

# Trilce Encarnación

206 ESH One University Blvd. St. Louis, MO 63121 ☎ 314-516-6201  
✉ tencarnacion@umsl.edu 🌐 <http://trilce.info>

## ACADEMIC POSITIONS

- 2020-present **University of Missouri-St. Louis** (St. Louis, MO)  
Assistant Professor, Supply Chain Management and Analytics.
- 2014-2020 **Rensselaer Polytechnic Institute** (Troy, NY)  
Center for Infrastructure, Transportation and the Environment.  
Post-Doctoral Research Associate, (Jan 2020-Aug 2020)  
Graduate Research Assistant, (Aug 2014-Dec 2019)
- 2007-2014 **Pontificia Universidad Católica Madre y Maestra** (Dominican Republic)  
Faculty, Systems Engineering and Computer Science.
- 2004-2006 **University of Puerto Rico-Mayaguez** (Mayaguez, PR.)  
Graduate Research Assistant, Mathematical Sciences.

## EDUCATION

- 2019 **Ph.D.** Transportation Engineering, Rensselaer Polytechnic Institute.
- 2017 **M.E.** Industrial and Management Engineering, Rensselaer Polytechnic Institute.
- 2006 **M.S.** Scientific Computing, University of Puerto Rico at Mayaguez.
- 2003 **Certificate** of Graduate Studies in Advanced Databases;
- 2002 **B.S.** Systems Engineering and Computer Science *Cum Laude*;  
Pontificia Universidad Católica Madre y Maestra, Dominican Republic.

## HONORS and AWARDS

- 2024 Anheuser-Busch Excellence in Undergraduate Teaching Award, UMSL.
- 2022 College of Business Administration Research Impact Award, UMSL.
- 2020 Thomas Archibald Bedford Prize for Outstanding Research Achievements at RPI.
- 2019 INFORMS Analytics Women in Operations Research Scholarship First Place Winner.
- 2019 INFORMS Transportation Science and Logistics Society PhD Workshop Scholarship.
- 2017 MIT Civil and Environmental Engineering Rising Stars.
- 2017 INFORMS Franz Edelman Award Finalist.
- 2017 Women's Transportation Seminar Helene M Overly Memorial Scholarship NY.
- 2017 Eno Center for Transportation Fellow.
- 2017 Conference of Minority Transportation Officials Eno Scholarship Award.
- 2017 INFORMS Analytics Analytical Scholar Competition Winner.
- 2015 Academic Excellence Award, Council of Supply Chain Management Professionals NY.
- 2006 Development Policy Fellow, Korea International Cooperation Agency.

---

**RESEARCH INTERESTS:** I develop econometric, analytical, and statistical methods to support decision-making in complex supply chain environments, with emphasis on last-mile distribution, disaster response, and community resiliency. My work also explores human behavior through experimental research and leverages emerging data sources to improve operational effectiveness.

**TEACHING INTERESTS:** Quantitative decision-making, econometrics, empirical research methods, and supply chain management. I am deeply committed to mentoring student researchers and actively advancing diversity and inclusion in STEM education.

# Research

---

## PEER REVIEWED JOURNAL ARTICLES

† Indicates graduate student coauthor.

- J1 **Encarnación T.** (2025) Econometric estimation of deprivation cost functions for emergency medical services. *Socio-Economic Planning Sciences*, Vol 101, 102273. <https://doi.org/10.1016/j.seps.2025.102273>
- J2 Holguín-Veras J., Ramírez-Rios D., & **Encarnación T.** (2025) The responsibilities of freight carriers and other agents in the generation of freight externalities: Implications for addressing climate change. *Transportation Research Part A: Policy and Practice*, Vol 199, pp 104573. <https://doi.org/10.1016/j.tra.2025.104573>
- J3 Penagos P.<sup>†</sup>, **Encarnación T.**, Gonzalez-Calderon C., Jaramillo-Rios J.<sup>†</sup>, & Posada-Henao J. (2025) Impact of the COVID-19 Pandemic on E-Commerce Adoption in Emerging Economies. *Latin American Transport Studies*, Vol 3, pp 100037. <https://www.sciencedirect.com/science/article/pii/S2950024925000149>
- J4 Amaya J., **Encarnación T.**, & Cantillo V. (2025) Sustainable last mile delivery alternatives: Influencing factors and willingness to use. *Transportation Research Part-D: Transport and Environment*, Vol 139, pp 104574. <https://doi.org/10.1016/j.trd.2024.104574>
- J5 Amaya J. & **Encarnación T.** (2025) Consumer Attitudes Towards Grocery Retailers Operational Response to the COVID-19 Pandemic. *Latin American Transport Studies*, Vol 176, pp 100028. <https://doi.org/10.1016/j.latran.2025.100028>
- J6 Ramírez-Rios D., Soto-Vergel A., **Encarnación T.**, & Amaya J. (2025) A Location-Allocation Model for Meal Kit Distribution in Post-Disaster Environments. *Networks and Spatial Economics*. <https://doi.org/10.1007/s11067-025-09681-3>
- J7 **Encarnación T.** & Amaya J. (2024) Determinants of parcel locker adoption for last-mile deliveries in urban and suburban areas. *Transportation Journal*, Vol 64, Issue 1, pp 1-14. <https://doi.org/10.1002/tjo3.12031>
- J8 Amaya J., **Encarnación T.**, & Delgado-Linderman M. (2023) Understanding Delivery Drivers Parking Behavior in Urban Areas. *Transportation Research Part-A: Policy and Practice*, Vol 176, pp 103823. <https://doi.org/10.1016/j.tra.2023.103823>
- J9 Holguín-Veras J., **Encarnación T.**, Perez-Guzman S., Cantillo V., Calderon O., & Watchendorf T. (2023) The Role and Potential of Trusted Change Agents and Freight Demand Management in Mitigating Panic Buying Shortages. *Transportation Research Interdisciplinary Perspectives*, Vol 19, pp 100792. <https://doi.org/10.1016/j.trip.2023.100792>
- J10 Holguín-Veras J., **Encarnación T.**, Van Wassenhove LN., Pokharel S., Cantillo V., Amaya J., Watchendorf T., & Rilling J. (2022) Reducing Material Convergence in Disaster Environments: The Potential of Trusted Change Agents. *Transportation Research Part E: Logistics and Transportation Review*, Vol 162, pp 102736. <https://doi.org/10.1016/j.tre.2022.102736>
- J11 Holguín-Veras J., **Encarnación T.** & González-Calderón C. (2020) User Perception of Fairness of Time-of-Day Pricing and other Typical Toll Discounts. *Transportation Research Part A: Policy and Practice*, Vol 137, pp 560-581. <https://doi.org/10.1016/j.tra.2020.04.002>

- J12 Holguín-Veras J., **Encarnación T.**, Perez-Guzman S. & Yang X. (2020) Mechanistic Identification of Freight Activity Stops from Global Positioning System Data. *Transportation Research Record*, Vol 2674, Issue 4, pp 235-246. <https://doi.org/10.1177/0361198120911922>
- J13 Holguín-Veras J., **Encarnación T.**, Ramirez-Rios D., He X., Kalahasthi L., Perez-Guzman S., Sanchez-Díaz I., & González-Calderón C. (2020) A Multi-Class Tour-Flow-Model and its Role in Multi-Class Freight Tour Synthesis. *Transportation Science*, Vol 54, No 3, pp 631–650. <https://doi.org/10.1287/trsc.2019.0936>
- J14 Holguín-Veras J., **Encarnación T.**, González-Calderón C., Winebrake J., Wang C., Kyle S., Herazo-Padilla N., Kalahasthi L., Adarme W., Cantillo V., Yoshizaki H., & Garrido R. (2018) Direct Impacts of Off-Hour Deliveries on Urban Freight Emissions. *Transportation Research Part D: Transport and Environment*, Vol 61, Part A, pp 84-103. <https://doi.org/10.1016/j.trd.2016.10.013>
- J15 Holguín-Veras J., Hodge S., Wojtowicz J., Singh C., Wang C., Jaller M., Aros-Vera F., Ozbay K., Weeks A., Replogle M., Ukegbu C., Ban J., Brom M., Campbell S., Sanchez-Díaz I., González-Calderón C., Kornhauser A., Simon M., McSherry S., Rahman S., **Encarnación T.**, Yang X., Ramirez-Rios D., Kalahashti L., Amaya J., Silas M., Allen B., & Cruz B. (2018) The New York City Off-Hour Delivery Program: A Business and Community-Friendly Sustainability Program. *Interfaces*, 48, 70-86. <https://doi.org/10.1287/inte.2017.0929>

## REFEREED CONFERENCE PROCEEDINGS

- C1 **Encarnación T.** & Wilks C.R. (2023) Role of Expressed Emotion on the Retransmission of Help-Seeking Messages during Disasters, *Proceedings of the 20th Annual Global Conference on Information Systems for Crisis Response and Management – Omaha, Nebraska, USA May 2023*.

## REFEREED BOOK CHAPTERS

- B1 Holguín-Veras J., **Encarnación T.**, Ramirez-Rios D., Amaya J. & Aros-Vera F. (2022) Research Needs in Disaster Response Logistics. In: Soares A. & Childe S.J. (eds) *Handbook of Research Methods on Supply Chain Management*, Edward Elgar Publishing.
- B2 Holguín-Veras J., Ramirez-Rios D., **Encarnación T.**, Gonzalez-Feliu J., Caspersen E., Rivera-Gonzalez C., Gonzalez-Calderon C., & da Silva Lima R. (2019) Metropolitan Economies and the Generation of Freight and Service Activity: An International Perspective. In: Browne M., Behrends S., Woxenius J., Giuliano G., Holguín-Veras J. (eds) *Urban Logistics: Management, Policy and Innovation in a Rapidly Changing Environment*. Kogan, pp. 19-50.
- B3 Holguín-Veras J., Jaller M., Aros-Vera F., Amaya J., **Encarnación T.**, & Wachtendorf T. (2016) Disaster Response Logistics: Chief Findings of Fieldwork Research. In: Zobel C., Altay N., Haselkorn M. (eds) *Advances in Managing Humanitarian Operations*. International Series in Operations Research & Management Science. Springer, pp. 33–57.

# Grants

---

## EXTERNAL FUNDING

- *Optimal Design of Inland Waterway System to Increase Supply Chain Resilience*, Region VII University Transportation Center, U.S. Department of Transportation, Co-Principal Investigator, \$163,976, 06/2024-12/2025.
- *Establishment of a Public-Private Transportation Data Exchange*, Federal Highway Administration, Co-Principal Investigator, \$80,000, 10/2024-09/2028.  
<https://www.pooledfund.org/Details/Solicitation/1614>
- *Optimal Design of Inland Waterway System to Enhance Intermodal Transportation*, Region VII University Transportation Center, U.S. Department of Transportation, Co-Principal Investigator, \$179,976, 06/2023-05/2024. <https://rip.trb.org/View/2342034>
- *Diversifying Student Participation by Mentoring the Next Generation of Researchers in Operations Research and Management Sciences*, National Science Foundation, Principal Investigator, \$81,192, 10/2022-09/2025. [https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=2231718](https://www.nsf.gov/awardsearch/showAward?AWD_ID=2231718)
- *Undergraduate Students Workshop*, INFORMS Diversity, Equity and Inclusion Grants, Principal Investigator, \$5,000, 01/2022-12/2022 and 03/2021-02/2021.

## INTERNAL COMPETITIVE FUNDING

- *Global Fellowship*, UMSL, \$2,850 (04/2025-08/2025) and \$3,600 (04/2023-08/2023).
- *Exploring How Food and Nutrition Insecurity impact Social Vulnerability*, UMSL Research Award, Principal Investigator, \$10,000 (06/2022-05/2023).
- *Travel support to attend Annual Global Conference on Information Systems for Crisis Response and Management*, UMSL Office of Research Advancement, \$800 (100% of total), 01/2023-05/2023.
- *Econometric Estimation of Deprivation Cost Functions for Emergency Medical Services*, UMSL Supplemental Research Award, Principal Investigator, \$1,500 (05/2021-06/2021).
- *International Disaster Related Buying Behaviors in response to COVID-19*, UMSL Global, Principal Investigator, \$5,000 (03/2021-02/2022).

# Presentations

---

## INVITED PRESENTATIONS AND SEMINARS

- 1 *Keynote Speaker*: "Behavioral Responses to Disasters: Implications for Operations Management." Production and Operations Management Society Latin American and Caribbean Conference, Cartagena, Colombia, March 2024.
- 2 *Plenary Speaker*: "The Last Mile Revolution: How E-commerce is Shaping the Future of City Logistics.", First Connections to Sustain Science in Latin America Symposium organized by The National Academies of Sciences, Engineering, and Medicine of the United States, Barranquilla, Colombia, February 2024.

- 3 "Influencing Donation Choice After Disasters via Social Media." Rochester Institute of Technology, Department of Industrial Engineering Seminar, November 2022.
- 4 "Direct Impacts of Off-Hour Deliveries on Urban Freight Emissions." University of California-Davis, Institute for Transportation Studies Seminar, February 2022.
- 5 "Influencing Donation Choice After Disasters via Social Media." The University of Iowa, Department of Electrical and Computer Engineering Seminar, September 2021.
- 6 *Keynote Speaker*: "Research Needs in Disaster Response Logistics.", Mathematical Meeting of the Caribbean, ICMAM, Online, September 2020.
- 7 *Plenary Speaker*: "The New York City Off-Hour Delivery Program: a Business and Community-Friendly Sustainability Program." INFORMS Annual Meeting, Edelman Award Reprise, Houston, TX, November 2017.
- 8 "Direct Impacts of Off-Hour Deliveries on Urban Freight Emissions." Beijing University of Technology, College of Metropolitan Transportation Seminar, September 2016.

## CONFERENCE PRESENTATIONS (Selected)

‡ Indicates undergraduate student coauthor.

- 9 Jaramillo-Rios J.<sup>‡</sup>, **Encarnación T.** "Optimizing Inland Waterway Freight Transport: Challenges and Opportunities." Transportation Research Board (TRB) and Committee on the Marine Transportation System (CMTS) Marine Transportation System Innovation Symposium, Washington, D.C., June 24, 2025.
- 10 Penagos P.<sup>‡</sup>, **Encarnación T.** "Sheltering During the Storm: An Analysis of Decision-Making in Flash Flood Events through the Protective Action Decision Model." Production and Operations Management Society presented at the Annual Conference, Atlanta, GA, May 10, 2025.
- 11 **Encarnación T.**, Calderon O. "Using Normative Appeals to Motivate Sustainable Last-Mile Deliveries: Encouraging Slower Delivery Choices." Presented at the International Conference for Urban Freight Research (INUF), Los Angeles, CA, April 10, 2025.
- 12 **Encarnación T.**, Perez-Guzman S. "Understanding the Acceptance of Autonomous Trucks Among Road Users through a Conceptual Model of Existence Acceptance." Presented at the International Conference for Urban Freight Research (INUF), Los Angeles, CA, April 10, 2025.
- 13 **Encarnación T.**, Jaramillo-Rios J.<sup>‡</sup>, Rendon-Salazar M., Muñoz-Hoyos C., & Gonzalez-Calderon C. "Evaluating the Potential of Crowdsipping for Sustainable Last-Mile Delivery in Emerging Economies: A Case Study of Medellin." Transportation Research Forum presented at the 66th Annual Conference, St. Charles, MO, April 9, 2025.
- 14 Penagos P.<sup>‡</sup>, **Encarnación T.** "Sheltering During the Storm: An Analysis of Decision-Making in Flash Flood Events through the Protective Action Decision Model." Transportation Research Forum presented at the 66th Annual Conference, St. Charles, MO, April 9, 2025.
- 15 Jaramillo-Rios J.<sup>‡</sup>, **Encarnación T.** "Optimizing Inland Waterway Freight Transport: Challenges and Opportunities." Transportation Research Forum presented at the 66th Annual Conference, St. Charles, MO, April 9, 2025.

- 16 Penagos P.<sup>†</sup>, **Encarnación T.** “Sheltering During the Storm: An Analysis of Decision-Making in Flash Flood Events through the Protective Action Decision Model.” Institute for Operations Research and Management Sciences presented at the Annual Meeting, Seattle, WA, October 21, 2024.
- 17 **Encarnación T.**, Amaya J. “Media Coverage of Disasters and its Implications for Precautionary Purchases.” Institute for Operations Research and Management Sciences presented at the Annual Meeting, Seattle, WA, October 20, 2024.
- 18 **Encarnación T.**, Amaya J. “Media Coverage of Disasters and its Implications for Precautionary Purchases.” Production and Operations Management Society presented at the Annual Conference, Minneapolis, MN, April 29, 2024.
- 19 **Encarnación T.**, Ramirez-Rios D. “Applications And Research Avenues For Drone-based Models in Post-disaster Response Logistics.” Production and Operations Management Society presented at the Annual Conference, Minneapolis, MN, April 29, 2024.
- 20 **Encarnación T.** “Challenges and Opportunities for Inland Waterway Freight Transport in the US.” Presented at the UMSL Supply Chain & Analytics Symposium, St. Louis, MO, April 18, 2024.
- 21 **Encarnación T.**, Penagos P.<sup>†</sup>, Gonzalez-Calderon C. “Consumers Intention to Adopt Parcel Lockers as an Alternative for Last-Mile Delivery in Emerging Economies.” Transportation Research Board presented at the 104th Annual Meeting, Washington, DC, January 10, 2024.
- 22 **Encarnación T.**, Ramirez-Rios D. “Applications And Research Avenues For Drone-based Models In Post-disaster Response Logistics.” Institute for Operations Research and Management Sciences presented at the Annual Meeting, Phoenix, AZ, October 15, 2023.
- 23 **Encarnación T.**, Penagos P.<sup>†</sup>, Gonzalez-Calderon C. “Consumers Intention to Adopt Parcel Lockers as an Alternative for Last-Mile Delivery in Emerging Economies.” PANAM presented at the XXII Panamerican Conference in Transportation and Logistics, Guayaquil, Ecuador, August 3, 2023.
- 24 **Encarnación T.**, Li H. “Incorporating Nutrition and Acceptability Considerations in Food Aid Distribution.” Production and Operations Management Society presented at the Annual Conference, Orlando, FL, May 23, 2023.
- 25 **Encarnación T.**, Wilkes C. “The Role of Expressed Emotions in the Retransmission of Help-Seeking Messages during Disasters.” Information Systems for Crisis Management presented at the 20th Annual Meeting, Omaha, NE, May 30, 2023.
- 26 **Encarnación T.** “Spatially Explicit Method to Measure Accessibility to Nutrition.” Transportation Research Forum presented at the 64rd Annual International Meeting of the Transportation Research Forum, Chicago, IL, April 28, 2023.
- 27 Williams B.<sup>‡</sup>, **Encarnación T.** “Precautionary and Opportunistic Purchases during the COVID-19 Pandemic.” University of Missouri-St. Louis presented at the Undergraduate Research Symposium, St. Louis, April 27, 2023.
- 28 Muppalla V.<sup>‡</sup>, **Encarnación T.** “Consumer Perceptions of Risks and Benefits of Sidewalk Autonomous Delivery Robots for Last Mile Deliveries.” University of Missouri System presented at the Undergraduate Research Day at the State of Missouri Capitol, Jefferson City, April 10, 2023.

- 29 **Encarnación T.** "Partnering for Logistics Research in the Developing World." University of Missouri-St. Louis presented at the Global Faculty Fellows Seminar Series, St. Louis, MO, April 10, 2023.
- 30 **Encarnación T.** "Role of Media Coverage on Disaster Donations." Production and Operations Management Society presented at the Annual Conference, Online, April 22, 2022.
- 31 Harter M.<sup>‡</sup>, **Encarnación T.**, Enz M. "Comparative Performance of Food and Nutrition Operations." University of Missouri-St. Louis presented at the Undergraduate research Symposium, St. Louis, MO, April 29, 2022.
- 32 Harter M.<sup>‡</sup>, **Encarnación T.**, Enz M. "Comparative Performance of Food and Nutrition Security Operations." University of Missouri System presented at the Undergraduate Research Day at the State of Missouri Capitol, Jefferson City, April 11, 2022.
- 33 Marte M.<sup>‡</sup>, **Encarnación T.** "Stakeholder Acceptability of Freight Policies to Improve Transport in Tourist Areas." Transportation Research Forum presented at the 63rd Annual International Meeting of the Transportation Research Forum, St. Louis, MO, April 8, 2022.
- 34 Harter M.<sup>‡</sup>, **Encarnación T.**, Enz M. "Comparative Performance of Food and Nutrition Operations." Transportation Research Forum presented at the 63rd Annual International Meeting of the Transportation Research Forum, St. Louis, MO, April 8, 2022.
- 35 Holguin-Veras J., **Encarnación T.**, Perez-Guzman S. "The Role and Potential of Trusted Change Agents and Freight Demand Management in Mitigating Panic Buying' Shortages." Transportation Research Board presented at the 102nd Annual Meeting, Washington, DC, January 9, 2022.
- 36 **Encarnación T.**, Holguin-Veras J., Horne B. "Role of Social Affinity on Media Coverage of Disasters" presented at the Decision Sciences Institute Annual Conference, Virtual, October 1, 2021.
- 37 **Encarnación T.**, Amaya J., Ramirez-Rios D., Holguin-Veras J. "Role of Non-Established Relief Groups in the Aftermath of Hurricanes." presented at the Decision Sciences Institute Annual Conference, Virtual, October 1, 2021.
- 38 **Encarnación T.**, Amaya J. "Impacts of COVID-19 on Grocery Retailers in Emerging Markets." Production and Operations Management Society presented at the Annual Conference, Online, May 4, 2021.
- 39 **Encarnación T.**, Holguin-Veras J., Horne B. "Media Coverage of Disasters: Implications for Disaster Donations." Production and Operations Management Society presented at the Annual Conference, Online, May 3, 2021.
- 40 **Encarnación T.**, Perez-Guzman S., Holguin-Veras J. "Beyond 'Panic Buying': International Investigation of Disaster Related Buying-Behaviors." Production and Operations Management Society presented at the Annual Conference, Online, May 5, 2021.
- 41 Enayati S., Li H., Zsidisin G., **Encarnación T.**, Bernard Bracy J. "Teaching Supply Chain Analytics in an Online Environment" presented at the International Purchasing and Supply Education and Research Association (IPSERA) Conference, Education Workshop, Online, March 29, 2021.
- 42 **Encarnación T.** "Debris Clearance After Disasters." Institute for Operations Research and Management Sciences presented at the Annual Meeting, Online, November 10, 2020.
- 43 Holguin-Veras J., **Encarnación T.** "Impacts of the Covid-19 Pandemic on Purchasing of Critical Supplies." Rensselaer Polytechnic Institute presented at the Webinar Series - Center for Infrastructure, Transportation, and the Environment, Online, July 8, 2020.

- 44 **Encarnación, T.** “Influencing Donation Choice in Social Networks After Disasters.” Institute for Operations Research and Management Sciences, Annual Meeting, Seattle, WA, October 23, 2019.
- 45 **Encarnación, T.,** Holguin-Veras, J. “Estimating Fuel Consumption and Pollution of Freight Activities from GPS.” International Conference for Urban Freight Research (INUF), Long Beach, CA, October 20, 2019.
- 46 Holguin-Veras, J., **Encarnación, T.,** Perez-Guzman, S., Yang, X. “Mechanistic Identification of Freight Activity Stops from GPS.” Transportation Research Board, 98th Annual Meeting, Washington, DC, January 14, 2019.
- 47 **Encarnación, T.,** Ramirez-Rios, D., Amaya, J., Holguin-Veras, J. “Role of Non-Established Relief Groups in the Aftermath of Hurricanes.” Institute for Operations Research and Management Sciences, Annual Meeting, Phoenix, AZ, November 4, 2018.
- 48 **Encarnación, T.,** Ramirez-Rios, D., Amaya, J., Holguin-Veras, J. “Role of Non-Established Relief Groups in the Aftermath of Hurricanes.” Production and Operations Management Society, Annual Conference, Houston, TX, May 5, 2018.
- 49 **Encarnación, T.,** Holguin-Veras, J. “Optimal Access Restoration in Post-Disaster Environments.” Institute for Operations Research and Management Sciences, Annual Meeting, Houston, TX, October 23, 2017.
- 50 **Encarnación, T.,** Holguin-Veras, J. “Impacts of Congestion in Supply Chains.” International Conference for Urban Freight Research (INUF), Long Beach, CA, October 19, 2017.
- 51 Holguin-Veras, J., **Encarnación, T.** “Direct Impacts of Off-Hour Deliveries on Urban Freight Emissions.” International Conference for Urban Freight Research (INUF), Long Beach, CA, October 19, 2017.
- 52 **Encarnación, T.** “Freight Rail Rate Optimization using Bid-Response Models.” Institute for Operations Research and Management Sciences, Business Analytics Conference, Las Vegas, NV, April 5, 2017.
- 53 **Encarnación, T.,** Wojtowicz, J., Holguin-Veras, J. “Optimal Access Restoration in Post-Disaster Environments.” Transportation Research Board, 96th Annual Meeting, Washington, DC, January 12, 2017.
- 54 **Encarnación, T.,** Gonzalez-Calderon, C., Kyle, S., Holguin-Veras, J. “Direct Impacts of Off-Hour Deliveries on Urban Freight Emissions.” Transportation Research Board, 96th Annual Meeting, Washington, DC, January 9, 2017.
- 55 **Encarnación, T.,** Holguin-Veras, J. “Freight Microsimulation: Modeling Parking Behavior in New York City.” Institute for Operations Research and Management Sciences, Annual Meeting, Nashville, TN, November 15, 2016.
- 56 **Encarnación, T.,** Holguin-Veras, J. “Material Convergence and Willingness to Change: An Empirical Investigation.” Production and Operations Management Society, Annual Conference, Orlando, FL, May 6, 2016.



# Teaching

---

## TEACHING EXPERIENCE

### University of Missouri-St. Louis (2-2 teaching load)

*SCMA 7382 Empirical Research Methods (PhD)*

- Spring 2024. Average Rating: 3.93/4.
- Newly developed course focused on research design and econometric methods.

*SCMA 5320 Supply Chain Operations Management (G)*

- Fall 2022. Average Rating: 6.7/7.
- Spring 2023–Spring 2025. Average Rating: 3.56/4.
- Redesigned for concurrent on-campus and live-online delivery.

*SCMA 3331 Data Visualization for Business Applications (Ug/G)*

- Fall 2024–Spring 2025. Average Rating: 3.62/4.
- Newly developed course covering PowerBI, R, and ArcGIS for business insights.

*SCMA 3300 Business Analytics and Statistics (Ug)*

- Fall 2020–Fall 2022. Average Rating: 6.21/7.
- Spring 2023. Average Rating: 3.73/4.

## OTHER TEACHING EXPERIENCE

*University of Verona, Italy.*

- MS: Supply Chain Analytics Workshop. Fall 2021-present.

*Tecnológico de Monterrey, Mexico.*

- Undergraduate: Humanitarian Logistics. Spring 2023.

*Escuela Superior Politécnica del Litoral, Ecuador.*

- MS: Analytical Methods for Supply Chain Management. Summer 2024.

# Student Mentoring

---

### Ph.D. Dissertation (Chair)

- Paula Penagos, University of Missouri-St. Louis, Joined Fall 2022.
- Juana Jaramillo-Rios, University of Missouri-St. Louis, Joined Fall 2024.

### Doctor of Business Administration (Dissertation Chair)

- Justin Bennet, University of Missouri-St. Louis, Defended Dissertation May 2025.

### Doctor of Business Administration (Committee Member)

- Basia Skudrzyk, University of Missouri-St. Louis, DQE completed Spring 2025.
- Rebecca Wilson, University of Missouri-St. Louis, DQE completed Fall 2024.

### Graduate Research Supervision

- Rejina Shresta, SCMA, *Fall 2025*; Social Network Modeling.
- Iker Vasquez-Escalante, SCMA, *Spring 2025*; Supply Chain Resilience.
- Dana Alrifai, SCMA, *Summer 2024*; Inland Waterway Freight Transport.
- Jill Bockhorst, SCMA, *Summer 2024*; Willingness to Pay for Smart Food Packaging.

- Aravind Deshini, SCMA, *Fall 2023-Spring 2024*; Inland Waterway Freight Transport.
- Anu Subedi, SCMA, *Fall 2021-Spring 2023*; Social Media Content Analysis.
- Keerthi Vakkalagadda, CS, *Fall 2022*; Disaster Related Buying Behaviors.
- Alissa Oprisoni, MBA, *Spring 2022*; Community Vulnerability Mapping.

### **Undergraduate Research Experience (Served as Primary Faculty Member Supervisor)**

#### **University of Missouri-St. Louis**

- Anthony Bowen, CS, *Summer 2025*; Supply Chain Resilience to Extreme Weather.
- Eliijah Zayne Guzman, SCMA, *Fall 2024*; Mapping Food Deserts.
- Blake Williams, SCMA, *Spring 2023*; Disaster Related Buying Behaviors.
- Vijay Muppalla, CS, *Fall 2022*; Delivery Robots Sentiment Analysis.
- Maya Harter, MKG, *Fall 2021-Spring 2022*; Food Insecurity Data Collection.

#### **Rensselaer Polytechnic Institute**

- Aleisha Vera Ramos, IE, *Fall 2019*; Food Bank Network Design.
- Maria Cristina Contreras, CEE, *Summer 2019 - Fall 2019*; Hurricane Maria Donations.
- Thomas Su, CS, *Summer 2019*; Sentiment Analysis of Disaster Tweets.
- Yutong Gao, CS, *Summer 2019*; Debris Clearance Simulation.
- Jeffrey Ceballos, IS, *Fall 2018-Spring 2019*; Algorithms for GPS Data Processing.
- Leith Schyberg, CEE, *Summer 2018*; Disaster News Analysis.
- Ana Duque, IE, *Spring 2018*; Immediate Needs after Hurricane Maria.
- Ana Nazario, IE, *Spring 2018 - Fall 2018*; Disaster Response Logistics.
- Carlos Power, IT, *Spring 2018 - Fall 2018*; Disaster Response Logistics.
- Jaiden Sakamoto, STS, *Spring 2018 - Fall 2018*; Food Bank Disaster Response.
- Jeffrey Ding, CEE, *Fall 2017 - Spring 2018*; GIS Analysis of Freight Transportation.
- Sofia Jacobs, CEE, *Summer 2017 - Fall 2017*; Logistics Costs of Urban Deliveries.
- Phil Castanares, CEE, *Summer 2017-Spring 2018*; GIS Analysis of Freight Activity.
- Thomas Hirt, IE, *Summer 2017*; Materiel Convergence.
- Maria Kozdroy, CEE, *Spring 2017*; Bangladesh Freight Demand Survey.
- Morgan Avera, CEE, *Summer 2016-Spring 2018*; Freight Mode Choice.
- Fabian Zourel, ME, *Summer 2016*; Semantic Analysis of Disaster News.
- Jonathan Greeman, CEE, *Summer 2015 - Spring 2017*; Freight Parking Simulation.
- Sofia Kyle, CEE, *Spring 2015 - Fall 2015*; Supply Chain Congestion Cost.

## **Service**

---

### **PROFESSIONAL SOCIETY LEADERSHIP**

- 2025-2027: VP of Outreach, POM College of Humanitarian Operations and Crisis Management.
- 2024-2025: Member, TRB Standing Committee on Freight Transportation Economics and Regulation.
- 2024-2025: Member, TRB Standing Committee on Urban Freight Transportation.
- 2024: Member, INFORMS Scholarship and Endowment Committee.
- 2023-2025: Member, INFORMS Magazine Editorial Advisory Board.
- 2022-2023: Member, INFORMS Chapters and Fora Committee.
- 2021-2024: Communications Co-Chair, Panamerican Society for Transport Research (PANAM).
- 2021-2023: Member, Steering Committee, Big Math Network.
- 2020-2022: Secretary, POM College of Humanitarian Operations and Crisis Management.

2020-2021: Vice President of Programs, Minority Issues Forum, INFORMS.  
2018-2019: Junior Vice President of Programs, Minority Issues Forum, INFORMS.

## **GRANT REVIEW PANELS**

2024-Present: Panelist, TRB NCHRP: Generative AI Models for Transportation Planning.  
2024: Panelist, NSF Predictive Intelligence for Pandemic Prevention Centers.  
2024: Panelist, NSF Center for Equity in Engineering Site Visit.  
2023: Panelist, NSF Smart and Connected Communities.  
2022: Panelist, NSF Strengthening American Infrastructure.  
2022: Panelist, NSF Predictive Intelligence for Pandemic Prevention.  
2022: Panelist, NSF Human Disasters and the Built Environment Program.  
2021-2022: Panelist, TRB NCHRP Synthesis: Social Media Data for Emergency Preparedness.  
2020: Ad-Hoc Grant Reviewer, NSF Decision, Risk and Management Sciences Program.  
2018-2021: Panelist, TRB Behavioral Traffic Safety Cooperative Research Program.

## **AD-HOC JOURNAL REFEREE**

Journal of Business Logistics; Journal of Operations Management; Journal of Networks and Spatial Economics; Transportation Research Part A: Policy and Practice; Transportation Research Part D: Transport and Environment; Transportation Research Part E: Logistics and Transportation Review; Transportation Research Record; Transportation Research Interdisciplinary Perspectives; Socio-Economic Planning Sciences; Journal of Humanitarian Logistics and Supply Chain Management.

## **AWARD COMMITTEES**

2025: Chair, POMS Nada Sanders Emerging Economies Dissertation Award.  
2024: Member, POMS Nada Sanders Emerging Economies Dissertation Award.  
2024: Member, INFORMS Public Sector Operations Research Best Video Award.  
2022: Chair, INFORMS Undergraduate Operations Research Prize.  
2021: Member, INFORMS Undergraduate Operations Research Prize.  
2020,2021: Member, INFORMS Analytics Women in Operations Research Scholarship.

## **CONFERENCE ORGANIZATION**

2026: Track Chair, Humanitarian Operations and Crisis Management, POM.  
2023: Track Chair, Humanitarian Operations and Crisis Management, POM.  
2023: Organizing Committee, Pan-American Conference on Transport and Logistics Research.  
2023: Moderator and Discussant, Transportation Research Forum Annual Meeting.  
2021-2025: Chair, INFORMS Minority Undergraduate Students Day.  
2021-2023: Organizer, Big-Math Network Industry Connections Webinar Series.  
2022: Track Chair, Practice Section, POM.  
2021: Track Chair, Humanitarian Operations and Crisis Management, POM.  
2021: Organizing Committee, Pan-American Conference on Transport and Logistics Research.  
2018-2021: Track Chair, Minority Issues Forum, INFORMS.  
2018: Session Chair, Public Sector OR, INFORMS.  
2017: Session Chair, Transportation Science and Logistics Society, INFORMS.  
2017: Moderator, TRB Urban Freight Transportation Committee Problem Statement Session.  
2016: Session Chair, Transportation Science and Logistics Society, INFORMS.  
2014: Organizing Committee, Workshop on Humanitarian Logistics Research, NSF.  
2014: Organizer, Workshop on Disaster Response Logistics, CITE, Rensselaer.

## UNIVERSITY SERVICE

### University of Missouri-St. Louis

- 2025-Present: Member, Institutional Review Board.
- 2025: Member, Search Committee, Civil Engineering Program Coordinator.
- 2025: Member, Search Committee, Mechanical Engineering Program Coordinator.
- 2025: Member, Search Committee, Electrical Engineering Program Coordinator.
- 2023-Present: Member, Executive Cabinet, Missouri Center for Transportation Innovation.
- 2023: Panelist, Preparing for On-Site Visits, Certificate in University Teaching.
- 2022: Panelist, New Faculty Orientation, Center for Teaching and Learning.

### College of Business Administration, UMSL

- 2025-Present: Chair, IRB Committee.
- 2022-2025: Member, IRB Committee.

### Supply Chain & Analytics Department, UMSL

- 2022-Present: Member, Ph.D. Committee.
- 2022-Present: Liaison, Industry Advisory Board Research Committee.
- 2022-Present: Organizing Committee, Annual Supply Chain Symposium.

## OUTREACH TALKS AND ENGAGEMENTS

- Seminar Speaker, *Supply Chain and Logistics Careers*, Transportation Summer Camp, University of Missouri–Kansas City (2025).
- Co-Organizer, *From Factories to Front Doors: Exploring the World of Supply Chains*, Girls Inc. Mini MBA, University of Missouri–St. Louis (2024-2025).
- Organizer, *Disaster Supply Chain Simulation*, BRIDGE Summer Academy, University of Missouri–St. Louis (2024).
- Seminar Speaker, *Finding Community after Graduation*, Howard University (2024).
- Seminar Speaker, *Goal Setting and Failure*, University of Texas–Arlington (2023).
- Panelist, *Diversity, Equity, and Inclusion Ambassadors*, Institute for Operations Research and the Management Sciences (2022).
- Panelist, *Supply Chain Research*, Moonshot Labs, National Geospatial-Intelligence Agency (2022).
- Panelist, *Countless Possibilities: Discussion with Minority Women in OR/MS*, INFORMS (2021).
- Panelist, *Diversity, Equity, and Inclusion Ambassadors*, INFORMS (2021).
- Panelist, *International Graduate Students Orientation*, Rensselaer Polytechnic Institute (2019).
- Panelist, *Delve into Engineering*, event for high-achieving high school juniors, Rensselaer Polytechnic Institute (2018).
- Panelist, *Design Your Future Day*, High school girls in STEM, Rensselaer Polytechnic Institute (2018).
- Panelist, *Webinar for Graduate Women in STEM*, Rensselaer Polytechnic Institute (2018).

## SELECTED PRESS COVERAGE

- St. Louis Magazine, *How a presidential disaster declaration unlocks recovery resources beyond just FEMA*, June 2025. [Link](#)
- Last Mile Prophets Podcast, *A recent US consumer survey found that the least preferred alternative for online shoppers is to pick up their orders at parcel lockers*, April 2025. [Link](#)
- UMSL Magazine, *From flash floods to four-day school weeks, UMSL's Geospatial Collaborative is influencing research across campus*, November 2024. [Link](#)
- Fox2Now, *St. Louis braces for potential national railroad strike*, September 2022. [Link](#)
- TEDx Talk, *Donate what really matters*, August 2019. [Link](#)