academic Excellence from Government of Bangladesh.

References

Dr. Gian-Claudia Sciara
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Dr. Alex Karner
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Dewitt Greer Professor in Engineering
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Email: zhangm@austin.utexas.edu Phone: (512)-471-0139