

DR. KARI EDISON WATKINS, PhD, PE
ASSOCIATE PROFESSOR
CIVIL AND ENVIRONMENTAL ENGINEERING
GEORGIA INSTITUTE OF TECHNOLOGY

I. EARNED DEGREES

Doctor of Philosophy in Civil Engineering, University of Washington, June 2011
Dissertation Topic: "Using Technology to Revolutionize Public Transportation".

Master of Science in Civil Engineering, University of Connecticut, June 2003
Thesis Topic: "A Comparison of Bus Rapid Transit and Light Rail Transit in Ten North American Cities".

Bachelor of Civil Engineering, Georgia Institute of Technology, Dec 1997
Graduated with highest honors, Cooperative Student at Georgia Department of Transportation

II. EMPLOYMENT HISTORY

Georgia Institute of Technology, Atlanta, GA

7/2017 - present Associate Professor: Civil & Environmental Engineering
7/2016 - present Frederick Law Olmsted Junior Professor
7/2018 - present Adjunct Appointment: City & Regional Planning
8/2011 - 6/2017 Assistant Professor: Civil & Environmental Engineering

University of Washington, Seattle, WA

9/2007 - 6/2011 PhD Student and Research Assistant: Civil & Environmental Engineering

Wilbur Smith Associates, Seattle, WA and New Haven, CT

8/1998 - 9/2007 Senior Transportation Engineer

URS Greiner, Rocky Hill, CT

1/1998 - 8/1998 Transportation Engineer

Georgia Department of Transportation, Atlanta, GA

1/1994 - 12/1997 Transportation Co-op

III. HONORS AND AWARDS

A. INTERNATIONAL OR NATIONAL AWARDS

[14] Engineering Georgia 100 Women to Know – 2018, 2019

[13] GVU Impact Award - 2017

[12] Council of University Transportation Centers New Faculty Award - 2017

[11] Invited to organize the Japan-American Frontiers of Engineering by the National Academy of Engineers – 2016

- [10] Invited to present at the Euro-American Frontiers of Engineering by the National Academy of Engineers – 2013
- [9] Top 40 under 40, Mass Transit Magazine – 2013
- [8] Invited to attend the Indo-American Frontiers of Engineering by the National Academy of Engineers – 2012
- [7] CUTC Wootan Award for Best Dissertation in Transportation Policy and Planning – 2012
- [6] Women’s Transportation Seminar Puget Sound Chapter Helene Overly Scholarship - 2011
- [5] USDOT Eisenhower Fellowship – 2007-2010
- [4] UTC Student of the Year for TransNOW – 2009
- [3] ENO Foundation Leadership Conference – 2008
- [2] Women’s Transportation Seminar Puget Sound Chapter Helene Overly Scholarship – 2008
- [1] Congress-Bundestag Scholarship – Exchange Student – 1990

B. INSTITUTE OR SCHOOL AWARDS

- [9] CETL / BP Junior Faculty Teaching Award, Georgia Institute of Technology - 2014
- [8] Bill Schutz Junior Faculty Teaching Award, School of Civil & Environmental Engineering – 2013
- [7] University of Washington Valle Fellowship – 2010-2011
- [6] University of Washington ARCS Fellowship – 2007-2010
- [5] WSA Outstanding Contribution Award – 2000 & 2002
- [4] Georgia Tech Goodloe Yancy Scholarship - 1996 & 1997
- [3] Georgia Tech H & H Smitha Scholarship – 1996 & 1997
- [2] Georgia Tech Society of Women Engineers Scholarship - 1995
- [1] Gamma Beta Phi & Chi Epsilon Honor Societies

IV. RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITIES

* = work performed at Georgia Tech, **bold** names are students

A. PUBLISHED BOOKS, BOOK CHAPTERS, AND EDITED VOLUMES

A1. BOOKS

- * [1] Bregman, S. and K. Watkins *Best Practices for Transportation Agency Use of Social Media*. CRC Press, 2013.

A2. REFERRED BOOK CHAPTERS

- * [5] Watkins, K., C. Brakewood, S. Barbeau, and A. Antrim, “Transit Information: From Maps to Apps and More” in Handbook of Public Transport Research by G. Currie, Edward Elgar Publishing, submitted to editor December 2019
- * [4] Borning, A. and K. Watkins, “The Land Use, Transportation, and Environmental Projects”, in Value Sensitive Design: Shaping Ways of Being with Technology by B. Friedman and D. Hendry, MIT Press, 2019

- * [3] **Ederer, D.** and K. Watkins, “Case Study 1.1 Sustainable Safety – The Dutch Approach to Transportation Infrastructure” in *Bicycling for Transportation: An Evidence Base for Communities* by M. Bopp, D. Sims and D. Piatkowski, Elsevier, 2018
- * [2] **Brakewood, C.** and K. Watkins, “A Method for Conducting Before-After Analyses of Transit Use by Linking Smart Card Data and Survey Responses” in *Public Transport Planning with Smart Card Data*, edited by F. Kurauchi and J. Schmocker, CRC Press, 2016
- * [1] LeDantec, C., C. Appleton, **M. Asad**, R. Rosenberger, and K. Watkins, “Advocating Through Data: Community Visibility Through Crowdsourced Cycling Data.” In *Bicycle Justice and Urban Transformation: Biking for All?*, edited by A. Golub, M. Hoffmann, A. Lugo, and G. Sandoval, Routledge Press, 2016

B. REFEREED PUBLICATIONS AND SUBMITTED ARTICLES

B1. Published and Accepted Journal Articles

- * [33] Garber, M., K. Watkins and M. Kramer, “Comparing bicyclists who use smartphone apps to record rides with those who do not: implications for representativeness and selection bias”, *Journal of Transport & Health*, Vol. 15, 2019.
- * [32] **Ederer, D., S. Berrebi, C. Diffie, T. Gibbs**, K. Watkins, “Comparing Transit Agency Peer Groups using Cluster Analysis”, *Transportation Research Record*, Vol. 2673, 2019
- * [31] **Clark, C.**, P. Mokhtarian, G. Circella, K. Watkins, “User Preferences for Bicycle Infrastructure in Communities with Emerging Cycling Cultures”, *Transportation Research Record*, online 2019
- * [30] Grossman, A. M. Rodgers, Y. Xu, R. Guensler, K. Watkins, “If Safety Matters, Let’s Measure It: Nationwide Survey Results for Bicycle and Pedestrian Treatment Planning and Prioritization”, *ASCE Journal of Transportation Engineering Part A: Systems*, Vol. 145, Is. 1, 2019.
- * [29] **Bearn, C., C. Mingus**, and K. Watkins, “An Adaption of the Level of Traffic Stress Based on Evidence from the Literature and Widely Available Data”, *Research in Transportation Business and Management*, Vol. 29, Pg. 50-62, 2018
- * [28] Watkins, K., “Using Value Sensitive Design to Understand Transportation Choices and Envision a Future Transportation System”, *Ethics and Information Technology*, 2018.
- * [27] **Brakewood, C.**, and K. Watkins, “A Literature Review of the Passenger Benefits of Real-time Transit Information”, *Transport Reviews*, 2018.
- * [26] **Berrebi, S.**, S. Crudden, and K. Watkins, “Translating Research to Practice: Implementing Real-time Control on High-Frequency Transit Routes” *Transportation Research Part A*, Vol. 111, pg. 213-226, 2018.
- * [25] Watkins, K. “Does the Future of Mobility Depend on Public Transportation?”, *Journal of Public Transportation*, Vol. 21: 1, pp. 53-59, 2018.
- * [24] **Misra, A.** and K. Watkins, “Modelling Cyclist Route Choice Using Revealed Preference Data – An Age and Gender Perspective”, *Transportation Research Record*, Vol 2672: 3, 2018.
- * [23] **Berrebi, S.**, E. Hans, N. Chiabaut, J. Laval, L. Leclercq, and K. Watkins, “Comparing Bus Holding Methods using Real-Time Predictions”, *Transportation Research Part C*, Vol. 87, pg. 197-211, 2018.
- * [22] **DiGioia, J.**, K. Watkins, M. Rodgers, R. Guensler, “Safety Impacts of Bicycle Infrastructure: A Critical Review”, *Journal of Safety Research*, Vol. 61, pp. 105-119, 2017.

- * [21] Watkins, K. and **C. Brakewood**, “Research Pays Off: Assessing the Impacts of Real-time Transit Information”, *Transportation Research News*, 2016
- * [20] **Babb, A.** and K. Watkins, “Complete Streets Policies and Public Transit”, *Transportation Research Record #2543*, 2016.
- * [19] **Berrebi, S.**, K. Watkins, and J. Laval, “A Real-Time Bus Dispatching Policy to Minimize Headway Variance”, *Transportation Research Part B*, Vol. 81, pp. 377-389, 2015.
- * [18] **Brakewood, C.**, G. Macfarlane, and K. Watkins, “The Impact of Real-time Information on Bus Ridership in New York City”, *Transportation Research Part C*, Vol. 53, pp. 59-75, 2015.
- * [17] **Brakewood, C.**, F. Rojas, C. Zegras, K. Watkins, and J. Robin. “An Analysis of Real-time Commuter Rail Information in Boston” *Journal of Public Transportation*, Vol. 18, No. 1, 2015.
- * [16] Barbeau, S., A. Borning and K. Watkins, “OneBusAway Multi-region – Rapidly Expanding Mobile Transit Apps to New Cities” *Journal of Public Transportation*, Vol. 17, No. 4, 2014.
- * [15] **Brakewood, C.**, S. Barbeau and K. Watkins, “An experiment validating the impacts of transit information on bus riders in Tampa, Florida”, *Transportation Research Part A*, Vol. 69, pp. 409-422, 2014.
- * [14] **Windmiller, S.**, T. Hennessy and K. Watkins, “Accessibility of Communication Technology and the Rider Experience: Case Study of St. Louis Metro” *Transportation Research Record #2415*, pp. 118-126, 2014.
- * [13] **Misra, A., A. Gooze, K. Watkins, M. Asad** and C. LeDantec. “Crowdsourcing and Its Application to Transportation Planning” *Transportation Research Record #2414*, pp. 1-8, 2014.
- * [12] **Wall, T., G. Macfarlane** and K. Watkins, “Exploring the use of egocentric online social network data to characterize individual air travel behavior”, *Transportation Research Record #2400*, pp. 78-86, 2014.
- [11] Watkins, K. and H. Wolff “Speeding Behavior and Gasoline Prices using Hourly Washington State Data”, *Transportation Research Record #2375*, pp. 29-36, 2013.
- * [10] **Edwards, D.** and K. Watkins, “Comparing Fixed-Route and Demand-Responsive Feeder Transit Systems in Real-World Settings”, *Transportation Research Record #2352*, pp.128-135, 2013.
- * [9] **Gooze, A.**, K. Watkins and A. Borning. “Benefits of Real-Time Transit Information and Impacts of Data Accuracy on Rider Experience”, *Transportation Research Record #2351*, pp. 95-103, 2013.
- [8] Watkins, K., A. Borning, G. S. Rutherford, B. Ferris and B. Gill. “Attitudes of Bus Operators Towards Real-time Transit Information Tools.” *Transportation*, Vol. 40, No. 5, 2013.
- [7] Watkins, K. “Book Review of Human transit: How clearer thinking about public transit can enrich our communities and our lives, by Jarrett Walker” *Journal of Transportation and Land Use*, Vol 5, No 3, 2012.
- [6] Watkins, K., B. Ferris, A. Borning, G. S. Rutherford and D. Layton. “Where Is My Bus? Impact of mobile real-time information on the perceived and actual wait time of transit riders.” *Transportation Research Part A*, Vol. 45, No. 8, pp.839-848, Oct 2011.
- [5] Wu, Y., M. Hallenbeck, Y. Wang and K. Watkins. “Evaluation of Arterial and Freeway Interaction for Determining the Feasibility of Traffic Diversion.” *Journal of Transportation Engineering*, American Society of Civil Engineers, Vol. 137, No. 8, 2011.
- [4] Watkins, K., B. Ferris, and G. S. Rutherford. “Explore: An Attraction Search Tool for Transit Trip Planning.” *Journal of Public Transportation*, Vol. 13, No. 4, pp. 111-128, 2010.

- [3] Schramm, L., K. Watkins, and G. S. Rutherford. "Amenities That Effect Variability of Travel Time on BRT Systems." *Transportation Research Record #2143*, pp. 77-84, 2010.
- [2] Ferris, B., K. Watkins, and A. Borning. "Location-Aware Tools for Improving Public Transit Usability." *IEEE Pervasive Computing*, Vol. 9, No. 1, pp. 13-19, Jan-Mar 2010.
- [1] Watkins, K., T. Sorenson, and N. Garrick. "Platform Layout for the New Britain – Hartford Busway." *Transportation Research Record # 1791*, Transportation Research Board, 2002.

B2. Conference Presentation with Proceedings (Refereed)

- * [65] Martinez, Y., F. Delgado, J. C. Muñoz, and K. Watkins, "Understanding What Elements Influence a Bus Driver to Use Headway Regularity Tools: A Case Study of the Santiago Public Transit System" *Transportation Research Board 2020 Annual Meeting*
- * [64] **Kiriazes, R.**, K. Watkins, A. Guin, M. Hunter, "Impact of Smartphone Applications on Trip Routing" *Transportation Research Board 2020 Annual Meeting*
- * [63] **Schaffer, K., A. Gadsby, S. J. Lowentritt**, C. Le Dantec, M. Rodgers, K. Watkins, "Measuring Temporal and Spatial Exposure of Urban Cyclists to Air Pollutants Using an Instrumented Bike" *Transportation Research Board 2020 Annual Meeting*
- * [62] **Clark, C.**, P. Mokhtarian, G. Circella, K. Watkins, "The Role of Attitudes in Perceptions of Bicycle Facilities: A Latent-Class Regression Approach" *Transportation Research Board 2020 Annual Meeting*
- * [61] **Ederer, D.**, M. Rodgers, M. Hunter, and K. Watkins, "Probe-Speed Based Safety Performance Metrics in Georgia: A Case Study Highway Safety Performance Research" *Transportation Research Board 2020 Annual Meeting*
- * [60] Berrebi, S. and K. Watkins, "Who's Ditching the Bus" *Transportation Research Board 2020 Annual Meeting*
- * [59] Berrebi, S., **T. Gibbs, S. Joshi**, and K. Watkins, "On Ridership and Frequency" *Transportation Research Board 2020 Annual Meeting*
- * [58] **Borsch, A.**, C. Ross, and K. Watkins, "Analyzing the Difference Between Bikeshare Trips Made on Regular and Electric Bicycles" *Transportation Research Board 2020 Annual Meeting*
- * [57] Shaw, F. X. Wang, P. Mokhtarian, and K. Watkins, "Targeted Marketing Data as a Transportation Data Source: Applications, Integration, and Validation" *Transportation Research Board 2020 Annual Meeting*
- * [56] **Ederer, D.** and K. Watkins, "Using Synthetic Controls with Interactive Fixed Effects to Examine Changes in Vehicle Speed Related to New York City's Vision Zero Program" *Transportation Research Board Health and Active Transportation Workshop*, Dec 2019
- * [55] **Schaffer, K.** and K. Watkins, "Measuring Temporal and Spatial Exposure of Urban Cyclists to Air Pollutants Using an Instrumented Bicycle, *Transportation Research Board Health and Active Transportation Workshop*, Dec 2019
- * [54] **Clark, C.**, P. Mokhtarian, and K. Watkins "The role of bicycle infrastructure in perception of improved bicycle safety and bicycling rates", *International Cycling Safety Conference*, Brisbane, Australia, Nov 2019.
- * [53] Watkins, K. "User Preferences for Bicycle Infrastructure in Communities with Emerging Cycling Cultures", *Cycling Research Board*, Delft, Netherlands, Oct 2019

- * [52] **A. Gadsby, K. Schaffer, N. Alton**, K. Watkins, and C. LeDantec, “Influence of Bike Infrastructure on Cyclist Air Pollution Exposure”, *Transportation, Air Quality, and Health Symposium*, Austin, Texas, February 2019
- * [51] **Alton, N.**, S. Narayanan, **A. Gadsby**, C. LeDantec, K. Watkins, “Feasibility of Low-cost Air Quality Sensors for Mobile Emissions Analysis”, *Transportation, Air Quality, and Health Symposium*, Austin, Texas, February 2019
- * [50] **Ederer, D., S. Berrebi, C. Diffie, T. Gibbs**, K. Watkins, “Comparing Transit Agency Peer Groups using Cluster Analysis”, *Transportation Research Board 2019 Annual Meeting*
- * [49] **Clark, C.**, P. Mokhtarian, G. Circella, K. Watkins, “User Preferences for Bicycle Infrastructure in Communities with Emerging Cycling Cultures”, *Transportation Research Board 2019 Annual Meeting*
- * [48] Grossman, A., M. Meyer, K. Watkins, C. Ross, J. Schank, and R. Guensler, “MPO Performance-Based Planning In Response to MAP-21: National Survey Results”, *Transportation Research Board 2019 Annual Meeting*
- * [47] **Berrebi, S., T. Gibbs, S. Joshi**, K. Watkins, “Understanding Ridership Change at the Route Level: A Comparison of Portland and Minneapolis St-Paul”, *Transportation Research Board 2019 Annual Meeting*
- * [46] Brown, L., R. Steiner, S. Srinivasan, K. Watkins, “Using a Spatially-Aware Survey Method to Examine New York City Ride-Hailing Users’ Residential Proximity to Transit, Mode-Shift Behavior and Emerging Technology Outlooks”, *Transportation Research Board 2019 Annual Meeting*
- * [45] **Gadsby, A.** and K. Watkins, “Comparison of Low and High Stress Cycle Facilities Using Eye Tracking”, *International Cycling Safety Conference, Barcelona, 2018.*
- * [44] **Clark, C.**, P. Mokhtarian, G. Circella, and K. Watkins “Bicyclist facility preferences and impacts on perceived safety, perceived comfort, and willingness to try cycling”, *International Cycling Safety Conference, Barcelona, 2018.*
- * [43] K. Watkins, “OneBusAway: A Ten Year Retrospective of an Open Source Real-time Information System”, *Conference on Advanced Systems in Public Transportation, Brisbane, Australia, 2018.*
- * [42] **Berrebi, S.**, S. Crudden, and K. Watkins, “Translating Research to Practice: Implementing Real-time Control on High Frequency Transit Routes”, *Conference on Advanced Systems in Public Transportation, Brisbane, Australia, 2018.*
- * [41] **Wu, H.** and K. Watkins, “Accessibility Disparity Between Transit and Automobile: A Study of Atlanta and Seattle, *Transportation Research Board 2018 Annual Meeting*
- * [40] **Misra, A.** and K. Watkins, “Modeling Cyclist Route Choice using Revealed Preference Data: An Age and Gender Perspective” *Transportation Research Board 2018 Annual Meeting*
- * [39] **Ederer, D., N. Boyd** and K. Watkins, “Cycling for Transport or Fun? Determining Cyclist Trip Purpose on Off-street Urban Trails” *Transportation Research Board 2018 Annual Meeting*
- * [38] **Berrebi, S.**, S. Crudden, and K. Watkins, “Translating Research to Practice: Implementing Real-time Control on High-Frequency Transit Routes”, *Transportation Research Board 2018 Annual Meeting*
- * [37] **Queen, C.**, C. Ross, and K. Watkins, “Urban Transit Mode Selection in the United States of America” *Transportation Research Board 2018 Annual Meeting*
- * [36] **Grossman, A.** and K. Watkins, “Data, Research, and Policy Backing Safety Treatments: National Survey Results for State DOTs and MPOs”, *International Cycling Safety Conference, 2017.*

- * [35] **Ederer, D.** and K. Watkins, “Determining Cyclist Trip Purpose on Off-street Urban Trails in Four US Cities”, *International Cycling Safety Conference, 2017*.
- * [34] **Clark, C.**, G. Circella, and K. Watkins, “Perceived Safety and Willingness to Use Bicycle Infrastructure in the Southern United States”, *International Cycling Safety Conference, 2017*.
- * [33] Watkins, K. “Safety Impacts of Bicycle Infrastructure: A Critical Review”, *International Cycling Safety Conference, 2017*.
- * [32] **Boyd, N.**, G. Macfarlane, **D. Ederer** and K. Watkins, “Accessibility to Urban Parks, American Public Health Association Annual Conference, 2017.
- * [31] **Misra, A.** and K. Watkins, “Modeling Cyclists’ Willingness to Deviate from Shortest Path Using Revealed Preference Data”, *Transportation Research Board 2017 Annual Meeting*
- * [30] Watkins, K., **R. Ammanamanchi**, J. LaMondia, and C. LeDantec, “Comparison of Smartphone-based Cyclist GPS Data Sources”, *Transportation Research Board 2016 Annual Meeting*.
- * [29] Hans, E., **S. Berrebi**, N. Chiabaut, J. Laval, L. Leclercq, and K. Watkins, “Comparing Bus Holding Methods using Real-Time Prediction, *Transportation Research Board 2016 Annual Meeting*.
- * [28] **Berrebi, S.**, K. Watkins, and J. Laval, “A Real-Time Bus Dispatching Policy to Minimize Passenger Wait Without Buffer”, *Conference on Advanced Systems in Public Transportation 2015, Rotterdam, Netherlands*
- * [27] **Brakewood, C.**, and K. Watkins, “Quantifying the Impact of Real-time Information on Transit Ridership”, *Conference on Advanced Systems in Public Transportation 2015, Rotterdam, Netherlands*
- * [26] LeDantec, C., K. Watkins, R. Clark, and E. Mynatt, “Cycle Atlanta and OneBusAway: Driving innovation through the data ecosystems of civic computing”, *HCI International 2015*.
- * [25] LeDantec, C., **M. Asad, A. Misra**, and K. Watkins, “Planning with Crowdsourced Data: Rhetoric and Representation in Transportation Planning”, *ACM Conference on Computer-Supported Cooperative Work and Social Computing 2015*.
- * [24] **Berrebi, S.**, K. Watkins, and J. Laval, “A Real-Time Bus Dispatching Policy to Minimize Headway Variance”, *Transportation Research Board 2015 Annual Meeting*
- * [23] **Brakewood, C.**, and K. Watkins, “A Method for Linking Transit Smart Card Data and Survey Responses to Evaluate Travel Behavior and its Application to a Before-After Analysis of Real-Time Information”, *Transportation Research Board 2015 Annual Meeting*
- * [22] Bregman, S., K. Watkins, Y. Xu, and K. Coffel, “Who’s Online...and Who Isn’t? Equity Considerations for Web-Based Feedback and Transit”, *Transportation Research Board 2015 Annual Meeting*
- * [21] **Misra, A.**, K. Watkins, and C. LeDantec, “Socio-demographic Influence on Cyclists’ Self Classification by Rider Type”, *Transportation Research Board 2015 Annual Meeting*
- * [20] Watkins, K., **R. Sager**, Y. Xu, S. Bregman, and K. Coffel, “Current and Future Use of Web-based Feedback Tools among Transit Agencies”, *Transportation Research Board 2015 Annual Meeting*
- * [19] **Brakewood, C.**, F. Rojas, J. Robin, C. Zegras, K. Watkins, J. Sion, and S. Jordan, “An Analysis of Real-time Commuter Rail Information in Boston” *Transportation Research Board 2014 Annual Meeting*
- * [18] **Anders, J., C. Brakewood**, and K. Watkins, “A Case Study Analysis of New Fare Payment systems in Public Transit” *Transportation Research Board 2014 Annual Meeting*
- * [17] Watkins, K. and S. Bregman, “Best Practices for Transportation Agency Use of Social Media” *Transportation Research Board 2014 Annual Meeting*.

- * [16] Watkins, K., **S. Windmiller**, and K. Hunter-Zaworski, "Bridging the Digital Divide: Ensuring Information Equity in Social Media" *Transportation Research Board 2014 Annual Meeting*.
- * [15] **Kressner, J., M. Carragher**, and K. Watkins "A Household-Level Comparison of Targeted Marketing Data and Self-Reported Survey Data" *Transportation Research Board 2014 Annual Meeting*.
- * [14] **Weber, J., A. Misra, A. Grossman, G. Cernjul, S. McTague**, K. Watkins and R. Guensler, "Constructing Improved Bicycle Maps: User Preferences and Comparative Analysis" *Transportation Research Board 2014 Annual Meeting*.
- * [13] Watkins, K., B. Ferris, Y. Malinovskiy and A. Borning. "Beyond Context Sensitive Solutions: Using Value Sensitive Design to Identify Needed Transit Information Tools." *Proceedings of Third International Conference on Urban Public Transportation Systems*, Paris, Nov 2013
- * [12] **Wong, J., L. Reed**, K. Watkins and R. Hammond. "Open Transit Data: State of the Practice and Experience from Participating Agencies in the United States", *Transportation Research Board 2013 Annual Meeting*.
- [11] Watkins, K., M. Wheldon and G. S. Rutherford. "Measurement and evaluation of transit travel time reliability". *Proceedings of Conference on Advanced Systems for Public Transport*, Santiago, Chile, July 2012.
- [10] Watkins, K., B. Ferris, M. Hallenbeck and A. Borning. "Next Steps in Transit Rider Information: Development of a Webapp for Personalized Transit Service Alerts." *Proceedings of Transportation Research Board 2012 Annual Meeting*.
- [9] Watkins, K., B. Ferris, A. Borning, G. S. Rutherford and D. Layton. "Where Is My Bus? Impact of mobile real-time information on the perceived and actual wait time of transit riders." *Proceedings of Transportation Research Board 2012 Annual Meeting*.
- [8] Ferris, B., K. Watkins and A. Borning. "OneBusAway: Behavioral and Satisfaction Changes Resulting from Providing Real-Time Arrival Information for Public Transit". *Proceedings of Transportation Research Board 2011 Annual Meeting*.
- [7] Watkins, K. and B. Ferris. "Explore: An Attraction Search Tool for Transit Trip Planning." *Proceedings of Transportation Research Board 2010 Annual Meeting*.
- [6] Watkins, K. and M. Hallenbeck. "Impact of Weather on Freeway Travel Times in the Rain City." *Proceedings of Transportation Research Board 2010 Annual Meeting*.
- [5] Ferris, B., K. Watkins, and A. Borning. "OneBusAway: Results from providing real-time arrival information for public transit." *Proceedings of Association for Computing Machinery Conference on Human Factors in Computing Systems (CHI) 2010 (Best paper nominee)*.
- [4] Ferris, B., K. Watkins, and A. Borning. "OneBusAway: A Transit Traveller Information System." *Proceedings of International Conference on Mobile Computing, Applications and Services (MobiCase)*, 2009.
- [3] Watkins, K. and M. Hallenbeck, "Reliability Measures - Which Statistics Will Actually Help Manage Our Roadways?" *Proceedings of Transportation Research Forum 50th Annual Forum*, 2009.
- [2] Watkins, K., P. Plumeau, and M. Munson. "A New Tool for Assessing Developments: The Land Use Transportation Index." *Proceedings of Transportation Research Board Annual Meeting*, 2003.
- [1] Watkins, K., "How the stigma of a Bus Rapid Transit system was overcome – The New Britain to Hartford Bus Rapid Transit Experience." *Proceedings of American Public Transportation Association (APTA) Rail Transit Conference*, 2002.

B3. Other Referred Materials

None

B4. Submitted Journal Articles

- * [9] **Gadsby, A.**, M. Hagenzieker, and K. Watkins, "Does culture influence the causes of cyclist stress? A cross-cultural comparison between an emerging and established cycling culture using quasi-naturalistic cycling" submitted Feb 2020, *Journal of Transport Geography*.
- * [8] Martinez, Y. F. Delgado, J.C. Munoz, and K. Watkins, "How does considering bus drivers with different driving behaviors impact the performance of headway control tools?" submitted Dec 2019, *Transportation Research Part A*.
- * [7] Shaw, F., X. Wang, P. Mokhtarian, and K. Watkins, "Supplementing Transportation Data Sources with Targeted Marketing Data: Applications, Integration, and Validation" submitted Nov 2019, *Transportation Research Part A*.
- * [6] Berrebi, S., **S. Joshi** and K. Watkins, "A Method to Cross-Check Automated Passenger Counts for Ridership Analysis", submitted Oct 2019 to *Journal of Public Transportation*.
- * [5] **Clark, C. P.** Mokhtarian, G. Circella and K. Watkins "The Role of Attitudes in Perceptions of Bicycle Facilities: A Latent-Class Regression Approach, revise and resubmit Jan 2020, *Transportation Research Part F*.
- * [4] **Gadsby, A.** and K. Watkins "Instrumented Bikes and Their Use in Studies on Transportation Behavior, Safety and Maintenance", revise and resubmit Dec 2019, *Transport Reviews*.
- * [3] Berrebi, S. and K. Watkins, "Who's Ditching the Bus?" resubmitted Jan 2020 in response to revise and resubmit, *Transportation Research Part A*.
- * [2] Berrebi, S., **T. Gibbs, S. Joshi**, and K. Watkins, "On Ridership and Frequency", resubmitted Jan 2020 in response to revise and resubmit, *Transportation Research Part C*.
- * [1] MacFarlane, G., **N. Boyd**, J. Taylor, and K. Watkins, "Modeling the impacts of park access on health outcomes: a choice-based accessibility approach" submitted Nov 2019, revise and resubmit Jan 2020, *Environment and Planning B: Urban Analytics and City Science*.

C. OTHER PUBLICATIONS AND CREATIVE PRODUCTS

C1. Non-referred Conference Presentations with Proceedings

- * [17] Watkins, K. and C. LeDantec. "Cycle Atlanta". *Presentation in the Bicycling Atlanta session at the Atlanta Studies Symposium*, March 2015.
- * [16] **Brakewood, C.**, K. Watkins, and S. Barbeau. "Evaluating the Impacts of Real-Time Transit Information on Bus Riders in Tampa, Florida." *Presentation at the APTA Bus and Paratransit Conference. Kansas City, Missouri*, 2014.
- * [15] K. Watkins, Cycle Atlanta: Creating a Cycling City, *American Planning Association National Conference*, 2014
- * [14] K. Watkins, Atlanta's Innovative Planning Technology (mobile workshop), *American Planning Association National Conference*, 2014
- * [13] K. Watkins, Transportation Technologies for Regional Systems, *American Planning Association National Conference*, 2014

- * [12] **Misra, A.**, K. Watkins and C. LeDantec, “Cycle Atlanta – Facilitating GPS Based Data Collection for Bicyclists in Atlanta” *North American Travel Monitoring Exposition and Conference*, 2014
- * [11] **Carragher, M.**, W. Zhang and K. Watkins, “Spider Maps: Summary of Best Practices and Guide to Design”, GIS in Transit Conference, Oct 2013
- * [10] **Carragher, M.** and K. Watkins, “Innovations in Multi-Modal Mapping”, GIS in Transit Conference, Oct 2013
- * [9] Barbeau, S., **C. Brakewood**, K. Watkins, and S. Haney, “OneBusAway – Sharing real-time transit information via open-source software”, *Research that Matters, University of South Florida*, Oct 2013
- * [8] **Carragher, M.** and K. Watkins, “Innovations in Multi-Modal Schematic Transit Mapping: The Best Map for Atlanta”, American Planning Association, April 2013
- * [7] *The United States: A Potential Market for French Rail Operators*, Panelist, CNAM, Nov 2012
- * [6] *Enabling Transit Solutions through Traveler Information*, INFORMS, Phoenix, Oct 2012
- * [5] **Carragher, M.** and K. Watkins, “Innovations in Multi-Modal Schematic Transit Mapping: Survey Methods”, Georgia Planning Association, Sept 2012
- [4] *A Real-world Process for Transportation Senior Design*. Transportation Education Conference, June 22, 2009.
- [3] Moderator, *BRT, Land Use and Ridership*, American Public Transportation Association Bus & Paratransit Conference, May 6, 2009.
- [2] *One Bus Away: An Open-source Transit Traveler Information System*. American Public Transportation Association (APTA) Bus & Paratransit Conference, May 6, 2009.
- [1] *Reliability Measures - Which Statistics Will Actually Help Manage Our Roadways?* TransNOW Student Conference (won 2nd prize for best presentation), November 7, 2008.

C2. Software

- * [2] *Cycle Atlanta* – open-source coded cyclist tracking and issue reporting smartphone applications developed in conjunction with Dr. Chris LeDantec, who wrote the code: <https://github.com/cledantec>
- * [1] *OneBusAway* – open-source coded real-time information web and smartphone applications developed in conjunction with those who wrote the code: Dr. Brian Ferris, Dr. Sean Barbeau, Sheldon Brown, and others: <https://github.com/OneBusAway> (project initiated at University of Washington, continued at Georgia Tech)

C3. Other Reports (with material not otherwise published)

- * [21] Watkins, K. S. Berrebi, **C. Diffie, R. Kiriazes, D. Ederer**, *TCRP 209: Analysis of Recent Public Transit Ridership Trends*, Transportation Research Board of the National Academies, 2019
- * [20] **French, E., N. Boyd**, M. Hunter, and K. Watkins, *I-85 Road Closure: Analyzing the Immediate and Longer-term Effects of the I-85 Road Closure on MARTA Rail Ridership*, National Science Foundation, 2019
- * [19] Danaher, A., J. Wensley, K. Watkins, A. Dunham, **S. Berrebi, C. Queen**, et al. *TCRP A-42: Minutes Matter: A Guide to Bus Transit Service Reliability*, Transportation Research Board of the National Academies, 2018

- * [18] Watkins, K., M. Rodgers, R. Guensler, Y. Xu, **J. DiGioia, A. Grossman, A. Krishnan**, *Bicycle and Pedestrian Safety in the Highway Safety Manual*, Georgia Department of Transportation, 2016
- * [17] Watkins, K., C. LeDantec, **A. Misra, M. Asad, C. Mingus, C. Bearn, A. Poznanski, A. Guo, R. Ammanamanchi, V. Gentry, A. Gooze**, *Using Crowdsourcing to Prioritize Bicycle Network Improvements*, STRIDE Center and Georgia Department of Transportation, 2016
- * [16] Watkins, K., J. LaMondia and **C. Brakewood**, *Developing a New Course for Public Transportation Education*, STRIDE Project #2012-029S, 2015
- * [15] Watkins, K., S. Bregman and K. Coffel, *TCRP Report 179: Use of Web-based Customer Feedback to Improve Public Transit Service*. Transportation Research Board of the National Academies, 2015
- * [14] Klein, H., K. Watkins, **J. Wong, L. Reed, V. Wanningsen, B. Zhang**. *Information Services in Social Networked Transportation: Governance and ITS*. FHWA-GA-14-1226, Georgia Department of Transportation. 2014.
- * [13] Watkins, K., **J. Wong and M. Roell**. *Technology Scan of Future Traveler Information Systems and Applications in Georgia*. Georgia Department of Transportation. 2013.
- [12] Hallenbeck, M., C. Pham and K. Watkins. *Incident Response Evaluation Phase 3*. Washington State Transportation Center (TRAC). 2011.
- [11] Muench, S., Anderson, J., Hatfield, J., Koester, J., & Söderlund, M. et al. *Greenroads Rating System v1.0*. (J.L. Anderson and S.T. Muench, Eds.). Seattle, WA: University of Washington. 2010. Author of the Transit Access Credit
- [10] Schimek, P., K. Watkins, D. Chase, K. Smith and S. Gazillo. *Silver Line Waterfront Bus Rapid Transit Project 2007 Evaluation*. Federal Transit Administration, 2007.
- [9] Schimek, P., K. Watkins, D. Chase, K. Smith, S. Gazillo and B. Whitaker. *Las Vegas Metropolitan Area Express (MAX) Bus Rapid Transit Project 2006 Evaluation*. Federal Transit Administration, 2006.
- [8] Wilbur Smith Associates. *New Haven-Hartford-Springfield Commuter Rail Implementation Study: Final Report*. Connecticut Department of Transportation, 2005, <http://ct.gov/dot/cwp/view.asp?a=3535&q=425110>.
- [7] Wilbur Smith Associates. *Strategies Evaluation Report: Regional Transit Development Strategies Study: Final Report*. South Central Regional Council of Governments, 2005.
- [6] Wilbur Smith Associates. *Hartford East Bus Rapid Transit Feasibility Study: Final Report*. Connecticut Department of Transportation, 2004.
- [5] Wilbur Smith Associates. *Griffin Busway Feasibility Study: Final Report*. Capitol Region Council of Governments, 2004.
- [4] Wilbur Smith Associates. *Congestion Mitigation Systems Plan Vision 2020*. South Western Regional Planning Agency, 2003.
- [3] Wilbur Smith Associates. *Final Environmental Impact Statement and Section 4(f) Evaluation, New Britain-Hartford Busway*. Federal Transit Administration, 2001.
- [2] Wilbur Smith Associates. *I-84 West Side Access Study*. Connecticut Department of Transportation, 2001.
- [1] Wilbur Smith Associates. *I-84 West of Waterbury Needs and Deficiencies Study*. Connecticut Department of Transportation, 2001.

D. PRESENTATIONS

D1. Keynote Addresses and Plenary Lectures

- * [4] *Understanding and increasing transit ridership in our new mobility future*, Eno Foundation Multi Agency Exchange (MAX) Keynote, June 2019
- * [3] *How Do We Build a Sustainable Transportation Infrastructure*, American Public Works Association / CE Club of Charleston, Dec 2017
- * [2] *Designing Streets for All Users: Bike Transport for the Interested but Concerned*, Georgia Planning Association Fall Conference, Sept 2017
- * [1] *Review of Bicycle and Pedestrian Treatment Safety Research*, 10th University Transportation Center Spotlight Conference: Pedestrian and Bicycle Safety, Washington DC, Dec 2016

D2. Invited Conference and Workshop Presentations

- * [44] *Workshop on Protecting Cyclists at Intersections*, Transportation Research Board 2020 Annual Meeting, Jan 2020
- * [43] *Sustainable Planning of the City panel*, Career Research and Innovation Development Conference, Atlanta, Feb 2019
- * [42] *How Driverless Cars Will Change The World*, Panel sponsored by Newsweek, Atlanta, Dec 2018
- * [41] *Transport Challenges Today and Tomorrow*, Urban Transportation and Sustainability Conference, sponsored by the German Consulate, Atlanta, Sept 2018
- * [40] *Competitive Economy Panel*, ConnectATL, Atlanta Regional Commission, Atlanta, GA, Aug 2018
- * [39] *Transport Challenges Today and Tomorrow*, MAAS (Mobility as a Service) Market Conference, Atlanta, GA, May 2018
- * [38] *Better Data, Better Tools, Better Transportation*, Georgia Smart Communities Workshop, Atlanta, April 2018
- * [37] *Bicyclist Facility Preferences and Effects on Increasing Bicycle Trips Update*, Transportation Research Board Bicycle Research Subcommittee, Washington DC, Jan 2018
- * [36] *Transit Traveler Response to Highway Disruption: the Atlanta I-85 Bridge Collapse*, Invited Session on Natural Experiments Session, Transportation Research Board, Washington DC, Jan 2018
- * [35] *Building the Virtual Automobile Panel 1: State of the Practice and What Users Want*, Transportation Research Board Annual Meeting Intercity Passenger Rail Committee Workshop, Jan 2017
- * [34] *Making the Connection between Safety and Public Health*, Transportation Research Board Annual Meeting Session 296, Jan 2017
- * [33] *Bicyclist Facility Preferences and Effects on Increasing Bicycle Trips*, Transportation Research Board Bicycle Research Subcommittee, Washington DC, Jan 2017
- * [32] *Value Sensitive Design Workshop: Charting the Next Decade (discussant)*, Lorentz Center, Leiden, Netherlands, Nov 2016
- * [31] *Urban Mobility Efficiency (session organizer overview)*, Japan-American Frontiers of Engineering, National Academy of Engineers, Los Angeles, CA, June 2016

- * [30] *Perspectives: Future of Urban Transport Roundtable*, Savannah State University Urban Planning Conference, April 2016
- * [29] *Bicyclist Facility Preferences and Effects on Increasing Bicycle Trips*, Transportation Research Board Bicycle Research Subcommittee, Washington DC, Jan 2016
- * [28] *One Bus Away: Enhancing Customer Convenience through Open-Source Development and Web-Based Rider Feedback*, APTA ITS Best Practices, November 2015
- * [27] *Roles of open, big and small data in smarter mobility*, ITS World Congress Bordeaux, October 2015
- * [26] *What is old is new again! Reinvention of traditional transport services*, ITS World Congress Bordeaux, October 2015
- * [25] *New Technology-enabled Models for Transit and Urban Mobility*, FHWA-Eno Workshop on Emerging Technology Trends in Transportation, Sept 2015
- * [24] *Integrating Ped/Bike Concepts into University Courses*, Ped-Bike Information Center (part of UNC Highway Safety Research Center) webinar, August 2015
- * [23] *Crowdsourcing Cyclist Data*, Unraveling Cycling and Pedestrian Flows (European Research Council Grant Kick-off Conference), Amsterdam, Netherlands, July 2015
- * [22] *Real-time Transit Information: Uses and Impacts*, FTA Region 4 Conference, May 2015
- * [21] *Use of Web-based Customer Feedback to Improve Public Transit Services*, Transportation Research Board Marketing and Fare Policy Committee, Washington DC, Jan 2015
- * [20] *Environmental Sustainability through Bicycle and Pedestrian Research*, USDOT University Transportation Center Workshop on Pedestrian and Bicycle Research, Washington DC, Sept 2014
- * [19] *The Impacts of Real-time Information on Transit User Perceptions*, t-HUB Workshop: Equity and Transit System Performance Measurement, Hartford, Connecticut, Sept 2014
- * [18] *Open Transit Data: Evolution and Best Practices*, USDOT Learn from the Experts: Talking Technology and Transportation (T3) Webinar, August 2014
- * [17] *The Rider Experience – Meeting Rider Demand*, Innovation in Mobility Public Policy Summit, Washington DC, June 2014
- * [16] *Teaching Pedestrian and Bicycle Education*, Transportation Research Board Pedestrian and Bicycle Education Subcommittee, Washington DC, Jan 2014
- * [15] *Impacts of the Sharing Economy on Transportation*, Euro-American Frontiers of Engineering, National Academy of Engineers, Paris, France, Nov 2013
- * [14] Moderator, *Case Studies of Best Practices and Success Stories IV: Rail & Non-Motorized Transportation*, ASCE Green Streets, Austin, TX, Nov 2013
- * [13] *Open Transit Data: State of the Practice*, ITS World Congress, Tokyo, Japan, Oct 2013
- * [12] Moderator, *The Internet Paradigm and ITS*, ITS World Congress, Tokyo, Japan, Oct 2013
- * [11] *Urban Transportation Information*, Leadership Atlanta's (co)lab Summit, Sept 2013
- * [10] *Cycle Atlanta: Increasing Public Participation in Cycling Infrastructure Decisions*, Programs for Promoting Cycling, Alabama Transportation Conference, Feb 2013
- * [9] *Understanding the Impacts of Transit Real-time Passenger Information: Research and Perspectives*, ITS PTSS Committee, Washington DC, Jan 2013
- [8] *Location-Based Services for Public Transport*. ITS World Congress, Orlando, Florida, October 2011.

- [7] *OneBusAway: A Suite of Transit Traveler Information Tools*. ITS World Congress, Busan, Korea, October 2010.
- [6] *OneBusAway*. USDOT University Research Technology Transfer Day, Washington, DC, April 2011.
- [5] Panelist, *From Here to There Community Forum*, Seattle City Council, March 29, 2011
- [4] Panelist, *University of Washington Women in Science and Engineering 2009 Conference*, February 2009.
- [3] Transportation Panelist, *World Usability Day 2008*, Usability Professional Association of Puget Sound, November 13, 2008.
- [2] *New Haven, Hartford, Springfield Commuter Rail – Operations Simulation*. American Public Transportation Association (APTA) Rail Transit Conference, 2006.
- [1] Moderator, *ITS Moving People*, ITS Connecticut 8th annual meeting, September 19, 2005.

D3. Conference and Workshop Presentations

- * [11] **Ederer, D., D. Arias**, M. Rodgers, M. Hunter, and K. Watkins, *“Probe-based safety performance metrics in Georgia: A case study”* Georgia transportation Institute poster session, Sept 2019
- * [10] **Clark, C.**, P. Mokhtarian, G. Circella, and K. Watkins. *“BeltLine Facility Preferences and Impact on Bicycle Trips”* Georgia transportation Institute poster session, Sept 2019
- * [9] **Clark, C.**, P. Mokhtarian, G. Circella, and K. Watkins. *“Results of a Beltline Survey on Willingness to Try Cyclist Infrastructure”* Georgia transportation Institute poster session, Sept 2018
- * [8] Watkins, K. **A. Misra, and C. LeDantec**, *“Smartphone GPS Data Sources for Cyclist Travel Behavior”*, Southeastern Transportation Conference, Nov 2017
- * [7] **Clark, C.**, G. Circella, P. Mokhtarian and K. Watkins. *“Perceived Safety and Willingness to Try Cyclist Infrastructure”* Georgia transportation Institute poster session, Sept 2017
- * [6] Watkins, K., **D. Ederer, N. Boyd**, and L. Vincent, *“Urban Parks as Critical Infrastructure”*, Parks Pride Conference, Mar 2017
- * [5] DiGioia, J., A. Grossman, A. Krishnan, Y. Xu, R. Guensler, K. Watkins. *“Bicycle and Pedestrian Safety in the Highway Safety Manual”* Georgia transportation Institute poster session, Sept 2014 and Sept 2015
- * [4] **Misra, A.** and K. Watkins, *“Cycle Atlanta: Mapping the Ride to a Better Atlanta”* Georgia transportation Institute poster session, Sept 2013, Sept 2014 and Sept 2015
- * [3] **Wong, J.**, K. Watkins, and H. Klein, *“Outsourcing Traffic Data: Are TMC’s ready?”* Georgia Transportation Institute poster session, Sept 2013
- * [2] **Reed, L.**, K. Watkins, and H. Klein, *“Real-time Transit Passenger Information – A Case Study in Standards Development”* Georgia Transportation Institute poster session, Sept 2013
- [1] Watkins, K., *“Transit Travel Information”* ITE Washington Section Annual Meeting, June 2009

D4. Invited Seminar Presentations

- * [52] *Using Technology to Transform Multimodal Transportation*, GA Smart Communities Webinar, Nov 2019
- [51] *Understanding Recent Transit Ridership Decline in the US*, University of North Carolina, Oct 2019

- * [50] *How public transit tips the scales in the automated vehicle future*, ATL Regional Technology Committee, April 2019
- * [49] *What do we know about maintaining and increasing transit ridership?*, TU Delft, March 2019
- * [48] *Understanding Bus Ridership Decline At the Route-Segment Level*, Transit Agency Issues & Opportunities webinar, Nov 2018
- * [47] *Waiting for the Ghost Bus*, Talking Headways: the Railvolution podcast, Sept 2018
- * [46] *Emerging Technologies and the Changing Transportation Environment*, Women's Transportation Seminar, Atlanta, Aug 2018
- * [45] *OneBusAway: A Ten Year Retrospective*, University of Washington, Seattle, May 2018
- [44] *Does the Future of Mobility Depend on Public Transportation?*, Center for Urban Transportation Research webinar, May 2018
- * [43] *How do we Build a Sustainable Transportation Infrastructure?*, Institute of Transportation Engineers, Atlanta, April 2018
- * [42] *Sustainable Mobility Study Tour*, German American Chamber of Commerce of Southern US, Nov 2017
- * [41] *Multiuse Infrastructure: Resiliency in Action*, City Parks Alliance Webinar, Sept 2017
- * [40] *Mobility as a Service*, Smart Cities Speaker Series, City of Atlanta, July 2017
- * [39] *Sustainable Mobility Forum* German American Chamber of Commerce of Southern US, July 2017
- * [38] *Benefits of Open Source Software to Transit Agencies*, Center for Urban Transportation Research (CUTR) webinar, May 2017
- * [37] *Parks Doing Double Duty: Greening Critical Infrastructure*, Georgia ASCE Water Monthly Seminar, May 2017
- * [36] *Do's and Don'ts of Smart Phone GPS Data Sources for Cyclists Travel Behavior*, Southeastern Transportation Research Innovation Development and Education (STRIDE) Webinar Series, May 2017
- * [35] *Multiuse Infrastructure: Transforming the US Economy*, US Chamber of Commerce, April 2017
- * [34] *Challenges Using the Highway Safety Manual for Bicycle and Pedestrian Safety Research*, National Transportation Safety Board, Feb 2017
- * [33] *Transport Information Systems and Services – Market Consultation*, Irish National Transport Authority, Dublin, Ireland, Nov 2016
- * [32] *Py-Data Meetup*, Atlanta, Georgia, Nov 2016
- * [31] *Urban Transportation Solutions: Crowdsourcing Data and the Sharing Economy*, Kittelson and Associates, Portland, Oregon, July 2016
- * [30] *Urban Transportation Solutions: Crowdsourcing Data and the Sharing Economy*, Carnegie Mellon, March 2016
- * [29] *Real-time Transit Information: Enablers, Impacts, and Implications*, University of California at Berkeley, March 2016
- * [28] *Impacts of the Sharing Economy in Transportation*, Purdue University, February 2016
- * [27] *Ridership and Satisfaction Impacts of Real-time Transit Information*, Real-time Travel Information: Prediction Challenges and Behavioral Implications, KTH, Sweden, Dec 2015
- * [26] *Use of Web-based Customer Feedback to Improve Public Transit Services*, TCRP Oversight and Project Selection (TOPS) Committee, Washington DC, June 2015

- * [25] *Real-time Transit Information: Enablers, Impacts and Implications*, University of Tennessee, April 2015
- * [24] *Real-time Transit Information: Enablers, Impacts and Implications*, University of Vermont, March 2015
- * [23] *OneBusAway*, ITS Georgia, June 2014
- * [22] *Urban Transportation Information*, CEE Advisory Board Meeting, Georgia Tech, Nov 2013
- * [21] *OneBusAway*, GVV Advisory Board Meeting, Georgia Tech, Oct 2013
- * [20] *Taming the Complexity of Transportation*, First-year Book Launch, Georgia Tech, Aug 2013
- * [19] *The Power of Information to Create a More Livable Transportation System*, Centers for Disease Control, Atlanta, May 2013
- * [18] *Enabling Transit Solutions through Traveler Information*, Ecole des Ponts ParisTech, Paris, Nov 2012
- * [17] *Real-time Transit Information*, CNAM, Paris, Nov 2012
- * [16] *Enabling Transit Solutions through Traveler Information*, GVV Center, Atlanta, Sept 2012
- * [15] *Enabling Transit Solutions through Traveler Information*, ITS Georgia, Atlanta, Aug 2012
- * [14] *Enabling Transit Solutions – A Case for Open Data*, World Bank, Washington DC, May 2012
- * [13] *Human Systems Interaction: Transit Rider Information, Blended Research @ the Library*, Georgia Tech, March 2012.
- * [12] *So, You Want to be a Transportation Engineer*, ASCE, Georgia Tech, February 2012.
- * [11] *Using Technology to Revolutionize Public Transportation*. Eidgenossische Technische Hochschule (ETH), Zurich, Switzerland, December 2011.
- * [10] Panelist, *Social Media in Transportation*, Georgia Tech Women's Transportation Seminar, August 2011
- [9] *Using Technology to Revolutionize Public Transportation*. University of Virginia, March 2011.
- [8] *Using Technology to Revolutionize Public Transportation*. Western Michigan University, February 2011
- [7] *Presentation Skills 101*. University of Washington, January 2010 and January 2011
- [6] *OneBusAway: Using Technology to Revolutionize Public Transportation*. ARCS Foundation, April 2010.
- [5] *Discrete Choice Modelling*. University of British Columbia, March 2010
- [4] *Using Technology to Revolutionize Public Transportation*. University of British Columbia, March 2010.
- [3] *Using Technology to Revolutionize Public Transportation*. Georgia Institute of Technology, March 2010.
- [2] *New Methods in Transportation Planning*. University of Washington, December 2009
- [1] *What's New in Bus Rapid Transit?* University of Connecticut, February 2007.

D5. Other Presentations

- * [1] Inside the Black Box, WREK Radio, Georgia Tech, Oct 2013

E. GRANTS AND CONTRACTS

Total funding to date: \$3.8 million of which \$2.5 million Watkins research group

E1. As Principal Investigator

- * [27] Technology-Enabled Smart and Safer Routes to School
Georgia Smart Communities Challenge
Amount: Total \$25,000 (Funded 9/2019, 12 months)
Principal Investigator
- * [26] Enabling the Shared Transportation Revolution
Southeastern Transportation Research, Innovation, Development and Education Center
Amount: Total \$165,000 (Funded 4/2019, 14 months)
Principal Investigator
- * [25] Developing and Implementing Creative Transportation Solutions for Coca-Cola
Coca-cola Corporation
Amount: \$158,473 (Funded 11/2018, 18 months)
Principal Investigator
- * [24] User Preferences for Bicycle Infrastructure
National Center for Sustainable Transportation
Amount: \$30,000 (Funded 12/2018, 12 months)
Principal Investigator
- * [23] Recent Decline in Public Transportation Ridership: Analysis, Causes, Responses
Transit Cooperative Research Program
Amount: Total \$400,000 (Funded 1/2019, 24 months) of which \$180,000 Watkins
Principal Investigator
- * [22] Changing Access to Public Transportation and the Potential for Increased Travel
Southeastern Transportation Research, Innovation, Development and Education Center (STRIDE)
Amount: Total \$350,000 (Funded 9/2018, 12 months) of which \$85,000 Watkins
Principal Investigator
- * [21] Analysis of Recent Transit Ridership Trends: Issues and Approaches
Transit Cooperative Research Program
Amount: \$60,000 (Funded 5/2018, 12 months)
Principal Investigator
- * [20] Safety Performance Metric for Decision Making Process
Georgia Department of Transportation
Amount: \$275,000 (Funded 11/2018, 24 months)
Principal Investigator

- * [19] Measuring Temporal and Spatial Exposure of Urban Cyclists to Air Pollutants Using an Instrumented Bicycle
Center for Advancing Research in Transportation, Energy, Emissions, and Health (CARTEEH)
Amount: \$50,000 (Funded 12/2017, 18 months)
Principal Investigator
- * [18] Understanding Transit Ridership Decline
Metropolitan Atlanta Rapid Transit Authority
Amount: \$75,000 (Funded 11/2017, 18 months)
Principal Investigator
- * [17] Transit in the Era of Shared Mobility
Southeastern Transportation Research, Innovation, Development and Education Center (STRIDE)
Amount: Total of \$240,000 (Funded 9/2017, 18 months) of which \$70,000 Watkins
Principal Investigator
- * [16] RAPID: Traveler Response to the Atlanta I-85 Bridge Collapse
National Science Foundation
Amount: \$50,000 (Funded 8/2017, 12 months)
Principal Investigator
- * [15] Beltline Bicycle Facility Preferences & Effects
Georgia Department of Transportation
Amount: \$100,000 (Funded 12/2016, 24 months)
Principal Investigator
- * [14] Cycle Atlanta SWIFT development
Southeastern Transportation Research, Innovation, Development and Education Center (STRIDE)
Amount: \$47,912 (Funded 9/2016, 3 months)
Principal Investigator
- * [13] Funds to support professionals on Netherlands study abroad course
Speedwell Foundation (Mike and Jenny Messner), Arcadis
Amount: Total to date \$22,000 (Funded 3/2016 - 12/2018)
- * [12] Real-time Control to Replace Schedules on the Atlanta Streetcar
GVU Center / IPAT / Center for Urban Innovation
Amount: \$25,000 (Funded 8/2015, 12 months)
Co-Principal Investigator (with Dr. Russ Clark in RNOC)
- * [11] Bicyclist Facility Preferences and Effects on Increasing Bicycle Trips
National Cooperative Highway Research Program (NCHRP)
Amount: Total \$350,000 (Funded 8/2015, 30 months) of which \$300,000 Watkins
Principal Investigator
- * [10] Evaluating the Impact of Real-time Transit Passenger Information on Ridership and Mode Share
National Center for Transportation Systems Productivity and Management (NCTSPM)
Amount: \$100,000 (Funded 11/2013, 18 months)
Principal Investigator
- * [9] Implementation and Assessment of OneBusAway in Atlanta
GVU Center / IPAT
Amount: \$25,000 (Funded 8/2013, 9 months)
Principal Investigator (with Dr. Russ Clark in RNOC)

- * [8] Bicycle and Pedestrian Safety in the Highway Safety Manual
Georgia Department of Transportation
Amount: Total \$190,000 (Funded 8/2013, 24 months) of which \$90,000 Watkins
Principal Investigator (with Dr. Randy Guensler and Dr. Michael Rodgers)
- * [7] Using Crowdsourcing to Prioritize Bicycle Route Network Improvements
Southeastern Transportation Research, Innovation, Development and Education Center / Georgia Department of Transportation
Amount: Total \$150,000 (Funded 8/2013, 18 months) of which \$100,000 Watkins
Principal Investigator (with Jeff LaMondia at Auburn and Chris LeDantec in GT Digital Media)
- * [6] Use of Web-based Customer Feedback to Improve Public Transit Service
Transit Cooperative Research Program (TCRP)
Amount: Total \$250,000 (Funded 2/2013, 24 months) of which \$150,000 Watkins
Principal Investigator
- * [5] Moving America on Transit: An Evaluation of Real-time Transit Information
GTI / Woodruff Foundation
Amount: \$50,000 (Funded 8/2012, 15 months)
Principal Investigator
- * [4] Mobile Technology Usage amongst the Transit Riding Populace
GTI / Woodruff Foundation
Amount: \$50,000 (Funded 8/2012, 15 months)
Principal Investigator
- * [3] Developing a New Course for Public Transportation Education
Southeastern Transportation Research, Innovation, Development and Education Center
Amount: Total \$70,000 (Funded 6/2012, 15 months) of which \$35,000 Watkins
Principal Investigator (with Dr. Jeffrey LaMondia at Auburn)
- * [2] A new look at rapid transit maps: integrating frequent bus service into schematic rail mapping
GTI
Amount: \$40,000 (Funded 10/2011, 8 months)
Principal Investigator
- * [1] Technology Scan of Future Traveler Information Systems and Applications to Georgia
Georgia DOT / GTI
Amount: \$150,000 (Funded 10/2011, 12 months)
Principal Investigator

E2. As Co-Principal Investigator

- * [3] Evaluation of Transportation Network Infrastructure, Safety, and Travel Characteristics of Bike Share, Electric-Powered Pedal-Assist Bike Share and Electric Scooter System Operation
Southeastern Transportation Research, Innovation, Development and Education Center
Amount: Total \$165,000 (Funded 2/2020, 18 months)
Principal Investigator
- * [2] Crowd-sourced Bike Route Desirability (Cycle Atlanta)
GVU Center / IPAT / City of Atlanta
Amount: Total \$33,816 (Funded 8/2012, 9 months)
Co-Principal Investigator (with Dr. Chris LeDantec in GT Digital Media)

- * [1] Information Services in Social Networked Transportation
Georgia DOT / NCTSPM
Amount: Total \$250,000 (Funded 6/2012, 18 months) of which \$140,000 Watkins
Co-Principal Investigator (with Dr. Hans Klein in GT Public Policy)

E3. As Senior Personnel or Contributor

- * [3] A Guide to Bus Transit Service Reliability
Transit Cooperative Research Program (TCRP)
Amount: Total \$250,000 (Funded 8/2015, 20 months) of which \$55,000 Watkins
Associate Investigator – GT Principal Investigator
- * [2] Undergraduate Certificate in Transportation
National Science Foundation (NSF) Historically Black Colleges and Universities Program
Amount: Total \$400,000 (Funded 8/2015, 36 months) of which \$6,000 Watkins
Expert Adviser
- * [1] OneBusAway Programming Services
University of Washington (as subcontractor to Sound Transit)
Amount: Total \$150,000 originally to University of Washington with \$16,200 to Georgia Tech
as a subcontract (Funded 9/2012, 3 months)
Associate Investigator - GT Principal Investigator

E4. Pending Proposals

- * [1] Academic Research Partnership
Washington Metropolitan Area Transit Authority (WMATA)
Amount: Total \$1.6 million (Submitted 10/2017, 36 months) of which \$1 million Georgia Tech
Possible 7 year extension for total of \$7 million
Principal Investigator

F. OTHER SCHOLARLY AND CREATIVE ACCOMPLISHMENTS

- * [1] *OneBusAway Board* - expanded the OneBusAway project to multiple cities through partnerships with consulting firms, developers, and transit agencies and created a governance structure to oversee the project. Currently serve as the Chair of the Board of Directors for the project (see software).

G. SOCIETAL AND POLICY IMPACTS

Dr. Watkins work to create a multimodal transportation system, in which transit and cycling are truly options for commuters, can have a substantial impact on congestion, pollution, political instability, safety impacts and health. Dr. Watkins work on OneBusAway and Cycle Atlanta has been featured multiple times in the media, including CityLab, AJC, 11 Alive, WABE, KUOW, Atlanta Magazine, Creative Loafing, Saporta Report, etc. She is also frequently contacted for local and national stories regarding transit information and cycling infrastructure, including CityLab, GPB, and newspapers throughout the country. Policy impacts are through her work advising numerous local organizations about transportation infrastructure both formally through steering committees and informally through phone calls, emails and meetings. Local organizations that have sought her advice include

Midtown Alliance, City of Atlanta, Atlanta Regional Commission, GDOT, Atlanta Bicycle Coalition, MARTA, Cobb Community Transit, GRTA, and more.

H. OTHER PROFESSIONAL ACTIVITIES

Professional Registrations: Professional Engineer - Georgia #036851

V. TEACHING

A. COURSES TAUGHT

Semester	Course		Size
Undergraduate			
Fall 2011	CEE 4090 A	Senior Capstone (assisted)	~ 40
Spring 2012	CEE 4090 A / IP	Senior Capstone (assisted)	99
Fall 2012	CEE 4090 A	Senior Capstone (primary)	67
Spring 2013	CEE 4090 A / IP	Senior Capstone (assisted)	88
Fall 2013	CEE 4090 A	Senior Capstone (primary)	48
Fall 2013	CEE 4610 A	Multimodal Transportation (co-taught)	33
Spring 2014	CEE 4090 A	Senior Capstone (assisted)	92
Fall 2014	CEE 4090 A	Senior Capstone (primary)	54
Fall 2014	CEE 4610 A	Multimodal Transportation (co-taught)	49
Spring 2015	CEE 4090 A	Senior Capstone (assisted)	61
Fall 2015	CEE 4090 A	Senior Capstone (primary)	48
Fall 2015	CEE 4610 A	Multimodal Transportation (co-taught)	38
Summer 2016	CEE 4803 C	Sustainable Transport Abroad	7
Fall 2016	CEE 4090 A	Senior Capstone (primary)	39
Fall 2016	CEE 4610 A	Multimodal Transportation (co-taught)	40
Spring 2017	CEE 4090 A	Senior Capstone (assisted)	76
Summer 2017	CEE 4803	Sustainable Transport Abroad	8
Fall 2017	CEE 4090 A	Senior Capstone (primary)	45
Fall 2017	CEE 4610 A	Multimodal Transportation (co-taught)	43
Spring 2018	CEE 4803	Sustainable Transport Abroad	14
Spring 2018	CEE 4090 A	Senior Capstone (assisted)	60+
Summer 2018	INTA 4803	Smart and Sustainable Megaregions (assisted)	13
Fall 2018	CEE 4090 A	Senior Capstone (primary)	58
Fall 2018	CEE 4610 A	Multimodal Transportation (co-taught)	36
Spring 2019	CEE 4660	Sustainable Transport Abroad	16
Spring 2019	CEE 4090 A	Senior Capstone (assisted)	58
Summer 2019	INTA 3232 A	Smart and Sustainable Megaregions (assisted)	18
Fall 2019	CEE 4090 A	Senior Capstone (primary)	55
Fall 2019	CEE 4610 A	Multimodal Transportation (co-taught)	31
Spring 2020	CEE 4090 A	Senior Capstone (assisted)	
Summer 2020	INTA 3232 A	Smart and Sustainable Megaregions (assisted)	
Graduate			
Fall 2011	CEE 6602 A	Urban Transportation Planning (assisted)	~ 40

Semester	Course		Size
Spring 2012	CEE 8813 O	Travel Demand Forecasting	11
Spring 2013	CEE 6642 A	Transit Planning & Operations	39
Fall 2013	CEE 8813 I / PubP 8803 HK	Intelligent Transportation & Internet (co-taught)	12
Spring 2014	CEE 6642 A	Transit Planning & Operations	25
Fall 2014	CEE 8813 F	Complete Streets	9
Spring 2015	CEE 6642 A	Transit Planning & Operations	24
Fall 2015	CEE 8813 F	Complete Streets	8
Spring 2016	CEE 6642A	Transit Planning & Operations	35
Fall 2017	CEE 8813 E	Complete Streets	12
Spring 2018	CEE 6642 A	Transit Planning & Operations	40
Spring 2020	CEE 6642 A	Transit Planning & Operations	

B. INDIVIDUAL STUDENT GUIDANCE

B1. Ph.D. Students

B1.a. Graduated

- * [4] **Simon Berrebi**
Dissertation Topic: [A Dynamic Holding Method to Avoid Bus Bunching on High Frequency Routes: From Theory to Practice](#)
Masters Topic: [A real-time bus dispatching policy to minimize headway variance](#)
MS: Fall 2012 – Spring 2014; PhD: Summer 2014 – Spring 2017
Scholarships: AirSage Travel Scholarship (\$500), Awesome Foundation (\$1000), ITS Georgia Wayne Shackelford Scholarship (\$2000)
- * [3] **Aditi Misra**
Dissertation Topic: [Mapping Cyclist Route Choice Using Smartphone Based Crowdsourced Data](#)
Fall 2012 – Summer 2016
Scholarships: CEE Wang Fellowship, Foley Scholar Finalist, AirSage Travel Scholarship
Employment: Research Faculty, University of Michigan Transportation Research Institute
- * [2] **Candace Brakewood**
Dissertation Topic: [Quantifying the Impact of Real-time Vehicle Location Information on Transit Ridership](#)
Fall 2012 – Summer 2014 (Transfer from MIT)
Scholarships: 2012, 2013 ARCS Fellowship (\$7500 each), 2013 Eisenhower Fellowship (\$30,000), CEE Fellowship (\$5000 / yr)
Employment: Assistant Professor, University of Tennessee
- * [1] **Tom Wall** (co-advised with Professor Adjo Amekudzi)
Dissertation Topic: [A risk-based assessment tool to prioritize roadway culvert assets for climate change adaptation planning](#)
Fall 2008 – Fall 2013 (began co-advising in 2012)
Scholarships: Airport Cooperative Research Program (\$10,000), others under different advisors
Employment: Argonne National Laboratory

B1.a. In Process

- * [5] **Tanner (Reid) Passmore**
Fall 2019 - Present
- * [4] **Rebecca Kiriazes** [*Passed Qualifying Exam*]
Fall 2018 – Present
Scholarships: NSF Graduate Fellowship – 2018 – 2021 (>\$100,000)
- * [3] **April Gadsby** (co-advised with James Tsai) [*Passed Proposal*]
Fall 2017 – Present
Scholarships: NSF Graduate Fellowship – 2017 – 2020 (>\$100,000)
- * [2] **David Ederer** [*Passed Qualifying Exam*]
Fall 2016 – Present
Scholarships: President’s Fellowship – 2016 – 2020 (\$22,000), Eisenhower Fellowship 2018 (\$5,000), Eisenhower Fellowship 2019 (\$11,500)
- * [1] **Calvin Clark** [*Passed Defense*]
MS Thesis: User Preferences of bicycle infrastructure (Spring 2018)
Fall 2015 – Spring 2020
Scholarships: Eisenhower Fellowship 2018 (\$35,000), President’s Fellowship 2015 – 2019 (\$22,000), Eisenhower Fellowship 2017 (\$11,500)

B2. M.S. Students

B2.a. Graduated with M.S. Thesis

- * [23] **Kaitlyn Schaffer**
Thesis Topic: Pollutant Exposure Studies of Emerging Modes of Transportation
Fall 2018 – Fall 2019
Employment: Kittelson, Baltimore, MD
- * [22] **Adam Borsch** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: Analyzing the Difference Between Bicycle Share Trips Made on Regular and Electric Bicycles
Fall 2016 – Summer 2019
Employment: AECOM, Atlanta, GA
- * [21] **Jeremy Greenwald** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: It Takes Green to Go Green: An Atlanta-based Evaluation of Employer-provided Commuting Incentives as a Method to Overcome Work Site Car-Dependency
Fall 2017 – Summer 2019
Employment: Kittelson & Associates, Atlanta, GA
- * [20] **Sanskruti Joshi**
Thesis Topic: Using Automated Passenger Counter Data to Understand Ridership Change on a Zonal Basis
Fall 2017 – Spring 2019
Employment: Kiewit Engineering, Denver, CO
- * [19] **Chandler Diffie**
Thesis Topic: Data Preparation and Methods for Assessing U.S. Transit Ridership Trends
Fall 2017 – Fall 2018
Employment: New York Economic Development Corporation, New York, NY
- * [18] **Nico Boyd** (Dual Degree Transportation Engineering / City Planning Program)

- Thesis Topic: Accessibility to Urban Parks and Health Outcomes at the Neighborhood Level
Fall 2017 – Spring 2018
Employment: Fehr & Peers, Los Angeles, CA
- * [17] **Hao Wu**
Thesis Topic: Accessibility disparity between transit and automobile: A study of Atlanta and Seattle
Fall 2016 – Fall 2017
Employment: PhD at University of Sydney
 - * [16] **Carly Queen** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: Urban Transit Mode Comparison and Selection
Fall 2013 – Spring 2016
Scholarships: 2014 Eisenhower Fellowship (\$30,000), 2015 Eisenhower Fellowship (\$5,000)
Employment: AECOM, Atlanta, GA
 - * [15] **Cary Bearn** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: Measuring Low Stress Bike Access to MARTA
Fall 2015
Employment: Chief Bicycle Officer, City of Atlanta
 - * [14] **Charlene Mingus**
Thesis Topic: Bicyclist perceived level of traffic stress: a quality of service measure
Fall 2013 – Spring 2015
Employment: Kimley-Horn, Atlanta, GA
 - * [13] **Jonathon DiGioia**
Thesis Topic: Safety impacts of bicycle infrastructure: A critical review
Fall 2013 – Summer 2014
Employment: URS Corporation / AECOM, Atlanta, GA
 - * [12] **Bing Zhang**
Thesis Topic: Development of a social weights matrix to consider friendship influences on air travel
Fall 2013 – Summer 2014
Employment: Kimley Horn & Associates, Atlanta, GA
 - * [11] **Ryan Sager** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: A survey of transit agencies on web-based feedback tools and their role in addressing riders
Fall 2012 – Spring 2014
Employment: Kittelson & Associates, Sacramento, CA
 - * [10] **Sarah Windmiller**
Thesis Topic: Alternatives to smartphone applications for real-time information and technology usage among transit riders
Fall 2012 – Fall 2013
Employment: Cambridge Systematics, Atlanta, GA
Scholarships: 2013 American Public Transport Foundation Parsons Brinckerhoff-Jim Lammie (\$4,000)

- * [9] **James Wong** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: Use of the general transit feed specification (GTFS) in transit performance measurement
Fall 2011 – Fall 2013
Employment: New York City Economic Development Corporation
Scholarships: 2012 Eisenhower Fellowship (\$5000), 2013 Mundy Fund (\$1500), Outside the Box Competition, 2nd Place (shared \$5,000 with 4 students)
- * [8] **Landon Reed** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: Real-time transit passenger information: a case study in standards development
Fall 2011 – Fall 2013
Employment: Atlanta Regional Commission
Scholarships: 2013 Mundy Fund (\$1500), Outside the Box Competition, 2nd Place (shared \$5,000 with 4 students)
- * [7] **Christopher Silveira** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: User information and the bus stop: designs and applications in the United States and Canada
Fall 2010 – Spring 2013
Employment: Metropolitan Atlanta Rapid Transit Authority
- * [6] **Alex Poznanski**
Thesis Topic: Analyzing demographic and geographic characteristics of “Cycle Atlanta” smartphone application users
Fall 2011 – Spring 2013
Employment: Georgia Regional Transportation Authority
- * [5] **Aaron Gooze** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: Real-time transit information accuracy: impacts and proposed solutions
Fall 2011 – Spring 2013
Employment: Fehr & Peers, Seattle, WA
Scholarships: 2012 Eisenhower Fellowship (\$5000), Outside the Box Competition, 2nd Place (shared \$5,000 with 4 students)
- * [4] **Margaret Carragher** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: Innovations in multi-modal, schematic transit mapping: an exploratory survey
Fall 2011 – Spring 2013
Employment: Vanasse Hangen Brustlin, Atlanta, GA
Scholarships: 2012 Eisenhower Fellowship (\$5000), GDOT Transportation Scholarship (\$700), Outside the Box Competition, 2nd Place (shared \$5,000 with 4 students)
- * [3] **Melody Butler**
Thesis Topic: An assessment tool for the appropriateness of activity-based travel demand models
Fall 2011 – Fall 2012 (began co-advising in 2012)
Employment: Vanasse Hangen Brustlin, Orlando, FL
(co-advised with Professor Michael Meyer)

- * [2] **Joel Anders** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: Future paths for regional fare collection in Atlanta: a case study analysis of the planning and implementation of next generation fare collection systems for regional transit in North America
Fall 2010 – Fall 2012 (began co-advising in 2012)
Employment: Parsons Brinckerhoff, Atlanta, GA
(co-advised with Professor Michael Meyer)
- * [1] **Maria Roell** (Dual Degree Transportation Engineering / City Planning Program)
Thesis Topic: The use of public participation in the design of effective internet-based advanced traveler information systems
Fall 2010 – Fall 2012 (began co-advising in 2012)
Employment: Atlanta Regional Commission
(co-advised with Professor Randy Guensler)

B2.b. In Process M.S. Thesis

- * [4] Freyja Brandel-Tanis (Dual Degree Transportation Engineering / City Planning Program)
Fall 2019 – Spring 2021
- * [3] Sharon Ling (Dual Degree Transportation Engineering / City Planning Program)
Fall 2019 – Spring 2021
- * [2] Spencer Maddox
Fall 2019 – Spring 2020
- * [1] Daniel Arias (Dual Degree Transportation Engineering / City Planning Program)
Fall 2018 – Summer 2020

B2.c. M.S. Non-thesis

- * [13] **Richard Sinz**
Project: Coca-Cola Transportation Commute Coordinator, Graduating 2020
- * [12] **Raza Jafri**
Project: Aerial Transit as a Mode of Inter- and Intracity Travel, Graduated 2018
- * [11] **Joe Zerkus**
Project:, Graduated 2018
- * [10] **Qidi Sun**
Project: I-85 Closure: Ridership Change on MARTA, Graduated 2017
- * [9] **Chelsea Sun**
Project: , Graduated 2017
- * [8] **Anagha Krishna**
Project: Treatments for Pedestrian Safety, Graduated 2016
- * [7] **Vinant Joshi**
Project: Transit Cost Analysis, Graduated 2016
- * [6] **Bijie Ding**
Project: Public Definitions of Complete Streets, Graduated 2016
- * [5] **Maria Palma**
Project: Improving Transit Accessibility for People with Disabilities and the Elderly through Smartphone Applications – A Methodology, Graduated 2016

- * [4] **Jordan Bell**
Project: Impact of Ridesourcing on Transit Ridership, Graduated 2016
- * [3] **Andrew Babb**
Project: Complete Streets and Public Transit, Graduated 2015
- * [2] **Harshath Jootoo Ramesh Bapu**
Project: Usability Testing for OneBusAway, Graduated 2015
(co-advised with Russ Clark)
- * [1] **Jamie Carrillo**
Coursework only

B3. Undergraduate Students

- * [16] **Nik Alton**
Research Topic: Air Quality Monitoring of Cyclists, Fall 2018 & Spring 2019
- * [15] **Data Science for Social Good Team**
Research Topic: Calibration of Mobile Air Quality Monitoring Equipment, Summer 2018
- * [14] **Kanaad Deodhar**
Research Topic: Examination of Four Transit Agency-TNC Partnership Funding Case Studies, Summer 2018
- * [13] **Tu Nguyen**
Research Topic: Recreational vs Transportation Cycling on the Beltline, Spring 2018
- * [12] **Kanaha Shoji**
Research Topic: Differences between Public Transit in Japan and US, Spring 2018
- * [11] **ISYE SLS Capstone Team**
Topic: Optimizing Relay Bikeshare, Spring 2018
- * [10] **Zoe Turner-Yovanovitch**
Research Topic: Morningside Cyclist Level of Traffic Stress, Fall 2017
- * [9] **Juwon Drake**
Research Topic: Cycle Atlanta
Scholarships / Awards: 2017 PURA (\$1000)
- * [8] **Tanner (Reed) Passmore**
Research Topic: Cyclist Infrastructure Preferences, Ongoing 2016 - 2018
- * [7] **Lilian Ayala**
Research Topic: Issues and Assets on Cycle Atlanta, Fall 2015
- * [6] **Jose Luquin**
Research Topic: Urban Street Design and Bicycle Design Manuals, Summer 2014
- * [5] **Felix Malfait**
Research Topic: Cycle Atlanta iPhone app updates
Scholarships / Awards: Summer 2014 Ecole de Ponts Paris Exchange
- * [4] **Rohit Ammanamanchi**
Research Topic: Cycle Atlanta, Ongoing 2013 – 2017
Scholarships / Awards: 2013, 2014 PURA (\$1000 each)
- * [3] **Vinh Pham-Gia**
Research Topic: OneBusAway
Scholarships / Awards: Summer 2013 Ecole de Ponts Paris Exchange

- * [2] **Vernon Gentry**
 Research Topic: The use of public participation in the design of effective internet-based advanced traveler information systems
 Scholarships / Awards: Summer 2013 SURE, Best Undergraduate Poster Award at 2013 AGMUS
- * [1] **Amanda Wall**
 Research Topic: Transit mapping to serve area attractions
 Scholarships / Awards: 2012 PURA (\$1000)

B4. Service on Dissertation Committees

Student & Topic	Graduated	Advisor
Victoria Dean	(2022)	Grubert
Atiyya Shaw	(2020)	Mokhtarian
Yerly Martinez Estupinan	(2020)	Juan Carlos Munoz (Universidad Catholica de Chile)
Michael Garber	(2020)	Lauren McCullough & Dana Flanders (Emory)
Shahi Taphsir Islam (Invited to do external review Monash University)	2019	(Monash University)
Hanyan (Ann) Li – A Framework for Optimizing Public Transit Bus Fleet Conversion to Alternative Fuels	2019	Guensler
Alex Malokin – <u>Pathways to Improving Traditional Travel Behavior Models with Travel-based Multitasking and Attitudinal Data</u>	2019	Mokhtarian
Alice Grossman – <u>Adoption of performance measures in regional transportation planning: current practice and lessons for future applications</u>	2018	Guensler
Johann Weber - <u>Policy Entrepreneurs, Windows, and Cycles: Exploring Policy Change through Bicycle Infrastructure at the Municipal Level</u>	2016	Norton (Policy)
Masoud Oshyani (Invited to serve as opponent at KTH, Sweden)	2015	Anders Karlstrom, KTH
Margaret-Avis Akofio-Sowah - <u>A conceptual framework and approach for enhancing transportation asset management (TAM) implementation for sustained TAM programs</u>	2015	Amekudzi
Franklin Gbologhah – <u>The impacts of illumination on nighttime safety at roundabouts</u>	2015	Rodgers

Aaron Greenwood - <u>Evaluating comprehension of temporary traffic control</u>	2015	Hunter
Felipe Castrillon - <u>Theoretical analysis of the effects of bus operations on urban corridors and networks</u>	2015	Laval
Derek Edwards - <u>Designing optimal demand-responsive transportation feeder systems and comparing performance in heterogeneous environments</u>	2014	Vachtsevanos (ECE)
Jamie Fisher - <u>Transportation performance management for livability and social sustainability: developing and applying a conceptual framework</u>	2014	Amekudzi
Josie Kressner - <u>Leveraging targeted marketing data in travel demand modeling: validation and applications</u>	2014	Garrow
Greg MacFarlane - <u>Using big data to model travel behavior: applications to vehicle ownership and willingness-to-pay for transit accessibility</u>	2013	Garrow
John Patrick O'Har - <u>Transportation asset management and climate change: an adaptive risk-oriented approach</u>	2013	Amekudzi
Mary Katherine Watson - <u>Assessment and improvement of sustainability education in civil and environmental engineering</u>	2013	Rodgers

B4. Service on Thesis Committees

Student & Topic		Graduated Advisor
Les Brown – Using Crowdsourced and Open Data to Explore Emerging Mobility Trends: A New York Metropolitan Area Case Study	2018	Ruth Steiner, University of Florida
Sanjay Kumar – <u>Making bikeshare transit compatible</u>	2018	Welch
David Boyer – Sidewalk Asset Management: Financial Modeling the Total Cost of Sidewalks	2018	Guensler
Dan Walls – <u>Assessing the Potential of Automated Transit Shuttles as a First-and-Last Mile Public Transportation Solution</u>	2018	Guensler
Jeshua Pringle – <u>Parking Policies for Resurging Cities</u>	2016	Guensler
George Maier - <u>Forecasting ridership impacts of transit oriented development at MARTA rail stations</u>	2015	Guensler
Chandra Khatri - <u>Real-time road traffic information detection through social media</u>	2015	Hunter

Eddie Curtis - <u>Comprehensive on-street bicycle facilities: an approach for incorporating traffic signal operational strategies for bicycles</u>	2015	Hunter
Amanda Wall - <u>The regional sales tax: an innovative approach to transportation finance in the Atlanta region</u>	2013	Amekudzi
Alexandra Frackelton - <u>Pedestrian transportation project prioritization incorporating app-collected sidewalk data</u>	2013	Guensler
Stephanie Amoaning-Yankson - <u>A resiliency framework for planning in state transportation agencies</u>	2013	Amekudzi
Lance Ballard - <u>Human-scaled personal mobility device performance characteristics</u>	2012	Hunter
Christina Barry - <u>Calibration of the HCM 2010 roundabout capacity equations for Georgia conditions</u>	2012	Hunter
Samuel Sim - <u>An initial investigation for a monitoring program for the safety performance of design exceptions in Georgia</u>	2012	Hunter

B5. Mentorship of Postdoctoral Fellows or Visiting Scholars

- * [2] **Yerly Martinez**, visiting PhD student from Universidad Catholica de Chile
Fall 2018 – Spring 2019
- * [1] **Simon Berrebi**
Spring 2018 – ongoing

C. OTHER TEACHING ACTIVITIES

C1. Course Development

[6] Sustainable Transportation Abroad (CEE 4660) – taught repeatedly

This course was designed to be a study abroad course tied to the Global Engineering Leadership Minor administered in Civil and Environmental Engineering. It focuses on the planning, design, and operations of transportation systems in countries abroad that are known for a sustainable multimodal approach to transportation. The initial offering focused on the Netherlands, a country where substantial efforts have been made to encourage cycling and transit usage by residents of all ages and cycling levels of comfort. Elements included an initial meeting and a site visit of cycling infrastructure in Atlanta prior to the summer semester, 13 days biking and riding trains in the Netherlands with in classroom content and field site visits, and a design assignment to apply concepts from Dutch design to corridors in the US. Substantial collaboration was done to include course content from partners in four Dutch cities, a regional planning agency, a transit agency, and two TU Delft professors. Funds were obtained for three professionals to travel with the students to serve as informal mentors and learn about Dutch infrastructure.

[5] Multimodal Transportation (CEE 4610) - taught repeatedly

This course was redesigned to be the second major undergraduate transportation course, covering the necessity of multimodality in passenger and freight transportation. The course has not been taught for many years and was completely redone. Components developed by Dr. Watkins include complete streets design, pedestrian and bicycle planning and design, transit planning and operations, traffic calming and context sensitive solutions. (Co-developed and co-taught with Dr. Michael Rodgers)

[4] Complete Streets (CEE 8813) - taught Fall 2014, 2015, 2017

This course was designed to meet jointly with the Multimodal Transportation course for the first half and then separately to address concepts of design for bikes and pedestrians in more depth during the second half. The second half is entirely active learning based using the concept of tactical urbanism, temporary interventions that can help garner an understanding of what interventions might work in a particular context and lay the foundation for more permanent ones. Students identify a problem location and devise a temporary design that they can install and assess in the time of ½ semester. Concepts of data collection and performance metrics are reinforced through the projects.

[3] Transit Planning and Operations (CEE 6642) – taught repeatedly

Through a STRIDE grant, a set of public transportation course modules were developed for both the Introduction to Transportation (an undergraduate senior course) and this stand-alone Transit Planning and Operations course (a specialized graduate course). The course aims to provide a solid understanding of public transportation systems and is designed to be easily applied by instructors with limited experience in the transit industry. The modules were developed and taught at Georgia Tech and Auburn through a process that included researching applicable literature, interviewing educators and practitioners, and mind mapping the core concepts needed for transportation practice. (Co-developed with Professor Jeff LaMondia)

[2] Introduction to Travel Demand Forecasting (CEE 8813) – taught Spring 2012, content used by another instructor Spring 2014

This course serves as an introduction to the process used to estimate the demand for transportation infrastructure. The goal is to give students general exposure to the steps involved in travel demand modeling; the theory and practice behind calculations at each step; the estimation, calibration, and maintenance of travel demand models; shortcomings of traditional travel demand models and future directions of the industry; and the use of travel demand models in decision-making.

[1] Intelligent Transportation and the Internet (CEE 8813) – taught Fall 2013

This course examines IT technology and policy in transportation, as the internet plays a greater role in transportation information and data. Topics include intelligent transportation systems, public-private partnerships, the evolving role of traffic management, vehicle-to-vehicle networks, and standards-setting. The course was developed as a component of a GDOT / NCTSPM project. (With Prof Hans Klein)

VI. SERVICE

A. PROFESSIONAL CONTRIBUTIONS

A1. Editorial Board Memberships

- * [2] Handling Editor, Transportation Research Record, 2019 – present
- * [1] Associate Editor, Journal of Public Transportation, 2017 – present

A2. Society Office, Activities, and Membership

- * [5] Paper Review Coordinator and Member, Bicycle Transportation Committee, Transportation Research Board, 2018 – present
- * [4] Member, Urban Transportation Data and Information System Committee, Transportation Research Board, 2014 – present
- * [3] Member, Transit Capacity and Quality of Service, Transportation Research Board, 2010 - 2018.
- * [2] Chair, Research Subcommittee of Bus Transit Committee, Transportation Research Board, 2009-2013.
- * [1] Member, Bus Transit Committee, Transportation Research Board, 2008 – 2014.

A3. Organization and Chairmanship of Technical Sessions, Workshops and Conferences

- * [6] Serve-Learn-Sustain iGniTe Beltline Seminar Series, Summer 2018
- * [5] Scientific Committee, International Cycling Safety Conference, Sept 2017, Oct 2018
- * [4] Co-organizer, Transportation Camp South, Feb 2013, April 2014, Sept 2015, March 2017, Feb 2018, Feb 2019
- * [3] Co-organizer, FTA Region IV Conference, June 2015
- * [2] Program Committee, ASCE Green Streets Conference 2012-2013
- [1] Speaker Chair, Region 10 UTC Student Conference, 2008.

A4. Technical Journal or Conference Referee Activities

Paper Reviewer: Transportation Research Part A, Part C, Part D, Part F, Environment and Planning A, Research in Transportation Business and Management, Journal of Transportation and Land Use, Transportation Research Board, SigChi, Journal of Urban Planning and Development, Journal of Intelligent Transportation Systems, Journal of Transport and Health

A5. Proposal Panels and Reviews

- * [3] NJ Governor's Council on Autism Research Scientific Merit Review Panel, 2016, 2020
- * [2] NSF Cyberphysical Systems Panel, 2016
- * [1] NSF Graduate Research Fellowship Panel, 2013

Proposal Reviewer: National Center for Sustainable Transportation, National Institute for Transportation & Communities, University of Vermont Transportation Research Center, Upper

Great Plains Transportation Institute, Mid-Atlantic Transportation Sustainability Center, National Science Foundation

A6. Other Involvement

- * [2] Transit Cooperative Research Program advisory panel, Synthesis SA-35, Better On Street Bus Stops, 2013
- * [1] Transit Cooperative Research Program advisory panel, Synthesis SA-32, System Specific Spare Bus Ratios, 2012

B. PUBLIC AND COMMUNITY SERVICE

- * [11] Atlanta Bicycle Coalition Advisory Council, 2017 – present
- * [10] Midtown Alliance Complete Streets Advisory Committee, 2019
- * [9] MARTA Director of Research Hiring Committee, 2017
- * [8] Atlanta Regional Commission Safety Action Plan Advisory Committee, 2017 - 2018
- * [7] MARTA Hackathon Series, Oct 2016, Feb 2017
- * [6] Atlanta Regional Commission Transportation Technology Advisory Committee, 2016
- * [5] Central Atlanta Progress Transportation Plan Steering Committee, 2016 – 2017
- * [4] Midtown Alliance Transportation Plan Steering Committee, 2015 - 2016
- * [3] Atlanta Beltline Technical Advisory Committee, 2014 – 2017
- * [2] Handlebar Committee, City of Atlanta Bicycle Projects, 2012-2013
- * [1] Board of Directors, OneBusAway, 2013 – present

C. INSTITUTE CONTRIBUTIONS

C1. Institute Committee Service

- * [5] Parking and Transportation Bus Contract Review Committee, 2019 - present
- * [4] Parking and Transportation Immediacy Plan Working Group, 2019.
- * [3] Chair Search, City and Regional Planning, 2017 – 2018.
- * [2] FASET Orientation Faculty Panel, 2014, 2015, 2017, 2018, 2019.
- * [1] Bike Master Plan, provided bike trip graphics to consulting team, 2014.

C2. College Committee Service

- * [2] College RPT Committee, 2019 – present.
- * [1] ADVANCE College of Engineering Finance Committee, 2011 – 2012.

C3. School Committee Service

- * [13] Chair, Undergraduate Committee, Civil and Environmental Engineering, 2018 – present.
- * [12] International Initiatives Committee, Civil and Environmental Engineering, 2019 – present.
- * [11] Transportation Group Qualifying Exam Reviewer, Civil and Environmental Engineering, 2018, 2019, 2020.
- * [10] Transportation Admissions Gatekeeper, Civil and Environmental Engineering, 2018 – present.

- * [9] Statutory Advisory Committee (SAC), Civil and Environmental Engineering, 2017 – 2019.
- * [8] Chair Search, Civil and Environmental Engineering, 2017 – 2018.
- * [7] Dickerson Chair Hiring Committee, Civil and Environmental Engineering, 2016 - 2017.
- * [6] Corporate Affiliates Program Team, Civil and Environmental Engineering, 2016 – present.
- * [5] Olmstead Chair Hiring Committee, Civil and Environmental Engineering, 2013-2015.
- * [4] Dickerson Chair Hiring Committee, Civil and Environmental Engineering, 2012-2014.
- * [3] Faculty Hiring Committee, Civil and Environmental Engineering, 2011 - 2013.
- * [2] Organizer of the Georgia Tech University Transportation Center Speaker Series, 2011 – 2015.
- [1] Student Representative, University of Washington Department of Civil and Environmental Engineering, Transportation Faculty Hiring Committee, 2009.

C4. Program Development: Research

- * [1] Technology Transfer Coordinator, Center for Transportation, Equity, Decisions and Dollars (CTEDD), 2020.