

Education

- Ph.D., Civil Engineering—Transportation Infrastructure Systems, The University of Texas at El Paso, 2010
- M.S., Civil Engineering—Transportation Engineering, University of Southern California, 2003
- B.S., Civil Engineering, National Polytechnic Institute, Mexico City, 1998

Summary of Experience

Dr. Galicia is an Associate Research Scientist at the Texas A&M Transportation Institute's (TTI) Dallas Urban Office. In this role, he has managed and led multiple projects that explored low-cost alternatives to integrate regional travel patterns into regional mobility demand for passenger cars, trucks, transit, bicycles, and pedestrians. His research projects focus on regional and urban planning, specifically for travel demand models, transit, and multimodal systems.

Dr. Galicia is a former member of the Transportation Research Board (TRB) AP015 Committee on Transit Capacity and Quality of Service since 2016. He has contributed with his research to recently published Transit Cooperative Research Program (TCRP) projects such as “Decision-Making Toolbox to Plan and Manage Park-And-Ride Facilities for Public Transportation. A Guidebook on Planning and Managing Park-And-Ride”, “Pedestrian and Bicycle Safety in Bus Rapid Transit and High-Priority Bus Corridors”, and most recently he collaborated in the Microtransit Transit Capacity and Quality of Service Manual, Fourth Edition where Dr. Galicia contributed to the Quality of Service Parameters for Microtransit Service section of a chapter, as well as the review of the park-and-ride catchment, are content and methods.

In addition, Dr. Galicia contributes to research findings in alternative transportation modes and technology applications to support regional multimodal plans. He has adapted these methods and alternatives specifically for the Binational (MEX-U.S.) Paso del Norte Region and San Diego Tijuana and studies involving the U.S.-Canada border. He also has plenty of experience in Geographic Information Systems for Transportation (GIS-T). Dr. Galicia's skills in transportation-related software include ArcMap Desktop, ArcGIS PRO, ArcGIS Online, TransCAD, Trans-Modeler, T-BEST, TRANUS, VISSIM, and Synchro.

Before joining TTI, Dr. Galicia worked for two years at the Border Intermodal Gateway Transportation Laboratory at UTEP where he developed guidelines for the improvement of transit and mass transit systems along existing corridors in the State of Texas. In the private sector, Dr. Galicia worked for a year for Calymayor and Associates (C&M), a multinational consulting firm, where he led projects concerning toll road forecasting, infrastructure management, and travel demand modeling. His teaching experience includes the National Polytechnic Institute (associate professor) in Mexico City, the University of Pristina in Kosovo (lecturer), and the University of Texas at El Paso (adjunct lecturer).

Selected Relevant Project Experience

Paso del Norte Region:

- Development of a Bi-National Dynamic Traffic Assignment Model for the El Paso/Juarez Region. State of Texas.
- Needs Assessment and Peer Review for A Regional Fare Structure and Payment (Sponsored by Helping Obtain Prosperity for Everyone Program – HOPE). Federal Transit Administration
- Intelligent Regional Transit Planning Model for The El Paso Borderplex. Sponsored by the Center of International Intelligent Transportation Research (CIITR).
- Measuring Pedestrian Border Crossing Time Through Advanced AI Modeling. State of Texas. CIITR
- Transit Capacity and Quality of Service Issues at Border Regions. CIITR
- Dynamic Travel Demand Management for Non-Recurring Extreme Events. CIITR
- Developing Guidelines and Best Practices for Shelter Locations along Rural Transit Routes. Sponsored by El Paso County. (EPC).
- Best Practices and Guidelines for El Paso County (Texas) Rural Public Transportation to Identify Potential Stop Locations and Route Configurations. EPC.
- Implement Research in Alternative Transportation Modes and Technology Applications for Multimodal Planning. Sponsored by El Paso Metropolitan Planning Organization.
- Development of A Fare Optimization Methodology for Rural Transit in El Paso County. EPC.
- El Paso Transit Corridor Alternative Analysis. Sponsored by the City of El Paso.
- Congestion Mitigation /Air Quality Analysis for Multiple Regional Agencies (Sun Metro, TxDOT, City of El Paso, El Paso County, and South-Central Regional Transit District (NM).
- Implement Research in Alternative Transportation Modes and Technology Applications for Multimodal Planning in El Paso Region

Texas Department of Transportation:

- Evaluation and Development of Advanced Traffic Management Systems. TxDOT Dallas District.
- Safety Planning and Analysis for Traffic Operations. TxDOT Dallas District.
- Technology Testing and Transfer, Coordination and Planning Support for Bicycle Infrastructure Improvements in El Paso District. TxDOT El Paso District.
- Air Quality Analysis for various CMAQ Regional Projects. TxDOT El Paso District.
- Addressing Bicyclist Safety through the Development of Crash Modification Factors for Bikeway Facilities. TxDOT El Paso District.
- Developing a Risk-Based Revenue Analysis and Optimization Model for the Loop 375 Border Highway West. TxDOT El Paso District.

TCRP - TRB

- Transit Capacity and Quality of Service Manual, 4th Edition.
- Accessible Public Bus and Rail Passenger Information for Riders with Vision Disabilities.
- Pedestrian and Bicycle Safety in Bus Rapid Transit and High-Priority Bus Corridors.

- Decision-Making Toolbox to Plan and Manage Park-And-Ride Facilities for Public Transportation. A Guidebook on Planning and Managing Park-And-Ride.
- SG-20: Performance Metrics in Third-Party Contracts for Fixed Route.
- Synthesis of Information Related to Transit Practices Topic SA-54 Pedestrian and Bicycle Safety in Bus/BRT Corridors.

Other International Projects:

- Transit Capacity and Quality of Service Issues at Border Regions – U.S.-Canada and U.S.-Mexico (Center for International Intelligent Transportation Research - CIITR).
- California-Baja California 2021 Border Master Plan (SANDAG-SCT).
- Characterization of Activity Profiles for Cross-Border Transit Buses. Texas Commission on Environmental Quality (TCEQ) and the US Environmental Protection Agency (EPA).
- Review of the Binational Traffic and Revenue Study (SR 11/Otay Mesa East Port of Entry Model) San Diego CA- Tijuana BCA (Sponsored by SANDAG-SCT).
- Creation of a GIS-based Master Network for the Paso Del Norte Region (Ciudad Juarez (Mexico), El Paso (Texas), and Las Cruces (New Mexico) (Sponsored by Center for International Intelligent Transportation Research).
- Road Design Training at the University of Pristina in Kosovo (Sponsored by USAID).
- Analysis Framework for Cross-Border Mass Transit Viability in El Paso, Texas and Ciudad Juarez, Mexico (Center for International Intelligent Transportation Research).
- Development of a Methodology to Estimate Transport Sector Indicators (Sponsored by the Inter-American Development Bank).
- Greening Transportation at North American Land Ports of Entry. Sponsored by the Commission for Environmental Cooperation (CEC).

Affiliations

- Panel Member, TCRP (A51) Innovative Practices for Technology Implementation at Rural, Small, and Mid-Sized Transit Agencies
- Former Member (2016-2025), Transportation Research Board (TRB), AP0 15 Transit Capacity and Quality of Service Committee
- Member, Institute of Transportation Engineers (ITE)
- Registered Professional Engineer in Mexico (No. 3195896, 2000)
- Member and 2009 Executive Leadership Fellow, International Road Federation (IRF)

Awards

- Outstanding Student, Texas Institute of Transportation Engineers (TxITE). 2007
- Bronze medal, International Mondialogo Engineering Award by Daimler and UNESCO. 2009

Relevant Employment History

Dates	Position(s)	Company
2022 – Present	Research Scientist	Texas A&M Transportation Institute
2022	Adjunct Professor	The University of Texas at El Paso
2019 – 2022	Associate Research Scientist	Texas A&M Transportation Institute
2011 - 2019	Assistant Research Scientist	Texas A&M Transportation Institute
2008 – 2010	Graduate Research Assistant	Texas A&M Transportation Institute
2006 – 2008	Graduate Research Assistant	The University of Texas at El Paso
2005	Design Engineer	CGS and Associates. Mexico City
2004 – 2005	Transportation Project Leader	C&M and Associates. Mexico City
1999 – 2005	Associate Professor	National Polytechnic Institute. Mexico City

Selected Publications

- Galicia, L.D. and Vargas E. "Transit Capacity and Quality of Service Issues at North American Border Regions." Transportation Research Board Annual Meeting 2024. TRBAM-24-06223.
- Hudson, J.G., Wang, J., Blume, K., Galicia, L.D., Simek, C., Farooq, B., Zhang, H. "Pedestrian and Bicycle Safety in Bus Rapid Transit and High-Priority Bus Corridors." TCRP (Synthesis 169)
- Galicia, L. D. and Mudgal A. (2019), "Optimal Rural Transit Fare Estimation Using Ridership and Air Quality Data". Transportation Research Board Annual Meeting 2019. Paper # 19-01656.
- Cherrington, L., Brooks, J., Cardenas, J., Elgart, Z., Galicia, L.D., Hansen, T., Miller, K., Walk, M., Ryus, P., Semler, C. Coffel, Kathryn. (2017) "Decision-Making Toolbox to Plan and Manage Park-and-Ride Facilities for Public Transportation: Guidebook on Planning and Managing Park-and-Ride." TCRP Research Report. Transportation Research Board of the National Academies. Washington, D.C., ISBN: 9780309446396
- Sharma, S., Galicia, L. D., Susen, J., and Cornejo L. E. (2017) "Employing big data analytics to monitor transportation impacts in El Paso during Pope's visit to the US-Mexico border City of Juárez," International Journal of Transportation Science and Technology, vol. 6, pp. 127-142, 2017.
- Galicia, L. D. and Cheu, R. L. (2013), "Geographic Information System-System Dynamics Procedure for Bus Rapid Transit Ridership Estimation." Journal of Advance Transportation DOI: 10.1002/atr.1188. Article first published online: April 23rd, 2012.
- Galicia, L. D., Cheu, R. L., Rajbhandari, R., & Aldrete, R. (2011) "Analysis of Transit Service Coverage Level-of-Service Measures in Border Regions and Suggestion of Alternative Procedure" Transportation Research Record: Journal of the Transportation Research Board, Volume 1 No. 2216, Transportation Research Board of the National Academies. Washington, D.C., 2011, pp.139-147 (Paper #11-3779).
- Galicia, L. D., Cheu, R. L., Machemehl, R. B., & Liu, H. (2009). "Bus Rapid Transit Features and Deployment Phases for U.S. Cities." Journal of Public Transportation, 12(2), 23-38.