Irfan Batur, PhD
Assistant Research Professor

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RESEARCH INTERESTS

- Traveler Behavior and Values
- Sustainable and Equitable Transportation
- Emerging Transportation Technologies
- Human Resilience and Adaptation
- Transportation Demand Forecasting
- Data Science, Analytics, and Wrangling
- Machine Learning Methods for Transport
- Statistical and Econometric Modeling

EDUCATION

Arizona State University, Tempe, AZ, United States
PhD, *Civil, Environmental and Sustainable Engineering*, 2019 – 2023

Istanbul Sehir University, Istanbul, Turkey
MS, *Industrial and Systems Engineering*, 2014

TOBB Economy and Technology University, Ankara, Turkey
BS, *Industrial Engineering*, 2012

PROFESSIONAL EXPERIENCE

Assistant Research Professor, Arizona State University, Tempe, AZ   July 2023 – Present
- Led numerous research projects
- Co-instructed courses
- Wrote proposals for new projects and research centers
- Mentored undergraduate and graduate students
- Developed open-source software and tools for the public, planners, and policymakers

Assistant Director, TBD National University Transportation Center, Austin, TX   May 2023 – Present
- Developed and implemented strategic initiatives to enhance the center's research capabilities and outreach
- Served as a principal investigator for various research projects
- Managed internal and external communications of the center
- Organized research seminars and public panels

Assistant Director & Technology Transfer Coordinator, TOMNET UTC, Tempe, AZ   May 2022 – Present
- Served as a principal investigator for various research projects
- Designed and implemented effective technology transfer strategies for the center
- Assisted investigators and researchers in disseminating their research findings
- Managed internal and external communications of the center
- Organized research seminars and public panels

Associate Research Technologist, Arizona State University, Tempe, AZ   May 2022 – June 2023
- Led research projects for TOMNET UTC
- Engaged in proposal writing for new projects and research centers
- Mentored undergraduate and graduate students
- Developed open-source software and tools for the public, planners, and policymakers

Graduate Research Associate, Arizona State University, Tempe, AZ   Aug 2019 – Apr 2022
TOMNET, a US-DOT Tier 1 University Transportation Center
Involved in several projects, for example:

- TOMNET Transformative Transportation Technologies Survey
- Transportation System Plan 2040 for Maricopa County Department of Transportation
- Development of the Activity-Based Model for the Qatar Strategic Transportation Model
- Observing Human-Scale Urban Air Pollution and Temperature Using Low-Cost Sensors

Graduate Teaching Associate, Arizona State University, Tempe, AZ Aug 2019 – May 2023
Assisted with numerous undergraduate and graduate courses
Research Specialist, Arizona State University, Tempe, AZ Apr 2018 – Aug 2019
Worked on multiple research projects related to travel behavior and demand
Research Assistant, HBKU, Qatar Foundation, Doha, Qatar Aug 2015 – Apr 2018
Involved in research projects related to sustainable transportation
Graduate Teaching Assistant, Yildiz Technical University, Istanbul, Turkey Jan 2014 – Sep 2015
Graduate Teaching Assistant, Istanbul Sehir University, Istanbul, Turkey Sep 2012 – Jan 2014

TEACHING EXPERIENCE
Instructor
Arizona State University, Tempe, AZ
- CEE 578 Activity Travel Behavior Modeling (Spring 2025/Co-instructed with Prof. Ram Pendyala)
- CEE 579 Transportation Data Collection and Analysis Methods (Spring 2024/Co-instructed with Prof. Ram Pendyala)

Graduate Teaching Associate (Semester/Instructor)
Arizona State University, Tempe, AZ
- CEE 578 Activity Travel Behavior Modeling (Fall 2022/Prof. Ram Pendyala)
- SOS 546/CEE 506 Life Cycle Assessment (Spring 2021/Prof. Mikhail Chester)
- CEE 474/CEE 598 Transportation Systems Planning (Fall 2020/Prof. Mikhail Chester)
- CEE 384 Numerical Methods for Engineers (Fall 2020/Prof. Yingyan Lou)
- CEE 372 Transportation Engineering (Fall 2019 and 2021/Prof. Ram Pendyala | Spring 2020/Prof. Yingyan Lou)

Istanbul Sehir University, Istanbul, Turkey
- IE 321 Deterministic Models in Operations Research
- ENGR 246 Manufacturing Processes
- ENGR 105 Introduction to Engineering

Yildiz Technical University, Istanbul, Turkey
- END 3232 Simulation

RESEARCH GRANTS

Title	Sponsor	Period	Role	Award
Equitable and Integrated Transit Evolution (EITE): An Open-Ecosystem Data-Driven Framework for Sustainable Urban Mobility	US Department of Transportation	2024-2026	Co-Principal Investigator	$420,000
Smart Transportation Digital Infrastructure: Advancing System Equity, Resilience, and Safety through Multi-Source Open-Standard Data Integration	Travel Behavior and Demand National Center	2024-2026	Co-Principal Investigator	$150,000
From Cross-Sectional to Longitudinal: The Impact of Sampling Strategies on Measuring Mobility Choices	Travel Behavior and Demand National Center	2024-2026	Co-Principal Investigator	$100,000
Time Use, Travel, and Telework Dashboard	Travel Behavior and Demand National Center	2024-2026	Principal Investigator	$200,000
Queen Creek Mobility Study	Maricopa Associations of Government	2024-2025	Co-Principal Investigator	$75,000
LibrES: For an El Salvador without Gender Violence	US Agency for International Development (USAID)	2023-2027	Co-Investigator	$136,561
Exploring the Changing Dynamics of Household Vehicle Ownership and Use in the U.S.	Travel Behavior and Demand National Center	2023-2025	Principal Investigator	$200,000
Designing a Market-based Optimization Tool for the Future of Work: Balancing Remote Work and Community Vitality in Post-COVID American Cities	National Science Foundation (Award # 2128856)	2022-2023	Senior Researcher	$70,000
Understanding the Impacts of Extreme Heat on Human Activity-Mobility and Time Use Patterns	TOMNET University Transportation Center	2022-2024	Principal Investigator	$105,000
The Induced Demand Implications of Alternative Adoption Modalities of Automated Vehicles	TOMNET University Transportation Center	2022-2024	Principal Investigator	$85,000

Does Ridehailing Use Affect Vehicle Ownership or Vice Versa? An Exploratory Investigation of the Relationship Using a Latent Market Segmentation Approach	TOMNET University Transportation Center	2022-2023	Principal Investigator	$75,000
LEAP-HI: Re-Engineering for Adaptable Lives and Businesses	National Science Foundation (Award # 2053373)	2021-2025	Senior Researcher	$400,000
Assessing the Impact of Ridehailing Service Use on Bus Ridership: A Joint Modeling Framework Accounting for Endogeneity and Latent Attitude	TOMNET University Transportation Center	2021-2022	Principal Investigator	$75,000
How Will Use of Autonomous Vehicles for Running Errands Affect Future Autonomous Vehicle Adoption and Ownership?	TOMNET University Transportation Center	2021-2022	Principal Investigator	$80,000
An Integrated Model of Activity-Travel Behavior and Subjective Well-being	TOMNET University Transportation Center	2019-2024	Principal Investigator	$110,000
Data Visualization Tool and Data Review	Arizona Department of Transportation	2025-2026	Co-Investigator	Under Review

PUBLICATIONS

Journal Articles (Published/Forthcoming)

1. Haddad, A. J., Hwang, H., **Batur, I.**, Pendyala, R. M., & Bhat, C. R. (2025). Walking patterns in older adults: Modeling the interplay of frequency, place, and purpose. *Journal of Transport & Health*, *41*, 101962.
2. Hennessy, E. M., Wolfinbarger, J. R., **Batur, I.**, Srivastava, N. A., Porto, M., Cotlier, G. I., Horgan, M., Searles, I., Sparks, R. M., & Chester, M. V. (2024). Changing boundaries, distributed control, and implications for transportation sustainability. *Nature Portfolio Journal (npj) Sustainable Mobility and Transport*, 1(1), 1-6.
3. **Batur, I.**, Alhassan, V. O., Chester, M. V., Polzin, S. E., Chen, C., Bhat, C. R., & Pendyala, R. M. (2024). Understanding how extreme heat impacts human activity-mobility and time use patterns. *Transportation Research Part D: Transport and Environment*, 136, 104431.
4. Anderson, S. M., Asmussen, K. E., Saxena, S., **Batur, I.**, Pendyala, R. M., & Bhat, C. R. (2024). An investigation of dissonance in telework frequency. *Transportation Research Part C: Emerging Technologies*, *166*, 104712.
5. **Batur, I.**, Dirks, A. C., Mondal, A., Bhat, C. R., & Pendyala, R. M. (2024). Does Ridehailing Use Affect Vehicle Ownership or Vice Versa? An Exploratory Investigation of the Relationship Using a Latent Market Segmentation Approach. *Transportation Research Record*, 2678(3), 252-265.
6. Magassy, T. B., **Batur, I.**, Mondal, A., Asmussen, K. E., Bhat, C. R., & Pendyala, R. M. (2024). Multidimensional Analysis of Willingness to Share Rides in a Future of Autonomous Vehicles. *Transportation Research Record*, 03611981231201111.
7. Asmussen, K. E., Mondal, A., **Batur, I.**, Dirks, A., Pendyala, R. M., & Bhat, C. R. (2024). An Investigation of Individual-level Telework Arrangements in the COVID-era. *Transportation Research Part A: Policy and Practice*, 179, 103888.
8. **Batur, I.**, Dirks, A. C., Bhat, C. R., Polzin, S. E., Chen, C., & Pendyala, R. M. (2023). Analysis of changes in time use and activity participation in response to the COVID-19 pandemic in the United States: implications for well-being. *Transportation Research Record*, 03611981231165020.
9. Magassy, T. B., **Batur, I.**, Mondal, A., Asmussen, K. E., Bhat, C. R., Salon, D., Bhagat-Conway, M., Javadinasr, M., Chauhan, R., Mohammadian, A., Derrible, S., & Pendyala, R. M. (2023). Evolution of Mode Use During the COVID-19 Pandemic in the United States: Implications for the Future of Transit. *Transportation Research Record*, 03611981231166942.
10. **Batur, I.**, Asmussen, K. E., Mondal, A., Khoeini, S., Magassy, T. B., Pendyala, R. M., & Bhat, C. R. (2023). Understanding interest in personal ownership and use of autonomous vehicles for running errands: an exploration using a joint model incorporating attitudinal constructs. *Transportation Research Record*, 2677(2), 541-554.
11. Magassy, T. B., **Batur, I.**, Mondal, A., Asmussen, K. E., Khoeini, S., Pendyala, R. M., & Bhat, C. R. (2022). Influence of Mode Use on Level of Satisfaction with Daily Travel Routine: A Focus on Automobile Driving in the United States. *Transportation Research Record*, 03611981221088199.
12. **Batur, I.**, Markolf S. A., Chester M. V., Middel A., Hondula D., & Vanos J. (2022). Street-Level Heat and Air Pollution Exposure Informed by Mobile Sensing. *Transportation Research Part D: Transport and Environment*, 113, 103535.
13. Nair, G. S., Bhat, C. R., **Batur, I.**, Pendyala, R. M., & Lam, W. H. (2020). A Model of Deadheading Trips and Pick-Up Locations for Ride-Hailing Service Vehicles. *Transportation Research Part A: Policy and Practice*, 2020. 135:289-308.
14. **Batur, I.**, Bayram, I. S., & Koc, M. (2019). Impact Assessment of Supply-Side and Demand-Side Policies on Energy Consumption and CO2 Emissions from Urban Passenger Transportation: The Case of Istanbul. *Journal of Cleaner Production*, 219:391-410.
15. **Batur, I.** & Koc, M. (2017). Travel Demand Management (TDM) Case Study for Social Behavioral Change Towards Sustainable Urban Transportation in Istanbul. *Cities*, 69:20-35.

Journal Articles (Under Review)
1. **Batur, I.**, Khoeini, S., Sharda, S., Magassy, T., Ye, X., & Pendyala, R. M. A Methodology for Evaluating Wellbeing Implications of Activity-Travel Engagement and Time Use Patterns. Submitted to *Travel Behavior and Society*, 2024.
2. **Batur I.**, Mondal, A., Alhassan, V. O., Asmussen, K. E., Bhat, C. R., & Pendyala, R. M. The Induced Demand Implications of Alternative Adoption Modalities of Automated Vehicles. Submitted to *Transport Policy*, 2024.
3. **Batur, I.**, Asmussen, K. E., Mondal, A., Khoeini, S., Pendyala, R. M., & Bhat, C. R. Assessing the Impact of Ridehailing Service Use on Bus Ridership: A Joint Modeling Framework Accounting for Endogeneity and Latent Attitudes. Submitted to *Transport Policy*, 2024.
4. Polzin, S., **Batur, I.**, & Pendyala, R. M. Sustaining the Relevance of Transportation Planning and Forecasting in a Fast-Changing World. Submitted to *Transport Policy*, 2024.
5. Yu, F., **Batur, I.**, Haddad, A. J., Hennessy, E. M., Ocana, M. G. R., Chen, C., Zhou, X., Bhat, C. R., & Pendyala, R. M. A U-Shaped Paradigm: Understanding the Impact of Telecommuting on Public Transit Ridership Before and After the Pandemic. Submitted to *Transportation Research Part A*, 2024.
6. Alhassan, V. O., Yu, F., **Batur, I.**, Valle, J. R. D., Magassy, T. B., Salon, D., Bhat, C. R., & Pendyala, R. M. Investigating the Influence of Alternative Survey Participant Recruitment Strategies on Measurement and Inference of Mobility Patterns. Submitted to *Data Science for Transportation*, 2024.

Working Papers
1. Xinyi, W., **Batur, I.**, Mokhtarian, P., Zhao, J., & Pendyala, R. M. Evolving Work Arrangements and Their Implications on Travel Behavior: A Typology-Based Analysis Using the American Time Use Survey. 2025.
2. Zhou, X., Tang, F., Zhu, E., **Batur, I.**, Honma, Y., Pendyala R. M., & Chen, C. Quantifying Dynamic Healing Capacity and Adaptive Recovery in Urban Systems. 2024.
3. Hwang, H., Haddad, A., **Batur**, **I.**, Saxena, S., Pendyala, R. M., & Bhat, C. R. An Analysis of Walking Frequency Before and After the Pandemic. 2023.
4. Dirks, A. C., **Batur, I.**, Mondal, A., Magassy, T. B., Haddad, A., Bhat, C. R & Pendyala, R. M. Access to Food in a Severe Prolonged Disruption: The Case of Grocery and Meal Shopping During the COVID-19 Pandemic. 2023.
5. Baker, D., Magassy, T., Khoeini, S., **Batur, I.**, Salon, D., Bhat, C. R., & Pendyala, R. M. The Effect of Survey Methodology on The Collection of Attitudinal Data. 2022.
6. Verma, V., Mondal, A., Asmussen, K. E., **Batur, I.**, Magassy, T. B., Bhat, C. R., & Pendyala, R. M. A Joint Behavioral Choice Model of Carpool Formation and Frequency. 2022.
7. **Batur, I.**, Sharda, S., Kim, T., Khoeini, S., Pendyala, R. M., & Bhat, C. R. Mobility, Time Poverty, and Well-Being: How Are They Connected and How Much Does Mobility Matter?. 2021.
8. Sharda, S., Kim, T., Khoeini, S., **Batur, I.**, & Pendyala, R. M. Development of an Integrated Model System of Transport and Residential Energy Consumption. 2020.
9. Sharda, S., **Batur, I.**, Astroza, S., Khoeini, S., Bhat., C. R., & Pendyala, R. M. Attitudes and Behaviors Causal Relationships: Uncovering Latent Segments Within A Heterogeneous Population. 2020.

Conference Proceedings
1. Garcia, C., Armoogum, J., **Batur, I.**, & Pendyala, R. (2022). Immobility and Activity Levels: A Comparison of USA and France (No. hal-03683166).
2. Sharda, S., Kim, T., Khoeini, S., **Batur**, **I.**, da Silva, D. C., & Pendyala, R. M. (2019). Development of an Integrated Model System of Transport and Residential Energy Consumption. Proceedings of the 15th World Conference on Transport Research, World Conference on Transport Research Society, Leeds, UK.
3. Sharda, S., Astroza, S., Khoeini, S., **Batur**, **I.**, Pendyala, R. M., & Bhat, C. R. (2019). Do Attitudes Affect Behavioral Choices or Vice Versa? Uncovering Latent Segments Within a Population. Proceedings of the 98th Annual Meeting of the Transportation Research Board, National Academies, Washington, D.C.
4. **Batur, I.**, Bayram, I. S., & Koc, M. (2018). The Role of Plug-in Electric Vehicles in Reducing Energy and CO_2 Emissions in Istanbul: A System Dynamics Approach. Presented at the IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering, Doha, Qatar, April 10-12, 2018.
5. **Batur, I.** & Koc, M. (2017). A Review of System Dynamics Applications in Sustainable Urban Transportation. Presented at The European Conference on Sustainability, Energy and the Environment 2017, Brighton, UK, July 7-9, 2017.
6. **Batur, I.** & Koc, M. (2015). Sustainable Urban Transportation with Travel Demand Management Methods: A Case Study for Istanbul. Paper presented at The Asian Conference on Sustainability, Energy and the Environment 2015, Kobe, Japan, June 11-14, 2015.
7. Yıldız, U., **Batur**, **I.**, Alumur, S. A. & Gultekin, H. (2013). A Bi-Criteria Machine Location Problem with Pick-up and Drop-off Points. Paper presented at the 20th European Working Group on Locational Analysis Meeting (EWGLA 2013), Ankara, Turkey, April 17-19, 2013.

Research Reports
1. **Batur, I.,** Dimas Valle, J. R., Rodriguez Ocana, M. G., Yu, F., Polzin, S. E., & Pendyala, R. M. (2024). Interpersonal Violence in Public Spaces in El Salvador: Findings and Implications for Public Transportation. TOMNET University Technology Center. ~130 p
2. Stopher, P. R., **Batur, I.,** Rodriguez Ocana, M., Yu, F., & Pendyala, R. M. (2024). The 2024 Queen Creek Mobility Study. TOMNET University Technology Center. ~82 p
3. **Batur, I.** & Pendyala, R. M. (2024). The Induced Demand Implications of Alternative Adoption Modalities of Automated Vehicles. TOMNET University Technology Center. ~31 p
4. Pendyala, R. M., **Batur, I.,** Dirks, A. C., & Magassy, T. B. (2023). Access to Food in a Severe Prolonged Disruption: The Case of Grocery and Meal Shopping During the COVID-19 Pandemic. TOMNET University Technology Center. ~23 p
5. Pendyala, R. M., Khoeini, S., & **Batur, I.** (2023). Assessing the Impact of Ridehailing Service Use on Bus Ridership: A Joint Modeling Framework Accounting for Endogeneity and Latent Attitudes. TOMNET University Technology Center. ~23 p
6. Khoeini, S., Pendyala, R. M., Baker, D. S., Magassy, T. B., Stopher, P., & **Batur, I.** (2022). Interaction of Familiarity, Safety Perceptions, and Willingness to Use Autonomous Vehicles in A Structural Equation Modeling Framework. TOMNET University Technology Center. ~21 p
7. Pendyala, R. M., Khoeini, S., & **Batur, I.** (2022). How Will Use of Autonomous Vehicles for Running Errands Affect Future Autonomous Vehicle Adoption and Ownership?. TOMNET University Technology Center. ~23 p
8. Pendyala, R. M., Sharda, S., Kim, T., Khoeini, S., & **Batur, I.** (2021). Development of an Integrated Model System of Transport and Residential Energy Consumption. TOMNET University Technology Center. ~22 p
9. Pendyala, R. M., Sharda, S., **Batur, I.,** & Khoeini S. (2020). Attitudes and Behaviors Causal Relationships: Uncovering Latent Segments Within A Heterogeneous Population. TOMNET University Technology Center. ~28 p
10. da Silva, D. C., Astroza, S., **Batur, I.,** Khoeini, S., Magassy, T. B., Pendyala, R. M., & Bhat, C. R. (2019). Are Millennials really all that different than Generation X? An analysis of factors contributing to differences in vehicle miles of travel. TOMNET University Technology Center. ~29 p
11. Magassy, T., Sharda, S., Kim, T., da Silva, D.C., **Batur, I.,** & Pendyala R. M. (2019). Population Synthesis for the Qatar Activity-based Travel Model: Final Results and User Documentation. Final Report Submitted to the University of California at Santa Barbara and ItalConsult, Santa Barbara, CA. ~200 p
12. **Batur, I.,** da Silva, D.C., Sharda, S., Kim, T. & Pendyala, R. M. (2019). Estimation of CEMSELTS Model Components for the Qatar Activity-based Travel Model. Final Report Submitted to the University of California at Santa Barbara and ItalConsult, Santa Barbara, CA. ~40 p

Thesis/Dissertation
1. **Batur, I.** (2023). *Understanding and Modeling the Nexus of Mobility, Time Poverty, and Wellbeing* (Doctoral dissertation, Arizona State University).
2. **Batur, I.** (2015). *Social Behavioral Change for Sustainable Urban Transportation under TDM Concept: A Case Study of Istanbul* (Master's thesis, Istanbul Sehir University).

Policy Briefs
1. Polzin, S., **Batur, I.,** & Pendyala, R. M. *Emerging Travel Behavior Insights from 2023 National Surveys*. Policy Brief, TOMNET-TBD University Transportation Centers. October 2024.
2. Polzin, S., **Batur, I.,** & Pendyala, R. M. *COVID Recovery? Changing Travel Behaviors? Insights From the 2022 ACS, ATUS, and CE Data Sets*. Policy Brief, TOMNET & TBD University Transportation Centers. December 2023.
3. Polzin, S., **Batur, I.,** & Pendyala, R. M. *Changing Travel Behavior Insights from the 2021 ACS, ATUS, and CE Surveys*. Policy Brief, TOMNET University Transportation Center. March 2023.

PRESENTATIONS AND TALKS
Conference Abstracts/Presentations
1. **Batur, I.,** Khoeini, S., Sharda, S., Magassy, T., Ye, X., & Pendyala, R. M. *A Methodology for Evaluating Wellbeing Implications of Activity-Travel Engagement and Time Use Patterns*. Presented at the 104th Annual Meeting of the Transportation Research Board, Washington, DC, January 5-9, 2025.
2. Yu, F., **Batur, I.,** Haddad, A. J., Hennessy, E. M., Ocana, M. G. R., Chen, C., Zhou, X., Bhat, C. R., & Pendyala, R. M. *A U-Shaped Paradigm: Understanding the Impact of Telecommuting on Public Transit Ridership Before and After the Pandemic*. Presented at the 104th Annual Meeting of the Transportation Research Board, Washington, DC, January 5-9, 2025.
3. Alhassan, V. O., Yu, F., Valle, J. R. D., Magassy, T. B., **Batur, I.,** Salon, D., Bhat, C. R., & Pendyala, R. M. *Investigating the Influence of Alternative Survey Participant Recruitment Strategies on Measurement and Inference of Mobility Patterns*. Presented at the 104th Annual Meeting of the Transportation Research Board, Washington, DC, January 5-9, 2025.
4. **Batur I.** *Data Dashboards for Behavioral and Wellbeing Insights: A Focus on Time, Travel, and Telework*. The Inaugural US DOT Future of Transportation Summit. Washington, DC. August 13-15, 2024. (link).
5. Hennessy, E., **Batur, I.,** Bhat, C. R., & Pendyala, R. M. *Understanding Factors Contributing to Electric Vehicle Ownership in California*. Presented at the International Conference on Transportation & Development, Atlanta, GA, June 15-18, 2024.

6. **Batur I.**, Alhassan, V. O., Chester, M. V., Polzin, S.E., Chen, C., Bhat, C. R. & Pendyala, R. M. *Understanding How Extreme Heat Impacts Human Activity-Mobility and Time Use Patterns*. Presented at the 2024 PSR Annual Congress | Moving Forward: Improving Transportation in Region 9 | March 11-12, 2024.

7. **Batur I.**, Mondal, A., Alhassan, V. O., Asmussen, K. E., Bhat, C. R., & Pendyala, R. M. *The Induced Demand Implications of Alternative Adoption Modalities of Automated Vehicles*. Presented at the 103rd Annual Meeting of the Transportation Research Board, Washington, DC, January 7-11, 2024.

8. **Batur, I.**, Alhassan, V. O., Chester, M. V., Polzin, S.E., Chen, C., Bhat, C. R., & Pendyala, R. M. *Understanding How Extreme Heat Impacts Human Activity-Mobility and Time Use Patterns*. Presented at the 103rd Annual Meeting of the Transportation Research Board, Washington, DC, January 7-11, 2024.

9. Anderson, S.M., Asmussen, K. E., Saxena, S., **Batur, I.**, Pendyala, R. M., & Bhat, C. R. *An Investigation of Dissonance in Telework Frequency*. Presented at the 103rd Annual Meeting of the Transportation Research Board, Washington, DC, January 7-11, 2024.

10. Hwang, H., Haddad, A., **Batur, I.**, Saxena, S., Pendyala, R. M., & Bhat, C. R. *An Analysis of Walking Frequency Before and After the Pandemic*. Presented at the 103rd Annual Meeting of the Transportation Research Board, Washington, DC, January 7-11, 2024.

11. **Batur, I.**, Dirks, A. C., Mondal, A., Pendyala, R. M., & Bhat, C. R. *Does Ridehailing Use Affect Vehicle Ownership or Vice Versa? An Exploratory Investigation of the Relationship Using a Latent Market Segmentation Approach*. Presented at the 102nd Annual Meeting of the Transportation Research Board, Washington, DC, January 8-12, 2023.

12. **Batur, I.**, Dirks, A. C., Pendyala, R. M., Bhat, C. R., Polzin, S. E., & Chen, C. *An Analysis of Changes in Time Use and Activity Participation in Response to the COVID-2019 Pandemic in the United States: Implications for Well-being*. Presented at the 102nd Annual Meeting of the Transportation Research Board, Washington, DC, January 8-12, 2023.

13. Dirks, A. C., **Batur, I.**, Mondal, A., Magassy, T. B., Haddad, A., Bhat, C. R & Pendyala, R. M. *Access to Food in a Severe Prolonged Disruption: The Case of Grocery and Meal Shopping During the COVID-19 Pandemic*. Presented at the 102nd Annual Meeting of the Transportation Research Board, Washington, DC, January 8-12, 2023.

14. Magassy, T. B., **Batur, I.**, Mondal, A., Asmussen, K. E., Bhat, C. R., Salon, D., Bhagat-Conway, M., Javadinasr, M., Chauhan, R., Mohammadian, A., Derrible, S., & Pendyala, R. M. *Evolution of Mode Use Due to COVID-19 Pandemic in the United States: Implications for the Future of Transit*. Presented at the 102nd Annual Meeting of the Transportation Research Board, Washington, DC, January 8-12, 2023.

15. Magassy, T. B., **Batur, I.**, Mondal, A., Asmussen, K. E., Pendyala, R. M., & Bhat, C. R. *A Multidimensional Analysis of Willingness to Share Rides in a Future of Autonomous Vehicles*. Presented at the 102nd Annual Meeting of the Transportation Research Board, Washington, DC, January 8-12, 2023.

16. Verma, V., Mondal, A., Asmussen, K. E., **Batur, I.**, Magassy, T. B., Bhat, C. R., & Pendyala, R. M. *A Joint Behavioral Choice Model of Carpool Formation and Frequency*. Presented at the 102nd Annual Meeting of the Transportation Research Board, Washington, DC, January 8-12, 2023.

17. Asmussen, K. E., Mondal, A., **Batur, I.**, Dirks, A., Bhat, C. R., & Pendyala, R. M. *An Investigation of Evolving COVID-Era Remote Work Arrangements*. Presented at the 102nd Annual Meeting of the Transportation Research Board, Washington, DC, January 8-12, 2023.

18. **Batur, I.**, Magassy, T. B., Dirks, A., & Pendyala, R. M. *Future of Autonomous Vehicles: A Self-driving Revolution or Disaster?*. Presented at the ITS World Congress 2022, Sep 21-25, 2022.

19. **Batur, I.**, Dirks, A., & Pendyala, R. M. *Changes in Time Use and Activity Participation During the COVID-2019 Pandemic in the US: Implications for Wellbeing and Time Poverty*. Presented at the WCTRS 2022 Virtual Meeting, July 27, 2022.

20. **Batur, I.**, Asmussen, K. E., Mondal, A., Khoeini, S., Pendyala, R. M., & Bhat, C. R. *Sending Autonomous Vehicles to Pick-up, Deliver, and Run Errands: Sustainability Implications*. Presented at the Conference on Sustainability and Emerging Transportation Technology, Irvine, CA, May 31 – June 2, 2022.

21. Magassy, T. B., Sharda, S., **Batur, I.**, Dirks, A., Khoeini, S., & Pendyala, R. M. *How Does Adoption of Emerging Transportation Technologies Vary by Residential Preferences?*. Presented at the ASCE International Conference on Transportation & Development, Seattle, WA, May 31 – June 3, 2022.

22. Sharda, S., Magassy, T.B., **Batur, I.**, Pendyala, R. M., & Garikapati, V.M. *Differences in Utilization Patterns Between Electric and Gasoline Vehicles: Implications for Household Energy Consumption*. Presented at the ASCE International Conference on Transportation & Development, Seattle, WA, May 31 – June 3, 2022.

23. **Batur, I.**, Asmussen, K. E., Mondal, A., Khoeini, S., Pendyala, R. M., & Bhat, C. R. *Assessing the Impact of Ridehailing Service Use on Bus Ridership: A Joint Modeling Framework Accounting for Endogeneity and Latent Attitudes.* Presented at the 101st Annual Meeting of the Transportation Research Board, Washington, DC, January 9-13, 2022.

24. **Batur, I.**, Asmussen, K. E., Mondal, A., Khoeini, S., Pendyala, R. M., & Bhat C. R. *Understanding Interest in Personal Ownership and Use of Autonomous Vehicles for Running Errands: An Exploration Using a Joint Model Incorporating Attitudinal Constructs*. Presented at the 101st Annual Meeting of the Transportation Research Board, Washington, DC, January 9-13, 2022.

25. Magassy, T., **Batur, I.**, Mondal, A., Asmussen, K. E., Khoeini, S., Pendyala, R. M., & Bhat, C. R. *The Influence of Mode Use on Level of Satisfaction with Daily Travel Routine: A Focus on Automobile Driving in the United States*. Presented at the 101st Annual Meeting of the Transportation Research Board, Washington, DC, January 9-13, 2022.

26. Baker, D., Magassy, T., Khoeini, S., Stopher, P., **Batur**, **I.,** & Pendyala R. M. *Autonomous Vehicles: The Role of Familiarity and Perceptions in Expected Adoption*. Presented at the 101st Annual Meeting of the Transportation Research Board, Washington, DC, January 9-13, 2022.

27. **Batur, I.,** da Silva, D. C., Khoeini, S., & Pendyala, R. M. *How Will Use of Autonomous Vehicles for Running Errands Affect Future Autonomous Vehicle Adoption and Ownership?*. Presented at the 18th IRF World Meeting & Exhibition, Dubai, Nov 7-10, 2021.

28. **Batur, I.,** Khoeini, S., & Pendyala, R. M. *Ridehailing Services Mode Substitution Patterns and Sustainability Implications: A Focus on Transit*. Presented at the How We Move Matters: Exploring the Connections Between New Transportation and Mobility Options and Environmental Health Virtual Workshop, July 13, 16, and 21, 2021.

29. **Batur, I.** *Sending Autonomous Vehicles for Pick-up, Delivery and Running Errands: An Attitudinal Based Analysis*. Presented at the Arizona Students Transportation Summit, April 30, 2021.

30. **Batur, I.**, Sharda, S., Kim, T., Khoeini, S., Pendyala, R. M., & Bhat, C. R. *Mobility, Time Poverty, and Well-Being: How Are They Connected and How Much Does Mobility Matter?*. Presented at the 99th Annual Meeting of the Transportation Research Board, Washington, DC, January 12-16, 2020.

31. da Silva, D. C., Astroza, S., **Batur, I.**, Khoeini, S., Magassy, T. B., Pendyala, R. M., & Bhat, C. R. *Are Millennials Really All That Different Than Generation X? An Analysis of Factors Contributing to Differences in Vehicle Miles of Travel*. Presented at the 99th Annual Meeting of the Transportation Research Board, Washington, DC, January 12-16, 2020.

32. Sharda, S., Kim, T., Khoeini, S., **Batur**, **I.,** & Pendyala, R. M. *Development of an Integrated Model System of Transport and Residential Energy Consumption*. Presented at the 99th Annual Meeting of the Transportation Research Board, Washington, DC, January 12-16, 2020.

33. Garcia, C., Armoogum, J., & **Batur**, **I**. *Immobility and Activity Levels: A Comparison of the United States and France*. Presented at the 99th Annual Meeting of the Transportation Research Board, Washington, DC, January 12-16, 2020.

34. Sharda, S., Kim, T., Khoeini, S., **Batur**, **I.,** da Silva, D. C., & Pendyala, R. M. *Development of an Integrated Model System of Transport and Residential Energy Consumption*. Presented at the 15th World Conference on Transport Research, World Conference on Transport Research Society, Indian Institute of Technology-Bombay, Mumbai, India, May 2019.

35. Sharda, S., Astroza, S., Khoeini, S., **Batur, I.,** Bhat, C. R., & Pendyala, R. M. *Do Attitudes Affect Behavioral Choices or Vice-Versa: Uncovering Latent Segments within a Population*. Presented at the 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13-17, 2019.

36. Sharda, S., **Batur**, **I.,** Khoeini, S., Kim, T., & Pendyala, R. M. *An Integrated Model System of Household Transport and Residential Energy Consumption*. Presented at the 7th TRB Innovations in Travel Modeling Conference, Atlanta, GA, June 25, 2018.

37. **Batur, I.,** Bayram, I. S., & Koc, M. *The Role of Plug-in Electric Vehicles in Reducing Energy and CO_2 Emissions in Istanbul: A System Dynamics Approach*. Presented at the IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering, Doha, Qatar, April 10-12, 2018.

38. **Batur, I.** & Koc, M. *A Review of System Dynamics Applications in Sustainable Urban Transportation*. Presented at the European Conference on Sustainability, Energy and the Environment, Brighton, UK, July 7-9, 2017.

39. **Batur, I.** & Koc, M. *Sustainable Urban Transportation with Travel Demand Management Methods: A Case Study for Istanbul*. Presented at the Asian Conference on Sustainability, Energy and Environment, Kobe, Japan, June 11-14, 2015.

40. Yıldız, U., **Batur**, **I.,** Alumur, S. A. & Gultekin H. (2013). *A Bi-Criteria Machine Location Problem with Pick-up and Drop-off Points*. Presented at the 20th European Working Group on Locational Analysis Meeting, Ankara, Turkey, April 17-19, 2013.

Invited Talks
1. "A Data Dashboard for Behavioral Insights: A Focus on Time, Travel, and Telework". Southeast Florida FSUTMS Users Group Meeting. September 20, 2024 ([link](#)).
2. "T3D: A Comprehensive Data Dashboard for Time, Travel, and Telework". TBD/TOMNET Webinar+ Series, Arizona State University. July 23, 2024 ([link](#)).
3. "Impact of Covid-19 on Travel Behavior". Tran-Set Webinar Series, Louisiana State University. August 3, 2023 ([link](#)).

PROFESSIONAL SERVICE AND RECOGNITION
Honors and Awards
- Pyke Johnson Award by Transportation Research Board for the best paper in planning and environment, 2022
- Arizona State University 2021-22 GPSA Outstanding Research Award, Spring 2022
- Arizona State University 2021-2022 Graduate College Travel Grant, Mar 30, 2022
- Arizona State University 2021-2022 Graduate College Travel Grant, Jan 2, 2022
- Best Presentation Award at the 2021 ITS Arizona Students' Transportation Summit, Apr 30, 2021
- Honor Student, TOBB Economy and Technology University, 2007 – 2012
- Best Poster Award at the Senior Project Contest, TOBB Economy and Technology University, Turkey, 2011
- Full Scholarship (tuition fee waiver + stipend) for B.S. studies from TOBB Economy and Technology University, Turkey
- Ranked ~2000th among 1.7 million students in the National University Entrance Exam of Turkey, 2005

Professional Affiliations
- Member, Transportation Research Board (TRB) Standing Committee on Traveler Behavior and Values (AEP30)
- Member, International Association for Travel Behavior Research (IATBR)
- Member, American Society of Civil Engineers (ASCE)

Professional Services
Reviewer:
- Cities
- C2SMART UTC at New York University
- European Research Council (ERC)
- IATSS Research
- International Journal of Sustainable Transportation
- Journal of Transport Geography
- Nature Communications Earth & Environment
- Nature Scientific Reports
- Sustainable Cities and Society
- Swiss National Science Foundation
- The Council of University Transportation Centers (CUTC) Student Awards
- Transport Policy
- Transportation Research Part A
- Transportation Research Record
- Transportation Research Board (TRB) Annual Meetings
- Travel Behaviour and Society
Paper Review Task Force, TRB Standing Committee on Travel Forecasting (AEP50), 2023 – present
Treasurer, ASU-ITE Student Chapter 2021-2022

Media Coverage of Research
- Fall 2024 edition of the Census Transportation Planning Products (CTPP) Status Report newsletter (link)
- The Verge: What a 160-year-old theory about coal predicts about our self-driving future (link)
- ASU News: Extreme Heat Impacts Daily Routines and Travel Patterns, Study Finds (link)
- Prevention Web: Extreme Heat Impacts Daily Routines and Travel Patterns, Study Finds (link)
- Earth.com: Extreme Heat Impacts Our Daily Routines and Transportation (link)
- The Weather Channel: How is Extreme Heat Reshaping Travel and Daily Life of Vulnerable Groups? (link)
- Science Daily: Extreme Heat Impacts Daily Routines and Travel Patterns (link)
- Phys.org: Extreme Heat Impacts Daily Routines and Travel Patterns (link)
- India Today: Extreme Heat Altering Travel Plans and People's Daily Routines Worldwide (link)
- Mirage News: Research: Extreme Heat Alters Routines, Travel Patterns (link)
- Arizona's Family 3TV and CBS5: ASU Study Shows Extreme Heat's Impact on Society (link)
- E+E Leader: How Heat Waves Are Rewriting Urban Routines (link)
- Knowledge Science Report: How Extreme Heat Changes Our Daily Lives and Travel Habits (link)
- MSN: Extreme Heat Altering Travel Plans and People's Daily Routines Worldwide (link)
- ABC15 Arizona: Study Shows Impact of Extreme Heat on Everyday Lives (link)
- KTAR News: Findings From an ASU Study Show How Extreme Heat Impacts Daily Lives (link)
- UT Austin Cockrell School of Engineering News: Extreme Heat Impacts Daily Routines and Travel Patterns (link)
- Yahoo News: Study Shows Impact of Extreme Heat on Everyday Lives (link)
- The Cool Down: Researchers Make Concerning Findings About the Way Extreme Heat Impacts Us: 'This Is a Clear Call for Targeted Policy Interventions' (link)

DATA, SOFTWARE, AND TOOLS
Transportation Heartbeat of America Survey (link)
- A nationwide longitudinal travel behavior and demand survey to collect data about attitudes, values, choices, socio-economics, demographics, wellbeing, and mobility and accessibility. Contributed to survey design.
National Vehicle Survey
- A nationwide survey to gain insight into household vehicle holdings and how people make decisions about acquiring and getting rid of vehicles. Served as principal investigator.
Adaptable Communities and Resilience Survey
- A nationwide survey funded by NSF to understand how people respond and adapt to extreme events and disruptions. Served as a co-principal investigator.

Queen Creek Mobility Study Survey
 - A survey conducted to gather input about mobility priorities and current and future transportation preferences of residents in a fast-growing suburban community in the Southwestern United States. Served as a co-investigator.

TOMNET Transformative Transportation Technologies (T4) Survey (link)
 - A survey conducted in four southern urban areas to collect data on attitudes, perceptions, and choices regarding new mobility services, such as ridehailing and autonomous vehicles. Served as a co-principal investigator.

COVID Future Survey (link)
 - A nationwide panel survey to explore behavioral changes due to the COVID-19 pandemic, covering aspects such as remote work, air travel, daily commuting, and online shopping and food delivery. Contributed to survey design.

The Mobility Dashboard (TMD)
 - Contributed to the development of this open-source platform, designed to provide detailed insights into mobility patterns using data from the American Time Use Survey. Served as the principal investigator.

Community Resilience Dashboard (CRD)
 - Contributed to the development of this open-source platform, designed to provide users customized insights into how different population groups adapt to extreme events and identify those most vulnerable in their area using the Adaptable Communities and Resilience Survey data. Served as the principal investigator.

Time Use, Travel, and Telework Dashboard (T3D) (link)
 - Contributed to the development of this open-source platform, designed to provide insights into time use, travel, and telework trends and patterns using data from the American Time Use Survey. Served as the principal investigator.

TOMNET Wellbeing Platform (link)
 - Contributed to the development of this interactive activity-based wellbeing assessment tool to track wellbeing in society. Served as the primary developer.

PopGen: A Synthetic Population Generator for Advanced Travel Demand Model Deployment (link)
 - Led the development of a newer version, PopGen3 and contributed to the maintenance of the software.

PHD COMMITTEE MEMBERSHIP
Fan Yu (PhD Student at Arizona State University)
Victor O. Alhassan (PhD Student at Arizona State University)
Roberto Dimas Valle (PhD Student at Arizona State University)
Jinghai Huo (PhD Student at Arizona State University)
Miguel Rodriguez Ocana (PhD Student at Arizona State University)

SKILLS (Technical)

Data analysis and modeling:	Python, R, Biogeme, Apollo, Scikit-learn, Gauss
Simulation:	PTV-Vissim, Vensim, Arena
Optimization:	GAMS, CPLEX
GIS:	Folium, ArcGIS
Other:	MATLAB, Git, CSS, JavaScript