Curriculum Vitae

Monique Stinson, PhD
Work Email: monique.stinson@dot.gov

EDUCATION

University of Illinois at Chicago (2018-2020)
Doctor of Philosophy in Civil Engineering, 2020
Thesis*: Strategic Decisions in Agent-Based Freight Transportation Models: Methods and Data*

Massachusetts Institute of Technology (2015-2017)
Graduate coursework and research

University of Texas at Austin (1996-2002)

- Master of Science in Civil Engineering, 2002
  Thesis: A Discrete Choice Exploration of the Route Choice Preferences of Commuter Bicyclists
- Bachelor of Science in Civil Engineering with Honors, 2000

RESEARCH INTERESTS

- Development of integrated, system-of-systems transportation models
- Statistical and econometric models of passenger and freight transportation behavior
- Survey development and analysis
- Analysis of multimodal transportation systems with passenger (non-motorized, transit, rideshare, auto) and freight (truck, rail, water, air) activity
- Machine learning and language models to develop new data from existing big data sources including text and telematics data

CAREER EXPERIENCE

United States Department of Transportation, Office of the Secretary of Transportation-Research (OST-R), Bureau of Transportation Statistics: 2022-present
Positions held: Statistician (business title: Freight Estimation, Forecasting, and Analysis Manager)

Argonne National Laboratory, Lemont, Illinois: 2018-2022
*Positions held: Technical Manager, Freight Systems and Analytics**;** Computational Transportation Scientist; Research Aide-Technical*

Massachusetts Institute of Technology, Cambridge, Massachusetts: 2015-2018
Positions held: Research Assistant

RS&H, Inc., Chicago, Illinois: 2014-2015
Positions held: Senior Planner

Cambridge Systematics, Inc., Chicago, Illinois: 2004-2014
Positions held: Senior Associate, Associate, Senior Professional

Chicago Area Transportation Study, Chicago, Illinois: 2002-2004
Positions held: Transportation Management Cadre

University of Texas at Austin, Austin, Texas: 2000-2002
Positions held: Graduate Research Assistant

TEACHING EXPERIENCE

DePaul University: Guest Lecturer
Class: Data Science Capstone (taught by Professor Ilyas Ustun), February 10, 2021
Lecture: Agent-Based Freight Model Development and Applications Involving Data Science

University of Illinois at Chicago: Guest Lecturer
Class: Urban Travel Forecasting (taught by Professor Abolfazl (Kouros) Mohammadian), Nov. 24, 2020
Lecture: Freight Transportation Forecasting

Massachusetts Institute of Technology: Teaching Assistant and Grader
Class: Demand Modeling (taught by Professor Moshe Ben-Akiva), Spring 2017

MENTORING EXPERIENCE

US Department of Transportation, 2022-present
Mentored one full-time staff, one fellow, one summer intern, and a team of undergraduate students from Virginia Tech (Fall 2024) in freight transportation systems analysis, geospatial data development, agent-based model development, and statistical and econometric modeling

Argonne National Laboratory, 2020-2022
Mentored two post-doctoral associates and two research associates in freight transportation systems analysis, agent-based model development, and statistical and econometric modeling

University of Illinois at Chicago, 2018
Mentored three students in designing and conducting a stated preference survey

Massachusetts Institute of Technology, 2015-2017
Mentored fellow team members in freight systems data and modeling

RS&H, Inc., 2014-2015
Mentored a junior colleague in travel demand model development

Cambridge Systematics, Inc., 2010-2014
Mentored junior staff and peers in travel demand model development and software coding

FUNDING AWARDS

1. System-Level Freight Efficiency Improvements, SuperTruck3: 2021-
   US Department of Energy (US DOE) through Daimler Trucks-North America
   PI: Monique Stinson
   Total Budget: $500,000
2. System-Level Freight Efficiency Analysis (and other confidential analysis), SuperTruck3: 2021-
   US Department of Energy (US DOE) through General Motors, Inc.
   PI: Monique Stinson
   Total Budget: $950,000
3. System-Level Freight Efficiency Analysis (and other confidential analysis), SuperTruck3: 2021-
   US Department of Energy (US DOE) through PACCAR
   PI: Monique Stinson

Total Budget: $750,000

4. Computational Modeling and Simulation (1A): SMART 2.0 Workflow Improvements & Automation-Freight Touring Model Subtask, Oct 2020-Sep 2021
   US Department of Energy (US DOE)
   PI: Monique Stinson
   Total Budget: $75,000
5. Computational Modeling and Simulation (1B): SMART 2.0 New Features-Freight Subtask, Oct 2020-Sep 2021
   US Department of Energy (US DOE)
   PI: Monique Stinson
   Total Budget: $455,000
6. Computational Modeling and Simulation (1B): SMART 2.0 New Features-Freight Subtask, Oct 2021-Sep 2022
   US Department of Energy (US DOE)
   PI: Monique Stinson
   Total Budget (In Negotiation): $400,000
7. Computational Modeling and Simulation (1C): SMART 2.0 Studies-Freight Subtask, Oct 2020-Sep 2021
   US Department of Energy (US DOE)
   PI: Monique Stinson
   Total Budget: $100,000
8. Computational Modeling and Simulation (1C): SMART 2.0 Studies-Freight Subtask, Oct 2021-Sep 2022
   US Department of Energy (US DOE)
   PI: Monique Stinson
   Total Budget (In Negotiation): $200,000
9. Energy and Mobility Impact of Inter/Intracity Freight Movement using Data Driven Agent Based System Simulation, Sep 2018-Sep 2019
   US Department of Energy (US DOE)
   PI: Monique Stinson
   Total Budget: $500,000
10. Mega-Regional Multi-Modal Agent-Based Behavioral Freight Model: MAG Next Generation Freight Demand Model (Supply Chain and Mode Choice-Shipment Size Model Subtasks), 2015-2016
    Federal Highway Administration (FHWA) SHRP2 C20 IAP Grant through Maricopa Association of Governments
    PI: Monique Stinson (succeeded by Zahra Pourabdollahi)
    Total Budget: $120,000
11. SWOT Analysis of TRANSEARCH and FAF Data, 2014-2015
    Florida Department of Transportation
    PI: Rob Palmer (task lead: Monique Stinson)
    Total Budget: $30,000
12. An Interagency Fare Choice Model for the Chicago Region, 2012-2013
    Regional Transportation Authority
    Deputy Project Manager: Monique Stinson
    Total Budget: $300,000
13. CTA Ridership and Revenue Model, 2011-2012

Chicago Transit Authority
Deputy Project Manager: Monique Stinson
Total Budget: $500,000

14. A Working Demonstration of a Mesoscale Freight Model for the Chicago Region, 2010-2011
Chicago Metropolitan Agency for Planning
Deputy Project Manager: Monique Stinson
Total Budget: $189,000

HONORS AND AWARDS

1. 2023. Best Poster Award for "A freight asset choice model for agent-based simulation models", TRB Innovations in Travel Analysis and Planning Conference (Zuniga-Garcia, N., A. Ismael, M. Stinson).
2. 2023. Best Paper Award for "Introducing CRISTAL: A Model of Collaborative, Informed, Strategic Trade Agents with Logistics," from Freight Transportation Planning and Logistics Committee (AT015), Transportation Research Board Annual Meeting (M. Stinson, A. Mohammadian)
3. 2023. Best Paper Award for "Impacts of Freight Fleet Electrification in the Atlanta – Chattanooga region," from the Air Quality and GHG Mitigation Committee (AMS10), Transportation Research Board Annual Meeting (N. Zuniga, V. Freyermuth, M. Stinson, O. Sahin)
4. 2022. Certificate of Commendation for handling over 150 research papers for the Transportation Research Board's Freight Transportation Planning and Logistics Committee as Paper Review Coordinator and Editorial Board Member
5. 2020. Best Paper Award for "A large-scale, agent-based simulation of metropolitan freight movements with passenger and freight market interactions", 9th International Workshop on Agent-based Mobility, Traffic and Transportation Models, Methodologies and Applications
6. 2018-2020. Full Tuition Waiver, University of Illinois at Chicago
7. 2019. David Boyce Graduate Scholarship, University of Illinois at Chicago
8. 2018-2019. Women's Transportation Seminar-Boston Chapter Ann Hershfang Graduate Scholarship
9. 2017. "Best Data Fusion Application" from the Transportation Research Board Innovations in Freight Data Workshop Planning Committee, Team Member with Maricopa Association of Governments
10. 2015-2017. Full Tuition Waiver and Graduate Stipend, Massachusetts Institute of Technology
11. 2003. 2nd Place, Student Paper Competition, Transport Chicago Conference
12. 2000-2002. Full Tuition Waiver and Graduate Stipend, The University of Texas at Austin
13. 2000-2002. Huff Endowed Presidential Fellowship
14. 2000-2002. College of Engineering Advanced Institute Graduate Fellowship
15. 1997-2000. Engineering Honors Program
16. 1999-2000. Edward and Rebecca Case Endowed Presidential Scholarship
17. 1998-1999. H. H. Dalrymple Endowed Presidential Scholarship

INVITED TALKS

1. (Contributor) Bureau of Transportation Statistics Presents Freight Data and Analytics. Talking Freight, September 2025.
2. **M. Stinson**. G7 working group on supply chains (contributor), March 2025.

3. R. Schmitt and **M. Stinson**. Happy Anniversary, FAF! TRB Annual Meeting, AED70 (Freight Data) Committee Meeting, January 7, 2025.
4. **M. Stinson.** Assessing the Stability of Company Strategies over Time. Presented at the 3rd Activity-Based Modeling Symposium, Raitenhaslach, Germany, December 11th to December 13th, 2024.
5. **M. Stinson** and L. Dods. Freight Analysis Framework (FAF) Modernization: Overview & Feedback. Webinar presented on June 25, 2024. https://www.bts.gov/faf/webinars
6. **M. Stinson.** Various talks to agencies and researchers:
    a. SDDC-TEA (December 4, 2024)
    b. AAR (Nov. 13, 2024)
    c. Visiting Delegation from the Ministry of Commerce & Industry, Logistics Division at the Department for Promotion of Industry and Internal Trade (DPIIT), India (Mar. 21, 2024)
    d. Interagency Supply Chain Working Group (Mar. 10, 2024)
    e. MAP Forum (Apr. 18, 2024)
    f. US Bureau of Economic Analysis (Aug. 22, 2023)
    g. FHWA Freight Office/State & Regional Associations Stakeholders' Meeting (Jul. 26, 2023)
    h. University of the Aegean (April 27, 2023)
    i. US Census Bureau (Mar. 16, 2023)
    j. The Eastern Transportation Coalition (Dec. 12, 2022).
7. **Stinson, M.,** T. Cokyasar, O. Sahin. Mobility and Sustainability Impacts of Advanced Last-Mile Delivery Technologies. Presented at the 24th IEEE International Conference on Intelligent Transportation (ITSC2021) Last Mile Delivery and 50 Feet Logistics Challenges in the "New Normal" Workshop, September 19-22, 2021, Indianapolis, Indiana.
8. **Stinson, M**. Strategic Decisions in Agent-Based Freight Transportation Models: Methods and Data**.** Presented to the University of California-Irvine Institute of Transport Studies Graduate Student Association, August 20, 2021.
9. **Stinson, M**. The Impact of E-Commerce on Last-Mile Urban Freight & Household Shopping Trips. Presented at the Fuels Institute Webinar Series, August 5, 2021.
10. Sahin, O. and **M. Stinson**. Off-hours Delivery: Simulated Systemwide Results for the Chicago Region. Presented to the US Department of Energy's Vehicle-Mobility Systems Analysis Tech Team, August 4, 2021.
11. **Stinson, M.,** A. Rousseau, F. de Souza. Freight and CAV Modelling at Argonne. Presented to the US Environmental Protection Agency, July 19, 2021.
12. Sahin, O. and **M. Stinson**. Off-hours Delivery: Simulated Systemwide Results for the Chicago Region. Presented to the US Department of Energy's 21st Century Truck Freight Operational Efficiency Tech Team, June 30, 2021.
13. **Stinson, M**. Agent-Based Freight Model Development and Applications at Argonne. Presented at the FHWA Talking Freight Webinar, March 17, 2021.
14. **Stinson, M**. Agent-Based Freight Model Development and Applications at Argonne. Presented to the Chicago Department of Planning and Development (DPT) Freight Working Group, March 8, 2021.
15. **Stinson, M**. E-Commerce and Parcel Delivery: VMT and Energy Consumption. Chicago Metropolitan Agency for Planning Freight Advisory Committee Meeting, February 24, 2020.
16. **Stinson, M**. Inter/Intracity Freight Movement Using Data-Driven Agent-Based System Simulation. 21st Century Truck Program Freight Operations Efficiency Tech Team Meeting, Jan. 21, 2020.
17. **Stinson, M**. Assessing the e-commerce effect: parcel delivery vs. household shopping. Improving Last-Mile and 50-Feet Logistics with Smart Initiatives to Improve Freight Mobility Workshop, Transportation Research Board Annual Meeting, Washington D.C., Jan. 13-16, 2020.
18. **Stinson, M**. E-Commerce Impacts on Regional Travel and Energy Use: Household Shopping and Parcel Delivery Tradeoffs. FHWA Talking Freight Seminar, December 19, 2019.
19. **Stinson, M.** Modeling Future Mobility Impacts Using the POLARIS Agent-based Transportation Simulator. Society of Automotive Engineers Innovations in Mobility Conference, Novi, Michigan, Oct. 29-31, 2019.

20. **Stinson, M**. CAV Modeling Structure and Planning Applications at Argonne National Laboratory. CAV Expert Workshop, University of California-Davis, April 29-30, 2019.

PUBLICATIONS AND PRESENTATIONS

Publications in Peer-Reviewed Journals

1. **Stinson, M.** and A. Mohammadian (2025). A method to integrate strategic alignment in freight transportation behavioral models. Journal of Choice Modelling, Volume 56, https://doi.org/10.1016/j.jocm.2025.100563.
2. Moawad, A., Z. Li, I. Pancorbo, K. Gurumurthy, V. Freyermuth, E. Islam, R. Vijayagopal, **M. Stinson**, A. Rousseau (2025). A Real-Time Energy and Cost Efficient Vehicle Route Assignment Neural Recommender System. Expert Systems with Applications 263, 125634.
3. **Stinson, M.** and A. Mohammadian (2024). W2VPCA: A Machine Learning Method for Measuring Attitudes With Natural Language. IEEE Transactions on Intelligent Transportation Systems, vol. 25, no. 7, pp. 8063-8075, doi: 10.1109/TITS.2024.3370393.
4. T. Cokyasar, **M. Stinson**, O. Sahin, N. Prabhakar, D. Karbowski (2023). Comparing Regional Energy Consumption for Last-Mile Direct Drone and Truck Deliveries. Transportation Research Record: Journal of the Transportation Research Board, Vol. 2677, Issue 2. https://doi.org/10.1177/0361198122114513.
5. Cokyasar, T., A. Subramanyam, J. Larson, **M. Stinson**, O. Sahin (2023). Time-constrained capacitated vehicle routing problem in urban e-commerce delivery. Transportation Research Record 2677 (2), 190-203.
6. Subramanyam, A., T. Cokyasar, J. Larson, **M. Stinson** (2022). Joint Routing of Conventional and Range-Extended Electric Vehicles in a Large Metropolitan Network. Transportation Research – Part C, Volume 144. https://doi.org/10.1016/j.trc.2022.103830
7. **Stinson, M.** and A. Mohammadian (2022). Introducing CRISTAL: A Model of Collaborative, Informed, Strategic Trade Agents with Logistics. Transportation Research-Interdisciplinary Perspectives. https://doi.org/10.1016/j.trip.2022.100539
8. **Stinson, M.,** B. Zou, D. Briones, and A. Manjarrez, A. Mohammadian (2021). Vehicle Ownership Models for a Sharing Economy with Autonomous Vehicle Considerations. Transportation Letters. DOI 10.1080/19427867.2021.2007681.
9. **Stinson, M.,** Z. Pourabdollahi, V. Livshits, K. Jeon, S. Nippani and H. Zhu (2017). A Joint Model of Mode and Shipment Size Choice Using the First Generation of CFS Public Use Microdata. International Journal of Transportation Science and Technology, Volume 6, Issue 4, pp. 330-343, 2017.
10. **Stinson, M.,** C. Porter, K. Proussaloglou, R. Calix and C. Chu (2014). Modeling the Impacts of Bicycle Facilities on Work and Recreational Bike Trips in Los Angeles County, California. Transportation Research Record No. 2468.
11. **Stinson, M.,** Bhat, C.R. (2004) Frequency of Bicycle Commuting: Internet-Based Survey Analysis, Transportation Research Record No. 1878, Washington D.C.
12. **Stinson, M.,** Bhat, C.R. (2003) An Analysis of Commuter Bicyclist Route Choice Using a Stated-Preference Survey, Transportation Research Record No. 1828, Washington D.C.

Papers under Review

13. **Stinson, M.**, Mohammadian, A. New Directions for Travel Behavior Modeling: Lessons from Freight Studies. Corporate Creators: United States. Department of Transportation. Bureau of Transportation Statistics; University of Illinois at Chicago. https://rosap.ntl.bts.gov/view/dot/80645.

14. Hyun-Seop Uhm, Abdelrahman Ismael, Natalia Zuniga-Garcia, Olcay Sahin, James Cook, Joshua Auld, **Monique Stinson**, Fleet-mix Electric Vehicle Routing Problem for the E-commerce Delivery with Limited Off-Hour Delivery Implementation. https://doi.org/10.48550/arXiv.2408.00663

Book Chapters

15. Enam, A. with F. de Souza, O. Verbas, **M. Stinson** and J. Auld. Autonomous Vehicles and Transportation Modeling. Encyclopedia of Transportation, 12. August 2019
16. Cheah, L., F. Zhao, **M. Stinson**, F. Lu, J. Ding-Mastera, V. Marzano, M. Ben-Akiva (2018). Next-Generation Commodity Flow Survey: A Pilot in Singapore: Modeling and Planning Initiatives. In E. Taniguchi and R. Thompson (Eds.) City Logistics 2: Modeling and Planning Initiatives. Wiley-ISTE, London.
17. **Urban, M. [Stinson]** & Petersen, E. (2014). Transit fares. In M. Garrett (Ed.), Encyclopedia of transportation: Social science and policy (Vol. 1, pp. 1436-1439). Thousand Oaks, CA: SAGE Publications, Inc.

Working Papers with Full Draft

18. **Stinson, M.**, H. Shen, and O. Sahin. Models to Infer Freight Stop Activity Type Using Enriched GPS Data.
19. Gadsby, A. and **Stinson, M.** Estimating Truckload Spot Market Rates Using Publicly Available Data.
20. Cloyed, C. and **Stinson, M.** Longitudinal analysis of freight flows in the Commodity Flow Survey and Freight Analysis Framework.

Published Conference Proceedings (Peer-Reviewed)

21. N Zuniga-Garcia, V Freyermuth, **M Stinson**, O Sahin, J Auld (2024). Trucks Tour Chaining for Electric Demand Estimation. Procedia Computer Science 238, 797-802 (Procedia from ABMTrans, The 13th International Workshop on Agent-based Mobility, Traffic and Transportation Models, Methodologies and Applications). 10.1016/j.procs.2024.06.094
22. Sahin, O. and **M. Stinson**, A Ismael, H Shen (2024). Analysis of Urban Freight Flows and Retail Goods Movement Using GPS Trajectory and Land Use Data. Procedia Computer Science 238, 809-814 (Procedia from ABMTrans, The 12th International Workshop on Agent-based Mobility, Traffic and Transportation Models, Methodologies and Applications, Lueven, Belgium). https://doi.org/10.1016/j.procs.2024.06.096
23. Zuniga-Garcia, N., A. Ismael, **M. Stinson** (2023). A freight asset choice model for agent-based simulation models. Procedia Computer Science, Volume 220, Pages 704-709 (Procedia from ABMTrans, The 12th International Workshop on Agent-based Mobility, Traffic and Transportation Models, Methodologies and Applications, Lueven, Belgium). https://doi.org/10.1016/j.procs.2023.03.092
24. Zuniga-Garcia, N., V. Freyermuth, **M. Stinson**, O. Sahin (2023). Impacts of Freight Fleet Electrification in the Atlanta – Chattanooga region (Proceedings of the IEEE Conference on Technologies for Sustainability (SusTech), Pages 168-169. 10.1109/SusTech57309.2023.10129590
25. Sahin, O., N. Zuniga-Garcia, N., **M. Stinson** (2023). Equity Analysis of Freight Transportation Using a Large-Scale Agent-Based Modeling Framework. Procedia Computer Science, Volume 220, Pages 692-697 (Procedia from ABMTrans, The 12th International Workshop on Agent-based Mobility, Traffic and Transportation Models, Methodologies and Applications, Lueven, Belgium).
26. **Stinson, M.**, and A. Mohammadian (2020). Modeling Firm Transportation Strategy using Big Text Data. Proceedings of the IEEE Forum on Integrated and Sustainable Transportation Systems, Delft, The Netherlands.

27. **Stinson, M.,** J. Auld and A. Mohammadian (2020)**.** A large-scale, agent-based simulation of metropolitan freight movements with passenger and freight market interactions. Procedia Computer Science, pp. 771-778 Proceedings of the 9th International Workshop on Agent-based Mobility, Traffic and Transportation Models, Methodologies and Applications (ABMTRANS).
28. **Stinson, M.A.**, J. Auld and A. Mohammadian (2020). Light Duty Vehicle Choice Models Examining Alternative Fuel Technology Preferences among Commercial Fleet Owners. Transportation Research Procedia, Volume 46, Pages 309-316.
29. **Stinson, M.,** A. Enam, A. Moore, and J. Auld (2019). Citywide Impacts of E-Commerce: Does Parcel Delivery Travel Outweigh Household Shopping Travel Reductions? Proceedings of the Association for Computing Machinery - Smart Cities Conference in Portland, Oregon.
30. Joshua A Auld, Felipe de Souza, Annesha Enam, Mahmoud Javanmardi, **Monique Stinson**, Omer Verbas, Aymeric Rousseau (2019). Exploring the mobility and energy implications of shared versus private autonomous vehicles. 2019 IEEE Intelligent Transportation Systems Conference (ITSC), 1691-1696.
31. Alho, A., Bhavathrathan, B. K., **Stinson, M.**, Gopalakrishnan, R., Le, D. T., & Ben-Akiva, M. (2017). A multi-scale agent-based modelling framework for urban freight distribution. Transportation Research Procedia, 27, 188-196.

Conference Papers (Topics Other than the Above)

32. **Stinson, M.** and Bhat, C. (2005). A Comparison of the Route Preferences of Experienced and Inexperienced Bicycle Commuters, Presented at the Transportation Research Board Annual Meeting, Washington D.C., Jan. 9-13, 2005.
33. Ö Verbas, J Auld, **M Stinson** (2019). Individualized Gap-Based Convergence in an Agent-Based Dynamic Traffic Assignment Model Using an Information Mixing Approach for Time-Dependent Travel Times. Presented at the Transportation Research Board 98th Annual Meeting.

Research Reports

34. US Department of Transportation (Project Manager and Major Report Contributor). Development of the Freight Analysis Framework Version 5 (FAF5) Annual Estimates. 2025. DOI: 10.21949/1529761
35. US Department of Transportation (Project Manager and Major Report Contributor). Freight Analysis Framework Version 5 (FAF5) Experimental County-Level Estimates Technical Report. https://doi.org/10.21949/b16k-zb09
36. US DOT Federal Highway Administration (Contributor). Integrated data collection method for tracking freight movement. Publication date 2022/2/1. Report number FHWA-HRT-21-089.
37. Argonne National Laboratory (PI, Freight Subtask). Computational Modeling and Simulation (1A): SMART 2.0 Workflow Improvements & Automation. Prepared for US Department of Energy, 2021.
38. Argonne National Laboratory (PI, Freight Subtask). Computational Modeling and Simulation (1B): SMART 2.0 New Features (PI, Freight Subtask). Prepared for US Department of Energy, 2021. Argonne National Laboratory. Computational Modeling and Simulation (1C): SMART 2.0 Studies: SMART 2.0 New Features. Prepared for the US Department of Energy, 2021.
39. Argonne National Laboratory (PI). Energy and Mobility Impact of Inter/Intracity Freight Movement using Data Driven Agent Based System Simulation. Prepared for US Department of Energy, 2020.
40. Lawrence Berkeley National Laboratory, Argonne National Laboratory, Idaho National Laboratory, National Renewable Energy Laboratory, Oak Ridge National Laboratory, Department of Energy (Major Contributor). SMART Mobility: Multi-Modal Freight Capstone Report, 2020 July. Report number DOE/EE-2061.
41. Lawrence Berkeley National Lab, Argonne National Lab, Idaho National Lab, National Renewable Energy Lab, Oak Ridge National Lab (Major Contributor). SMART Mobility. Modeling Workflow Development, Implementation, and Results Capstone Report. 2020/7/28. Report number DOE/EE-2066.

42. RS&H, Inc. (Project Manager). Mega-Regional Multi-Modal Agent-Based Behavioral Freight Model: MAG Next Generation Freight Demand Model, Prepared for the Maricopa Association of Governments with assistance from Federal Highway Administration SHRP2 C20 IAP Grant, 2018.
43. RS&H, Inc. (Lead Author). SWOT Analysis of TRANSEARCH And FAF Data. Project No.: TRANSTAT TWO 7, CONTRACT NO.: C9B48, 2016.
44. Cambridge Systematics, Inc. (Project Manager). An Interagency Fare Choice Model for the Chicago Region, prepared for the Regional Transportation Authority, 2013.
45. Cambridge Systematics, Inc. (Project Manager). CTA Ridership and Revenue Model: Draft Final Report, prepared for the Chicago Transit Authority, 2012.
46. Cambridge Systematics, Inc. (Deputy Project Manager). A Working Demonstration of a Mesoscale Freight Model for the Chicago Region: Final Report and User's Guide. Chicago Metropolitan Agency for Planning, 2011.
47. Cambridge Systematics, Inc. (Contributor). Bicycle Model Development–Phase I, prepared for the Los Angeles County Metropolitan Transportation Authority, 2011.
48. Cambridge Systematics, Inc. (Deputy Project Manager), Illiana Expressway Economic Opportunities Analysis: Final Report, prepared for the Illinois Department of Transportation, 2010.
49. Cambridge Systematics, Inc. (Contributor). Regional Freight System Planning Recommendations Study: Final Report, prepared for the Chicago Metropolitan Agency for Planning, 2010.
50. Cambridge Systematics, Inc. (Contributor). I-95/I-395 Transit/TDM Study: Final Report, prepared for the I-95/I-395 Transit/TDM Technical Advisory Committee led by Virginia Dept. of Rail and Public Transportation, 2008.
51. Cambridge Systematics, Inc. (Contributor) San Joaquin Valley (SJV) Goods Movement Study: Phase II, prepared for the Kern Council of Governments and presented to the Council of Fresno County Governments, 2007.
52. Cambridge Systematics, Inc. (Contributor). Market Analysis and Service Planning Tool, prepared for Pace Suburban Bus, 2006.
53. Cambridge Systematics, Inc. (Contributor). Mid-City Freightway: Evaluation of Alternative Alignments and Tolls, prepared for the Chicago Department of Transportation, 2006.
54. Cambridge Systematics, Inc. (Contributor). MnPass System Study: Final Report, prepared for the Minnesota DOT, 2005.
55. Cambridge Systematics, Inc. (Contributor). Cook-DuPage Corridor Travel Market Analysis Study: Existing and Future Conditions: Final Report, 2005.
56. The University of Texas at Austin Center for Transportation Research (Contributor). Transportation control effectiveness in ozone non-attainment areas. July 2003. Project conducted in cooperation with the Texas Department of Transportation and the U.S. Department of Transportation, Federal Highway Administration. Report number FHWA/TX-03-1838-8.

Selected Presentations (not included above)

57. **M. Stinson**, Jingsi Shaw, Praveen Hettige, Stephanie Lawrence (2025). Bureau of Transportation Statistics (BTS) Freight Data Program Updates. Presented at the Modeling Mobility Conference, September 14-17, 2025, in Minneapolis, Minnesota.
58. Shen, H., O. Sahin, **M. Stinson** (2025). Prediction of truck stop duration time with machine learning methods using enhanced GPS data. Presented at the METRANS International Urban Freight Conference (I-NUF) conference, Long Beach, CA.
59. Abdelrahman, I., O. Sahin, H. Uhm, H. Shen, N. Zuniga-Garcia, Y. Huang, T. Cokyasar, K. Gurumurthy, J. Auld, **M. Stinson** (2025). Integration and Application of a Freight Agent-Based Simulation Framework. Transportation Research Board Annual Meeting, Washington, DC.
60. **M. Stinson**, S. Lawrence (2023). The Freight Analysis Framework (FAF): Leveraging Federal Statistical Programs to Understand US Goods Movement. Federal Committee on Statistical Methodology (FCSM) Conference, College Park, Maryland.

61. Zuniga-Garcia, N., O. Sahin, **M. Stinson** (2023). Equity Analysis of Freight Transportation in Atlanta. Transportation Research Board Annual Meeting, Washington, DC.
62. Davatgari, A., T. Cokyasar, A. Subramanyam, **M. Stinson**, Electric Vehicle Supply Equipment Location and Capacity Allocation for Freight Electrification. Transportation Research Board Annual Meeting, Washington, DC.
63. **Stinson, M.** and A. Mohammadian. Two Algorithms for Measuring Attitudes using Natural Language. Presented at the Transportation Research Board Annual Meeting, 2021, virtual.
64. **Stinson, M.** and A. Mohammadian. A Behavioral Model for Strategic Freight Transportation Decisions. Presented at the Transportation Research Board Annual Meeting, 2021, virtual.
65. **Stinson, M.,** E. Rahimi and A. Mohammadian**.** A Carrier Load Pricing Model with Seasonality and Forward vs. Back-Haul Pricing Differences**.** METRANS International Urban Freight Conference (I-NUF) in Long Beach, California**,** October 16-18, 2019.
66. **Stinson, M.** with A. Enam and A. Mohammadian. Supply Impacts of Disruptive Technologies: Vehicle Ownership as an Investment Decision. International Choice Modeling Conference, Kobe, Japan, August 19-21, 2019.
67. A Enam, J Auld, TH Rashidi, **M Stinson.** Utility and Regret Theory Based Multiple Discrete Continuous (MDC) Model: Exploring Time Allocation into Travel-Based Multitasking. International Choice Modeling Conference, Kobe, Japan, August 19-21, 2019.
68. **Stinson, M.**, B. Pandey, A. Enam, A. Rousseau, J. Auld. Spatiotemporal Analysis of the Freight Analysis Framework Data. Innovations in Freight Data Workshop, April 9-10, 2019, Irvine, CA.
69. **Stinson, M.,** J. Lin, A. Mohammadian. Linking Business Strategy to Transportation Energy Consumption and Emissions Estimates: Effects of Automobile Assembly Location Strategies. Transportation Research Board Annual Meeting, Washington D.C., Jan. 13-17, 2019.
70. **Stinson, M.**, J. Auld and A. Mohammadian. An Agent-based Model of Freight Transportation with Emerging Trends in POLARIS. 3rd VREF Conference on Urban Freight, Gothenburg, Sweden, October 17-19, 2018.
71. Ding-Mastera, J., P. Jing, **M. Stinson**, E. Manzi, F. Zhao, V. Marzano, L. Cheah, M. Ben-Akiva. Combining GPS Data Collection with Assisted Machine Learning to Enhance Freight Vehicle and Driver Surveys: Methodology and Demonstration. Transportation Research Board Annual Meeting, Washington D.C., Jan. 13-17, 2018.
72. Cheah, L. **M. Stinson,** Z. Chen, V. Marzano, F. Zhao, M. Ben-Akiva. Future Freight Surveys of Shipments. 7th METRANS International Urban Freight Conference (I-NUF), Long Beach, California, October 17-20, 2017.
73. Lee, Y. and **M. Stinson**. Modeling Urban Freight Vehicle Choice in Retail Supply Chains. Transportation Research Board Annual Meeting, Washington D.C., Jan. 8-12, 2017.
74. **Stinson, M.,** et al. An Integrated Approach to Freight Data Collection, Future Urban Mobility Symposium 2016, Singapore, July 25-26, 2016.
75. **Stinson, M.A.** with Z. Pourabdollahi, R. Tillery and K. Zuehlke. A Tour-Based Freight Model for the Tampa, Florida Metropolitan Region. TRB Planning Applications Conference, Atlantic City, NJ, May 17-21, 2015.

LEADERSHIP AND SERVICE ROLES

Handling Editor, Transportation Research Record, 2020-present

Member, Freight Data Committee, Transportation Research Board Annual Meeting, 02/2020 - present

Editor, Transportation Letters, 2024-present

Paper Review Coordinator, Transportation Research Board Annual Meeting, 2025-present

Guest Editor, Transportation Research Record's Special Issue on Freight Transportation Automation, Logistics and Supply Chains, 2021-2022

Chair, Freight Modeling Subcommittee of the Freight Transportation Planning and Logistics Committee, Transportation Research Board Annual Meeting, 2022-2025

Paper Review Coordinator, Freight Transportation Planning and Logistics Committee, Transportation Research Board Annual Meetings, 2020-2022

Paper Review Sub-Editor, Freight Transportation Planning and Logistics Committee, Transportation Research Board Annual Meeting, 2019-2020

Member, Freight Transportation Planning and Logistics Committee, Transportation Research Board Annual Meeting, 03/2017 – 03/2025

Co-Chair, Transportation Students Group Center for Transportation and Logistics Distinguished Speaker Seminar Series, 2017

Member, Bicycle Transportation Committee, Transportation Research Board, 2003-2004

Chairperson, Transport Chicago Conference, 2003

Poster Session Coordinator, Transport Chicago Conference, 2004-2005

President, Institute of Transportation Engineers (ITE) Student Chapter (The University of Texas at Austin), 2000-2001

OTHER

Computer Skills: Proficient in R, Python, C++, Biogeme, Alogit/Nlogit, SAS, Emme/3, Cube Voyageur/TP+, TransCAD/GIS-DK. Experienced with DataBricks, Stata, SPSS, C, Java, SQL, Gurobi, Julia, JMP, NetLogo, GAUSS.

DATA PRODUCTS

Oversaw the Release of the Following Freight Analysis Framework (FAF) Data Products:

- FAF Version 5.7.1 (August 15, 2025)
- FAF Version 5.7 (June 25, 2025)
- FAF Experimental county-to-county estimates (January 3, 2025)
- FAF Version 5.6.1 (July 19, 2024)
- Version 5.6 (April 26, 2024)
- Version 5.5.1 (July 28, 2023)
- Version 5.5 (May 16, 2023)
- Version 5.4.1 (December 7, 2022)

Oversaw the Development of Two Potential New Data Products