

# Robert Lawrence Bertini, Ph.D., P.E.

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## *Curriculum Vitae*

Professor of Civil and Environmental Engineering  
Portland State University  
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## Education

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- Ph.D. in Civil Engineering (Transportation)**, University of California at Berkeley, 1999  
Dissertation: *Time Dependent Traffic Flow Features at a Freeway Bottleneck Downstream of a Merge*
- M.S. in Civil Engineering (Transportation)**, San Jose State University, 1991
- B.S. *cum laude* in Civil Engineering**, California Polytechnic State University, San Luis Obispo, 1988 (Music Minor: French horn)

## Professional History

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- Professor of Civil and Environmental Engineering, Portland State University, 2008–present (on leave 2009–2011); Associate Professor (2004–2008); Assistant Professor (2000–2004)
- Deputy Administrator, Research and Innovative Technology Administration, U.S. Department of Transportation, 2009–2011
- Acting Director, Intelligent Transportation Systems Joint Program Office, Research and Innovative Technology Administration, U.S. Department of Transportation, 2010–2011
- Founding Director, Oregon Transportation Research and Education Consortium (OTREC), a National University Transportation Center, Portland State University in partnership with the University of Oregon, Oregon State University and the Oregon Institute of Technology, 2006–2009
- Director, Intelligent Transportation Systems Laboratory, Portland State University, 2000–2009
- Director, Center for Transportation Studies, College of Urban and Public Affairs, Portland State University, 2003–2006 (Acting Director 2002–03)
- Professor, Associate Professor and Assistant Professor of Urban Studies and Planning (joint appointment), 2003–2009

Senior Research Scientist, DaimlerChrysler Research and Technology North America, Inc., Palo Alto, California, 1999–2000

University of California Transportation Center Fellow, Eisenhower Fellow, and Graduate Research and Teaching Assistant, Institute of Transportation Studies, University of California at Berkeley, 1995–1999

Lecturer, Department of Civil and Environmental Engineering, San Jose State University, 1993–1995

Lead Civil Engineer, Parsons Brinckerhoff Quade & Douglas, Inc., San Jose and San Francisco, California, 1993–1995

Senior Civil Engineer, DeLeuw, Cather & Company, San Jose and San Francisco, California, 1990–1993

Associate Engineer, San Mateo County Department of Public Works, Redwood City, California, 1988–1990

Senior Engineering Aide, San Mateo County Department of Public Works, Redwood City, California, Summers 1984–1986.

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## **Affiliations and Other Appointments**

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Visiting Professor, Department of Transport and Planning, Faculty of Civil Engineering and Geosciences, Delft University of Technology, 2011–2012

Visiting Scholar, Centre for Expertise on Traffic Management (TrafficQuest), Rijkswaterstaat/TNO/Delft University of Technology, 2011–2012

Visiting Professor, Department of Civil Engineering and Institute of Transport Studies, Monash University, Melbourne, Australia, December 2008

Senior Fellow, Center for Transportation Studies, College of Urban and Public Affairs, Portland State University, 2006–2009.

Research Associate, Center for Urban Studies, College of Urban and Public Affairs, Portland State University, 2001–2009.

Research Associate, Mineta Transportation Institute, San Jose State University, 1994–2009.

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## **Awards and Honors**

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National Science Foundation Faculty Early Career Development (CAREER) Award, *Mining Archived Intelligent Transportation Systems Data: A Validation Framework for Improved Performance Assessment and Modeling*, \$400,000, 2003–2008

Innovation in Education Award, Institute of Transportation Engineers, 2010 Annual Meeting and Exhibition, Vancouver, B.C., 2010

Melvin Webber Memorial Lecturer, University of California Transportation Center (UCTC) Student Conference, University of California Irvine, 2010

Distinguished Faculty Achievement Award, Portland State University, 2007

WesternITE Editorial Award, Institute of Transportation Engineers District 6 Annual Meeting, *Transportation Gets Googled*, McCourt, R., Welch, T., Tufte, K., and Bertini, R.L., 2007

Best Annual Meeting Paper Award, Institute of Transportation Engineers District 6 Annual Meeting, *Evaluating an Adaptive Signal Control System in Gresham*, Peters, J.M., McCoy, J., and Bertini, R.L., 2007

Omega Rho, Operations Research and Management Science Honor Society, 2007

Outstanding Transportation Educator, Institute of Transportation Engineers, District 6, 2006.

Excellence in Community-Based Research Civic Engagement Award, Portland State University Center for Academic Excellence, with C. Monsere, 2006

Women's Transportation Seminar (WTS) Portland Chapter 2006 Diversity Achievement Award

Chinook Award, Outstanding Volunteer Group Contribution, Sullivan's Gulch Trail Design, Metro Regional Parks and Greenspaces, 2005.

Institute of Transportation Engineers, *Individual Achievement Award*, Oregon Section, 2004

Institute of Transportation Engineers, District 6 Annual Meeting Best Paper Award, *Analysis of a Transit Bus as a Probe Vehicle for Arterial Performance Measurement*, with S. Tantiyanugulchai, 2003

Outstanding Research Award, Maseeh College of Engineering and Computer Science, Portland State University, 2003

Outstanding Teaching Award, Civil and Environmental Engineering, Portland State University, 2002

Innovative Ideas Award, Bus Rapid Transit and the American Community Design Competition, 2001

Eno Foundation Fellow, Eno Center for Transportation Leadership Development, 1998

Dwight David Eisenhower Graduate Fellowship (\$70,000), National Highway Institute, U.S. Department of Transportation, 1997–1999

University of California Transportation Center (UCTC) Dissertation Fellowship, 1999

University of California Transportation Center (UCTC) Fellowship, 1996

## **Publications**

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### **Refereed Archival Journal Publications**

#### ***Published***

*February 8, 2012*

1. Ou, Q., Bertini, R.L., van Lint, H., and Hoogendoorn, S. "A Theoretical Framework for Traffic Speed Estimation by Fusing Low Resolution Probe Vehicle Data." *IEEE Transactions on Intelligent Transportation Systems*, Vol. 12, Sep. 2011, pp. 747–756.
2. Feng, W., Bigazzi, A., Kothuri, S., and Bertini, R.L. "[Freeway Sensor Spacing and Probe Vehicle Penetration: Impacts on Travel Time Prediction and Estimation Accuracy.](#)" *Transportation Research Record No. 2178*, pp. 67–78, 2010.
3. Li, H., and Bertini, R.L. "[Comparison of Algorithms for Systematic Tracking of Patterns of Traffic Congestion on Freeways in Portland, Oregon.](#)" *Transportation Research Record No. 2178*, pp. 101–110, 2010.
4. Bigazzi, A., Siri, Helene, and Bertini, R.L. "[Effects of Temporal Data Aggregation on Performance Measures and other Intelligent Transportation Systems Applications.](#)" *Transportation Research Record No. 2160*, pp. 96–106, 2010.
5. Wiecezorek, J., Fernandez-Moctezuma, R., and Bertini, R.L. "[Techniques for Validating an Automatic Bottleneck Detection Tool Using Archived Freeway Sensor Data.](#)" *Transportation Research Record No. 2160*, pp. 87–95, 2010.
6. Bigazzi, A., and Bertini, R.L. "[Adding Green Performance Metrics to a Transportation Data Archive.](#)" *Transportation Research Record No. 2121*, pp. 30–40, 2009.
7. Berkow, M., El-Geneidy, A., Bertini, R.L. and Crout, D. "[Beyond Generating Transit Performance Measures: Visualizations and Statistical Analysis Using Historical Data.](#)" *Transportation Research Record No. 2011*, pp. 158–169, 2009.
8. Li, H., and Bertini, R.L. "[Assessment of an Optimal Bus Stop Spacing Model Using High Resolution Archived Stop-Level Data.](#)" *Transportation Research Record No. 2011*, pp. 24–32, 2009.
9. Berkow, M., Monsere, C., Koonce, P., Bertini, R.L., and Wolfe, M. and "[Prototype for Data Fusion Using Stationary and Mobile Data Sources for Improved Arterial Performance Measurement](#)" *Transportation Research Record No. 2099*, pp. 102-112, 2009.
10. Bertini, R.L., and Lovell, D. "[Impacts of Sensor Spacing on Accurate Freeway Travel Time Estimation for Traveler Information.](#)" *Journal of Intelligent Transportation Systems*, Vol. 13, No. 2, pp. 97–110, April 2009.
11. Zielke, B., Bertini, R.L., and Treiber, M. "[Empirical Measurement of Freeway Oscillation Characteristics: An International Comparison.](#)" *Transportation Research Record No. 2088*, pp. 57–67, 2008.
12. Monsere, C., Bosa, P., and Bertini, R.L. "[Combining Climate, Crash, and Highway Data for Improved Ranking of Speed and Winter-Weather Related Crash Locations in Oregon.](#)" *ASCE Journal of Transportation Engineering*, Volume 134, Issue 7, pp. 287–296, 2008.
13. Lyman, K., and Bertini, R.L. "[Using Travel Time Reliability Measures to Improve Regional Transportation Planning and Operations.](#)" *Transportation Research Record No. 2046*, pp. 1–10, 2008.
14. Kothuri, S., Tufte, K., Fayed, E., and Bertini, R.L. "[Toward Understanding and Reducing Errors in Real-Time Estimation of Travel Times.](#)" *Transportation Research Record No. 2049*, pp. 21–28, 2008.

15. Monsere, C., Breakstone, A., Bertini, R.L. and Bish, D. "[Developing an Online Tool for Delivering Research Results: An Update to the Oregon Department of Transportation's Crash Reduction Factor Database.](#)" *Transportation Research Record No. 2009*, pp. 113–120, 2007.
16. Ahn, S., Bertini, R.L., Auffray, B. and Ross, J. "[Evaluating the Benefits of a System-Wide Adaptive Ramp-Metering Strategy in Portland, Oregon.](#)" *Transportation Research Record No. 2012*, pp. 47–56, 2007.
17. Bertini, R.L., Boice, S. and Bogenberger, K. "[Dynamics of Variable Speed Limit System Surrounding a Bottleneck on a German Autobahn.](#)" *Transportation Research Record No. 1978*, pp. 149–159, 2006.
18. Monsere, C., Breakstone, A., Bertini, R.L., Deeter, D. and McGill, G. "[Validating Dynamic Message Sign Freeway Travel Time Messages Using Ground Truth Geospatial Data.](#)" *Transportation Research Record No. 1959*, pp. 19–27, 2006.
19. Lindgren, R., Bertini, R.L., Helbing, D. and Schonhof, M. "[Toward Demonstrating the Predictability of Bottleneck Activation on a German Autobahn.](#)" *Transportation Research Record No. 1965*, pp. 12–22, 2006.
20. Bertini, R.L., Hansen, S. and Bogenberger, K. "[Empirical Analysis of Traffic Sensor Data Surrounding a Bottleneck on a German Autobahn.](#)" *Transportation Research Record No. 1934*, pp. 97–107, 2005.
21. Monsere, C., Nolan, C., Bertini, R., Anderson, A. and El-Seoud, T. "[Measuring the Impacts of Speed Reduction Technologies: A Dynamic Advanced Curve Warning System Evaluation.](#)" *Transportation Research Record No. 1918*, pp. 98–107, 2005.
22. Byrne, N., Koonce, P., Bertini, R.L., Pangilinan, C. and Lasky, M. "[Using Hardware-in-the-Loop Simulation to Evaluate Signal Control Strategies for Transit Signal Priority.](#)" *Transportation Research Record No. 1925*, pp. 227–234, 2005.
23. Bertini, R.L., Hansen, S., Byrd, A. and Yin, T. "[PORTAL: Experience Implementing the ITS Archived Data User Service in Portland, Oregon.](#)" *Transportation Research Record No. 1917*, pp. 90–99, 2005.
24. Bertini, R.L. and Myton, A. "[Using PeMS Data to Empirically Diagnose Freeway Bottleneck Locations in Orange County, California.](#)" *Transportation Research Record No. 1925*, pp. 48–57, 2005.
25. Bertini, R.L., Monsere, C., Byrd, A., Rose, M. and El-Seoud, T. "[Using Custom Transportation Data Collection Software with Handheld Computers for Education, Research, and Practice.](#)" *Transportation Research Record No. 1924*, pp. 37–45, 2005.
26. Kimpel, T., Strathman, J., Bertini, R.L. and Callas, S. "[Analysis of Transit Signal Priority Using Archived TriMet Bus Dispatch System Data.](#)" *Transportation Research Record No. 1925*, pp. 156–166, 2005.
27. Bertini, R.L. and Leal, M. "[Empirical Study of Traffic Features at a Freeway Lane Drop.](#)" *ASCE Journal of Transportation Engineering*, Vol. 131, No. 6, pp. 397–407, 2005.
28. Bertini, R.L., Glasgow, C., and Peters, J. "[Evaluating Traffic Signal Improvements Using Archived Transit AVL Data.](#)" *Institute of Transportation Engineers Journal on the Web*, Vol. 75, No. 2, pp. 69–75, 2005.
29. Bertini, R.L. "[Detecting Signals of Bottleneck Activation for Freeway Operations and Control.](#)" *Journal of Intelligent Transportation Systems*, Vol. 9, No. 1, pp. 35–45, 2005.

30. Bertini, R.L. and Malik, S. "[Observed Dynamic Traffic Features On a Freeway Section with Merges and Diverges.](#)" *Transportation Research Record No. 1867*, pp. 25–35, 2004.
31. Bertini, R.L. and Tantiyanugulchai, S. "[Transit Buses as Traffic Probes: Empirical Evaluation Using Geo-Location Data.](#)" *Transportation Research Record No. 1870*, pp. 35–45, 2004.
32. Astarita, A., Bertini, R., D'Elia, S. And Guido. G. "[Motorway Traffic Parameters Estimation from Mobile Phone Counts.](#)" *European Journal of Operational Research*, Vol. 175, Issue 3, pp. 1435–1446, 2006.
33. Lin, W.H. and Bertini, R.L. "[Modeling Schedule Recovery Processes in Transit Operations for Bus Arrival Time Prediction.](#)" *Journal of Advanced Transportation*, Vol. 38, No. 3, pp. 347–365, 2004.
34. Bertini, R.L. and El-Geneidy, A.M. "[Modeling Transit Trip Time Using Archived Bus Dispatch System Data.](#)" *ASCE Journal of Transportation Engineering*, Vol. 130, No. 1, pp. 56–67, 2004.
35. Bertini, R.L. and El-Geneidy, A.M. "[Using Archived Data to Generate Transit Performance Measures.](#)" *Transportation Research Record No. 1841*, pp. 109–119, 2003.
36. Pahs, M., Rohden, M., Hampsten, D., Gallant, S. and Bertini, R.L. "[Door-to-Door Mobility: A Bus Rapid Transit Community Transport Concept for Southeast Portland, Oregon.](#)" *Journal of Public Transportation*, Vol. 5, No. 2, pp. 137–161, 2002.
37. Bertini, R.L. and Cassidy, M.J. "[Some Observed Queue Discharge Features at a Freeway Bottleneck Downstream of a Merge.](#)" *Transportation Research, Part A*, Vol. 36, No. 8, pp. 683–697, 2002.
38. Steingrover, A., Krevet, R., and Bertini, R.L. "[Feasibility, Financial and Environmental Analysis of an Advanced Maglev-Based Intermodal System.](#)" *Transportation Research Record No. 1760*, pp. 153–160, 2001.
39. Daganzo, C.F., Cassidy, M.J. and Bertini, R.L. "[Possible Explanations of Phase Transitions in Highway Traffic.](#)" *Transportation Research, Part A*, Vol. 33, No. 5, pp. 365–379, 1999.
40. Smilowitz, K., Daganzo, C.F., Cassidy, M.J. and Bertini, R.L. "[Some Observations of Highway Traffic in Long Queues.](#)" *Transportation Research Record No. 1678*, pp. 225–233, 1999.
41. Cassidy, M.J. and Bertini, R.L. "[Some Traffic Features at Freeway Bottlenecks.](#)" *Transportation Research, Part B*, Vol. 33, No. 1, pp. 25–42, 1999.
42. Skabardonis, A., Bertini, R.L. and Gallagher, B. "[Development and Application of Control Strategies for Signals in Coordinated Systems.](#)" *Transportation Research Record No. 1634*, pp. 110–117, 1998.
43. Skabardonis, A., Petty, K., Bertini, R.L., Varaiya, P.P., Noemi, H. and Rydzewski, D. "[The I-880 Field Experiment: Analysis Of The Incident Data.](#)" *Transportation Research Record No. 1603*, pp. 72–79, 1997.

**Submitted**

44. Ahn, S., Rayabhari, M., Qin, O., Feng, W., and Bertini, R.L. "Characteristics of Transitions in Freeway Traffic Near a Merge and Queue Tails." *Transportation Research Part B*, 2009 (Submitted).

45. Tufte, K., Ahn, S., Bertini, R.L., Wang, Y., Cheevarunothai, P., Auffray, B., and Monsere, C. "Toward the Systematic Improvement of Data Quality in the Portland, Oregon Regional Transportation Archive Listing (PORTAL)." *Journal of Intelligent Transportation Systems*, 2008 (Submitted).

## Conference Proceedings

### *Published Fully Refereed Conference Proceedings*

1. Saberi K., M, and Bertini, R.L. "[Empirical Analysis of the Effects of Rain on Measured Freeway Traffic Parameters](#)." 89th Annual Meeting of the Transportation Research Board, Washington, D.C., 2010.
2. Tuftte, K., Bertini, R.L., Chee, J., Fernandez-Moctezuma, R.J., Periasamy, S., Sarkar, S., Singh, P., Whiteneck, J., Matthews, S., Freeman, N., and Ahn, S. "[Portal 2.0: Towards a Next-Generation Archived Data User Service](#)." *Proceedings of the 89th Annual Meeting of the Transportation Research Board*, 2010.
3. Saberi K., M, and Bertini, R.L. "[Beyond Corridor Reliability Measures: Analysis of Freeway Travel Time Reliability at the Segment Level for Hotspot Identification](#)." *Proceedings of the 89th Annual Meeting of the Transportation Research Board*, 2010.
4. Ahn, S., Rayabhari, M., Ou, Q., and Bertini, R.L. "[An Empirical Study of Transient Freeway Traffic States along Kinematic Waves](#)." *Proceedings of the 88th Annual Meeting of the Transportation Research Board*, 2009.
5. Monsere, C., Eshel, O., and Bertini, R.L. "[Empirical Evaluation of Freeway Corridor Performance Before and After System-Wide Adaptive Ramp Metering System Implementation](#)." *Proceedings of the 88th Annual Meeting of the Transportation Research Board*, 2009.
6. Wieczorek, J., Li, H., Fernandez-Moctezuma, R., and Bertini, R.L. "[Integrating an Automated Bottleneck Detection Tool into an Online Freeway Data Archive](#)." *Proceedings of the 88th Annual Meeting of the Transportation Research Board*, 2009.
7. Fernandez-Moctezuma, R., Bertini, R.L., Maier, D., and Tuftte, K. "[Toward Improved and Transparent Imputation Techniques for Online Traffic Data Streams and Archiving Applications](#)." *Proceedings of the 88th Annual Meeting of the Transportation Research Board*, 2009.
8. Bertini, R.L., Li, H., Wieczorek, J. and Fernandez, R. "[Using Archived Data to Systematically Identify and Prioritize Freeway Bottlenecks](#)." 10th International Conference on Application of Advanced Technologies in Transportation, Athens, Greece, May 27– 31, 2008.
9. Tasnim, S., Monsere, C. and Bertini, R.L. "[Toward an Automated Incident Analysis Process Using Archived Data on the Portland Oregon Freeway System](#)." 10th International Conference on Application of Advanced Technologies in Transportation, Athens, Greece, May 27– 31, 2008.
10. Berkow, M., Wolfe, M., Monsere, C., and Bertini, R.L. "[Using Signal System Data and Buses as Probe Vehicles to Define the Congested Regime on Arterials](#)." *Proceedings of the 87th Annual Meeting of the Transportation Research Board*, 2008.
11. Bertini, R.L., and Lovell, D. "[Developing an Optimal Sensing Strategy for Accurate Freeway Travel Time Estimation and Traveler Information](#)." *Proceedings of the 87th Annual Meeting of the Transportation Research Board*, 2008.
12. Li, H., Mao, B., and Bertini, R.L. "[Using Simulation to Evaluate Bus Facility Design Impacts on Transit Operations in Beijing, China](#)." *Proceedings of the 87th Annual Meeting of the Transportation Research Board*, 2008.

13. Auffray, B., Monsere, C., and Bertini, R.L. "[An Empirical Investigation of the Impacts of Sun-Related Glare on Traffic Flow.](#)" *Proceedings of the 87th Annual Meeting of the Transportation Research Board*, 2008.
14. Chavan, P., Tufte, K., Monsere, C., Stephens, M. and Bertini, R.L. "[Extending the Use of Archived ITS Data As a Potential Management Tool to Evaluate Traveler Information on Dynamic Message Signs.](#)" *Proceedings of the 87th Annual Meeting of the Transportation Research Board*, 2008.
15. Bertini, R.L., and Makler, J. "[Beyond Archiving: Developing and Attracting Users of an Archived Data User Service.](#)" *Proceedings of the 87th Annual Meeting of the Transportation Research Board*, 2008.
16. Bertini, R.L. "[Toward Optimal Sensor Density for Improved Freeway Travel Time Estimation and Traveler Information.](#)" 10th International IEEE Conference on Intelligent Transportation Systems, Seattle, Washington, September 30–October 3, 2007.
17. Kothuri, S., Bertini, R.L. and Makler, J. "[Lessons from Developing an Archived Data User Service in Portland, Oregon: Who Is Using It?](#)" 10th International IEEE Conference on Intelligent Transportation Systems, Seattle, Washington, September 30–October 3, 2007.
18. Wolfe, M., Monsere, C., Koonce, P. and Bertini, R.L. "[Improving Arterial Performance Measurement Using Traffic Signal System Data.](#)" 10th International IEEE Conference on Intelligent Transportation Systems, Seattle, Washington, September 30–October 3, 2007.
19. Fernandez-Moctezuma, R., Tufte, K., Maier, D. and Bertini, R.L. "[Toward Management and Imputation of Unavailable Data in Online Advanced Traveler Information Systems.](#)" 10th International IEEE Conference on Intelligent Transportation Systems, Seattle, Washington, September 30–October 3, 2007.
20. Horowitz, Z. and Bertini, R.L. "[Using PORTAL Data to Empirically Diagnose Freeway Bottlenecks Located on Oregon Highway 217.](#)" *Proceedings of the 86th Annual Meeting of the Transportation Research Board*, 2007.
21. Kothuri, S., Tufte, K., Ahn, S. And Bertini, R.L. "[Using Archived ITS Data to Generate Improved Freeway Travel Time Estimates.](#)" *Proceedings of the 86th Annual Meeting of the Transportation Research Board*, 2007.
22. Tufte, K., Ahn, S., Bertini, R.L., Auffray, B. and Rucker, J. "[Toward the Systematic Improvement of Data Quality in the Portland, Oregon Regional Transportation Archive Listing \(PORTAL\).](#)" *Proceedings of the 86th Annual Meeting of the Transportation Research Board*, 2007.
23. Potter, J., Tasnim, S., Tufte, K. and Bertini, R.L. "[Incorporating Incident Data into a Freeway Data Archive for Improved Performance Measurement.](#)" *Proceedings of the 86th Annual Meeting of the Transportation Research Board*, 2007.
24. Welch, T., Tufte, K., McCourt, R., Bertini, R.L. and Snook, A. "[Implementing a User-Oriented Web-based Traffic Data Management and Archive System.](#)" *Proceedings of the 86th Annual Meeting of the Transportation Research Board*, 2007.
25. Kothuri, S., Tufte, K., Ahn, S., and Bertini, R.L., "[Development of an ITS Data Archive Application for Improving Freeway Travel Time Estimation.](#)" 9th International IEEE Conference on Intelligent Transportation Systems, Toronto, Canada, September 17–20, 2006.

26. Bertini, R.L., Tufte, K., Rucker, J., Potter, J., and Welch, T. "[Expansion of an ITS Data Archive with Applications for Improving Spatial Analysis and Tracking Non-Recurrent Congestion](#)." 9th International IEEE Conference on Intelligent Transportation Systems, Toronto, Canada, September 17–20, 2006.
27. Bertini, R.L. "[You Are the Traffic Jam: An Examination of Congestion Measures](#)." *Proceedings of the 85th Annual Meeting of the Transportation Research Board*, 2006.
28. Bertini, R.L., Lasky, M. and Monsere, C. "[Validating an Automated License Plate Recognition System for Predicting Rural Corridor Travel Times](#)." 12th World Congress on Intelligent Transport Systems, San Francisco, November 5–10, 2005.
29. Bertini, R.L., Boice, S. and Bogenberger, K. "[Using ITS Data Fusion to Examine Traffic Dynamics on a Freeway with Variable Speed Limits](#)." 8th International IEEE Conference on Intelligent Transportation Systems, Vienna, Austria, September 13–16, 2005.
30. Bertini, R.L., Matthews, S., Hansen, S., Delcambre, A., and Rodriguez, A. "[ITS Archived Data User Service in Portland, Oregon: Now and Into the Future](#)." 8th International IEEE Conference on Intelligent Transportation Systems, Vienna, Austria, September 13–16, 2005.
31. Bertini, R.L., Lindgren, R.V., Helbing, D. and Schonhof, M. "[The German Autobahn: An ITS Test Bed for Examining Dynamic Traffic Flow Phenomena](#)." 8th International IEEE Conference on Intelligent Transportation Systems, Vienna, Austria, September 13–16, 2005.
32. Bertini, R.L., Lasky, M. and Monsere, C. "[Validating Predicted Rural Corridor Travel Times from an Automated License Plate Recognition System: Oregon's Frontier Project](#)." 8th International IEEE Conference on Intelligent Transportation Systems, Vienna, Austria, September 13–16, 2005.
33. Astarita, V., Bertini, R.L. and Guido, G. "[The Estimation of Traffic Flow Parameters From Instrumented Vehicles Counts](#)." *Proceedings of the 84th Annual Meeting of the Transportation Research Board*, 2005.
34. Bertini, R.L., Rose, M. and El-Geneidy, A. "[Using Archived ITS Data Sources to Measure the Effectiveness of a Freeway Incident Response Program](#)." *Proceedings of the 84th Annual Meeting of the Transportation Research Board*, 2005.
35. Bertini, R.L. and Rose, M. "[Using Archived ATMS Data for the Performance Evaluation of a Freeway Incident Response Program](#)." *Proceedings of the IEEE 7th Annual Conference on Intelligent Transportation Systems*, Washington, D.C., 2004.
36. El-Geneidy, A. and Bertini, R.L. "[Toward Validation of Freeway Loop Detector Speed Measurements Using Transit Probe Data](#)." *Proceedings of the IEEE 7th Annual Conference on Intelligent Transportation Systems*, Washington, D.C., 2004.
37. Bertini, R.L., Byrd, A. and Yin, T. "[Implementing the ITS Archived Data User Service in Portland, Oregon](#)." *Proceedings of the IEEE 7th Annual Conference on Intelligent Transportation Systems*, Washington, D.C., 2004.
38. Bertini, R.L. and El-Geneidy, A. "[Empirical Techniques for Improving the Performance of Ramp Control Systems Using Archived ITS Data](#)." *Proceedings of the Eleventh World Congress on Intelligent Transport Systems*, Nagoya, Japan, 2004.
39. Bertini, R.L., Lindgren, R., Helbing, D. and Schonhof, M. "[Empirical Analysis of Flow Features on a German Autobahn](#)." *Proceedings of the 83rd Annual Meeting of the Transportation Research Board*, 2004.

40. Bertini, R.L. "[Toward the Systematic Diagnosis of Freeway Bottleneck Activation](#)," *Proceedings of the IEEE 6th Annual Conference on Intelligent Transportation Systems*, Shanghai, China, October 2003.
41. Bertini, R.L. and Tantiyanugulchai, S. "[Arterial Performance Measurement Using Transit Buses as Probe Vehicles](#)," *Proceedings of the IEEE 6th Annual Conference on Intelligent Transportation Systems*, Shanghai, China, October 2003.
42. Bertini, R.L., Leal, M. and Lindgren, R. "[Examination Of Features of a Freeway Bottleneck Surrounding A Lane Drop](#)," *Proceedings of the 82nd Annual Meeting of the Transportation Research Board*, 2003
43. Lin, W.H. and R. L. Bertini, "[Modeling Schedule Recovery Processes in Transit Operations for Bus Arrival Time Prediction](#)," *Proceedings of the IEEE 5th Annual Conference on Intelligent Transportation Systems*, Singapore, 2002
44. Bertini, R.L. and Leal, M. "[Generating Performance Measures from Portland's Archived Advanced Traffic Management System Data](#)," *Proceedings of the 81st Annual Meeting of the Transportation Research Board*, 2002.
45. Cassidy, M.J. and Bertini, R.L. "[Observations at a Freeway Bottleneck](#)." In: *Proceedings of the Fourteenth International Symposium on Transportation and Traffic Theory (14th ISTTT)*, Jerusalem, Israel, Pergamon, New York, 1999, pp. 107–124.
46. Bertini, R.L., Botha, J.L. and Nielsen, K.O. "[Light Rail Transit Implementation Perspectives for the Future: Lessons Learned in Silicon Valley](#)." *Conference Proceedings 8, Seventh National Conference on Light Rail Transit*, Transportation Research Board, Baltimore, Maryland, 1995, pp. 23–32.
47. Bertini, R.L., Barnes, W.L. and Mackie, J. "[Art Integration: An Essential Design Component and Vehicle for Community Commitment](#)." *Conference Proceedings 8, Seventh National Conference on Light Rail Transit*, Transportation Research Board, Baltimore, Maryland, 1995, pp. 87–95.
48. Bertini, R.L. "[Rail Corridor Evolution: The Development of the San Francisco – San Jose Corridor](#)." *Proceedings of the 72nd Annual Meeting of the Transportation Research Board*, 1993.
49. Bertini, R.L., Botha, J.L., Colman, S.B. and McKean, P. "[The Rail Transit/Land Use Synergism—Case Study of the San Francisco Bay Area](#)." *Proceedings of the 72nd Annual Meeting of the Transportation Research Board*, 1993.
50. Li, H., Bertini, R.L., and El-Geneidy, A. "Using Archived Stop-Level Transit Data for Assessing Bus Operations and Exploring Optimal Stop Spacing." 11th International Conference on Advanced Systems for Public Transport (CASPT 2009), Hong Kong, 2009
51. Saberi, M., and Bertini, R.L. "Toward Implementing Weather-Responsive Advanced Traffic Management and Information Systems." *Proceedings of the 16th World Congress on Intelligent Transport Systems*, Stockholm, Sweden, September 21–25, 2009.
52. Li, H., and Bertini, R.L. "Toward Sustainable Transit Operations and Performance Enhancement Using Archived Automatic Vehicle Location Data." *Proceedings of the 16th World Congress on Intelligent Transport Systems*, Stockholm, Sweden, September 21–25, 2009.

53. Palmer, J., Wieczorek, J., Fernandez, R., Rehborn, H., and Bertini, R.L. "Comparing a Bottleneck Identification Tool With a Congested Traffic Pattern Recognition System Using Archived Freeway Data from Portland, Oregon." *Proceedings of the 16th World Congress on Intelligent Transport Systems*, Stockholm, Sweden, September 21–25, 2009.

#### ***Submitted Fully Refereed Proceedings***

54. Feng, W., Bertini, R.L., and Fernandez-Moctezuma, R. "Considering the Impacts of Sensor Spacing on Alternative Freeway Travel Time Estimation Techniques in a Traveler Information Framework." *12th International IEEE Conference on Intelligent Transportation Systems*, St. Louis, Missouri, October 3–7, 2009. (Accepted but deferred)
55. Saberi, M., and Bertini, R.L. "Examining Segment Level Analysis of Travel Time Reliability Using Archived ITS Data." *12th International IEEE Conference on Intelligent Transportation Systems*, St. Louis, Missouri, October 3–7, 2009. (Accepted but deferred)
56. Saberi K., M., Bertini, R.L., Fernandez-Moctezuma, R., and Wieczorek, J. "Using Archived ITS Data to Assess the Effects of Rain on Freeway Traffic Flow in Portland, Oregon." *12th International IEEE Conference on Intelligent Transportation Systems*, St. Louis, Missouri, October 3–7, 2009. (Accepted but deferred)
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45. "Exposition Boulevard Extension/SR 160 Interchange Improvements." Project Study Report, California Department of Transportation and City of Sacramento, California, 1993.
46. "SR 160 Related Roadway Studies." Engineering Feasibility Studies for Evergreen Street Extension, Garden Highway Widening, and the All-Weather Northgate Boulevard and Del Paso Boulevard, City of Sacramento, California, 1993.
47. Bertini, R.L. "Rail Corridor Evolution: The San Francisco-San Jose Corridor." Master's Degree Project Report, Department of Civil and Environmental Engineering, San Jose State University, 1991.
48. "Mission/Foothill Corridor Study Final Report." City of Hayward, California, 1991.
49. "SR 51/SR 160 Interchange Operational Improvements." Project Study Report, California Department of Transportation and City of Sacramento, California, 1991.
50. "Fixed Guideway Planning Charrette Summary Report." Santa Cruz County Regional Transportation Commission, Santa Cruz California, 1991.
51. Bertini, R.L. and Pang, J. "Lobitos Creek Bridge Replacement: Design and Analysis." Senior Project, Department of Civil Engineering, California Polytechnic State University, San Luis Obispo, 1987.

### **Articles in Industry Publications**

1. Bertini, R.L., "Transportation: Design, Build, and Manage The Future for America," Community College Journal, December 2010/January 2011, pp. 33-34.
2. Bertini, R.L., "[Challenges in Transportation Industry Offer Opportunities](#)," Commentary, Community College Times, February 4, 2011.
3. Belzner, H., Bertini, R.L., and Bogenberger, K. "[Qualitat der Verkehrsinfrastruktur amerikanischer Metropolen](#)." *Internationales Verkehrswesen* Vol. 61, November 2009.
4. Monsere, C., Eshel, O., Bertini, R.L., and Hagedorn, H. "Evaluating Oregon's Statewide Adaptive Ramp Metering System." *Traffic Technology International*, 2009 Annual Review, October 2008.
5. Bogenberger, K., Bertini, R.L. and Boice, S. "[Analytische Methoden zur Interpretation von Verkehrsdaten](#)." *Straßenverkehrstechnik*, September 2006.
6. Welch, T., Tuft, K., McCourt, R., Bertini, R.L., and Snook, A. "[Getting Googled: Managing Traffic Data Using a Web-based Map Interface](#)." *WesternITE*, Institute of Transportation Engineers District 6, January–February 2006, Vol. 61, No. 1, pp. 1–4.
7. Tantiyanugulchai, S. and Bertini, R.L. "[Can Buses Predict Your Car's Travel Time?](#)" *WesternITE*, Institute of Transportation Engineers District 6, Vol. 57, No. 5, September–October, 2003.
8. Bertini, R.L. and McGill, G. "[Getting Traffic Moving Again](#)." *Public Roads*, Federal Highway Administration, Turner-Fairbank Highway Research Center, Volume 67, No. 2, September/October 2003.
9. Rufolo, A.M. and Bertini, R.L. "[Designing Alternatives To State Motor Fuel Taxes](#)." *Transportation Quarterly*, Vol. 57, No. 1, Winter 2003, pp. 33–46.
10. Steingrover, A., Krevet, R., and Bertini, R.L. "[Intermodal Innovation](#)." *Civil Engineering*, American Society of Civil Engineers, Vol. 71, No. 4, April 2001, pp. 56–61.
11. Bertini, R.L. "[The Freeway's Guardian Angels](#)." *Access Magazine*, No. 9, University of California Transportation Center, Berkeley, California, Fall 1996, pp. 26–28.
12. Bertini, R.L. and Green, G.L. "[San Mateo County Projects Incorporate Aesthetic Features](#)." *APWA Reporter*, American Public Works Association. July 1992.

## Citations

Thomson ISI Web of Science Citations: **373**

SciVerse Scopus Citations: **384**, h-index = 10

Google Scholar Citations: **1327**, h-index = 17, i10-index = 38

## Other Significant Research Dissemination

Website for Intelligent Transportation Systems Laboratory: <http://www.its.pdx.edu>

Online Transportation Data Archive: <http://portal.its.pdx.edu>

Wiki for ITS Lab Project Management: <https://wiki.cecs.pdx.edu/bin/view/ItsWeb/>

Website for Transportation Research Board Committee on Traffic Flow Theory and Characteristics: <http://www.tft.pdx.edu>

## Other Scholarly Activity

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### Invited Lectures and Seminars

1. "TRB Preparation/Survival Guide," TRAIL Master Class, Delft University of Technology, January 13, 2012.
2. "Research at Portland State University and More!" 133rd Transport and Planning Colloquium, Delft University of Technology, Faculty of Civil Engineering and Geosciences, Department of Transport and Planning, September 28, 2011
3. "Transport Intersections Between Science, Policy and Politics," TIL 4030 Interdisciplinary Fundamentals, Delft University of Technology, Faculty of Civil Engineering and Geosciences, Department of Transport and Planning October 10, 2011
4. "The Rider Experience," Federal Transit Administration, Transit Research Analysis Committee, Transit Safety Research Workshop, June 30, 2011
5. "U.S. Sustainable Transportation and Eco-Driving Policy Overview," Cooperative Approaches Towards Technology, Policy & Research on Reducing Emissions Through Eco-Driving, Meeting III of the U.S. – Japan Cooperation on an Integrated Approach to Transportation Dialogue, Ann Arbor, Michigan, June 20, 2011
6. "Introduction to Using Models in Relation to ITS and Cooperative Systems," Traffic Modeling for Traffic Management and Cooperative Systems "Summer School," Delft University of Technology, Delft, The Netherlands, 2011
7. "Intelligent Transportation Systems Deployment in the U.S.: Lessons Learned and a Vision for a Connected Future," World Bank Transport Forum, Washington, D.C., March 29, 2011
8. "U.S. DOT Research & Innovative Technology: An All-Around Update from RITA Leadership," ITS America Webinar Series, March 30, 2011
9. "Transforming Transportation Through Connectivity: Intellidrive and AERIS Update," I-95 Corridor Coalition Executive Board Meeting, Washington, D.C., December 6, 2010
10. "Transforming Transportation Through Connectivity," Georgia Transportation Institute/University Transportation Center Seminar Series, Georgia Institute of Technology, November 23, 2010.
11. "Green Tech Lab: Applications for Transportation," Panel on Gov 2.0, George Washington University Office of Entrepreneurship & iStrategyLabs, November 19, 2010
12. "Innovation: Implementing Good Ideas in Intelligent Transportation Systems," Guest Lecture, ENCE289J Transportation Innovation, University of Maryland, November 2, 2010
13. "The Future of Operations," Operations Academy Senior Management Program, Center for Advanced Transportation Technology, University of Maryland, October 14, 2010
14. "ITS Priorities at the U.S. DOT/RITA," 7th AASHTO International Day, Busan Exhibition Convention Center, Busan, Korea, October 25, 2010
15. "ITS Priorities at the U.S. DOT/RITA," Open Seminar for EU-Japan-US Cooperation on ITS, Ministry of Land, Infrastructure, Transport and Tourism, Tokyo, Japan, October 21, 2010

16. "Deploying Connected Vehicles: Advancing Safety and Creating New Markets," Center for Automotive Research Management Briefing Seminars, Traverse City, Michigan, August 2, 2010.
17. "Beyond Seatbelts and Airbags: Moving Toward a New Era in Transportation Safety," Maker Faire, Henry Ford Museum, Dearborn, Michigan, July 31, 2010.
18. "Implementing ITS the Smart Way," OST-Policy Summer 2010 Speaker Series Brownbag Lunch, U.S. Department of Transportation, July 22, 2010
19. "Does Traffic Data Support Traffic Models?" Summer Meeting of the TRB Committee on Traffic Flow Theory and Characteristics and Second Workshop of the Multitude COST Action, Annecy, France, July 9, 2010
20. Implementing ITS The Smart Way, Transport Knowledge and Learning Program on Intelligent Transportation Systems (ITS), the World Bank, Washington, D.C., June 17, 2010.
21. Moving Toward Sustainable Transportation: Technology and Policy Perspectives, *Transportation Research at McGill (TRAN) and CIRRELT Weekly Transportation Seminar*, School of Urban Planning, McGill University, Montreal, Canada, June 2010
22. Connectivity Enabling Safer, More Efficient and Sustainable Multi-modal Transportation, Transport Canada, Ottawa, Canada, June 15, 2010.
23. Transforming Transportation through Collaboration, 2010 ITS Michigan Annual Meeting and Exposition, *Achieving the Vision: From VII to Intellidrive*, Keynote Address, Dearborn, Michigan, May 19, 2010.
24. Sustainable Transit: Developing an Action Agenda, A University Transportation Research Center Symposium, *Federal Perspectives, Goals and Multidisciplinary Approach to Sustainability*, The City College of New York, May 7, 2010.
25. U.S. Department of Transportation Reauthorization Outreach Tour, Moderator for Session on *Performance Driven Transportation*, Houston, Texas, May 5, 2010.
26. Intelligent Transportation Society of America, 20th Annual Meeting & Exposition, *ITS Joint Program Office Update*, U.S. Department of Transportation Plenary Session, Houston, Texas, May 4, 2010.
27. Intelligent Transportation Society of America, 20th Annual Meeting & Exposition, *Considering a Career in Intelligent Transportation Systems*, Houston, Texas, May 4, 2010.
28. Transportation Workforce Development Summit 2010, *National Efforts to Develop Tomorrow's Transportation Workforce*, Iowa State University Institute for Transportation, Ames, Iowa, April 27, 2010.
29. Melvin Webber Memorial Lecture, *Moving Toward Sustainable Transportation: Technology and Policy Perspectives*, University of California Transportation Center (UCTC) Student Conference, University of California Irvine, April 2, 2010.
30. A Smarter Transportation System for the 21st Century, *Technology's Influence on the U.S. Transportation System Over the Next Five Years*, Washington, D.C., February 25, 2010.
31. Michigan Technological University, *Intelligent Transportation Systems*, Michigan Tech Transportation Institute (MTTI), December 1, 2009.
32. Michigan Technological University, *Needs, Challenges and Opportunities in Transportation Research and Education: National Perspectives*, 2009 Transportation Forum, Partnering for

- the Future of Transportation, Michigan Tech Transportation Institute (MTTI), November 30, 2009.
33. Munich University of Technology, *IntelliDrive and Vehicle Infrastructure Integration in the USA*, Intelligent Transport Systems Education Network (ITS-Edunet) Short Course on Challenges and Opportunities of V2X Communication, May 14-15, 2009.
  34. University of Arizona, Systems and Industrial Engineering Seminar Series, *Intelligent Transportation Solutions for Planning, Optimizing and Measuring Public Transport Performance*, April 7, 2009.
  35. University of Nevada Reno, Department of Civil and Environmental Engineering, Transportation Research Group Seminar, *Impact of Sensor Spacing on Travel Time Estimation and Information*, April 1, 2009.
  36. University of Nevada Reno, Department of Geography, Geography Colloquium, *How Transportation Technology Can Limit the Impact of Future Climate Change*, April 1, 2009.
  37. Portland State University, Department of Civil and Environmental Engineering, CE 351 Guest Lecture, *Transportation Technology Impacts on Climate Change*, February 24, 2009.
  38. Monash University, Department of Civil Engineering, Transportation Group Seminar, *Transportation Research at Portland State University*, December 5, 2008.
  39. Monash University, Department of Civil Engineering, Innovative Traffic Management Workshop, *Freeway Performance Before and After Installation of a Systemwide Adaptive Ramp Metering System*, December 1, 2008.
  40. Monash University, Department of Civil Engineering, Innovative Traffic Management Workshop, *Freeway Travel Time Estimation*, December 1, 2008.
  41. University of Illinois at Chicago, Department of Urban Planning and Policy and Computational Transportation Science IGERT Seminar, *Travel Time Estimation for Traffic Management and Traveler Information*, November 10, 2008.
  42. Portland State University USP 556 Urban Transportation: Problems and Policies, *Evaluation of Intelligent Transportation System Impacts*, May 6, 2008.
  43. Portland State University, Computer Science Departmental Colloquium Series, *Intelligent Transportation Systems: a Domain Area for Computer Scientists in the 21st Century*, April 23, 2008.
  44. Portland State University Friday Transportation Seminar Series, [Travel Time Estimation for Traffic Management and Traveler Information](#). April 4, 2008.
  45. Tsinghua University, Institute of Systems Engineering, Department of Automation, *Unlocking the Mysteries of Freeway Sensor Data to Diagnose Detailed Bottleneck Dynamics*. Beijing, China, October 12, 2007.
  46. Oregon Transportation Commission meeting, *Portland Ramp Metering and Gresham Adaptive Signal System Evaluations*, September 12, 2007.
  47. Portland State University USP 556 Urban Transportation: Problems and Policies, *Introduction to Intelligent Transportation Systems*, May 31, 2007.

48. Portland State University, Environmental Sciences and Resources Seminar, *Oregon Transportation Research and Education Consortium Environmental Priorities and Opportunities*, April 27, 2007.
49. Portland State University, Road Ecology Class, Environmental Sciences and Resources Program, *Introduction to the Oregon Transportation Research and Education Consortium*, April 5, 2007.
50. Portland State University Friday Transportation Seminar Series, *PORTAL: Lessons from Developing an Archived Data User Service in Portland, Oregon*, March 16, 2007.
51. Portland State University, Department of Mechanical and Materials Engineering (MME) Seminar Series, *Lessons from Doing Research: Developing Ideas, Getting Funding, and Doing the Work*, November 17, 2006.
52. Portland Traffic and Transportation Course, City of Portland, *Portland State University Transportation Education And Research Overview*, November 8, 2006.
53. Federal Highway Administration, Oregon Division, *PORTAL: Implementing a New Generation Archived Data User Service in Oregon*, November 7, 2006.
54. Delegation from Binh Duong Province, Vietnam, *Portland State University Transportation Education And Research Overview*, U.S. Vietnam Chamber of Commerce (UVCC), November 6, 2006.
55. Mobility the Smart Way, The State of Intelligent Transportation Systems in the Portland Metropolitan Region, *Portland State University's Role in the Region's ITS Program Development*, Oregon Convention Center, October 26, 2006.
56. CH2MHill Lunchtime Seminar, *Transportation Research and Education at Portland State University*. October 24, 2006.
57. Portland State University, PSU Weekend, *Fuel for Thought*, October 21, 2006.
58. Kittelson & Associates, Inc. Lunchtime Seminar, *Transportation Research and Education at Portland State University*. August 10, 2006.
59. Metro Seminar, *PORTAL: Implementing a New Generation Archived Data User Service in Oregon*, Portland, Oregon, February 22, 2006.
60. Portland State University USP 556 Urban Transportation: Problems and Policies, *Introduction to Intelligent Transportation Systems*, February 13, 2006.
61. Technische Universitat Munchen, Department of Traffic Engineering and Control, *International Definitions of Congestion: An Examination of Macroscopic Models*. Munich, Germany, January 27, 2006.
62. University of Washington, Department of Civil and Environmental Engineering, *ITS Data Applications*. CEE 412/599 Transportation Data Management and Analysis, December 7, 2005.
63. University of Portland, Department of Civil Engineering, *Graduate Studies and Transportation Research at PSU*. December 6, 2005.

64. Portland State University, *Introduction to Public Transportation*. CE 454 Urban Transportation Systems Guest Lecture, November 28, 2005.
65. ASCE Oregon Capital Branch, *Expanding Transportation Research in Oregon*. Salem, Oregon, November 17, 2005.
66. Joint Institute of Transportation Engineers (ITE)/International Municipal Signal Association (IMSA) Meeting, *Designation of a Partnership of Four Oregon Universities as a National University Transportation Center*. October 31, 2005.
67. Portland State University, Natural and Urban Ecology of Portland, Geography Seminar, *Urban Transportation: Human and Natural Impacts on the Portland Landscapes*, November 2, 2005.
68. Portland Traffic and Transportation Course, City of Portland, *Transportation Research, Education and Outreach at Portland State University*, October 27, 2005.
69. Portland State University, PSU Weekend, *Congestion: the Good, the Bad and the Ugly*. October 22, 2005.
70. Portland Freight Committee, *Intelligent Transportation Systems and Freight*, October 6, 2005.
71. Imperial College, London, *What is Traffic Congestion*, Department of Civil and Environmental Engineering, June 28, 2005.
72. Technische Universitat Munchen, Department of Traffic Engineering and Control, *Using Basic Traffic Flow Principles to Diagnose Bottlenecks on German Autobahns*, Munich, Germany, May 19, 2005.
73. BMW Research and Innovation Center, *An International Comparison of Macroscopic and Microscopic Measures of Congestion*, Munich, Germany, May 18, 2005.
74. University of Alabama at Birmingham, Department of Civil and Environmental Engineering, *Prototype for Advanced Public Transit Systems in Multimodal Corridors*, April 25, 2005.
75. Faculty Association at Portland State University, *Intelligent Transportation Systems: An Oxymoron or Can Technology Really Reduce Congestion?* April 12, 2005.
76. Sigma Xi Columbia-Willamette Chapter and PSU Department of Geology, *Intelligent Transportation Systems: An Oxymoron or Can Technology Really Reduce Congestion?* March 9, 2005.
77. National Institute for Advanced Transportation Technology, Department of Civil Engineering, University of Idaho, *Unlocking Some Mysteries of Traffic Flow Theory*, February 22, 2005.
78. Traffic Monitoring Peer Exchange, *Innovations in Intelligent Transportation Systems*, Oregon and Washington Departments of Transportation, February 16, 2005.
79. Portland State University, Center for Transportation Studies, *Congestion and Its Extent*. Fall Seminar Series, November 19, 2004.

80. U.S. Department of Transportation Site Visit, TransNow University Transportation Center, University of Washington, *Intelligent Transportation Systems Research at Portland State University*, September 22, 2004.
81. Oregon Model Steering Committee, *Portland Performance Measures for 2002*, Oregon Department of Transportation, Salem, Oregon, September 15, 2004.
82. Transportation and Livability Summit, *New Transportation Ideas, Insights and Opportunities for 21st Century Livable Communities*, Congressman Earl Blumenauer, Gresham, Oregon, August 3, 2004.
83. Comet Operators Meeting, *Evaluation of Comet Incident Response Program*, Oregon Department of Transportation, Region 1, June 16, 2004.
84. PSU Alumni Association Events, *Transportation and Technology: Solutions for Seattle*. Seattle, Washington, April 7, 2004.
85. BMW Group Research and Innovation Center, *Empirical Comparison of German and U.S. Traffic Sensor Data and Impact on Driver Assistance Systems*, Munich, Germany, March 22, 2004.
86. CH2Mhill, *Intelligent Transportation Systems Research and Education*, Portland, Oregon, December 2, 2003.
87. Oregon State University, Department of Civil, Environmental and Construction Engineering, *Freeway Bottleneck Analysis*, November 21, 2003.
88. University of California at Berkeley, Institute of Transportation Studies, [Using Archived Stop-Level Transit Geo-Location Data for Improved Operations and Performance Monitoring](#), Transportation Seminar Series, September 26, 2003.
89. ITS Oregon Workshop, *Benefits of Freeway Service Patrol Vehicles*, Wilsonville, Oregon, April 17, 2003.
90. Portland State University, Center for Transportation Studies, *Recent Research on the Transformation of Oregon's Gasoline Tax Into a Road User Fee System*, Winter Seminar Series, February 14, 2003.
91. Institute of Transportation Engineers Oregon Section, *Transportation Education at Portland State University*, Workshop on Transportation Education in the Northwest, January 24, 2003.
92. Oregon Department of Transportation, *Evaluation of ODOT's Region 2 Incident Management Program*. Regional Maintenance Managers' Meeting, Salem, Oregon, January 23, 2003.
93. Value Pricing in the Northwest – Can We Make it Work?, *Value Pricing Technology and Institutional Issues and Options*, Workshop, December 17, 2002.
94. Oregon Road User Fee Task Force, *Data Transmission Options for VMT Data and Fee Collection Centers*, Legislative Testimony, Salem, Oregon, November 15, 2002.
95. Northwest Transportation Training and Education and Training Alliance (NWTTEA) Traffic Operations Workshop, *Inventory of Current Traffic Operations Training and Education Resources*, Portland, Oregon, September 12, 2002.

96. Oregon State University, Department of Civil, Environmental and Construction Engineering, *Archived ITS Data: A New Resource For Operations, Planning and Research*, March 6, 2002.
97. Oregon State University, Department of Civil, Environmental and Construction Engineering, *Technology Options for Alternative Road User Fee Systems*, Graduate Seminar, March 6, 2002.
98. National Institute for Advanced Transportation Technology, Department of Civil Engineering, University of Idaho, *Capacity and the Breakdown Phenomenon at a Freeway Merge Bottleneck: Unlocking the Potential of Loop Sensor Data*, March 1, 2002.
99. Portland State University, Department of Electrical and Computer Engineering Graduate Seminar, *Capacity and the Breakdown Phenomenon at a Freeway Merge Bottleneck: Unlocking the Potential of Loop Sensor Data*, February 22, 2002.
100. Institute of Transportation Engineers, Oregon Section, Workshop on Transportation Finance, *Alternatives to the Motor Fuel Tax*. January 24, 2002.
101. Oregon Road User Fee Task Force, *Alternatives to the Motor Fuel Tax*. Legislative Testimony, Salem, Oregon, November 30, 2001.
102. TransPort ITS Technical Advisory Committee, *Archived ITS Data: A New Resource For Operations, Planning and Research*, November 14, 2001.
103. American Society of Civil Engineers, Oregon Section Meeting, *Transportation in the 21st Century*. Portland, Oregon, October 18, 2001.
104. Oregon Transportation Forum, Institute of Transportation Engineers, Women's Transportation Seminar, ITS Oregon, *Performance Measures for Improving Transportation Operations*. Portland, Oregon, February 15, 2001.
105. Portland State University, Transportation Research Group, *Benefits of Archived ITS Data: Measuring Capacity at a Freeway Bottleneck*. Fall Seminar Series, October 5, 2000.
106. University of California, Irvine, Institute of Transportation Studies, ITS Seminar Series, *Time Dependent Traffic Flow Features at Freeway Bottlenecks*. June 1999.
107. University of California at Berkeley, Institute of Transportation Studies, Transportation Seminar Series, *Time Dependent Traffic Flow Features at Freeway Bottlenecks*. April 1999.
108. San Jose State University, Department of Civil and Environmental Engineering, *Public Transit Technology*. Guest Lecture, CE 296B Public Transportation Systems, September 1997.
109. San Jose State University, College of Engineering/International Institute of Transportation Policy Studies, *Symposium on the Future of Public Transportation*. 1994.
110. American Society of Civil Engineers, Younger Member Forum, *Light Rail Design in a Changing Economy*. San Jose, California, September 1994.

### **Conference Presentations**

1. **Bertini, R.L.** "Skills and Competencies for the Operations Workforce," Session 372, Operations Workforce: Agency Needs and Future Directions, *91st Annual Meeting of the Transportation Research Board*, Washington, D.C., January 23, 2012
2. **Bertini, R.L.** "ITS: Why Governments Need to Work Together," Executive Session 10, *Eighteenth Intelligent Transportation Systems World Congress*, Orlando, Florida, October 19, 2011
3. **Bertini, R.L.** "Skills and Competencies Needed to Be an ITS Professional," Student Day, *Eighteenth Intelligent Transportation Systems World Congress*, Orlando, Florida, October 20, 2011
4. **Bertini, R.L.** "Preparing for a Future with Connected Vehicles and Infrastructure," ITS New York Eighteenth Annual Meeting and Technology Exhibition, What The Future Holds: Intelligent Vehicles and Infrastructure, Saratoga Springs, New York, June 10, 2011.
5. **Bertini, R.L.** "Strategies for Sustainable Transportation: The Role of National Policy," Developing Global Sustainability - U.S./China Partnerships, 2011 Global Sustainability Conference, University of Michigan, May 20, 2011
6. **Bertini, R.L.** "ITS Technology to Save Lives," Closing Plenary, Institute of Transportation Engineers 2011 Technical Conference and Exhibit, Lake Buena Vista, Florida, April 6, 2011
7. **Bertini, R.L.** "Intelligent Transportation Systems Program Update," National Association of Counties (NACo) 2011 Legislative Conference, Washington, D.C., March 5, 2011.
8. **Bertini, R.L.** "They Promised Us Jetpacks: Transportation and Technology 2050," A 2050 Retrospective on Advance Technology Impacts on Transportation, ASCE First T&I Congress, Chicago, IL, March 14, 2011.
9. **Bertini, R.L.** "A National Strategic Framework for Transportation Workforce Development," Building the 21st Century Workforce: Mission-Critical Issues, Cross-Modal Opportunities, and Key Partnerships in Transportation Workforce Development, *90th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 27, 2011
10. **Bertini, R.L.** "Senior Level Dialogue with Transportation Students," *90th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 25, 2011
11. **Bertini, R.L.** "State of Intelligent Transportation Systems Programs at the U.S. Department of Transportation" Intelligent Transportation Systems: Annual U.S. State-of-the-Industry Review, *90th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 24, 2011
12. **Bertini, R.L.** "RITA Priorities, Programs and Progress," Future Directions in Transportation: A MultiModal Dialogue with the U.S. DOT Deputy Administrators, *90th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 26, 2011
13. **Bertini, R.L.** "U.S. DOT Perspectives on International Harmonization: A Key Priority," Session ES11 International Harmonization, *17th World Congress on Intelligent Transport Systems*, Busan, Korea, October 29, 2010
14. **Bertini, R.L.** "Accelerating ITS Deployment," Special Session 69, IBEC Amy Polk Session on International Cooperation to Promote ITS Understanding and Deployment, *17th World Congress on Intelligent Transport Systems*, Busan, Korea, October 27, 2010

15. **Bertini, R.L.** "ITS Professional Capacity Building (PCB) Program: Incorporating a Focus on Technology Transfer, Session TP 046 Tech Transfer, *17th World Congress on Intelligent Transport Systems*, Busan, Korea, October 27, 2010
16. **Bertini, R.L.** "U.S. DOT Perspectives on Inter-jurisdictional Traffic Data Requirements for ATM and ICM, Special Session 10, Inter-jurisdictional Traffic Data Requirements for ATM and ICM, *17th World Congress on Intelligent Transport Systems*, Busan, Korea, October 26, 2010
17. **Bertini, R.L.** "Transforming Transportation Through Connectivity, Keynote Speech at Opening Ceremony, *17th World Congress on Intelligent Transport Systems*, Busan, Korea, October 25, 2010
18. **Bertini, R.L.** "ITS for the Environment: AERIS Program, *6th International Workshop on Vehicle Communications*, Session 3: Sustainability Services Support to Vehicle Communication Based Cooperative Systems, Busan, Korea, October 24, 2010
19. **Bertini, R.L.** "U.S. Perspectives on International Harmonization of Cooperative Systems Standards," *6th International Workshop on Vehicle Communications*, Session 1: Harmonization of Standardization Activities for Cooperative ITS, Busan, Korea, October 24, 2010
20. **Bertini, R.L.** "U.S. Perspectives on ITS Contributions to Sustainable Transportation," *International Symposium on Evaluation Method of CO<sub>2</sub> Emission Reduction with ITS Applications*, Japan Women's University Mejiro Campus, October 22, 2010
21. **Bertini, R.L.** Panelist, *International Symposium on Evaluation Method of CO<sub>2</sub> Emission Reduction with ITS Applications*, Japan Women's University Mejiro Campus, October 22, 2010
22. **Bertini, R.L.** "Linking the U.S. DOT ITS Program with the IEEE Community," Plenary Session, *13th International IEEE Conference on Intelligent Transportation Systems*, Funchal, Portugal, September 21, 2010.
23. **Bertini, R.L.** "The Future of Traffic Information, Management and Control," Panel Moderator, *Workshop on Emergent Cooperative Technologies in Intelligent Transportation Systems*, Funchal, Portugal, September 19, 2010.
24. **Bertini, R.L.** "Transforming Transportation Through Connectivity: U.S. Perspectives on Cooperative Systems," Keynote Lecture, *Workshop on Emergent Cooperative Technologies in Intelligent Transportation Systems*, Funchal, Portugal, September 19, 2010.
25. **Bertini, R.L.** "Perspectives on a Career in Transportation," Student Member Roundtable, *Institute of Transportation Engineers 2010 Annual Meeting and Exhibition*, Vancouver, B.C., Canada, August 9, 2010.
26. **Bertini, R.L.** "Getting to Smarter, Safer Streets: Intellidrive Conversation Circle," Moderator, *Institute of Transportation Engineers 2010 Annual Meeting and Exhibition*, Vancouver, B.C., Canada, August 9, 2010.
27. **Bertini, R.L.** "Report from RITA," *AASHTO National Research Advisory Committee Meeting*, Kansas City, Missouri, July 27, 2010.
28. **Bertini, R.L.** "Impacts of Transportation Technologies on Traffic Data Programs," Closing Session, *North American Travel Monitoring Exhibition & Conference (NATMEC)*, Seattle, Washington, June 24, 2010.

29. **Bertini, R.L.** "RITA Update," *AASHTO Standing Committee on Planning Annual Meeting*, San Antonio, Texas, June 23, 2010.
30. **Bertini, R.L.** "Transport: an International Endeavor," Opening Plenary, *ITS Canada Annual Conference and General Meeting*, Ottawa, Canada, June 14, 2010.
31. **Bertini, R.L.** "Future Transport," Plenary Session, *Transport Research Arena Europe 2010*, Brussels, Belgium, June 8, 2010.
32. **Bertini, R.L.** "Connectivity Enabling Safer, More Efficient and Sustainable Multimodal Transportation," Special Session on Cooperative Systems, *Transport Research Arena Europe 2010*, Brussels, Belgium, June 8, 2010.
33. **Bertini, R.L.** "Innovations in Traffic Management and Implementation of Technologies Across Modes: The Importance of Satellite Navigation and Digital Communications for NextGen ITS, Positive Train Control and Vessel Traffic Management," Moderator, Volpe Center Day at U.S. Department of Transportation, June 2, 2010.
34. **Bertini, R.L.** "Technology and Policy Perspectives on Sustainable Transportation," *Intelligent Transportation Society of America, 20th Annual Meeting & Exposition*, Houston, Texas, May 4, 2010.
35. **Bertini, R.L.** "National Transportation Workforce Development Strategy: Ongoing and Planned CUTC-RITA Activities," *90th Annual American Association of Community Colleges Convention*, Seattle, Washington, April 19, 2010.
36. **Bertini, R.L.** "So You Want to Be a Transportation Professional." *89th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 11, 2010.
37. **Bertini, R.L.** "National Transportation Workforce Development Strategy: Ongoing and Planned CUTC-RITA Activities." *89th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 14, 2010.
38. **Bertini, R.L.** "UTC Best Practices—OTREC and Livability." *University Transportation Center Directors Summer Meeting*, University of Massachusetts, Amherst, Massachusetts, June 30, 2009.
39. **Bertini, R.L.** "The Future of a Vehicle Miles Traveled (VMT) User Fee." Congressional Fact Finding Panel, *ITS America Annual Meeting and Exposition*, Washington, D.C., June 1-3, 2009
40. Saberi, M., and **Bertini, R.L.** "Toward Implementing Weather-Responsive Advanced Traffic Management and Information Systems." *16th World Congress on Intelligent Transport Systems*, Stockholm, Sweden, September 21–25, 2009.
41. Li, H., and **Bertini, R.L.** "Toward Sustainable Transit Operations and Performance Enhancement Using Archived Automatic Vehicle Location Data." *16th World Congress on Intelligent Transport Systems*, Stockholm, Sweden, September 21–25, 2009.
42. Li, H., **Bertini, R.L.**, and El-Geneidy, A. "Using Archived Stop-Level Transit Data for Assessing Bus Operations and Exploring Optimal Stop Spacing." *11th International Conference on Advanced Systems for Public Transport (CASPT 2009)*, Hong Kong, July 20-22, 2009

43. **Bertini, R.L.**, Li, H., and El-Geneidy, A. "Intelligent Transportation Solutions for Planning, Optimizing and Measuring Public Transport Performance," *mobil.TUM 2009*, International Scientific Conference on Mobility and Transport, Munich, Germany, May 12-13, 2009.
44. **Bertini, R.L.** "Can Sensors Be Used to Provide Accurate Travel Time Information?" *Transportation Research Forum*, 50th Annual Forum, Portland, Oregon, March 16-18, 2009.
45. **Bertini, R.L.** "How Transportation Technology Can Limit the Impact of Future Climate Change." *International Consumer Electronics Show (CES)*, Las Vegas, Nevada, January 9, 2009.
46. **Bertini, R.L.** "Exploiting High Resolution Archived Transit Data for Improved Planning and Operations: A Portland, Oregon Case Study." *Conference for the Australian Institutes of Transport Research*, University of Western Australia, 10–12 December, 2008.
47. Eshel, O., **Bertini, R.L.**, and Monsere, C. "Empirical Evaluation of Adaptive Ramp Metering Along Two Freeway Corridors in Portland, Oregon." *15th World Congress on Intelligent Transport Systems*, New York, NY, November 16–20, 2008.
48. Bertini, R.L., Fernandez, R., **Wieczorek, J.**, and Li, H. "Using Archived ITS Data to Automatically Identify Freeway Bottlenecks in Portland, Oregon." *15th World Congress on Intelligent Transport Systems*, New York, NY, November 16–20, 2008.
49. **Fernandez, R.**, Bertini, R.L., and Maier, D. "Developing an Imputation Strategy for an Archived Data User Service in Portland, Oregon." *15th World Congress on Intelligent Transport Systems*, New York, NY, November 16–20, 2008.
50. **Bertini, R.L.** "[Leveraging Intelligent Transportation Systems Data to Improve Transportation Efficiency](#)." Keynote Address, *Sixth International Conference on Traffic & Transportation Studies (ICTTS)*, Nanning, China, August 5–8 2008.
51. **Bertini, R.L.** and Horowitz, Z. "Diagnosing a Freeway Bottleneck in Portland Oregon (USA) Using Archived Sensor Data." *Sixth International Conference on Traffic & Transportation Studies (ICTTS)*, Nanning, China, August 5–8 2008.
52. **Bertini, R.L.** "Perspectives on Traffic Flow Theory: Beyond Greenshields." Panel Discussion, *Symposium on The Fundamental Diagram: 75 Years (Greenshields 75 Symposium)*, Woods Hole, Massachusetts, July 10, 2008.
53. Eshel, O., Monsere, C., and **Bertini, R.L.** "Empirical Evaluation of Oregon's System-wide Adaptive Ramp Metering System." *2008 TRB / IBTTA Joint Conference on Freeway and Tollway Operations*, Fort Lauderdale, Florida, June 15–19, 2008
54. **Bertini, R.L.**, Li, H., Wieczorek, J. and Fernandez, R. "Using Archived Data to Systematically Identify and Prioritize Freeway Bottlenecks." *10th International Conference on Application of Advanced Technologies in Transportation*, Athens, Greece, May 27– 31, 2008.
55. Tasnim, S., Monsere, C. and **Bertini, R.L.** "Toward an Automated Incident Analysis Process Using Archived Data on the Portland Oregon Freeway System." *10th International Conference on Application of Advanced Technologies in Transportation*, Athens, Greece, May 27– 31, 2008.

56. Zielke, B., **Bertini, R.L.**, and Treiber, M. "[Empirical Measurement of Freeway Oscillation Characteristics: An International Comparison.](#)" *87th Annual Meeting of the Transportation Research Board* January 2008.
57. **Bertini, R.L.** "[State of ITS Benchmarking in Portland, Oregon and the U.S.](#)" Special Session on ITS in Cities (Benchmarking), *14th World Congress on Intelligent Transport Systems*, Beijing, October 13, 2007.
58. **Bertini, R.L.** "[Building Planning and Operations Analysis Tools on an Archived ITS Data Platform: Who Are the Users?](#)" *14th World Congress on Intelligent Transport Systems*, Beijing, October 13, 2007.
59. Makler, J., Coffman, M., and **Bertini, R.L.** "[Regional Collaboration: A Model for Successful ITS Implementation in Portland, Oregon.](#)" *14th World Congress on Intelligent Transport Systems*, Beijing, October 11, 2007.
60. **Bertini, R.L.** "[Toward Optimal Sensor Density for Improved Freeway Travel Time Estimation and Traveler Information.](#)" *10th International IEEE Conference on Intelligent Transportation Systems*, Seattle, Washington, October 1, 2007.
61. Kothuri, S., **Bertini, R.L.** and Makler, J. "[Lessons from Developing an Archived Data User Service in Portland, Oregon: Who Is Using It?](#)" *10th International IEEE Conference on Intelligent Transportation Systems*, Seattle, Washington, October 1, 2007.
62. **Bertini, R.L.** "So You Want to Be a Transportation Professional," *Institute of Transportation Engineers, District 6 Annual Meeting*, Portland, Oregon, July 16, 2007.
63. **Bertini, R.L.** and Lyman, K. "[Developing Improved Travel Time Reliability Measures For Real-Time And Archived ITS Data Applications.](#)" *6th European Congress on Intelligent Transportation Systems and Services*, Aalborg, Denmark, June 20, 2007.
64. **Bertini, R.L.** "[Leveraging Archived Freeway Sensor Data for Regional Transportation Performance Measurement.](#)" *Intelligent Transportation Society of America, 2007 Annual Meeting and Exhibition*, Palm Springs, California, June 6, 2007.
65. **Bertini, R.L.** "Multimodal Transportation Planning and Engineering Challenges," *Joint Engineering Conference, Professional Engineers of Oregon*, Bend, Oregon, May 17, 2007.
66. **Bertini, R.L.** "Lessons from Developing an Archived Data User Service in Portland, Oregon," Linking Archived Data User Service, Performance Measures and Freeway Operations to Improve Mobility, Workshop 124, *86th Annual Meeting of the Transportation Research Board*, January 2007.
67. **Bertini, R.L.** "Improving Collaboration in the Northwest," *Annual Meeting of the Council of University Transportation Centers*, Washington, D.C., January 2007.
68. **Bertini, R.L.** "Estimating Truck Flows on a Freeway Network to Improve Freight Operations and Planning," *13th World Congress on Intelligent Transport Systems*, London, October 10, 2006.
69. **Bertini, R.L.** "Influence of Variable Speed Limit and Driver Information System on Key Traffic Flow Parameters on a German Autobahn," *13th World Congress on Intelligent Transport Systems*, London, October 10, 2006.

70. **Bertini, R.L.** "Improving the Accuracy of Freeway Travel Time Estimates Using Archived ITS Data," *13th World Congress on Intelligent Transport Systems*, London, October 9, 2006.
71. **Bertini, R.L.**, "Development of an ITS Data Archive Application for Improving Freeway Travel Time Estimation." *9th International IEEE Conference on Intelligent Transportation Systems*, Toronto, Canada, September 20, 2006.
72. **Bertini, R.L.** "Expansion of an ITS Data Archive with Applications for Improving Spatial Analysis and Tracking Non-Recurrent Congestion." *9th International IEEE Conference on Intelligent Transportation Systems*, Toronto, Canada, September 20, 2006.
73. **Bertini, R.L.** "Developing Comparative Congestion Measures to Improve Transportation System Performance." *Fifth International Conference on Traffic & Transportation Studies (ICTTS)*, Xi'an, China, August 2, 2006.
74. **Bertini, R.L.** "Unlocking the Mysteries of Freeway Sensor Data to Diagnose Detailed Bottleneck Dynamics." *Fifth International Conference on Traffic & Transportation Studies (ICTTS)*, Xi'an, China, August 3, 2006.
75. Boice, S., **Bertini, R.L.** and Bogenberger, K. "Comparison of Key Freeway Capacity Parameters on North American Freeways with German Autobahns Equipped With a Variable Speed Limit System." *5th International Symposium on Highway Capacity and Quality of Service*, Yokohama, Japan, July 26, 2006.
76. **Bertini, R.L.** and Makler, J. "Using Real Time Transportation System Performance Measures to Fuel a Regional Congestion Management System," *Institute of Transportation Engineers, District 6 Annual Meeting*, Honolulu, Hawaii, June 26, 2006.
77. **Bertini, R.L.**, "Speeding and Speed Limits: Are Drivers Out of Control?" *First International Symposium on Freeway & Tollway Operations*, Athens, Greece, June 6, 2006.
78. **Bertini, R.L.**, Boice, S. and Bogenberger, K. S. "Measuring the Impacts of a Variable Speed Limit System on a German Motorway." *First International Symposium on Freeway & Tollway Operations*, Athens, Greece, June 6, 2006.
79. **Bertini, R.L.** and Kothuri, S. "Improving Travel Time Estimation for Freeway Traffic Management and Traveler Information Systems." *First International Symposium on Freeway & Tollway Operations*, Athens, Greece, June 7, 2006.
80. **Bertini, R.L.**, "Portal: Implementing an Archived Data User Service in Oregon," *Northwest Transportation Conference*, Corvallis, Oregon, February 8, 2006.
81. **Bertini, R.L.**, "A New National University Transportation Center in Oregon," *Northwest Transportation Conference*, Corvallis, Oregon, February 8, 2006.
82. **Bertini, R.L.**, "You Are the Traffic Jam: An Examination of Congestion Measures." *85th Annual Meeting of the Transportation Research Board*, January 2006.
83. **Bertini, R.L.**, "New Research Initiatives at the National University Transportation Center," *Oregon Modeling Symposium*, Portland, Oregon, November 15, 2005.
84. **Bertini, R.L.**, Hansen, S., Matthews, S. and Delcambre, A. "[PORTAL: Implementing a New Generation Archived Data User Service in Portland, Oregon.](#)" *12th World Congress on Intelligent Transport Systems*, San Francisco, November 8, 2005.

85. Bertini, R.L., Bogenberger, K. and **Boice, S.** "[Impact of Variable Speed Limit and Driver Information System on Traffic Dynamics on a German Autobahn: Lessons for U.S. Applications.](#)" *12th World Congress on Intelligent Transport Systems*, San Francisco, November 9, 2005.
86. **Bertini, R.L.**, Lasky, M. and Monsere, C. "[Validating an Automated License Plate Recognition System for Predicting Rural Corridor Travel Times.](#)" *12th World Congress on Intelligent Transport Systems*, San Francisco, November 10, 2005.
87. **Bertini, R.L.**, Boice, S. and Bogenberger, K. "Using ITS Data Fusion to Examine Traffic Dynamics on a Freeway with Variable Speed Limits." *8th International IEEE Conference on Intelligent Transportation Systems*, Vienna, Austria, September 13–16, 2005.
88. **Bertini, R.L.**, Matthews, S., Hansen, S., Delcambre, A., and Rodriguez, A. "ITS Archived Data User Service in Portland, Oregon: Now and Into the Future." *8th International IEEE Conference on Intelligent Transportation Systems*, Vienna, Austria, September 13–16, 2005.
89. Bertini, R.L., **Lindgren, R.V.**, Helbing, D. and Schonhof, M. "The German Autobahn: An ITS Test Bed for Examining Dynamic Traffic Flow Phenomena." *8th International IEEE Conference on Intelligent Transportation Systems*, Vienna, Austria, September 13–16, 2005.
90. **Bertini, R.L.**, Lasky, M. and Monsere, C. "Validating Predicted Rural Corridor Travel Times from an Automated License Plate Recognition System: Oregon's Frontier Project." *8th International IEEE Conference on Intelligent Transportation Systems*, Vienna, Austria, September 13–16, 2005.
91. **Bertini, R.L.**, Hansen, S. and El-Geneidy, A. "Using the Portland Regional Transportation Archive Listing (PORTAL) to Measure the Performance of the Portland, Oregon Regional Transportation System." *9th International Conference on Computers in Urban Planning and Urban Management Conference (CUPUM)*, London, June 29, 2005.
92. **Bertini, R.L.**, Monsere, C., El-Geneidy, A., Kimpel, T. and Bosa, P. "Exploring Spatial And Temporal Performance Measurement In Metropolitan Transportation Safety Improvement Programs." *9th International Conference on Computers in Urban Planning and Urban Management Conference (CUPUM)*, London, June 29, 2005.
93. **Bertini, R.L.** "Educational Applications of the Portland Oregon Regional Archived Data User Service (ADUS)," *American Society for Engineering Education Annual Meeting*, Portland, Oregon, June 14, 2005.
94. Bertini, R.L., **Hansen, S.** and Bogenberger, K. "[Empirical Analysis of Traffic Sensor Data Surrounding a Bottleneck on a German Autobahn.](#)" *84th Annual Meeting of the Transportation Research Board*, January 2005.
95. Monsere, C., **Nolan, C.**, Bertini, R., Anderson, A. and El-Seoud, T. "[Measuring the Impacts of Speed Reduction Technologies: A Dynamic Advanced Curve Warning System Evaluation.](#)" *84th Annual Meeting of the Transportation Research Board*, January 2005.
96. Byrne, N., Koonce, P., Bertini, R.L., **Pangilinan, C.** and Lasky, M. "[Using Hardware-in-the-Loop Simulation to Evaluate Signal Control Strategies for Transit Signal Priority.](#)" *84th Annual Meeting of the Transportation Research Board*, January 2005.

97. Bertini, R.L., **Hansen, S.**, Byrd, A. and Yin, T. "[PORTAL: Experience Implementing the ITS Archived Data User Service in Portland, Oregon.](#)" *84th Annual Meeting of the Transportation Research Board*, January 2005.
98. **Astarita, V.**, Bertini, R.L. and Guido, G. "The Estimation of Traffic Flow Parameters From Instrumented Vehicles Counts." *84th Annual Meeting of the Transportation Research Board*, January 2005.
99. Bertini, R.L. and **Myton, A.** "[Using PeMS Data to Empirically Diagnose Freeway Bottleneck Locations in Orange County, California.](#)" *84th Annual Meeting of the Transportation Research Board*, January 2005.
100. Bertini, R.L., **Monsere, C.**, Byrd, A., Rose, M. and El-Seoud, T. "[Using Custom Transportation Data Collection Software with Handheld Computers for Education, Research, and Practice.](#)" *84th Annual Meeting of the Transportation Research Board*, January 2005.
101. Bertini, R.L., **Rose, M.** and El-Geneidy, A. "[Using Archived ITS Data Sources to Measure the Effectiveness of a Freeway Incident Response Program.](#)" *84th Annual Meeting of the Transportation Research Board*, January 2005.
102. **Bertini, R.L.** "[Congestion and Its Extent.](#)" *Access to Destinations: Rethinking the Transportation Future of our Region*, University of Minnesota Center for Transportation Studies, November 8, 2004.
103. **Bertini, R.L.** and El-Geneidy, A. "[Empirical Techniques for Improving the Performance of Ramp Control Systems Using Archived ITS Data.](#)" *Eleventh World Congress on Intelligent Transport Systems*, Nagoya, Japan, October 21, 2004.
104. **Bertini, R.L.** and Rose, M. "[Using Archived ATMS Data for the Performance Evaluation of a Freeway Incident Response Program.](#)" *IEEE 7th Annual Conference on Intelligent Transportation Systems*, Washington, D.C., October 4, 2004.
105. **El-Geneidy, A.** and Bertini, R.L. "[Toward Validation of Freeway Loop Detector Speed Measurements Using Transit Probe Data.](#)" *IEEE 7th Annual Conference on Intelligent Transportation Systems*, Washington, D.C., October 5, 2004.
106. **Yin, T.**, Bertini, R.L. and Byrd, A. "[Implementing the ITS Archived Data User Service in Portland, Oregon.](#)" *IEEE 7th Annual Conference on Intelligent Transportation Systems*, Washington, D.C., October 4, 2004.
107. **Bertini, R.L.** "[Multimodal ITS Data Integration and Performance Measurement in Portland, Oregon.](#)" *North American Travel Monitoring Exhibition & Conference*, San Diego, California, June 27–30, 2004.
108. **Bertini, R.L.** "[Using ITS Data to Measure Arterial Travel Time in Portland.](#)" *North American Travel Monitoring Exhibition & Conference*, San Diego, California, June 27–30, 2004.
109. **Bertini, R.L.** "[Regional Data Archive and Performance Measures.](#)" *North American Travel Monitoring Exhibition & Conference*, San Diego, California, June 27–30, 2004.

110. **Nolan, C.** and Bertini, R.L. "Examination of the Impact of Speed Upon Highway Safety: An Oregon Perspective." *Institute of Transportation Engineers, District 6 Annual Meeting*, Sacramento, California, June 21, 2004.
111. **Bertini, R.L.** "Enhancing Transportation Education." Panel Discussion, *Institute of Transportation Engineers, District 6 Annual Meeting*, Sacramento, California, June 21, 2004.
112. **Koonce, P.** and Bertini, R.L. "Blueprint for Evaluation and Improvement of Transit Signal Priority: A Portland Case Study." *Institute of Transportation Engineers, District 6 Annual Meeting*, Sacramento, California, June 22, 2004.
113. **Bertini, R.L.**, Byrd, A. and Yin, T. "Developing a Transportation Data Archive for the Portland Metropolitan Area." *Institute of Transportation Engineers, Quad Conference*, Portland, Oregon, April 23, 2004.
114. **Rose, M.** and Bertini, R.L. "Using Archived ITS Data Sources to Measure the Effectiveness of a Freeway Incident Response Program." *Institute of Transportation Engineers, Quad Conference*, Portland, Oregon, April 23, 2004.
115. **Koonce, P.** and Bertini, R.L. "The Importance of Bus Stop Location for Signal Priority." *Institute of Transportation Engineers, Quad Conference*, Portland, Oregon, April 23, 2004.
116. **Bertini, R.L.** and Rose, M. "Evaluation of the COMET Incident Response Program." *Northwest Transportation Conference*, Oregon Department of Transportation, Corvallis, Oregon, February 2004.
117. Bertini, R.L. and **Malik, S.** "[Observed Dynamic Traffic Features On a Freeway Section with Merges and Diverges.](#)" *83rd Annual Meeting of the Transportation Research Board*, January 2004.
118. Bertini, R.L. and **Tantiyanugulchai, S.** "[Transit Buses as Traffic Probes: Empirical Evaluation Using Geo-Location Data.](#)" *83rd Annual Meeting of the Transportation Research Board*, January 2004.
119. Bertini, R.L., **Lindgren, R.**, Helbing, D. and Schonhof, M. "[Empirical Analysis of Flow Features on a German Autobahn.](#)" *83rd Annual Meeting of the Transportation Research Board*, January 2004.
120. **Bertini, R.L.** "[Toward the Systematic Diagnosis of Freeway Bottleneck Activation.](#)" *IEEE 6th Annual Conference on Intelligent Transportation Systems*, Shanghai, China, October 2003.
121. **Bertini, R.L.** and Tantiyanugulchai, S. "[Arterial Performance Measurement Using Transit Buses as Probe Vehicles.](#)" *IEEE 6th Annual Conference on Intelligent Transportation Systems*, Shanghai, China, October 2003.
122. **Bertini, R.L.** "Crash Data Reporting And Analysis – An Oregon Pilot Study." *Institute of Transportation Engineers 2003 Annual Meeting*, Seattle, Washington, August 25, 2003.
123. **Bertini, R.L.** "[Integrating Geographic Information Systems and Intelligent Transportation Systems to Improve Incident Management and Life Safety.](#)" *Eighth International*

*Conference on Computers in Urban Planning and Urban Management (CUPUM)*, Sendai, Japan, May 2003.

124. Bertini, R.L., **Leal, M.** and Lindgren, R. "Examination Of Features Of A Freeway Bottleneck Surrounding A Lane Drop," *82nd Annual Meeting of the Transportation Research Board*, January 13, 2003.
125. **Bertini, R.L.** and El-Geneidy, A.M. "Using Archived Data to Generate Transit Performance Measures," *82nd Annual Meeting of the Transportation Research Board*, January 13, 2003.
126. **Bertini, R.L.** "Analysis Of Oregon's Rural Incident Response Program Using Archived ITS Data," *Ninth World Congress on Intelligent Transport Systems*, Chicago, Illinois, October 18, 2002.
127. **Bertini, R.L.** and Rufolo, T. "Alternatives to the Motor Fuel Tax." *Northwest Transportation Conference*, Funding Transportation Panel, Corvallis, Oregon, February 6, 2002.
128. **Bertini, R.L.** "Evaluation of ODOT's Region 2 Incident Management Program." *Northwest Transportation Conference*, Corvallis, Oregon, February 7, 2002.
129. **Bertini, R.L.**, "Generating Performance Measures from Portland's Archived Advanced Traffic Management System Data." *81st Annual Meeting of the Transportation Research Board*, January 16, 2002.
130. **Bertini, R.L.** "Time Dependent Traffic Flow Features at a Freeway Bottleneck." Workshop on Doctoral Student Research in Transportation Modeling, *78th Annual Meeting of the Transportation Research Board*, January 1999.
131. Cassidy, M.J. and **Bertini, R.L.** "Some Traffic Features at Freeway Bottlenecks." *Third International Symposium on Highway Capacity*, Transportation Research Board, Copenhagen, Denmark, June 1998.
132. **Bertini, R.L.** "Freeway Incident Characteristics." *Institute of Transportation Engineers, District 6 Annual Meeting*, San Jose, California, July 1998.
133. **Bertini, R.L.** "Time Dependent Traffic Flow Features at Freeway Bottlenecks." Eisenhower Research Presentation, *77th Annual Meeting of the Transportation Research Board*, January 1998.
134. **Skabardonis, A.** and Bertini, R.L. "The Los Angeles Freeway Service Patrol Evaluation." Conference on Traffic Management and Planning for Freeway Emergencies and Special Events, *76th Annual Meeting of the Transportation Research Board*, January 1997.
135. Skabardonis, A. and **Bertini, R.L.** "Determination of Timings in Signal Systems With Traffic Actuated Controllers." *75th Annual Meeting of the Transportation Research Board*, January 1996.
136. **Bertini, R.L.** "Tasman Corridor Light Rail Design." *Chi Epsilon, Civil Engineering Honor Society, Pacific District Conference*, Technical Session Speaker, San Jose, California, 1994.
137. **Bertini, R.L.** "Rail Corridor Evolution: The Development of the San Francisco – San Jose Corridor." *72nd Annual Meeting of the Transportation Research Board*, January 1993.

138. **Bertini, R.L.**, Botha, J.L., Colman, S.B. and McKean, P. "The Rail Transit/Land Use Synergism—Case Study of the San Francisco Bay Area." *72nd Annual Meeting of the Transportation Research Board*, January 1993.

### **Professional Society Memberships**

American Road and Transportation Builders Association, 2005–present  
American Society for Engineering Education, 2005–present  
American Society of Civil Engineers, 1988–present  
Chi Epsilon, Civil Engineering Honor Society, 1986–present  
Institute of Transportation Engineers, 1988–present  
Intelligent Transportation Society of America, 2001–present  
Intelligent Transportation Society of Oregon, 2001–present  
International Benefits, Costs and Evaluation (IBEC) Working Group for Intelligent Transportation Systems, 2002–present  
Omega Rho, Operations Research and Management Science Honor Society, 2007–present  
Tau Beta Pi, Engineering Honor Society, 1987–present  
TransPort Technical Advisory Committee, 2000–present  
Transportation Research Board, 1993–present  
Women's Transportation Seminar, 2005–present

### **Professional Registration**

Registered Professional Civil Engineer: Oregon No. 65260PE and California No. C47064

### **Referee Activity** [number in brackets is estimate of reviews since 2005]

10th International Conference on Application of Advanced Technologies in Transportation, Athens, Greece [3]  
*ASCE Journal of Transportation Engineering*, 1997–present [5]  
*ASCE Journal of Urban Planning and Management*, 2004–present [1]  
*ASCE Journal of Computer Aided Civil and Infrastructure Engineering*, 2005–present [4]  
Eighth World Congress on Intelligent Transport Systems, Sydney, Australia, 2001  
Eleventh World Congress on Intelligent Transportation Systems, Nagoya, Japan, 2004  
IEEE 62nd Semiannual Vehicular Technology Conference, 2005 [2]  
Institute of Electrical and Electronics Engineers (IEEE), International Conferences on Intelligent Transportation Systems, 2001–present [20]  
Institute of Electrical and Electronics Engineers (IEEE) *Transactions on Intelligent Transportation Systems*, 2002–present [3]  
International Symposium on Highway Capacity, 1999  
International Symposium on Transportation and Traffic Theory (ISTTT) [3]  
*Internet Journal of Cooperative Transportation Dynamics*, 2001–present

*Journal of Public Transportation*, 2003–present [1]  
*Journal of Intelligent Transportation Systems*, 2004–present [7]  
*Journal of Planning Education and Research*, 2005–present [1]  
National Sciences and Engineering Research Council of Canada (NSERC), proposal review  
2005 [1]  
Ninth World Congress on Intelligent Transportation Systems, Chicago, Illinois, USA, 2002  
Sixth International Conference on Traffic & Transportation Studies (ICTTS), Nanning, China  
[3]  
mobil.TUM 2009 Scientific Conference on Mobility and Transport, Munich Germany [19]  
*Transportation Research Record, Journal of the Transportation Research Board*, 1995–  
present [84]  
*Transportation Research Parts A and B*, 2002–present [6]  
*Transportation Research Part C*, 2007–present [4]  
*Transportation Science*, 2006–present [3]  
Various University Promotion and Tenure External Review, 2002–present  
University of California at Berkeley and California Department of Transportation, PATH  
Program, Proposal Review, 2004–present [9]  
Villanova University (Pennsylvania), Summer Research Fellowships and Research Support  
Grants, proposal review, 2003 [1].

## Graduate Students

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### Chaired Doctoral Degrees

[Roger Lindgren](#), Ph.D., Civil & Environmental Engineering, "[Analysis of Flow Features in Queued Traffic on a German Freeway](#)," 2002–2005  
Sirisha Kothuri, Ph.D. Student, Student, Civil & Environmental Engineering, "Improving Freeway Travel Time Estimation," 2006–present  
Huan Li, Ph.D. Student, Civil & Environmental Engineering, "Automating Freeway Bottleneck Detection," 2008–present  
Benjamin Auffray, Ph.D. Student, Civil & Environmental Engineering, to begin Fall 2009

### Ph.D. Dissertation Committee Member

Raymond Hoogendoorn, Ph.D. Student, Civil Engineering, Delft University of Technology, 2012  
Thijs Muizelaar, Ph.D. Student, Universiteit Twente, the Netherlands, "Non-recurrent Traffic Situations and Traffic Information: Determining Preferences and Effects on Route Choice," 2011  
Qing Ou, Ph.D. Student, Civil Engineering, Delft University of Technology, "Fusing Heterogeneous Traffic Data: Parsimonious Approaches Using Data-Data Consistency," 2011  
Rafael Fernandez-Moctezuma, Ph.D. Student, Computer Science, "Feedback in Stream Engines via Punctuation," 2009

Kathryn Mohror, Ph.D. Student, Computer Science, "Performance evaluation of MPI-2 Applications," 2007–2009

Jin Li, Ph.D. Student, Computer Science, "Windowed Queries Over Data Streams," 2007–2008

James Terwilliger, Ph.D. Student, Computer Science, "The User Interface is the Conceptual Model," 2007–2008

Chansung Kim, Ph.D. Candidate, Urban Studies, "Interrelationships Among Workplace Relocation, Residential Relocation and Commuting," 2003–2005

Ali Eghtedari, Ph.D. Candidate, Systems Science: Civil Engineering, "Measuring the Benefits of an Adaptive Signal Control System," 2000–2005

### **Ph.D. Comprehensive Examination Committee**

Ahmed M. El-Geneidy, Ph.D., Urban Studies, 2003.

### **Ph.D. Student Research Advisor**

Jaturapat Bhromkaew, Ph.D., Urban Studies, 2002

Ahmed El-Geneidy, Ph.D., Urban Studies, 2001–03

Paul Bender, Ph.D., Urban Studies, 2003–04

Rafael Fernandez-Moctezuma, Ph.D., Computer Science, 2006–present (w/D. Maier)

Heiko Jentsch, Visiting Ph.D. Student, Darmstadt University of Technology, Germany, 2008

Qing Ou, Ph.D., Visiting Ph.D. Student, Delft University of Technology, The Netherlands, 2008

### **Chaired Master's Degrees**

#### ***M.S. Thesis Advisor***

Wei Feng, M.S. Candidate, 2008–2009

Meead Saberi, M.S. Candidate, 2008–present

Michael Wolfe, M.S. Candidate, Civil & Environmental Engineering, "The Effects of Data Aggregation on Measuring Arterial Performance," 2007–2009

Steven Boice, M.S. Candidate, Civil & Environmental Engineering, "Evaluation of Variable Speed Limit and Driver Information System on a German Autobahn," 2004–present

Benjamin Auffray, M.S., Transportation, L'ecole nationale des travaux publics d'Etat (ENTPE), France, "Impact of Adverse Weather on Traffic Conditions on an American Highway: Effect of Sun Glare on Traffic Flow," 2006–2007

Benjamin Zielke, M.S., Transportation, Technical University of Dresden, Germany, "Identification of Country Specific Characteristics of Oscillating Congested Traffic," 2006–2007

[Sutti Tantiyanugulchai](#), M.S., Civil & Environmental Engineering, "[Arterial Performance Measurement Using Transit Buses as Probe Vehicles](#)," 2001–2003

#### ***M.S. Research Project Advisor***

Amanda Owings, M.S., Civil & Environmental Engineering, "Evaluation of Oregon's Formula for Section 5311 Funding Allocation," 2009

Leah S. Tomlinson, M.S., Civil & Environmental Engineering, "Orange County Empirical Analysis: Using Loop Detector Data to Identify Bottleneck Locations and Characteristics," 2006-2008

Lynn Peterson, M.S., Civil & Environmental Engineering, "Sub-Area Transportation System/Land Use Scenario Modeling," 2003–2008

Monica Leal, M.S., Civil & Environmental Engineering, "[Empirical Analysis of Traffic Flow Features of a Freeway Bottleneck Surrounding a Lane Drop](#)," 2000–2002

Shazia Malik, M.S., Civil & Environmental Engineering, "[Observed Dynamic Traffic Features on a Freeway Section With Merges and Diverges](#)," 2001–2003

[Aaron Myton](#), M.S., Civil & Environmental Engineering, "[I-405 Freeway Bottleneck Analysis](#)," 2003–2004.

Nivedita Doijode, M.S. Candidate, Civil & Environmental Engineering, "Freeway Bottleneck Video Analysis," 2003–2005

Jaspreet Anand, M.S. Candidate, Civil & Environmental Engineering, 2004–2006.

***Master of Urban and Regional Planning Field Area Paper First Reader***

Max Coffman, "Transport Payment Integration in Portland, Oregon," 2006–2007

**M.S. Thesis Committee Member**

David Petres, M.Sc., Civil Engineering, Delft University of Technology, "Actuated Signal Control and Green Waves," 2012

Robert Jones, M.S., Computer Science, "Content Aware Request Distribution for High Performance Web Service: A Performance Study," 2002

Brian Kearns, M.S., Computer Science, "A Performance Study of LAM and MPICH on an SMP Cluster," 2002

Bhaskar Bhatnagar, M.S., Mechanical Engineering, "Aerodynamic Design of Wind Tunnel Inlet for Testing Class 8 Trucks," 2003

John Hoffman, M.S., Computer Science, "PPerfGrid: A Grid Services-based Tool for the Exchange of Heterogeneous Parallel Performance Data," 2004

Rashawn Knapp, M.S., Computer Science, "Environment Aware Performance Analysis: Scope of Performance Analysis Tools for Cluster Computing and MPI Applications," 2006

**Master of Urban and Regional Planning Field Area Paper Second Reader**

Carolyn Bonner, "Public Transportation for Small Cities," 2004–2005

Matthew Lasky, "Bicycle Use on Transit," 2004–2005

Kate Lyman, "[Travel Time Reliability in Regional Transportation Planning](#)," 2006–2007

**Master's Student Research Advisor**

Helene Siri, M.S., Transportation, L'ecole nationale des travaux publics d'Etat (ENTPE), France, 2009

Jerzy Wieczorek, M.S., Statistics, 2007–2009

Leah Tomlinson, M.S., Civil and Environmental Engineering, 2007–08

Priya Chavan, M.S., Computer Science, 2007–present (w/K. Tufte)

Enas Fayed, M.S., Civil and Environmental Engineering, 2007 (w/K. Tufte)

Matt Berkow, Master of Urban and Regional Planning, 2006–08

Oren Eshel, Master of Urban and Regional Planning, 2006–08

Maisha Mahmud, M.S., Civil and Environmental Engineering, 2006–08 (w/C. Monsere)

Jake Hofeld, M.S., Civil and Environmental Engineering, 2006–07 (w/C. Monsere)

Sandeep Puppala, M.S., Civil and Environmental Engineering, 2006 (w/C. Monsere)

Zachary Horowitz, M.S., Civil and Environmental Engineering, 2005–06

Suman Tasnim, M.S., Civil and Environmental Engineering, 2004–07 (w/C. Monsere)

Aaron Breakstone, Master of Urban and Regional Planning, 2004–06 (w/C. Monsere)

Peter Bosa, Master of Urban and Regional Planning, 2004–06 (w/C. Monsere)

Alex White, Master of Urban and Regional Planning, 2004–05

Sonoko Endo, Master of Urban and Regional Planning, 2004

Thareth Yin, M.S., Civil and Environmental Engineering, 2003–05 (w/C. Monsere)

Steve Hansen, Master of Urban and Regional Planning, 2003–05

Casey Nolan, Master of Urban and Regional Planning, 2003–05

Mike Rose, Master of Urban and Regional Planning, 2003–04

Nina Rufer, Master of Business Administration, 2003

Sachin Karmarkar, M.S., Civil and Environmental Engineering, 2002–03

Kerri Sullivan, Master of Urban and Regional Planning, 2002

Edward Anderson, M.S., Civil and Environmental Engineering, 2000–01

#### **Post-Doctoral Research Associate Supervisor**

Kristin Tufte, Post-Doctoral Research Associate, 2005–2007

Soyoung Ahn, Post-Doctoral Research Associate, 2005–06

Tarek El-Seoud, Visiting Post-Doctoral Research Associate, University of Cairo, Egypt, 2002–2004

#### **B.S. Honors Thesis Advisor**

Alexander Bigazzi, B.S., Civil Engineering, "Carbon Sponsoring: a New Idea in Personal Carbon Trading, Direct Carbon Offset Pledges for Travel," 2008–2009

Joshua Crane, "Real Time Transit Information," 2008–present

#### **Research Experience for Undergraduates (REU) Advisor**

Dan Johnson, B.S., Civil Engineering, 2003

Chris Pangilinan, B.S., Civil Engineering, 2002–04

Andrew Byrd, B.S., Computer Science, 2002–04  
 Neil Byrne, B.S., Civil Engineering, 2003–2004  
 Violet Gordon, B.S., Civil Engineering, 2003–04  
 Matthew Dorado, B.S., Civil Engineering, 2003–07  
 Jacob Baglien, B.S., Civil Engineering, 2003–05  
 Andy Delcambre, B.S., Computer Science, 2004–05  
 Andy Rodriguez, B.S., Computer Science, 2004–05  
 Abram VanElswyk, B.S., Civil Engineering, 2004–05  
 Erin Qureshi, B.S., Civil Engineering, 2004–05  
 Rodger Gutierrez, B.S., Civil Engineering, 2005  
 Spicer Matthews, B.S., Computer Science, 2004–06  
 Scott Pulice, B.S., Civil Engineering, 2005  
 Nick Carey, B.S., Civil Engineering, 2005–07  
 Jonathan Horowitz, B.S., Civil Engineering, 2005  
 Hiu Ng, B.S., Civil Engineering, 2005–06 (w/C. Monsere)  
 James Rucker, B.S., Computer Science, 2004–07  
 Jessica Potter, B.S., Computer Science, 2004–07  
 Tim Welch, B.S., Computer Science, 2006  
 River Hwang, B.S., Civil Engineering, 2004–06  
 Andrew Coons, B.S., Computer Science, 2006  
 Max Stephens, B.S., Civil Engineering, 2006–07 (w/C. Monsere)  
 John Chee, B.S., Computer Science, 2006–present

**Undergraduate Summer Internship Advisor**

Nick Millar, Civil Engineering, Summer 2006 (w/C. Monsere)

**Research**

<b>Total Funded Research:</b>	<b>\$18,607,494</b>
Total as OTREC Director:	<b>\$13,870,500</b>
Total as Principal Investigator:	<b>\$4,736,994</b>

**Funded Research as University Transportation Center Director**

<b>Sponsor</b>	<b>Title</b>	<b>Role</b>	<b>Period</b>	<b>Total</b>
US DOT Research and Innovative Technology Administration	Oregon Transportation Research and Education Consortium (OTREC) National University Transportation Center	PI	2006–07	\$1,560,000
			2007–08	\$3,010,000
			2008–09	\$2,858,100
			2009–10	\$3,199,000
			2010–11	\$ 3,243,400
<b>Total as OTREC Director</b>				<b>\$13,870,500</b>

## Funded Research as Principal Investigator

Sponsor	Title	Role	Period	Total
Oregon Transportation Research and Education Consortium	Development, Deployment, and Assessment of a New Educational Paradigm for Transportation Professionals and University Students	PI	2009-2010	\$30,000
Oregon Transportation Research and Education Consortium	How Transportation Technology Can Limit the Impact of Future Climate Change	PI	2009-2010	\$25,000
Portland State University	Professional Travel Grant	PI	2009	\$1,500
Portland State University	Faculty Enhancement Grant	PI	2010	\$9,305
Portland State University Center for Sustainable Processes and Practices	Development of a Transportation Sustainability Roadmap Collaborator: H. Hagedorn	Co-PI	2009	\$50,094
Metropolitan Transportation Improvement Program	PORTAL Data Archive	PI	2009–2011	\$226,234
Oregon Transportation Research and Education Consortium	Exploiting a Next Generation ITS Data Warehouse for Improved System Performance and Congestion Monitoring Collaborators: D. Maier and K. Tufte	PI	2008–2009	\$170,000
Oregon Transportation Research and Education Consortium	Value of Reliability, Phase 2 Collaborator: D. Levinson, University of Minnesota	PI	2008–2009	\$121,571
FHWA Transportation Education Development Pilot Program	Development, Deployment, and Assessment of a New Educational Paradigm for Transportation Professionals and University Students: A Collaboration of the Region X Transportation Consortium Collaborator: University of Idaho	Co-PI	2008–2010	\$229,946
Oregon Transportation Research and Education Consortium	Value of Reliability Collaborator: D. Levinson, University of Minnesota	PI	2007–2008	\$333,346
Oregon Transportation Research and Education Consortium	Oregon Freight Data Mart Collaborator: M. Figliozzi	PI	2007–2008	\$120,036
Oregon Transportation Research and Education Consortium	Using Archived ITS Data to Measure the Operational Benefits of a System-wide Adaptive Ramp Metering System Collaborator: L. Zhang, Oregon State	PI	2007–2008	\$112,960

	University				
Oregon Transportation Research and Education Consortium	Characteristics of Transitions in Freeway Traffic Collaborator: S. Ahn, Arizona State University	PI	2006–2007	\$107,465	
National Science Foundation	Exploiting Live Plus Archive Data for Intelligent Transportation Systems Collaborators: D. Maier, K. Tuft	Co-PI	2006–2008	\$410,670	
Oregon Department of Transportation	Visiting Scholar Transportation Seminar Series	PI	2005–2006	\$3,000	
National Science Foundation	Research Experience for Undergraduate Supplement: Mining Archived ITS Data	PI	2005–2006	\$6,000	
Oregon Department of Transportation	Using Existing ITS Commercial Vehicle Operation (ITS/CVO) Data to Develop Truck Travel Time Estimates and Other Freight Measures Collaborator: C. Monsere	Co-PI	2006–2007	\$85,301	
Oregon Department of Transportation	Dynamic Travel Time Estimation Using Regression Trees Prime Contractor: R. Logendran, Oregon State University	Sub	2005–2007	\$25,508	
Oregon Department of Transportation	Using Archived ITS Data to Measure the Operational Benefits of a System-wide Adaptive Ramp Metering System	PI	2005–2007	\$140,000	
BMW Group	Stage 1 Empirical Evaluation Of Alternative North American Traffic Information Solutions	PI	2005	\$78,401	
Metropolitan Transportation Improvement Program	Freight Data Collection Infrastructure and Archive System	PI	2006	\$179,000	
BMW Group	Congestion And Its Extent: An International Analysis Of Congestion Definitions	PI	2005	\$36,000	
Oregon Department of Transportation	Visiting Scholar Transportation Seminar Series	PI	2004–2005	\$3,000	
U.S. Department of Transportation	Portland State University Center for Transportation Studies Intelligent Transportation Research Initiative	PI	2005–2006	\$400,000	
Oregon Department of Transportation	Evaluation of Freeway Travel Time Estimates Prime Contractor: Castle Rock Consultants	PI	2004–2005	\$39,775	
National Science Foundation	Research Experience for Undergraduate	PI	2003–	\$12,000	

Foundation	Supplement: Mining Archived ITS Data		2004	
Federal Highway Administration	Integrated Transportation System Freeway Travel Time Study	PI	2004	\$15,000
Federal Transit Administration University of Wisconsin Milwaukee	Great Cities Universities Local Transit Innovations	PI	2004	\$15,312
Oregon Department of Transportation	ODOT Region 1 ITS Implementation and Operations Plan Prime Contractor: Parametrix	Sub		\$10,000
NCHRP 8-36B Task 52 AASHTO Standing Committee on Planning	Changes in Travel Behavior/Demand Associated with Managed Lanes Facility System Expansion Prime Contractor: Kittelson & Assoc.	Sub		\$10,000
U.S. Department of Transportation	Portland State University Intelligent Transportation Research Initiative	PI	2004–2005	\$344,633
Oregon Department of Transportation	Impacts and Issues Related to Changes in Interstate Speed Limits Collaborator: C. Monsere	Co-PI	2004	\$41,791
City of Portland	Community and School Traffic Safety Partnership Research and Evaluation Collaborator: C. Monsere	Co-PI	2004–2005	\$40,589
TransNow University Transportation Center	Techniques for Mining Truck Data to Improve Freight Operations and Planning Collaborator: R. Fountain	PI	2003–2005	Phase 1 \$62,442 Phase 2 \$60,000
National Science Foundation	Research Experience for Undergraduate Supplement: Mining Archived ITS Data	PI	2003–2004	\$15,000
Oregon Department of Transportation	Update And Enhancement of ODOT's Crash Reduction Factors Collaborator: K. Hunter-Zaworski	Co-PI	2003–2005	\$60,000
City of Portland and Kittelson & Associates, Inc.	Transit Signal Priority Evaluation	PI	2003–2005	\$24,656
National Science Foundation	CAREER: Mining Archived Intelligent Transportation Systems Data: A Validation Framework for Improved Performance Assessment and Modeling	PI	2003–2008	\$400,000
BMW Group	Empirical Comparison Of German And U.S. Traffic Sensor Data And Impact On Driver Assistance Systems	PI	2003	\$60,000
Oregon Department of Transportation	Region 1 Intelligent Transportation Systems (ITS) TransPort Support	PI	2003	\$6,960

Oregon Department of Transportation	Evaluation of Variable Speed Limits	PI	2002–2003	\$11,000
Oregon Department of Transportation	Institutional and Technology Options for VMT Data and Fee Collection Centers Collaborators: T. Rufolo & K. Karavanic	Co-PI	2002	\$64,906
Federal Highway Administration, Western Transportation Institute and Montana State University	Frontier Project Evaluation of Video Recognition Travel Time System	PI	2002	\$11,070
Oregon Department of Transportation	Measuring the Impacts of Speed Reduction Technologies on Highway Safety	PI	2002–2003	\$90,000
TransNow University Transportation Center and Oregon Department of Transportation	Using Archived Data to Measure Operational Benefits of ITS Investments	PI	2001–2003	\$84,092
Federal Transit Administration/ University of Alabama	Great Cities Prototype for Advanced Public Transit Systems in Multimodal Corridors Collaborators: J. Strathman, T. Kimpel	Co-PI	2002–2003	\$221,435
Oregon Department of Transportation	Alternatives to the Motor Fuel Tax Phase I: Identification of Economic/ Institutional & Technology Issues Collaborator: T. Rufolo	Co-PI	2001	\$60,568
Oregon Department of Transportation	Evaluation of Region 2 Incident Response Program	PI	2001	\$23,962
Portland State University Maseeh College of Engineering & Computer Science	Intelligent Transportation Systems CCTV Fiber Optics Connection	PI	2001	\$13,000
Portland State University Faculty Enhancement Award	Oregon Intelligent Transportation System Monitoring/Evaluation Prototype	PI	2001–2002	\$7,505
Federal Transit Administration/ Weststart	Bus Rapid Transit and the American Community Design Competition	PI	2001	\$1,000
City of Portland	Traffic Signal Pole Failure Testing	PI	2001	\$1,005
PSU Scholarship of Teaching Resource Team	Intelligent Systems Laboratory Assessment	PI	2001–2002	\$800
Portland State University Faculty Development Grant	Transportation Research Laboratory	PI	2000	\$1,250
Oregon Department of Transportation	Evaluation of Paramics Microsimulation Software	PI	2001–2002	\$2,000
Innovative	Evaluation of VISSIM Microsimulation	PI	2001–	\$5,000

Transportation Concepts	Software (In-kind)		2002		
PSU Office of Information Technologies	Capital Funds Grant for Student Access Technology Projects	PI	2003	\$15,000	
Portland State University	Professional Travel Grant	PI	2003	\$800	
Portland State University	Professional Travel Grant	PI	2001	\$200	
<b>Total as Principal Investigator</b>				<b>\$4,736,994</b>	

### Unfunded Proposals as Principal Investigator

Sponsor	Title	Role	Period	Total
Transportation Research Board, Strategic Highway Research Program 2	Evaluating Alternative Operations Strategies to Improve Travel Time Reliability	Sub	2008	
Transportation Research Board, Strategic Highway Research Program 2	Requirements and Feasibility of a System for Archiving and Disseminating Data from SHRP 2 Reliability and Related Studies	Sub	2008	
National Science Foundation	Collaborative Research: Pedagogies to Improve Learning Outcomes in Transportation (PILOT)	Co-PI	2008	\$75,000
National Cooperative Highway Research Program (NCHRP)	Low-Cost Improvements for Recurring Freeway Bottlenecks	Co-PI	2005	\$75,000
National Science Foundation	SEI: Data Stream Querying for Intelligent Traffic Systems	Co-PI	2004	\$415,758
National Cooperative Highway Research Program (NCHRP)	Cost-Effective Measures and Planning Procedures for Travel Time, Delay and Reliability	Sub	2003	
National Science Foundation	Collaborative Research: Traffic Modeling and Real Time Routing for Intelligent Transportation Systems	Co-PI	2003	\$50,000
TransNow	Improved Ice Detection Toward Optimal Use of Maintenance Resources	Co-PI	2002	\$113,000
Oregon Intel Curriculum Fellowship & Student Labs Grant Program	Transportation and Emergency Information Technology For Enhanced Public Safety	PI	2002	\$25,000
TransNow	Automated Enforcement Pilot Project Evaluation	PI	2002	\$82,000
TransNow	Capacity Building for Improved Traffic Signal Timing and Control Training and Education	PI	2002	\$50,000
City Of Vancouver,	Automated Enforcement Pilot Project	PI	2001	\$97,000

Washington	Evaluation				
City Of Vancouver, Washington	Evaluation of Lighted Crosswalk Warning Systems	PI	2001	\$75,000	
PSU Office of Graduate Studies and Research, Research Advisory Committee	Creating Safe and Sustainable Neighborhoods for Pedestrians and Bicyclists, A Great City: Great University Partnership	PI	2001	\$100,000	
Federal Highway Administration	Pedestrian Safety Engineering and Intelligent Transportation System-Based Countermeasures Program for Reducing Pedestrian Fatalities, Injuries, Conflicts, and Other Surrogate Measures	Sub	2001		

## Teaching

### Courses Taught & Student Evaluations

#### Portland State University

Course	Title	Term	Students	Evaluations	Q11 Score <sup>1</sup>
CE 4/510	Advanced Transportation Technology	Fall 2000	6	0	--
CE 4/510	Intelligent Transportation Systems	Winter 2001	11	11	1.6
CE 4/510	Public Transportation Systems	Spring 2001	12	9	1.6
CE 4/510	Intelligent Transportation Systems	Fall 2001	7	6	1.8
CE 4/510	Transportation Operations	Fall 2001	11	10	1.3
CE 454	Urban Transportation Systems	Winter 2002	25	16	2.3
CE 4/510	Public Transportation Systems	Spring 2002	8	6	1.5
CE 4/510	Transportation Data Analysis	Spring 2002	8	7	1.1
CE 4/510	Intelligent Transportation Systems	Fall 2002	10	10	1.1
CE 4/510	Transportation Operations	Fall 2002	5	6	1.2
CE 4/510	Urban Transportation Systems	Winter 2003	37	32	1.7
CE 4/510	Public Transportation Systems	Spring 2003	18	12	1.5
CE 4/510	Intelligent Transportation Systems	Fall 2003	13	10	1.5
CE 4/510	Transportation Operations	Fall 2003	6	6	1.5
CE 454	Urban Transportation Systems	Winter 2004	30	23	1.4
CE 4/558	Public Transportation Systems	Spring 2004	9	9	1.6
CE 4/510	Freight Transportation & Logistics	Spring 2004	4	3	1.3
CE 454	Urban Transportation Systems	Fall 2004	37	24	1.6

CE 4/555	Intelligent Transportation Systems	Fall 2004	9	9	1.1
CE 4/558	Public Transportation Systems	Spring 2005	13	11	1.6
CE 4/559	Transportation Operations	Spring 2005	6	6	1.5
CE 4/555	Intelligent Transportation Systems	Winter 2006	9	9	1.3
CE 4/558	Public Transportation Systems	Spring 2006	7	5	1.6
CE 4/559	Transportation Operations	Spring 2006	6	3	1.7
CE 4/555	Intelligent Transportation Systems	Fall 2006	10	1	1.0
CE 4/559	Transportation Operations	Winter 2007	9	8	1.6
CE 4/558	Public Transportation Systems	Spring 2007	11	9	1.2
CE 4/555	Intelligent Transportation Systems	Fall 2007	6	6	1.2
CE 4/559	Transportation Operations	Winter 2008	15	14	1.7
CE 4/555	Intelligent Transportation Systems	Fall 2008	14	13	1.4
CE 4/559	Transportation Operations	Winter 2009	25	25	1.4
				<b>Average</b>	<b>1.5</b>

<sup>1</sup> PSU's Teacher and Course Evaluation questionnaire asks 14 questions on a scale of 1–5:  
 1 = Excellent; 2 = Good; 3 = Satisfactory; 4 = Marginal; 5 = Poor  
 Question 11 asks for the overall teaching effectiveness of the instructor.

### San Jose State University

Course	Title	Term	Students	Q14 Score <sup>2</sup>	
CE 130	Engineering Economics	Spring 1993	47	4.6	
CE 222	Transportation Engineering Planning	Fall 1993	19	4.4	
CE 130	Engineering Economics	Spring 1994	62	4.2	
CE 296A	Public Transportation Systems	Fall 1994	23	4.5	
CE 130	Engineering Economics	Spring 1995	20	4.5	
CE 222	Transportation Engineering Planning	Spring 1995	15	4.6	
				<b>Average</b>	<b>4.4</b>

<sup>2</sup> SJSU's Student Opinion of Teaching Effectiveness asked 14 questions on a scale of 5–1 (the opposite of the PSU rating scheme where 1 is Excellent):  
 5 = Excellent; 4 = Good; 3 = Satisfactory; 2 = Marginal; 1 = Poor.  
 Question 14 asks for the overall effectiveness of the instructor.

### Supervision of Independent Study

Winter 2001, "Advanced Transportation Operations I," Roger Lindgren, Ph.D. student  
 Spring 2001, "Advanced Transportation Operations II," Roger Lindgren, Ph.D. student  
 Fall 2001, "Bottleneck Analysis," Monica Leal, M.S. student  
 Fall 2001, "Bus Trip Time Prediction," Ahmed El-Geneidy, Ph.D. student, Urban Studies

Winter 2002, "Comparison of Bus and Auto Travel Times," Sutti Tantiyanugulchai, M.S. student

Winter 2002, "Bottleneck Analysis," Monica Leal, M.S. student

Winter 2002, "Minnesota Ramp Metering Analysis," Shazia Malik, M.S. student

Spring 2002, "Comparison of Bus and Auto Travel Times," Sutti Tantiyanugulchai, M.S. student

Spring 2002, "Bottleneck Analysis," Monica Leal, M.S. student

Fall 2002, "Bottleneck Analysis," Monica Leal, M.S. student

Fall 2002, "Arterial Performance," Sutti Tantiyanugulchai, M.S. student

Fall 2002, "Bottleneck Analysis," Shazia Malik, M.S. student

Winter 2003, "Bottleneck Analysis," Shazia Malik, M.S. student

Winter 2003, "Arterial Performance," Sutti Tantiyanugulchai, M.S. student

Fall 2003, "Sullivan's Gulch Trail," Morgan Will, MURP Student

Fall 2003, "Transportation Policy," Lynn Peterson, Ph.D. Student

Winter 2004, "Freeway Bottleneck Analysis," Aaron Myton, M.S. student

Winter 2004, "Rural ITS," Carolyn Bonner, MURP Student

Winter 2004, "Intelligent Transportation Systems," Paul Bender, MURP Student

Spring 2004, "Transportation Networks," Lynn Peterson, Ph.D. Student

Fall 2004, "Real Time Transit Information," Lynn Peterson, Ph.D. Student

Fall 2004, "Transit Services for Elderly," Lynn Peterson, Ph.D. Student

Fall 2004, "Context Sensitive Road Design," Lynn Peterson, Ph.D. Student

Winter 2005, "Bottleneck Analysis," Nivedita Doijode, M.S. student

Winter 2005, "Readings in Transportation," Casey Nolan, MURP Student

Winter 2005, "Context Sensitive Design," Lynn Peterson, Ph.D. Student

Winter 2005, "Arterial Analysis," Rodger Gutierrez, B.S. Student

Winter 2005, "Travel Time Analysis," Jaspreet Anand, M.S. student

Spring 2005, "Transportation Analysis," Steven Hansen, MURP student

Spring 2006, "Bottleneck Analysis," Zachary Horowitz, M.S. student

Spring 2006, "Incident Analysis," Suman Tasnim, M.S. student

Fall 2006 and Spring 2007, "Carsharing," Max Coffman, MURP student

Spring 2007, "Transportation Analysis," Sirisha Kothuri, Ph.D. student

### **Technology–Based Learning**

**Technology Integration:** actively integrate technology into coursework at both graduate and undergraduate level, including course web sites, presentations, syllabi, problem sets, exams and large transportation data sets for laboratory exercises. Students are actively involved with intelligent transportation systems technology and use classroom presentation technology for individual and group projects.

**Transportation Research & Practice Seminar:** weekly seminar is streamed live via streaming video over the Internet and seminar presentations are archived for future use.

Participants can email live questions during the seminar that are accessed via wireless modem. Offered in partnership with the Center for Transportation Studies, the Center for Urban Studies, the School of Urban Studies and Planning and the Department of Civil and Environmental Engineering.

### **Continuing Education**

#### **Oregon Transportation Research and Education Consortium**

Transportation Education: Partnerships for Leading and Learning, conference co-sponsored with NIATT, June 2009

Building Future Transportation Leadership: Success Factors from Portland, January 2008 (100 participants)

Roundabout Analysis & Design, May 2008

Geometric Design: Contemporary Considerations of Traditional Elements, June 2008

Traffic Signal Design, July 2008

Urban Traffic Solutions, 2009

#### **Center for Transportation Studies**

Light Rail Transit Facility Design Short Course, Portland, September 2004

Light Rail Transit Systems Design Basics Short Course, Portland, May 2005

Contracting and Constructability Short Course, Portland, September 2005

#### **University of California at Berkeley, Institute of Transportation Studies, Technology Transfer Program**

Fundamentals of Traffic Engineering (Capacity Analysis and Freeway Operations), Fall 1997, Spring 1998, Fall 1998 and Spring 1999

#### **University of California at Berkeley, Continuing Education in Engineering**

Review of Civil Engineering (Transportation) for Professional Engineer (P.E.) Examination, Fall 1996, Spring 1997, Fall 1997, Spring 1998, Fall 1998 and Spring 1999

#### **San Jose State University, Department of Civil and Environmental Engineering**

Review of Engineering Economics for Fundamentals of Engineering (F.E.) Examination, Fall 1996

### **Curriculum Development**

#### **Portland State University, 2000–present**

##### **New Transportation Curriculum**

Developed new curriculum in Intelligent Transportation Systems, including courses, laboratory, real-time data connection with Oregon Department of Transportation, City of Portland and TriMet. New and modified courses include:

##### **MODIFIED COURSE**

1. CE 454 Urban Transportation Systems (4 credits)

## **NEW COURSES**

1. CE 455/555 Intelligent Transportation Systems (4 credits)
2. CE 458/558 Public Transportation Systems (4 credits)
3. CE 459/559 Transportation Operations (4 credits)
4. CE 410/510 Transportation Data Analysis (4 credits)
5. CE 453/553 Freight Transportation and Logistics (4 credits), with C. Monsere
6. CE 407/507 Seminar: Transportation Research & Practice (1 credit)

## **Intelligent Systems Laboratory**

Initiated and developed a new Intelligent Transportation Systems (ITS) Laboratory. Established a real-time video feed via fiber optics connection with Oregon Department of Transportation (ODOT), City of Portland and TriMet, the Portland region's transit provider. This provides real-time closed-circuit television (CCTV) feeds from more than 100 freeway cameras. Established 24 student workstations with new PCs and flat panel monitors. Laboratory also includes modern microsimulation tools (Synchro, Highway Capacity Software, Paramics and VISSIM), computer-aided design software (Matlab and AutoCAD), travel demand forecasting (EMME/2) software, and Geographic Information Systems (GIS). The lab has also begun to serve as a data archive as part of the Portland region's ITS Architecture development. As archivers of ODOT's advanced transportation management system (ATMS) data, we have been the first users and evaluators of the raw data. Currently we are developing a traffic signal system lab component and a wireless interface to TriMet's real-time bus arrival prediction system. Involved in design of new laboratories in the Northwest Center for Engineering Science and Technology (NWCEST), which opened in December 2005. The new building includes the Intelligent Transportation Systems Laboratory (1200 sf), the Traffic Signal Laboratory (600 sf) and the Transportation and GIS Laboratory (900 sf).

## **Graduate Certificate in Transportation**

Developed the proposal for the Graduate Certificate in Transportation, under the auspices of the Portland State University Office of Graduate Studies. The proposal was approved by the PSU faculty senate in 2004 and was approved by the State Board of Higher Education in November 2005. The Certificate program is a 21 credit-hour program based on the following courses:

1. USP 556 Urban Transportation: Problems and Policies (3 credits)
2. USP 544 Urban Transportation Planning (3 credits)
3. USP 570 Transportation and Land Use (3 credits)
4. USP/CE Elective graduate courses (12 credits)

This program can be completed in a single year on a full-time basis or over two years on a part-time basis. All of the courses are existing courses in the PSU Bulletin.

### **Dual Transportation Master's Degree Program in Urban and Regional Planning and Civil and Environmental Engineering**

Developed materials for describing how students can obtain a dual MURP/MSCE focusing on transportation using the university's existing dual master's degree policy. Developing streamlined proposal for specific dual program in transportation.

### **Norman Y. Mineta International Institute for Surface Transportation Policy Studies (IISTPS), San Jose State University, 1993–1995**

*Introduction to Transportation Systems (TPM 201)*

Responsible for development of new curriculum for one of three core graduate courses for an innovative new educational program culminating in a multidisciplinary M.S. in Transportation Policy and Management.

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## **Service**

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### **Departmental Service**

Transportation Graduate Program Coordinator, 2002–2006

Assigned advisor to approximately 20 undergraduates and 10 graduate students per year, Department of Civil and Environmental Engineering, 2000–present

MURP Admissions Committee, Nohad A. Toulon School of Urban Studies & Planning, 2005–2006

Review Panelist, CE494 CE Design Capstone 50% and 90% Presentations, Spring 2003 and Spring 2004

Faculty Search Committee Chair, Transportation Engineering position, 2006 (Miguel Figliozzi)

Search Committee Chair, Fiscal Operations Coordinator, OTREC, 2007

Search Committee, Office Assistant, OTREC 2008

Search Committee, Education and Technology Transfer Program Manager, OTREC, 2008

Faculty Search Committee, Structural Engineering and Seismic Testing position, 2004 (Peter Dusicka)

Faculty Search Committee, Urban Studies and Planning Transportation Modeling position, 2006 (John Gliebe)

Student Scholarship and Awards Committee, Department of Civil and Environmental Engineering, 2000–2003

Undergraduate Advising Guide update, Department of Civil and Environmental Engineering, 2002

Advisor, Planning Workshop Capstone Bus Rapid Transit Project Team, 2000–2001

ASCE Student Chapter Advisor, 2000–2004

Regional Conferences: Pocatello, Idaho, 2001; Moscow, Idaho, 2002; Boise, Idaho, 2003; Klamath Falls, Oregon, 2004; Butte and Helena, Montana, 2005

National Steel Bridge Competitions: Madison, Wisconsin, 2002; Orlando, Florida, 2005

ITE Student Chapter and Students in Transportation Engineering and Planning (STEP), Faculty supporter, 2000–present  
Engineers Without Borders, Faculty Advisor, 2004–present

### **College Service**

Maseeh College of Engineering and Computer Science, Strategic Planning, 2007  
Maseeh College of Engineering and Computer Science Computing Plan Task Force, 2002–2003  
Northwest Center for Engineering, Science and Technology (new engineering building),  
Laboratory Planning and Design Committee, 2001–2005  
Computer Committee, Maseeh College of Engineering and Computer Science, 2001–2002;  
developed and administered customer needs survey (staff, faculty and students).  
Student Scholarship and Awards Committee, Maseeh College of Engineering and Computer  
Science, 2000–2003  
Staff Awards Committee, Maseeh College of Engineering and Computer Science, 2000–2003  
Advisor, Tau Beta Pi, Department of Civil & Environmental Engineering, 2004–present

### **University Service**

Search Committee Chair, Green Transportation Energy/Infrastructure Position, Portland State  
University, 2008-2009  
Traffic Appeals Board, 2008-2009  
Sustainability Academic Advisory Committee, 2007–present  
Custodial Services Proposal Review Committee, 2007  
Faculty Senate, 2004–2007  
Faculty Senate Budget Committee, 2004–2007  
Task Force on Research and Sponsored Projects Infrastructure, 2006  
Search Committee Member, Vice President of Finance and Administration, Portland State  
University, 2004–2005 (Lindsay Desrochers)  
Faculty Development Committee, 2002–2004; 2009–present  
Search Committee Member, Assistant Director of Transportation and Parking, Portland State  
University, 2002 (Matthew Lauer)  
Streetcar Safety Advisory Committee, Portland State University, 2001  
Great Cities Universities Coalition, Transportation Initiative, Portland State University Team  
Leader, 2000–present  
Economic Development Task Force, 2006

### **Committee Membership and Professional Service**

#### ***U.S. Department of Transportation***

Senior Sustainability Officer, Research and Innovative Technology Administration, 2011  
White House Task Force on Skills for America's Future, representing Secretary of  
Transportation, 2010-2011  
Performance Management Council, member, 2009-2011

IdeaHub Innovation Council, chair, 2010-2011

National Science and Technology Council

Committee on Homeland and National Security, DOT Designated Senior Official

Committee on Science, DOT Alternate Designated Senior Official

Committee on Technology, DOT Alternate Designated Senior Official and member of Deputies' Council

Emerging Technologies Interagency Policy Coordination Committee (OSTP/OMB/USTR), DOT Designated Senior Official

Facilitator for kickoff meeting of Northeast Corridor Commission, September 27, 2010

***National Science Foundation***

Review Panelist, 2009

Review Panelist, 2007

Review Panelist, 2007 [second separate panel]

Review Panelist, 2006

Ad hoc Review Panelist, 2005

Review Panelist, 2004

Review Panelist, 2003

Review Panelist, 2001

Program Committee, National Conference on Digital Government Research, dg.o 2004, Seattle, Washington, May 24–26, 2004.

***IEEE Intelligent Transportation Systems Society***

4th International Conference on Intelligent Transportation Systems (ITSC01), International Program Committee, Oakland, California, U.S.A., 2001

6th International Conference on Intelligent Transportation Systems (ITSC03), International Program Committee and Session Chair, Shanghai, China, 2003

8th International Conference on Intelligent Transportation Systems (ITSC05), Associate Editor, International Program Committee and Session Chair, Vienna, Austria, 2005

9th International Conference on Intelligent Transportation Systems (ITSC06), Associate Editor, International Program Committee and Session Chair on ITS Planning, Training and Evaluation, Toronto, Canada, 2006

10th International Conference on Intelligent Transportation Systems (ITSC07), Associate Editor, International Program Committee and Session Chair on Traffic Information and Guidance—Sensors, Seattle, Washington, USA, 2007

13th International Conference on Intelligent Transportation Systems (ITSC10), Session Chair on MA2 Traffic Emissions: Modeling, Sensing, Evaluation, and Management; and TA4 Determining Roadway Capacity Funchal, Portugal, 2010

***ITS America***

Board of Directors, ex officio Member, 2010-2011

Seventeenth ITS World Congress Board of Directors and International Program Committee, ex officio Member, 2010

Member, 1999–present

Intelligent Transportation Society of Oregon (ITS Oregon)  
 Member, 2000–present  
 Treasurer, 2002–2004  
 Planning Committee, ITS Workshop, April 2003  
 Planning Committee, "State of Freight" Workshop, jointly with ITE, SWE and WTS,  
 March 2003  
 Assisted with planning and Introduced Keynote Speaker, Annual Meeting, February 2005  
 Website manager, 2005–2006  
 20th Annual Meeting & Exposition, Session Chair on Integrated Payment Systems, Houston,  
 Texas, 2010.  
 Fourteenth World Congress on Intelligent Transport Systems, Session Chair on  
 Interoperability and Integration, Beijing, China, 2007  
 Seventeenth World Congress on Intelligent Transport Systems, Busan, Korea, 2010  
 Moderator, Special Session 71, IBEC Session on ITS Contributing to Network  
 Optimization: A New Look at Asset Management  
 Moderator, Technical Paper Session 063, Environment Issues - Case Study  
 Moderator, Technical Paper Session 110, Vulnerable Users (I)  
 Eighteenth World Congress on Intelligent Transportation Systems, Orlando, Florida, 2011  
 Moderator, Special Session 75: ITS Education and Training: Successes, Challenges, and  
 Lessons Learned around the World in the Last Decade

***Institute of Transportation Engineers***

District 6 Student Faculty Initiatives Committee, Faculty Subcommittee, 2004–present  
 Oregon Section, Quad Conference, Moderated Traffic Safety Session, April 24, 2004  
 District 6 Annual Meeting, Moderated Freeway Topics Session, July 17, 2007

***American Society of Civil Engineers***

Oregon Section, Host-a-Student Night Committee, Portland, Oregon, 2001  
 Pacific Regional Conference, Concrete Canoe Judge, San Jose, California, 1994

***Transportation Research Board***

Strategic Highway Research Program 2 (SHRP2)  
 Expert Task Group for Reliability Project L14, *Effectiveness of Different Approaches to  
 Disseminating Traveler Information on Travel Time Reliability*, 2009  
 Transit Cooperative Research Program (TCRP)  
 Panelist, TCRP Project H-39, *Methodology for Determining the Economic Development  
 Impacts of Transit Projects*, 2008  
 Special Task Force on Data for Decisions and Performance Measures (A0030T)  
 Member, 2010– 2013  
 Operations Section (AHB00)  
 Member, 2009-present  
 Committee on Traffic Flow Theory and Characteristics (AHB45)  
 Chair, 2009-present

Committee Secretary, 2004–2009  
 Member, 2002–present  
 Paper Review Subcommittee, 2001–present  
 Friend, 1996–2002  
 Committee Web Site Coordinator, 2002–present  
 Session Chair, "Lane Use, Merging, and Lane-Changing Behavior," TRB Annual Meeting 2005  
 Session Chair, "Empirical Analysis of Car-Following Behavior," TRB Annual Meeting 2006  
 Session Chair, "Combined Lane-Changing and Merging Behavior," TRB Annual Meeting 2007  
 Session Chair, "Traffic Flow Behavior: New Modeling Techniques," TRB Annual Meeting 2008  
 Session Chair, "Oscillations in Congested Traffic: Observations and Estimation," TRB Annual Meeting 2009  
 Session Chair, "Traffic Breakdown and Characteristics of Congested Traffic," TRB Annual Meeting 2010  
 Session Chair, "The Fundamental Diagram: From Theory to Practice," and Panelist, "Perspectives on Traffic Flow Theory: Beyond Greenshields," TRB Traffic Flow Theory and Characteristics Committee (TFT) Summer Meeting and Symposium on the Fundamental Diagram: 75 years ("Greenshields75" Symposium), July 8–10, 2008  
 Session Chair, "Traffic Oscillations and Simulation," TRB Annual Meeting 2011  
 Session Chair, "Macroscopic Properties of Traffic Flow," TRB Annual Meeting 2012  
 Archived Data User Service (ADUS) Joint Subcommittee (ABJ35(1))  
 Member, 2007–present  
 Subcommittee on Training, Education, and Technology Transfer, Committee on Critical Transportation Infrastructure (ABE40(5))  
 Member, 2003–present  
 Paper Review, 2003–present  
 Task Force on the Traffic Monitoring Conferences (ABJ25T)  
 Member, 2009–10  
 Committee on Freeway Operations (AHB20)  
 Friend, 1996–present  
 Paper Review, 2000–present  
 Session Chair, "Freeway Bottlenecks and Ramp Metering," TRB Annual Meeting 2004  
 Session Chair, "Freeway Operations II," TRB Annual Meeting 2005  
 Committee on Highway Capacity and Quality of Service (AHB40)  
 Friend, 1997–present  
 Provided freeway data set for development of analytical methodology and new chapter for the HCM2000 on capacity and level of service analysis of freeway systems, 1998  
 Committee on Urban Transportation Data and Information Systems (ABJ30)

Panelist, Workshop on Sharing Data on Transportation System Operations - Benefits and Barriers, January 22, 2006

Friend, 2000–present

Paper Review, 2000–present

Session Chair, "Using Archived Transit Data to Improve Operations Planning," TRB Annual Meeting, 2002

Committee on Traveler Behavior and Values, Paper Review (ADB10), 2000–present

Committee on Traffic Signal Systems (AHB25), Paper Review, 2005–present

Committee on Intelligent Transportation Systems (AHB15)

Workshop on Identifying Traveler Information Research Needs to Achieve "All Roads, All Modes, All the Time," April 15-17, 2009, Irvine, California

***Women's Transportation Seminar (WTS)***

Women's Transportation Foundation Board of Directors, U.S. DOT Liaison, 2010-present

***American Association of State Highway and Transportation Officials (AASHTO)***

Standing Committee on Research, Town Hall Panel on University Transportation Centers, Panelist, January 22, 2006

***TransPort Technical Advisory Committee, Subcommittee to TPAC***

Member of Committee

Chair, Data Subcommittee

***Transportation Northwest (TransNow), Region X University Transportation Center***

Advisory Committee Member, 2007–present

Proposal Review

Final Report Peer Review

***Region X Transportation Consortium***

Coordination Meetings/Workshops: October 2005; June 2006, University of Washington; May 2007, University of Idaho; October 2007, University of Washington; May 2008, University of Alaska

Organized Workshop at PSU, October 2006

***Transportation Research Forum (TRF)***

Session Chair, 50th Annual Forum, Session 4.1: Transportation Measures: Which Ones and How Do we Measure Them?, Portland, Oregon, March 17, 2009

***Council of University Transportation Centers (CUTC)***

PSU/OTREC representative

January Meetings, Washington, DC: 2006, 2007, 2008, 2009

Summer Meetings: Big Sky, Montana, 2006; Madison, Wisconsin, 2007; San Jose, California, 2008; Amherst, Massachusetts, 2009

RITA Plenary Meeting, Washington, D.C., April 11–12, 2006

***Northwest Transportation Training and Education Alliance (NWTTEA)***

Member, Board of Directors

Workshop Planning Committee, 2002

### ***Oregon Department of Transportation***

Technical Advisory Committee, Operations Performance Measures Project, 2004.

Research Advisory Committee, Ex Officio Member

### ***Oregon Model Steering Committee***

Member, 2004–present

Oregon Longitudinal Panel Survey, Expert Panel Work Session, 2002

### ***Institute of Transportation Studies, University of California at Berkeley***

ITS Berkeley Advisory Council, U.S. DOT Liaison, 2010–present

### ***Federal Highway Administration***

Intelligent Transportation Systems Safety Scan, sponsored by AASHTO, FHWA and TRB;  
Japan, Germany and France, 2004

### ***Other Conference Service***

10th International Conference on Application of Advanced Technologies in Transportation,  
Athens, Greece, Session Chair TRAF-4.

6th International Conference on Traffic and Transportation Studies, Nanning, China:  
Member, International Scientific committee; Session Chair; Paper Reviewer; and  
Keynote Speaker, August 2008

Traffic and Transport 2030, International Congress & Workshop, Technical University of  
Darmstadt, Germany, February 27–29, 2008, Invited participant and discussant

Access to Destinations: *Rethinking the Transportation Future of our Region*, University of  
Minnesota Center for Transportation Studies, Discussant for Modeling session and  
invited presenter, November 8–9, 2004.

Twelfth World Conference on Transportation Research (WCTR), Instituto Superior Tecnico,  
Lisbon, Portugal, 2010, Session Track Co-Organizer for Track C1: Traffic Theory and  
Measurement

The Transportation Enterprise: Challenges of the 21st Century, Institute of Transportation  
Studies 50th Anniversary Symposium, Berkeley, California, 1998

mobil.TUM 2009 International Scientific Conference on Mobility and Transport, Munich  
Germany, member of International Scientific Committee, May 12-13, 2009

Sixth International Conference on Traffic and Transportation Studies, Nanning, China,  
member of the International Scientific Committee, August 5-7, 2008

Eleventh International Conference on Advanced Systems for Public Transport (CASPT 09),  
Session Chair A2 Scheduling, 20 July 2009, Hong Kong

### **Editorial Boards**

[\*Journal of Transportation Systems Engineering and Information Technology\*](#), 2007–present

*Journal of Intelligent Transportation Systems*, 2005–present

*Internet Journal of Cooperative Transportation Dynamics*, 2001–present

### **University Community Service**

February 8, 2012

Hosted visitors from Arriyadh Development Authority, Saudi Arabia, April 2008  
Hosted visitors from Nissan Motor Co., Ltd., October 2007  
Portland State University Fall Symposium, Research for Global Learning, Facilitator, 2005  
Oregon Engineering and Technology Industry Council (ETIC), Laboratory Tour and  
Presentation, 2004  
Open House for Prospective Undergraduate Students, Laboratory Tours, 2003  
"Fusing Technology and Transportation," PSU Weekend Presentation, October 26, 2002.  
Open House for Prospective Undergraduate Students, Poster and Simulation Display, 2002  
University Vision Faculty Focus Group, February 2002  
PSU Foundation Board, Faculty Research Presentation, 2002  
Maseeh College of Engineering and Computer Science Advisory Board, Faculty Research  
Presentation, 2002, 2004  
Spring Commencement Marshal, 2001–2006, 2008  
Sustainability Faculty Roundtables, Portland State University, 2001–present  
Portland Streetcar Celebration Volunteer, July 2001  
Maseeh College of Engineering and Computer Science, Industry Open House Poster Display,  
2001  
Civil & Environmental Engineering Advisory Board, Faculty Research Presentation, 2001

### **Community Service**

Columbia River Crossing Cost Benefit Analysis of Investment Alternatives Task Force, 2008  
City of Portland, Office of Transportation, Portland Operations Steering Team, 2007–present  
City of Portland, Office of Transportation, Budget Task Force, 2005–present  
City of Portland, Mayor's Transportation Cabinet, 2009–present  
Oregon Department of Transportation, Director Search, External Stakeholders Interviews, 2005  
Peninsula Symphony Orchestra Board of Directors, San Mateo, California, 1989–1995

### **Community Outreach**

Testified before Subcommittee on Technology and Innovation, House Committee on Science and  
Technology, in a hearing entitled "Surface Transportation Research and Development for  
Energy Efficiency," June 24, 2008  
Tour of Tomorrow, a Bi-State Bicycle Ride, July 2007  
City Club of Portland, Testimony to the Regional Transportation Governance Research  
Committee, April 2009  
Hosted ITS Lab Tour for ITE District 6 Annual Meeting  
Hosted Northwest Academic Forum Meeting Tour of ITS Lab and OTREC, April 27, 2007  
Hosted AASHTO Annual Meeting Tour of ITS Lab, October 28, 2006  
Summer 2006 Intern Jamboree, Portland area transportation employers  
Hosted Women's Transportation Seminar (WTS) Portland Chapter meeting in ITS Lab, April  
2006

Panelist on Intelligent Transportation Systems, *Energy Dependence and Our Environment*, Sixth Annual Environmental Forum, Congressman David Wu, Portland, Oregon, April 17, 2006

Testimony to Oregon Senate Committee on Economic Development Agency Oversight, April 13, 2006

Presentation to Oregon Transportation Commission, New National University Transportation Center in Oregon, February 14, 2006

Testimony before Joint Policy Advisory Committee on Transportation (JPACT), February 17, 2005

Oregon Legislature Briefings, House and Senate Transportation Committee members, Salem, Oregon: January/February 2005 and April 2007

Innovation Celebration, Portland Business Alliance and Oregon Museum of Science and Industry, PORTAL Exhibit, November 2004.

Open Meadow Alternative High School, program, Corps Restoring Urban Environments (C.R.U.E.) Program, transportation lab and field data collection, April 6, 2004.

Intelligent Transportation Systems Laboratory Open House, October 10, 2003

Legislative Briefing, "Research, Job Creation, Economic Development and Portland State University," February 27, 2003, State Capitol, Salem, Oregon

Meetings with Oregon Congressional Delegation transportation staff members, Washington, D.C., 2002 and 2003.

Attendance and representation of University at Metro Joint Policy Advisory Committee on Transportation (JPACT) and Transportation Policy Alternatives Committee (TPAC), 2002–present

Meetings with Metro Joint Policy Advisory Committee on Transportation (JPACT) members, 2002–present

Transportation Alternatives Committee, City of Portland, 2002–2003

Oregon Museum of Science and Industry, Transportation Technology Advisor, 2002–2003

Guest Lecturer, Technical Seminar, DKS Associates, Portland, Oregon, December 4, 2002

Transportation Reauthorization Panel Discussion with Congressman Earl Blumenauer, July 2002

Guest Lecturer, Technical Session, Kittelson & Associates, Portland, Oregon, May 30, 2002

Traffic Microsimulation Workshop (PARAMICS), Oregon Department of Transportation, 2002

Umbrella Tours, Office of Marketing and Communications, Portland State University, 2002, 2003, 2005, 2006, 2008

Center for Transportation Studies, Weekly Transportation Seminar Coordinator, 2001–present

Traffic Engineering Advisor, Sunnyside Neighborhood Association, Portland, Oregon, 2001–present

Technology Advisor, Road User Fee Task Force, State of Oregon, 2001–2002

Traffic Engineering Advisor, Los Gatos Neighborhood Association, Los Gatos, California, 1998

Traffic Engineering Advisor, Piedmont Neighborhood Association, Oakland, California, 1997

Traffic Engineering Advisor, Stanford University Expansion Plan and Sand Hill Road Extension, Palo Alto Neighborhood Association, Palo Alto, California, 1997

City of San Jose Department of Streets and Parks, Monthly Seminar Speaker, San Jose, California, 1994  
City of Mountain View Environmental Planning Commission, Member, Mountain View, California, 1994–1995  
Chi Epsilon, Civil Engineering Honor Society, Pacific District Conference, San Jose, Technical Session Speaker, 1994  
Traffic Engineering Advisor, The Waters Homeowners Association, Mountain View, California, 1992–2001  
Engineers Week In-School Volunteer, San Jose, California, 1991

### **Media Outreach**

Interviewed for *Fly-Over*, magazine of the Dispuut Verkeer (Transportation Student Association), faculty of Civil Engineering and Geosciences, Delft University of Technology, December 2011 (also subject in crossword puzzle).  
Interviewed for Japanese magazine "Dohro" (Roads), "*ITS is a relatively cheap and feasible transportation system that is safe and environmentally friendly*," February 2011  
*Miller-McCune*, quoted in "Truly Smart Cars May Start Chatting With Each Other," January 26, 2011  
Quoted in "Workforce Development in Action," by Henry C. Murdaugh and Stephanie Carter, *Public Roads*, November/December 2010, Vol. 74, No. 3.  
Quoted in "Integrated Corridor Management," by Brian Cronin, Steve Mortenson, Robert Sheehan and Dale Thompson, *Public Roads*, November/December 2010, Vol. 74, No. 3.  
*Thinking Highways*, interviewed for [National Trust](#), Volume 5, Issue 4, November/December 2010.  
*Mainichi Newspaper*, quoted in "ITS Car Navigation System Tour," Tokyo, Japan, November 1, 2010  
Quoted in "Logistics Education — A Note from the Publisher" October 4, 2010  
*ITS International*, interviewed for [What next for IntelliDrive](#), September 15, 2010  
WFED 1500 AM, interviewed by Federal News Radio, [DOT envisions human-free car operation](#), September 7, 2010  
*The Wall Street Journal*, quoted in "The inconvenient truth about traffic math: progress is slow," August 28, 2010  
Profiled in *San Jose Mercury News/San Mateo County Times*, "Capuchino Grad Named to Federal Transportation Post," August 22, 2009  
*The Oregonian*, quoted in "Could you give up life in the cash lane?" January 12, 2009  
KOIN Channel 6, Interview, July 2008  
KATU Channel 2, Interview, July 2008  
*Eugene Register-Guard*, quoted in "Oregon motorists may be driving less," July 16, 2008  
*Daily Journal of Commerce*, featured in "PSU professor drives travel time studies," April 2008  
*Daily Vanguard*, interviewed September 28, 2007  
*PE Magazine*, National Society of Professional Engineers, quoted in "Road Smarts," April 2007  
*The Oregonian*, quoted in "Heavy traffic," February 11, 2007  
*February 8, 2012*

*The Columbian*, quoted in "Steering clear of gridlock," February 11, 2007

*Portland Business Journal*, quoted/featured in "Calming the traffic beast," December 15, 2006

*Portland Tribune*, quoted/featured in "PSU lab can make drivers smarter," and "Solutions: How to keep us all moving," November 28, 2006

*Kansas City Star*, quoted in "Driving time's in the signs for KC," October 24, 2006

*Daily Vanguard*, quoted in "Cheap rides," September, 2006

*Portland Tribune*, quoted in "Traffic jams don't stop the data flow," September 12, 2006

*The Oregonian*, quoted in "Lab helps TriMet glide to more green lights," July 26, 2006

*Daily Vanguard*, quoted in "Grant delay slows research center development," April, 2006

*Daily Vanguard*, quoted in "Bike program would be first on West Coast," April, 2006

*Daily Journal of Commerce*, quoted in "Transportation agencies open a missing link," February 13, 2006

*Daily Vanguard*, quoted in "Transportation graduate certificate at PSU," November, 2005

*The Oregonian*, quoted in "Think the commute's bad now? More jobs may mean more jams," October 2, 2005.

*Daily Vanguard*, quoted in "\$16 million grant received for new transportation center at PSU," August 10, 2005

*The Oregonian*, quoted in "Oregon bridges, roads score with transportation bill," July 29, 2005

*Sustainable Industries Journal*, quoted in "Future-gazers see waves of wireless efficiencies," June 1, 2005

*Daily Vanguard*, quoted in "Taking PSU to the capitol," February 1, 2005

*The Reporter*, Lansdale, Pennsylvania, quoted in "Traffic delays target of law," December 27, 2004

*Daily Journal of Commerce*, featured in "Federal funding will keep research moving at PSU transportation lab," November 2004

*Oregon Business Magazine*, featured in "Portland State University: taking a lead in research." September 2004

KXL 750 AM Radio, Portland, interviewed by Lars Larson, September 8, 2004

*The Oregonian*, quoted in "Familiarity breeds traffic jams," September 8, 2004

KPTV Channel 12, Portland, cited in "Traffic grows," September 7, 2004

KINK 102 FM Radio, Portland, interviewed September 7, 2004

KXL 750 AM Radio, Portland, interviewed September 7, 2004

*Portland Business Journal*, cited in "Portland ranks no. 24 for traffic delays," September 7, 2004

*Willamette Week Best of Portland Issue*, featured as **Best Traffic Overlord**, August 2004

*Portland Business Journal*, quoted in "Region's transportation policies raise concern," August 27, 2004

*The Oregonian*, cited in Editorial "Going slow on speed change," August 24, 2004

*Willamette Week*, interviewed June 25, 2004.

*Clark County Columbian*, quoted in "Clearing traffic faster: are technology and roving crews making a difference?" March 7, 2004

*Portland Business Journal*, interviewed December 5, 2003  
 Pittsburgh (Pennsylvania) *Tribune-Review*, interviewed December 5, 2003  
*Portland Business Journal*, featured July 23, 2003  
 KGW Channel 8, Portland, interviewed October 2003  
*Daily Vanguard*, quoted in "Light rail coming to PSU," July 16, 2003  
*The Oregonian*, featured in [advertisement](#), 2003  
*Detroit Free Press* (Michigan), quoted in "In a jam: when your commute is driving you crazy, learn a lesson from the people who know better," February 7, 2003  
*dailywireless.com*, Intelligent Transportation, featured on November 16, 2002  
*PSU Magazine*, featured in "[Damn That Traffic Jam](#)," article by John Kirkland, Spring 2002  
 Portland State University, Office of Marketing and Communications, featured in Radio Ad, 2002  
*PSU Insights*, featured in "Faculty member recognized for work in transportation studies," February 2003  
*Engineering Investment Portfolio*, Oregon University System, featured faculty, 2002  
*Daily Vanguard*, quoted in t "Grants fund ongoing cultural and scientific research at PSU," October 5, 2001  
*Engineering News Record*, quoted in "Crisis spurs search for creative financing," November 20, 1995.

## Scholarly Works in Progress

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1. Berkow, M., Chee, J., Bertini, R.L. and Monsere, C., "[Transit Performance Measurement and Arterial Travel Time Estimation and Using Archived AVL Data](#)."
2. Bertini, R.L., Horowitz, Z., Tufte, K. and Matthews, S. "[Techniques for Mining Truck Data to Improve Freight Operations and Planning](#)."
3. Bertini, R.L., Lindgren, R.V., Helbing, D. and Schonhof, M. "[Empirical Observations of Dynamic Traffic Flow Phenomena on a German Autobahn](#)." [[Abstract](#)]
4. Bertini, R.L., Strathman, J., Tantiyanugulchai, S., Malik, S. and El-Geneidy, A. "[Multimodal ITS Data Integration and Performance Measurement in Portland, Oregon](#)."
5. Bertini, R.L., Lasky, M. and Monsere, C. "[Validating Predicted Rural Corridor Travel Times from an Automated License Plate Recognition System: Oregon's Frontier Project](#)."
6. Bertini, R.L., Lindgren, R., Helbing, D. and Schonhof, M. "[Empirical Analysis of Flow Features on a German Autobahn](#)."
7. Bertini, R.L., Byrd, A. and Yin, T. "[Performance Measures for the Portland Metropolitan Region](#)," May 2004.
8. Bertini, R.L., Byrd, A., Yin, T., and Hauger, K. "[Travel Demand Modeling for Oregon Highway 217 Using Archived Inductive Loop Detector Data](#)."
9. Bertini, R.L. and El-Geneidy, A. "[Techniques for Evaluating the Performance of Pre-Timed Ramp Meters](#)."
10. Bertini, R.L. and Leal, M. "[Generating Performance Measures from Portland's Archived Advanced Traffic Management System Data](#)."

## Student Awards

<b>Name</b>	<b>Degree</b>	<b>Dates</b>	<b>Awards</b>
Lynn Peterson	MSCE	2003–	TransNow Fellowship, Maseeh Fellowship
Dan Johnson	BSCE	2003–03	Coral Sales Scholarship, PSU University Community Service Award, NIATT Summer Traffic Signal Workshop
Sutti Tantiyanugulchai	MSCE	2001–03	ITE District 6 Best Paper Award, Northwest Transportation Conference Poster Award
Monica Leal	MSCE	2000–02	WTS Graduate Scholarship, PSU Center for Academic Excellence Award, Northwest Transportation Conference Poster Award
Shazia Malik	MSCE	2001–03	WTS Scholarship, Northwest Transportation Conference Poster Award
Ahmed El-Geneidy	Ph.D., Urban Studies	2001–03	FHWA Fellowship, ITS Oregon Fellowship, PSU Travel Fellowship, Northwest Transportation Conference Poster Award
Chris Pangilinan	BSCE	2002–04	Presidential Fellowship, Eisenhower Graduate Fellowship, ITE Traffic Bowl Award, ASCE Oregon Section Scholarship, Northwest Transportation Conference Poster Award, PSU CEE Outstanding Senior, MCECS Outstanding Senior, PSU President's Award for Undergraduate University Service, FHWA STIPDG Program
Mike Rose	MURP	2003–04	Northwest Transportation Conference Poster Award, PSU Center for Transportation Studies Student of the Year, TransNow Fellowship
Steve Hansen	MURP	2003–05	TransNow Student Conference Poster and Presentation Awards, TransNow Fellowship
Casey Nolan	MURP	2003–05	TransNow Fellowship
Thareth Yin	MSCE	2003–05	Northwest Transportation Conference Poster Award, FHWA Fellowship, ITS Oregon Scholarship
Nivedita Doijode	MSCE	2003–05	Outstanding Graduate Teaching Assistant Award
Paul Bender	Ph.D., Urban Studies	2003–04	TransNow Fellowship, Northwest Transportation Conference Poster Award
Carolyn Bonner	MURP	2003–04	WTS Scholarship
Neil Byrne	BSCE	2003– 2004	Northwest Transportation Conference Poster Award
Violet Gordon	BSCE	2003–04	Coral Sales Scholarship, Northwest Transportation Conference Poster Award

Matthew Dorado	BSCE	2003–07	Scholarly and Creative Grant for Undergraduates, ITE Traffic Bowl Second Place
Matt Lasky	MURP	2004	TransNow Student Conference Poster Award, TransNow Fellowship
Andy Delcambre	BSCS	2004–05	TransNow Student Conference Poster and Presentation Awards
Steve Boice	MSCE	2004–	PSU AAA Fellowship, ITE District 6 Outstanding Graduate Student Award 2006, PSU Outstanding Graduate Research Assistant Award, NIATT Summer Traffic Signal Workshop, TransNow Fellowship
Erin Qureshi	BSCE	2004–05	FHWA STIPDG Program, Coral Sales Scholarship, Baden-Wurttemberg Landesstiftung Fellowship, ITE Traffic Bowl Second Place
Aaron Breakstone	MURP	2004–06	PSU AAA Fellowship
Rodger Gutierrez	BSCE	2005	ITE Traffic Bowl First Place, Coral Sales Scholarship
Zachary Horowitz	MSCE	2005–06	ITS Oregon Fellowship, ITE Traffic Bowl First Place, Council of University Transportation Centers Neville A. Parker Award
Nick Carey	BSCE	2005–07	ITE Traffic Bowl Second Place
Delia Chi	MURP	2005–07	OTREC Fellowship
Max Coffman	MURP	2005–07	Presidential Management Fellow, PSU AAA Fellowship, PSU Transportation Student of the Year, OTREC Student of the Year, Eno Fellow, ITS Oregon Fellowship, OTREC Fellowship
Jonathan Horowitz	BSCE	2005	ITE Traffic Bowl Second Place
Sirisha Kothuri	Ph.D., CEE	2006–	Oregon Sports Lottery Graduate Scholarship, CEE Outstanding Graduate Research Assistant, WTS Graduate Fellowship, Eisenhower Graduate Fellowship, Maseeh Fellowship
Kate Lyman	MURP	2005–07	OTREC Fellowship
Tim Welch	BSCS	2006	WesternITE Editorial Award
Amber Springberg	MURP	2004–06	OTREC Fellowship
Kartik Srinivas	MURP	2005–06	Ernie Bonner Fellowship from the School of Urban Studies and Planning
River Hwang	BSCE	2004–06	FHWA STIPDG Program, CEE Undergraduate Achievement Award, Scholarly and Creative Grant for Undergraduates, WTS Scholarship (Portland Chapter), WTS Sharon D. Banks International Scholarship (International), Coral Sales Scholarship

Benjamin Zielke	MSCE	2006–07	ITE Traffic Bowl Second Place
Michael Wolfe	MSCE	2006–	ITE Traffic Bowl Second Place, OTREC Fellowship
Matt Berkow	MURP	2006–	OTREC Fellowship, TransNow Student Conference Presentation Award, Oregon APA Student Achievement in Planning Certificate of Merit
Oren Eshel	MURP	2006–	OTREC Fellowship, PSU Transportation Student of the Year, OTREC Student of the Year
Rafael Fernandez-Moctezuma	Ph.D., Computer Science	2006–	ITS Oregon Scholarship, AAA Graduate Fellowship
Enas Fayed	MSCE	2007–	TransNow Student Conference Poster Award
Huan Li	MSCE	2007–	ITS Oregon Scholarship, Region X Student Conference Poster Award, AAA Fellowship
Josh Crain	BSCE	2006–	Member of winning team for 2006 ITE James Kell Student Competition, Coral Sales Scholarship, OTREC Scholarship, ITS Oregon Scholarship 2009
Jerzy Wieczorek	MS Statistics	2007–	OTREC Fellowship, AAA Fellowship
Alex Bigazzi	BSCE	2007–	Coral Sales Scholarship, AAA Fellowship, National Science Foundation Graduate Fellowship, Eisenhower Graduate Fellowship Award, College of Engineering and Computer Science President's Award
Meead Saberi	MSCE	2007	Region X Student Conference Presentation Award, Eisenhower Graduate Fellowship Award