

CURRICULUM VITAE

Miguel Andres Figliozi

Assistant Professor

**Department of Civil and Environmental Engineering
Maseeh College of Engineering and Computer Science
Portland State University**

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Education

Ph.D.	University of Maryland College Park	2004
M.S.	University of Texas at Austin	1999
B.S. Summa cum Laude	Universidad Nacional de Córdoba, Argentina	1993

Academic Employment

Assistant Professor, Department of Civil and Environmental Engineering, College of Engineering and Computer Science, Portland State University, Augusts 2007-present

Assistant Professor, Institute of Transport and Logistics, Faculty of Economics & Business, University of Sydney, 2004-2007

Graduate Research Assistant University of Texas at Austin-University of Maryland, 2000-2003

Transportation Analyst, Center for Transportation Research, Austin, Texas, 1998-1999

Graduate Research Assistant University of Texas at Austin, 1996-1998

Selected Academic Honors

- Best Paper Award, “International Conference on Applications of Advanced Technologies in Transportation”, Athens, Greece, May 2008
- Guest Editor to the Special Issue of Transportation Research, part B on “Behavioral Insights into the Modeling of Freight Transportation and Distribution Systems”, Volume 41, Issue 9, 2008
- INFORMS Transportation & Logistics Dissertation Award (Honorable Mention) to the best dissertation in Transportation and Logistics during 2004
- Summa Cum Laude, Universidad Nacional de Córdoba, 1993

Refereed Journal Publications

1. Figliozzi, M.A., An Iterative Route Construction and Improvement Algorithm for the Vehicle Routing Problem with Soft Time Windows, forthcoming 2009 *Transport Research Part C – Advanced Technologies*.
2. Zhang, Z. & Figliozzi, M.A., A Survey of Chinese Importers and Exporters: China’s Logistics Industry Developments and the Impacts of Transportation System Performance on Supply Chain Costs and Operations, forthcoming 2009 *Transport Reviews*.
3. Figliozzi, M.A., The Impacts of Congestion on Commercial Vehicle Tours Characteristics and Costs. Forthcoming 2009 *Transportation Research Part E – Transport and Logistics*.
4. Figliozzi, M.A., Planning Approximations to the average length of vehicle routing problems with time window constraints. *Transportation Research Part B - Methodological*, 2009, 43(4): p. 438-447.
5. Greaves, S. and M. Figliozzi, Urban Commercial Vehicle Tour Data Collection Using Passive GPS Technology: Issues And Potential Applications. *Transportation Research Record* 2049, 2008: p. 158-166.
6. Figliozzi, M.A., Planning Approximations to the Average Length of Vehicle Routing Problems with Varying Customer Demands and Routing Constraints, *Transportation Research Record* 2089, 2008: p. 1-8.

7. Figliozzi, M.A., H.S. Mahmassani, and P. Jaillet, Pricing in Dynamic Vehicle Routing Problems. *Transportation Science*, 2007. 41(3): p. 302.
8. Hensher, D. and M.A. Figliozzi, Behavioural insights into the modelling of freight transportation and distribution systems. *Transportation Research Part B - Methodological*, 2007. 41(9): p. 921-923.
9. Figliozzi, M.A., Analysis of the efficiency of urban commercial vehicle tours: Data collection, methodology, and policy implications. *Transportation Research Part B - Methodological*, 41(9): p. 1014-1032.
10. Figliozzi, M.A., Analysis and Evaluation of Incentive Compatible Dynamic Mechanisms for Carrier Collaboration. *Transportation Research Record* 1966, 2006: p. 34-40.
11. Figliozzi, M.A., H. Mahmassani, and P. Jaillet, Quantifying Opportunity Costs in Sequential Transportation Auctions for Truckload Acquisition. *Transportation Research Record* 1964, 2006: p. 247-252.
12. Figliozzi, M.A., Modeling the Impact of Technological Changes on Urban Commercial Trips by Commercial Activity Routing Type. *Transportation Research Record* 1964, 2006: p. 118-126.
13. Figliozzi, M.A., H. Mahmassani, and P. Jaillet, Auction Settings and Performance of Electronic Marketplaces for Truckload Transportation Services. *Transportation Research Record* 1906, 2005: p. 89-97.
14. Figliozzi, M.A., H. Mahmassani, and P. Jaillet, Competitive Performance Assessment of Dynamic Vehicle Routing Technologies Using Sequential Auctions. *Transportation Research Record* 1882, 2004(1882): p. 10-18.
15. Figliozzi, M.A., H. Mahmassani, and P. Jaillet, Framework for study of carrier strategies in auction-based transportation marketplace. *Transportation Research Record* 1854, 2003(1854): p. 162-170.
16. Figliozzi, M.A., R. Harrison, and J.P. McCray, Estimating Texas-Mexico North American free trade agreement truck volumes. *Transportation Research Record* 1763, 2001(1763): p. 42-47.
17. Figliozzi, M.A., R. Harrison, and J.P. McCray, Using weigh-in-motion data to calibrate trade-derived estimates of Mexican trade truck volumes in Texas. *Transportation Research Record* 1719, 2000(1719): p. 129-135.

Dissertation

“Analysis of Spot Truckload Procurement Markets Using Sequential Auctions”, University of Maryland, College Park, 2004, Advisors: Hani S. Mahmassani and Patrick Jaillet, Committee: Bruce Golden, Ali Haghani, Elise Miller-Hooks

Transportation & Logistics Dissertation Award 2004, Transportation and Logistics Society, Institute for Operations Research and Management Science (INFORMS) – The most prestigious and internationally recognized dissertation award in Transportation and Logistics.

Reviewed Conference Proceedings (Acceptance based on full paper)

1. Figliozzi, M.A., Emissions Vehicle Routing Problem. Proceedings 3rd Annual National Urban Freight Conference, Long Beach, CA. October, 2009.
2. Figliozzi, M.A., Zhang, Z., A Study of Transportation Disruption Causes and Costs: a Case Study from Sydney. Proceedings 3rd Annual National Urban Freight Conference, Long Beach, CA. October, 2009.
3. Wheeler, N., Figliozzi, M.A., Analysis of the Impacts of Congestion on Freight Movements in the Portland Metropolitan Area: A methodology to analyze and estimate the impacts of recurring and non-recurring congestion on commercial vehicles combining GPS, traffic sensor, and incident data , Long Beach, CA. October, 2009.
4. Figliozzi, M.A., Tufte, K., Fletcher, S. A Integration and Visualization Challenges and Opportunities for Online Freight Data Mapping, Proceeding of the 50th Transportation Research Forum, Portland OR USA, March 2009.
5. Figliozzi, M.A., Zhang, Z., A Study of Transportation Disruption Causes and Costs in Containerized Maritime, Proceeding of the 50th Transportation Research Forum, Portland OR USA, March 2009.
6. Figliozzi, M.A., Planning Approximations to the average length of vehicle routing problems with time window constraints. Proceeding of the 88th Transportation Research Board Annual Meeting, Washington DC. USA, January 2009.
7. Figliozzi, M.A., A Route Improvement Algorithm for the Vehicle Routing Problem with Time Dependent Travel Times. Proceeding of the 88th Transportation Research Board Annual Meeting, Washington DC. USA, January 2009.

8. Figliozzi, M.A. & Tufte, K. A Prototype for Freight Data Integration and Visualization using Online Mapping Software: Issues, Applications, and Implications for Data Collection Procedures. Proceeding of the 88th Transportation Research Board Annual Meeting, Washington DC. USA, January 2009.
9. Zhang, Z. & Figliozzi, M.A. A Survey of Chinese Importers and Exporters: China's Logistics Industry Developments and the Impacts of Transportation System Performance on Supply Chain Costs, Proceeding of the 88th Transportation Research Board Annual Meeting, Washington DC. USA, January 2009.
10. Figliozzi, M. An Iterative Route Construction and Improvement Algorithm for the Vehicle Routing Problem with Soft and Hard Time Windows, Applications of Advanced Technologies in Transportation (AATT) Conference Proceedings, Athens, Greece, May 2008.
11. Figliozzi, M.A., Impacts of Congestion on Commercial Vehicle Tours Characteristics and Costs. Proceeding of the 87th Transportation Research Board Annual Meeting, Washington DC. USA, January 2008.
12. Figliozzi, M.A., Planning Approximations to the Average Length of Vehicle Routing Problems with Varying Customer Demands and Routing Constraints. Proceeding of the 87th Transportation Research Board Annual Meeting, Washington DC. USA, January 2008.
13. Greaves, S. and M. Figliozzi, Urban Commercial Vehicle Tour Data Collection Using Passive GPS Technology: Issues And Potential Applications. Proceeding of the 87th Transportation Research Board Annual Meeting, Washington DC. USA, January 2008.
14. Figliozzi, M.A., Impacts of Congestion on Commercial Vehicle Tours Characteristics and Costs. Proceedings 2nd Annual National Urban Freight Conference, Long Beach, CA. December, 2007.
15. Figliozzi, M.A., L. Kingdon, and A. Wilkitzki, Analysis of Freight Tours in a Congested Urban Area Using Disaggregated Data: Characteristics and Data Collection Challenges. Proceedings 2nd Annual National Urban Freight Conference, Long Beach, CA. December, 2007.
16. Figliozzi, M.A., Impact of Commercial Vehicle Tour Types on Vehicle Kilometers Traveled in Urban Areas. Proceeding of the 86th Transportation Research Board Annual Meeting, Washington DC. USA, January 2007.
17. Figliozzi, M.A., L. Kingdon, and A. Wilkitzki, Commercial Vehicle Tours and Road Congestion in Urban Areas: Implications for Carriers' Operations and Public Data Collection and Dissemination Efforts. Proceeding of the 86th Transportation Research Board Annual Meeting, January 2007, Washington DC. USA, 2007.

18. Analysis and Evaluation of Incentive Compatible Dynamic Mechanisms for Carrier Collaboration, Proceeding of the 85th Annual Transportation Research Board Meeting. Washington, D.C., January 2006.
19. Quantifying Opportunity Costs in Sequential Transportation Auctions for Truckload Acquisition, Proceeding of the 85th Annual Transportation Research Board Meeting. Washington, D.C., January 2006.
20. Figliozzi, M.A., Modeling the Impact of Technological Changes on Urban Commercial Trips by Commercial Activity Routing Type. Proceeding of the 85th Annual Transportation Research Board Meeting. Washington, D.C., January 2006.
21. Figliozzi, M.A. A framework to understand the impact of logistics trends and technological changes on truck flows, Proceedings 28th Australasian Transport Research Forum. 2005. Sydney, Australia.
22. Figliozzi, M.A., H. Mahmassani, and P. Jaillet, Auction Settings and Performance of Electronic Marketplaces for Truckload Transportation Services. Proceeding of the 84th Annual Transportation Research Board Meeting. Washington, D.C., January 2005.
23. Figliozzi, M.A., H. Mahmassani, and P. Jaillet, Competitive Performance Assessment of Dynamic Vehicle Routing Technologies Using Sequential Auctions. Proceeding of the 83th Annual Transportation Research Board Meeting. Washington, D.C., January 2004.
24. Figliozzi, M.A., H. Mahmassani, and P. Jaillet. Modeling Carrier Behavior in Sequential Auction Transportation Markets. Proceeding of the 10th International Conference on Travel Behaviour Research (IATBR), August 2003.
25. Figliozzi, M.A., H. Mahmassani, and P. Jaillet, Framework for study of carrier strategies in auction-based transportation marketplace. Proceeding of the 82th Annual Transportation Research Board Meeting. Washington, D.C., January 2003.
26. Figliozzi, M., Mahmassani, H., and Jaillet, P., Modeling Online Transportation Market Performance under Real-Time Carrier Bidding Strategies, Proceeding of the 5th International Conference in Electronic Commerce (ICRC5). Montreal, Canada, 2002.
27. Figliozzi, M., Mahmassani, H., and Jaillet, P., Framework for the Study of Carrier Strategies in an Auction Based Transportation Marketplace, Proceeding of the 81st Annual Transportation Research Board Meeting. Washington D.C., 2002.
28. Harrison, R., Figliozzi, M., and McCray, J., Estimating Texas-Mexico North American Free Trade Agreement Truck Volumes, Proceeding of the 80th Annual Transportation Research Board Meeting. Washington D.C., 2001.

29. Figliozi, M., Harrison, R., and McCray, J., Using Weigh-In-Motion Data To Calibrate Trade-Derived Estimates of Mexican Trade Truck Volumes In Texas, Proceeding of the 79th Annual Transportation Research Board Meeting. Washington D.C., 2000.

Referred Book Chapters

1. Figliozi, M.A., *Freight Travel Behavior*, in Feasibility decisions in Transportation Engineering and Economics", Cappelli and Nocera, Editors., Forthcoming 2010, McGraw-Hill.
2. Figliozi, M.A., H. Mahmassani, and P. Jaillet, *Repeated Auction Games and Learning Dynamics in Electronic Logistics Marketplaces: Complexity, Bounded Rationality, and Regulation through Information*, in Managing Complexity: Insights, Concepts, Applications, D. Helbing, Editor. 2008, Springer: Berlin. p. 137-175.

Reports and Industry Publications

1. Figliozi, M.A., 2008, Fast and effective solution procedures to time-dependent vehicle routing problems in Congested Urban Areas, Final Report, Oregon Transportation Research and Education Consortium, OTREC-RR-08-XX, November 2008.
2. Figliozi, M.A., Bertini, R., 2008, Tufte, K., "Oregon Freight Data Mart", Final Report, Oregon Transportation Research and Education Consortium, OTREC-RR-08-XX, November 2008.
3. Figliozi, M.A., 2008, Development of a Course in Distribution Logistics, Final Report, Oregon Transportation Research and Education Consortium, OTREC-RR-08-XX, November 2008.
4. Figliozi, M.A., 2007, Practical Approximations to Quantify the Impact Of Time Windows and Delivery Sizes on VMT Multi-Stop Tours, Final Report, Oregon Transportation Research and Education Consortium, OTREC-RR-08-XX, November 2008.
5. Damnjanovic, I., Figliozi, M., Mladenovic, G., and Majzelj, T. 2005. Business Operations, Information Technologies and Highway Concessions: Bratstvo-Jedinstvo on Life-Support. Ekonomist, Serbia & Montenegro, 268.
6. Harrison, R. and Figliozi, M. 2001. Impacts Of Containership Size, Service Routes, And Demand On Texas Gulf Port, Center for Transportation Research, The University of Texas at Austin. http://www.utexas.edu/research/ctr/pdf_reports/1833_3.pdf

7. Figliozi, M. and Harrison, R. 2001. Truck Trade Corridors between The U.S. and Mexico. Center for Transportation Research, The University of Texas at Austin. <http://swutc.tamu.edu/Reports/472840-00071-1.pdf>
8. Harrison, R., Figliozi, M., and Walton, C.M. 2000. Mega-Containerships and Mega-Container ports in the Gulf Of Mexico: a Literature Review and Annotated Bibliography. Center for Transportation Research, The University of Texas at Austin. http://www.utexas.edu/research/ctr/pdf_reports/1833_1.pdf
9. Harrison, R., Figliozi, M., Using Weigh-in-Motion Data to Calibrate Trade Derived Estimates of NAFTA Truck Volumes in Texas

Research Grants

GRANTS AS A PI

1. PI, Figliozi, M.A., 2009, *Review and Assessment of Methodologies To Enhance The Oregon Statewide Integrated Model Freight Module*, \$ 53,747.
2. PI, Figliozi, M. A., Lafferriere, G., Bertini, R., Wu-Chi, F., 2009, *A study of headway maintenance for bus routes: causes and effects of "bus bunching" in extensive and congested service areas*, \$ 155,418
3. PI, Figliozi, M. A., 2009, *Modeling the Impact of Traffic Congestion on Urban Freight Costs and Emissions*, \$12,228.
4. PI, Figliozi, M. A., 2009, *Green Fleet Replacement Models*, \$51,682.
5. PI, Figliozi, M.A., 2009, *Performance of Freight Corridors in the Pacific Northwest*, \$ 5,000.
6. PI, Figliozi, M.A., 2008, *Analysis of Travel Time Reliability for Freight Corridors Connecting the Pacific Northwest*, \$ 82,688.
7. PI, Figliozi, M.A., Monsere. C., 2008, *Analyzing and Quantifying the Impact of Congestion on LTL Industry Costs and Performance in the Portland Metropolitan Region*, \$127,971.
8. PI, Figliozi, M. A., 2008, *Freight Distribution Problems in Congested Urban Areas*, \$9,847.
9. PI, Figliozi, M. A., 2008, Travel Grant, Portland State University Professional Travel Grant Award, \$ 1,250.
10. PI, Figliozi, M.A., 2007, *Fast and effective solution procedures to time-dependent vehicle routing problems in Congested Urban Areas*, \$25,935.
11. PI, Figliozi, M.A., Bertini, R., 2007, *Oregon Freight Data Mart*, \$60,000.

12. PI, Figliozi, M.A., 2007, *Practical Approximations to Quantify the Impact Of Time Windows and Delivery Sizes on VMT Multi-Stop Tours*, \$25,934.
13. PI, Figliozi, M.A., 2007, *Development of a Course in Distribution Logistics*, \$10,666.
14. PI, Figliozi, M.A., Greaves S., 2007, *Modeling the Environmental Impacts of Commercial Vehicle Tours and Freight Management Policies in Urban Areas*, \$200,000.
15. PI, Figliozi, M.A., 2007, *Evaluating the Value of Supply Chain Transport Reliability for Sydney-based Importers and Exporters Using Stated Choice Experiments*, \$15,000.
16. PI, Figliozi, M.A., 2006, *Methodologies to Evaluate and Mitigate the Impact of Traffic Congestion in Urban Freight Distribution Systems*, \$17,000.
17. PI, Figliozi, M.A., 2006, *Approximations to the Length of Vehicle Routing Problems in Urban Networks Using Geographical Information Systems*, \$9,000.
18. PI, Figliozi, M.A., 2005, *Evaluating Long Term Modal Split at Sydney Intermodal Yards Using Stated Choice Experiments*, \$13,000.
19. PI, Figliozi, M.A., 2004, *Evaluating the Impact of Advance Information on Real Time Transportation Service Costs*, \$5,000.

GRANTS AS A COLLABORATOR

1. MacArthur, J., Figliozi, M., 2009, *Climate Change Impact Assessment for Surface Transportation in the Pacific Northwest and Alaska*, \$80,483.
2. George, L., Figliozi, M., Monsere, C., *Building Capacity to Investigate the Environmental and Public Health Impacts of Traffic Flows and Traffic Management Policies in Urban Areas*, \$115,011
3. Jay, D. , et al., *The Columbia River Basin Sustainable Water Resources, Energy and Climate Initiative*, \$299,392
4. Bertini, R. PI, Monsere, C., Figliozi, M., *Development, Deployment, and Assessment of a New Educational Paradigm for Transportation Professionals and University Students*
5. Chang, H. PI, Lafrenz, M, Figliozi, M., 2008, *Future Flooding Impacts on Transportation Infrastructure and Traffic Patterns Resulting from Climate Change*, \$87,001.

Professional Service (Selected)

- Advisory Committee, Truck Efficiency and Reduced Idling Study Group, Oregon Department of Environmental Quality
- Member Intermodal Freight Terminal Design and Operations Committee, Transportation Research Board, National Academy of Sciences, 2004 to present.
- Member Transportation Network Modeling Committee, Transportation Research Board, Academy of Sciences, 2008 to present.
- One of six panel committee members chosen to oversee Transportation Research Board - National Academy of Sciences National Freight Cooperative Research Program, NCFRP 15: Understanding Urban Good Movements (2008-2010).
- Manuscript Reviewer for the following journals: Journal of the Operational Research Society , European Journal of Operational Research, Transport Reviews, Transportation Research – Part B - Methodological, Transportation Research – Part C - New Technologies, Transportation Research – Part E - Freight and Logistics, Transportation Science, Australian Economic Review, Transportation Research Record (Network Modeling Committee, Freight Transportation and Logistics Planning Committee, and Intermodal Freight Terminal Design and Operations Committee.
- Member Transportation and Logistics Society, Institute for Operations Research and Management Science (INFORMS), 2002 to present.
- Individual Affiliate, Transportation Research Board, National Academy of Sciences, 2000 to present.