Fatemeh N. Salout (Fatemeh Noorizadehsalout)

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Research Interests

Applied Statistics, Data Science, Causal Inference, Statistical Modeling, Quantitative Research, Real-World Data Analysis, Transportation and Public Policy

Education

University of Illinois Chicago — Chicago, IL
Master of Science in Statistics — *In Progress*

University of Illinois Chicago — Chicago, IL
Master of Urban Planning and Policy, Urban Transportation — *Dec. 2025*

Islamic Azad University, Tehran North Branch — Tehran, Iran
Bachelor of Urban Planning — *May 2022*

Publication

Noorizadehsalout, F., Vaziri, A. . "Estimating the Impact of High-Frequency Public Transit on Employment Outcomes in Chicago Neighborhoods." *Urban Science*, 10(4), 208, 2026.
Article | DOI

Research Experience

Graduate Research Assistant — Jan. 2023 – Aug. 2026
Urban Transportation Center, University of Illinois Chicago — *Chicago, IL*

- Worked across applied research projects involving transportation, employment accessibility, remote work, rural transit, safety, and transportation technology.
- Helped translate open-ended research and stakeholder questions into structured analytical problems by identifying relevant measures, data sources, assumptions, and appropriate methods.
- Worked with multi-source employment, geospatial, transportation, survey, and qualitative data and contributed to statistical, spatial, and mixed-methods analyses.
- Synthesized quantitative, qualitative, and literature-based evidence and communicated findings, uncertainty, limitations, and recommendations to academic, government, and project stakeholders.

Selected Research Projects

Employment Effects of High-Frequency Public Transit — 2026
Researcher & Co-Author — Urban Science

- *Built a tract-level longitudinal dataset integrating GTFS, ACS, and LEHD/LODES data to examine the relationship between changes in public transit access and neighborhood employment outcomes.*
- *Implemented fixed-effects difference-in-differences and event-study models with bootstrap inference, placebo analyses, alternative specifications, and robustness checks.*
- *Evaluated model assumptions and temporal patterns and translated quantitative results into interpretable tables, figures, and conclusions.*

Connecting People to Work — *2023-2026*
Urban Transportation Center, University of Illinois Chicago

- *Worked with teammates on LEHD origin-destination flows to identify, map, and interpret connections between workers and suburban industrial and logistics employment centers.*
- *Analyzed and mapped transit-availability measures and performed 0.5-mile buffer and CMAP sidewalk-inventory analyses to evaluate first- and last-mile accessibility.*
- *Created ArcGIS visualizations and contributed to employer and public-agency survey design, Qualtrics implementation, interpretation, and report writing.*

Transit Connectivity
Urban Transportation Center, University of Illinois Chicago

- *Mapped LEHD employment and Social Determinants of Health destinations in ArcGIS for a six-county rural transit-access study involving four demand-response transit agencies.*
- *Helped redesign the transit gap-analysis framework because conventional fixed-route accessibility measures did not appropriately represent demand-response systems.*
- *Supported stakeholder interviews, synthesized recurring accessibility barriers, and contributed maps, figures, and report sections.*

Employer Perspectives on Working From Home
Urban Transportation Center, University of Illinois Chicago

- *Helped design a mixed-methods study examining employer perspectives on remote and hybrid work.*
- *Supported all seven semi-structured interviews, reviewed transcripts, and built SODA-informed cognitive maps in Decision Explorer using relational coding and transcript-based reconciliation.*
- *Helped design, program, test, distribute, and monitor the employer survey in Qualtrics and exported data for downstream analysis.*

North Lake Shore Drive Automated Enforcement and Camera Safety Study
Urban Transportation Center, University of Illinois Chicago

- *Evaluated conventional and AI-enabled traffic-camera technologies, case studies, deployment conditions, and field-performance considerations for an urban transportation-safety study.*
- *Researched weather-performance constraints, implementation safeguards, and published crash-reduction evidence used as inputs to a preliminary benefit-cost assessment.*
- *Contributed to technical recommendations by synthesizing evidence on system reliability, implementation conditions, and limitations.*

Teaching Experience

Teaching Assistant Aug. 2026 – Present
University of Illinois Chicago — Calculus for Business *Chicago, IL*

- Lead undergraduate discussion sections and guide students through mathematical reasoning, quantitative concepts, and problem-solving strategies.
- Adapt explanations to students with varied technical backgrounds and provide feedback through grading, guided practice, and individual support.
- Develop communication and mentoring skills by translating technical mathematical concepts into clear and accessible explanations.

Technical Skills

Programming & Data: Python, R, SQL, Excel, Git/GitHub
Statistical Methods: Linear and Logistic Regression, Maximum Likelihood Estimation, Hypothesis Testing, Bootstrap, Bayesian Methods, Monte Carlo Simulation, Experimental Design
Machine Learning: Ridge, Lasso, LDA/QDA, SVM, k-NN, k-Means, Neural Networks, Cross-Validation, Model Selection, Model Diagnostics
Causal & Applied Methods: Difference-in-Differences, Fixed Effects, Event Studies, Panel Data Analysis, Causal Inference
Research & Spatial Methods: Research Design, Mixed-Methods Research, Survey Design, Spatial Analysis, Accessibility Analysis, Cognitive Mapping
Software & Research Tools: ArcGIS, Qualtrics, Decision Explorer

Research & Professional Skills

Problem Framing | Structured Problem Solving | Evidence Synthesis | Data Assessment | Methodological Evaluation | Technical Communication | Stakeholder Communication | Interdisciplinary Collaboration | Teaching & Mentoring

Honors & Scholarships

Transport Chicago Student Work Competition Finalist 2026
Transport Chicago

Executive Partnership Scholarship *2024*
Women in Transportation Seminar (WTS)

Board Scholarship *2023, 2024*
American Public Transportation Foundation

Languages

Persian: Native **English:** Fluent