

CURRICULUM VITAE

University of Idaho

NAME: Lowry, Michael (Mike)

DATE: 7 January 2021

RANK OR TITLE: Associate Professor

DEPARTMENT: Department of Civil and Environmental Engineering, College of Engineering

OFFICE LOCATION: Engineering Physics Building EP 115

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DATE OF FIRST EMPLOYMENT AT UI: January 2009

DATE OF TENURE: March 2015

DATE OF PRESENT RANK OR TITLE: March 2015

EDUCATION:

Degrees:

Ph.D., University of Washington, Seattle, WA, December 2008, Civil and Environmental Engineering
MS, Brigham Young University, Provo, UT, June 2004, Civil and Environmental Engineering
BS, Brigham Young University, Provo, UT, June 2002, Civil and Environmental Engineering

Current and Past Certificates and Licenses:

Professional Engineer (PE) #P-15564 – Current
Professional Transportation Planner (PTP) – 2009-2018

EMPLOYMENT EXPERIENCE:

Current Teaching and Research Appointments:

Associate Professor, Civil and Environmental Engineering, University of Idaho, Moscow, ID, 2015 – present
Affiliate Faculty, Bioregional Planning, University of Idaho, Moscow, ID, 2009 – present

Past Teaching and Research Appointments:

Interim Director, National Institute for Advanced Transportation Technology (NIATT), 2019 – 2020
Visiting Research Scholar, University Polytechnic of Valencia, Valencia, Spain, 2016 – 2017
Assistant Professor, Civil Engineering, University of Idaho, Moscow, ID, 2009 – 2015
Visiting Research Scholar, University of Liverpool, Liverpool, United Kingdom, June 2008
Visiting Research Assistant, Institute of Transport Economics, Oslo, Norway, 2007 – 2008
Instructor, University of Washington, Seattle, WA, 2005

Non-Academic Employment:

Project Engineer, *Prime Interiors International*, Accra, Ghana, Africa, 2002
-Supervised steel stud and dry wall installation for a multimillion dollar building.
Land Surveyor and Data Analyst, *Burns and McDonnell*, Chicago, IL, 2001
-Conducted land surveying and analyzed soil pollutants at oil and gas contamination sites.
Trip Manager and River Guide, *World Wide River Expeditions*, Moab, UT, 1999 – 2000
-Supervised 6-day multi-family river trips on the Salmon River in Idaho and Colorado River in Utah.

Consulting:

President, Lowry Engineering and Planning (LEAP), PLLC, Moscow, ID, 2014 – present
-Consulting work related to transportation engineering and planning.

TEACHING ACCOMPLISHMENTS:**Areas of Specialization:**

Transportation Planning, Transportation Improvement Programming, Bicycle and Pedestrian Planning, Street Design, Public Involvement, Computational Analysis, Python Programming, Geographic Information Systems, and Economic Analysis

Undergraduate Courses Taught:

Civil Engineering Analysis and Design, CE 215
Engineering Economy, ENGR 360
Probability and Statistics, STAT 301
Urban Transportation Systems, CE 404 (created course)
Traffic Engineering, CEE410 (University of Washington)
Civil Engineering Senior Seminar, CE 491

Graduate Courses Taught:

Sustainable Transportation and Community Design, CE 504 (created course)
Transportation Planning, CE 573
Transportation Safety Analysis, CE 576
Highway Operations, CE 578
Planning Methods, BIOP 522 (created course)

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:

Introduction to Civil Engineering, CE 115, invited lecture periodically 2010-present
Fundamentals of Transportation Engineering, CE 372, invited lecture every year 2010-present
Engineering Fundamentals, CE 411, invited lecture every semester 2009-2018

Students Advised:

Undergraduate Academic Advising:
20-25 students per year

Undergraduate Research Assistants Funded by Research Grants:

Samuel Yunker, Civil Engineering, 2018 – present
Matthew Mills, Computer Science, 2018 – 2020
Topsana Elsfelder, Civil Engineering, 2018 – 2019
Holly Terrill, Civil Engineering, 2018 – 2019
Walker Noe, Civil Engineering, 2017 – 2019
Ryan Cook, Civil Engineering, 2015 – 2017
Andrew Skinner, Civil Engineering, 2015 – 2016
Mitch Skiles, Civil Engineering, 2014 – 2016
Christopher (Kip) Davidson, Civil Engineering, 2011- 2012

Graduate Students Advised to Completion of Degree as Major Professor:

Enas Abdel-Rahim, PhD Civil Engineering, anticipated 2021
Fatma Elzahraa, PhD Civil Engineering, anticipated 2021
Skye Swoboda, MS Geography, anticipated 2021
Arman Al-Jahan, MS Civil Engineering, 2016
John Hawkins, MS Civil Engineering, 2016
Bradford Tower, MS Civil Engineering, 2014
Becky Couch, MS Bioregional Planning, 2014
Seth Cool, MS Bioregional Planning, 2014
Stephen McDaniel, MS Civil Engineering, 2013
Aaron Buckley, MS Bioregional Planning, 2012
Daniel Callister, MS Bioregional Planning, 2012
John Hawkins, MS Bioregional Planning, 2012
Kevin Kingsbury, MS Civil Engineering, 2011

Served on Graduate Thesis/Dissertation Committee:

Cody Hodgson, MS Civil Engineering, anticipated 2020
 Mohammad Baqer, PhD Computer Science, 2020
 Rafael Akio Alves Watanabe, MS Electrical Engineering, 2019
 Angel Gonzalez, MEng Civil Engineering, 2018
 Regan, Hansen, MS Civil Engineering, 2017
 Pavan Penkey, MS Electrical and Computer Engineering, 2016
 Riannon Heighes, MS Civil Engineering, 2015
 Gretchen Heath, MS Psychology, 2014
 Greg Reince, MS Civil Engineering, 2013
 Maria Tribelhorn, MS Civil Engineering, 2013
 Joe Sonnen, MS Civil Engineering, 2012
 Thomas Ulrich, MS Psychology, 2011
 Monica Walker, MS Bioregional Planning, 2011
 Nicholas Cottrell, MS Psychology, 2011
 Genevieve Gerke, MS Bioregional Planning, 2011

SCHOLARSHIP ACCOMPLISHMENTS:**Publications and Presentations:**

(* denotes student research assistant)

Refereed/Adjudicated Journal Publications:

- Pimentel, R., **Lowry, M.** Pimentel, D., *Glazer, A., Moe, G., and Knysh, M. (2020). "If You Provide, Will They Ride? Motivators and Deterrents to Shared Micro-Mobility" *International Journal of Business and Applied Social Science*, Vol 6, Issue 6, pp 26-38.
- Pimentel, D., **Lowry, M.** *Koglin, T., and Pimentel, R. (2020). "Innovation in a Vacuum: The Uncertain Legal Landscape for Shared Micro-mobility." *Journal of Law and Mobility*, pp. 17-20.
- Chang, K., **Lowry, M.** *Seely, B, and *Cook, R. (2018). "Using a Responsive Interactive Program to Enhance Daily Travel Feedback." *Journal of Technology, Knowledge and Society*. 13(3), 33-46.
- Lowry, M.** and Hadden-Loh, T. (2017). "Quantifying bicycle network connectivity" *Preventive Medicine*, 95, pp. 134-140.
- Lowry, M.**, Furth, P., and Hadden-Loh, T. (2016). "Prioritizing new bicycle facilities to improve low-stress network connectivity" *Transportation Research Part A: Policy and Practice*, Vol. 86, pp. 124-140.
- Lowry, M.**, *McGrath, R., Scruggs, P. and Paul, D. (2016). "Practitioner survey and measurement error in manual bicycle and pedestrian count programs" *International Journal of Sustainable Transportation*, 10(8): 720-729.
- Paul, D., **Lowry, M.**, Scruggs, P., and *McGrath, R. (2015). "Assessing error and surveying practitioners for manual bicycle and pedestrian count programs involving community-volunteers." *Medicine and Science in Sports and Exercise*, 47 (5).
- *McDaniel, S., **Lowry, M.**, and Dixon, M. (2014). "Using Origin-Destination Centrality to Estimate Directional Bicycle Volumes." *Transportation Research Record: Journal of the Transportation Research Board*. 2430, pp. 12-19.
- Lowry, M.** (2014). "Spatial interpolation of traffic counts based on origin-destination centrality" *Journal of Transport Geography*, 36, pp. 98-105.
- Lowry, J. and **Lowry, M.** (2014). "Comparing Spatial Metrics that Quantify Urban Form" *Computers, Environment and Urban Systems*, 44, pp. 59-67.
- *Buckley, A., **Lowry, M.**, Brown, H., and Barton, B. (2013). "Evaluating Safe Routes to School Events that Designate a Day for Walking and Bicycling." *Transport Policy*, 30, pp. 294-300.

- *Callister, D. and **Lowry, M.** (2013). "Tools and Strategies for Wide-scale Bicycle Level of Service Analysis." *ASCE Journal of Urban Planning and Development*, Vol. 139, No.4, pp. 1-8.
- Lowry, M.**, *Callister, D., Gresham, M. and *Moore, B. (2012). "Assessment of Communitywide Bikeability with Bicycle Level of Service." *Transportation Research Record: Journal of the Transportation Research Board*, 2314, pp. 41-48.
- *Kingsbury, K., **Lowry, M.**, and Dixon, M. (2011). "What Makes a "Complete Street" Complete? A Robust Definition, Given Context and Public Input." *Transportation Research Record: Journal of the Transportation Research Board*, 2245, pp. 103-110.
- Lowry, M.**, Laninga, T., *Zimmerman, M., and *Kingsbury, K. (2011). "Using Traffic Simulation Software to Manage Recreational River Boats on Public Lands." *Transportation Research Record: Journal of the Transportation Research Board*, 2244, pp. 107-115.
- Lowry, M.** (2010). "Using optimization to program projects in the era of communicative rationality." *Transport Policy*, 17(2), pp. 94-101.
- Lowry, M.** (2010). "Online public deliberation for a regional transportation improvement decision." *Transportation*, 37(1), pp. 39-58.
- Lowry, M.** and Balling, R. (2009). "An approach to land-use and transportation planning that facilitates city and region cooperation." *Environment and Planning B: Planning and Design*, 36(3), pp. 487 – 504.
- Lowry, M.**, Rutherford, G.S., and Nyerges, T. (2008). "Using cluster analysis to design tax packages that fund transportation projects." *The Proceedings of the Tenth International Conference on Application of Advanced Technologies in Transportation*.
- Zhong, T., Young, R. K., **Lowry, M.**, and Rutherford, G. S. (2008). "A model for public involvement in transportation improvement programming using participatory Geographic Information Systems." *Computers, Environment and Urban Systems*, 32(2), pp. 123-133.
- Lowry, M.**, Nyerges, T., and Rutherford, G. (2008). "Internet Portal for Participation of Large Groups in Transportation Programming Decisions." *Transportation Research Record: Journal of the Transportation Research Board*, 2077, pp. 156-165.
- Young, R., Zhong, T., **Lowry, M.**, Rutherford, G. S., and Nyerges, T. (2007). "An Analytic-Deliberative Online Framework for Transportation Programming." *The International Journal of Technology, Knowledge and Society*, 3(2), pp. 87-98.
- Balling, R., **Lowry, M.**, and Saito, M. (2003). "Regional Land Use and Transportation Planning with a Genetic Algorithm." *Transportation Research Record: Journal of the Transportation Research Board*, 1831, pp. 210-218.

Forthcoming Submissions for Refereed Publication:

- Lowry, M.** (Forthcoming) "Prioritizing sidewalk infrastructure for safe routes to school" Anticipated submission May 2021.
- Lowry, M.** (Forthcoming). "Estimating Statewide AADT" *Transportation Engineering*, Anticipated submission May 2021.

Refereed/Adjudicated Conference Presentations and Proceedings:

- Pimentel, R., Pimentel, D. and **Lowry, M.** (2020). "If you provide, will they ride? Motivators and deterrents to bike share use" Presented at the Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.
- Pimentel, D., **Lowry, M.**, and Pimentel, R. (2020). "Innovation in a Legal Vacuum: The Uncertain Legal Landscape for Shared Micro-mobility" Presented at the Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.

- Lowry, M.** Furth, P. and Gardner, S. (2019). “Bike Network Evaluation: Low Stress Bike Accessibility and Connectivity” Presented at the Association of Pedestrian and Bicycle Professionals Conference, Portland, Oregon.
- Pimentel, R., Pimentel, D. and **Lowry, M.** (2019). “If you provide, will they ride? Motivators and deterrents to bike share use” Presented at the Association of Pedestrian and Bicycle Professionals Conference, Portland, Oregon.
- Lowry, M.**, Nordback, K. (2018). “The AADB Website: Providing communities spatial mapping of bicycle count data” Presented at the Walk Bike Conference, New Orleans, Louisiana.
- Nordback, K., **Lowry, M.** (2018). “Optimizing Washington State’s Bicycle and Pedestrian Count Program” Presented at the Walk Bike Places Conference, New Orleans, Louisiana.
- Lowry, M.**, Vos, J. and Edmond, M. (2018). “Infrastructure: Past, Present, and Future” Presented at the Idaho Walk Bike Summit, Boise, Idaho.
- Lowry, M.** (2018). “Mapping Count Data” Presented at the Idaho Walk Bike Summit, Boise, Idaho.
- Lowry, M.**, Nordback, K. and Johnstone, D. (2018). “Collecting Networkwide Bicycle Counts” Presented at the Washington Bike Summit, Spokane, Washington.
- Lowry, M.**, Garcia, A., Lopez, G., and Camacho-Torregrosa, F. (2017). “Estimating cyclist volumes on two-lane rural roads using Strava data” Presented at the Road Safety and Simulation International Conference, The Hague, Netherlands.
- Chang, K., **Lowry, M.** *Seely, B, and *Cook, R. (2017). “Using a Responsive Interactive Program to Enhance Daily Travel Feedback.” 13th International Conference on Technology, Knowledge, and Society; Toronto, Ontario.
- Lowry, M.**, Hadden-Loh, T. and Valenzuela, A. (2016). “Improving low-stress bicycle access to schools through network connectivity analysis” Presented at the 5th Safe Routes to School National Conference, Columbus, Ohio.
- Hadden-Loh, T., **Lowry, M.** (2016). “Quantifying low-stress bicycle facility network connectivity” Presented at the Active Living Research Annual Conference, Miami, Florida.
- Lowry, M.**, Furth, P., and Hadden-Loh, T. (2016). “Low-Stress Neighborhood Bikeability Assessment to Prioritize Bicycle Infrastructure” Presented at the 95th Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.
- Paul, D., **Lowry, M.**, Scruggs, P., and *McGrath, R (2015). “Assessing error and surveying practitioners for manual bicycle and pedestrian count programs involving community-volunteers.” American College of Sports Medicine’s 62nd Annual Meeting and 6th World Congress of Exercise in Medicine. May 2015, San Diego, CA.
- Lowry, M.**, *Cool, S. (2015). “Defining a Typology of Dangerous Situations for Bicyclists” Presented at the 94th Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.
- Lowry, M.**, Chang, K., *Seely, B., and *Cook, R. (2015). “Using a Responsive Interactive Program to Enhance Daily Travel Feedback” Presented at the 94th Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.
- Lowry, M.**, *McDaniel, S. (2014). “GIS Tools for Bicycle Network Analysis and Planning” Presented at the 2014 Joint Engineers Conference, Helena, Montana.
- Lowry, M.**, Claybrooke, C., Comeau, C., and *Cool, S. (2014). “Transforming an auto-oriented transportation legacy into a multi-modal and bicycle friendly system” Presented at the 2014 American Planning Association Washington Annual Conference, Spokane, Washington.
- Lowry, M.**, Brozen, M., Anspacher, D., and Horning, J. (2014). “Settling the Score: Street Performance Measures” Presented at the 2014 Pro Walk Pro Bike Conference, Pittsburg, Pennsylvania.

- Lowry, M.,** Loh, T., Laughlin, K., and Lindsey, G. (2014). "The Trail Modeling and Assessment Platform (T-MAP): Building New Tools for Trail Development" Presented at the Active Living Research Annual Conference, San Diego, California.
- Lowry, M.** (2014). "Estimating Annual Average Daily Traffic Across Small Cities Based on Network Centrality." Presented at the 93rd Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.
- Dixon, M., **Lowry, M.,** *Cook, R. and *Kirby, W. (2014). "Effective Turning Movement Volume Estimation for Intersection Analysis Using Gauss-Jordan Elimination" Presented at the 93rd Annual Meeting of the Transportation Research Board, Washington, D.C.
- Lowry, M.,** *McDaniel, S. and Dixon, M. (2014). "Origin-Destination Centrality to Estimate Directional Bicycle Volumes." Presented at the 93rd Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.
- Lowry, M.,** *Callister, D. (2014). "Tools and Strategies for Wide-scale Bicycle Level of Service Analysis." Presented at the 93rd Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.
- Lowry, M.** (2013). "New GIS Tools to Estimate Bicycle Volumes Based on Street Connectivity." Presented at the International Bicycle Urbanism Symposium, Seattle, Washington.
- Paul, D., Cook, P., Hollenhorst, S., and **Lowry, M.** (2013). "Factors influencing the active commuting behaviors of US Department of the Interior employees." Presented at the 141st Annual Meeting of the American Public Health Association, Boston.
- Lowry, M.,** *Buckley, A., Brown, H., and Barton, B. (2013). "Case Study of Safe Routes to School Special Encouragement Events" Presented at the 92nd Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.
- Brown, H., **Lowry, M.,** *Buckley, A., Goc Karp, G., and *Rouse, E. (2012). "iCount, A Tool Kit for Community Based Documentation of Bicycle and Pedestrian Environments and Behaviors." Presented at the 140th Annual Meeting of the American Public Health Association, San Francisco.
- Cook, P., **Lowry, M.,** Hollenhorst, S., and Cesnik, C. (2012). "Strategies to Reduce Greenhouse Gas Emissions from Employees of the U.S. Department of the Interior." Presented at the 91st Annual Meeting of the Transportation Research Board, Washington, D.C.
- Lowry, M.,** *Callister, D., Gresham, M. and *Moore, B. (2012). "Using Bicycle Level of Service to Assess Community-wide Bikeability." Presented at the 91st Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C.
- Lowry, M.,** Lowry, B. and Brown, H. (2011) "GIS Tools to Help Allocate Infrastructure Funds." Presented at the 3rd Safe Routes to School National Conference, Minneapolis, Minnesota.
- Lowry, M.,** Lowry, B., Brown, H., and Goc Karp, G. (2011) "Achieving Safe Routes to School Goals Through University Service Learning Projects." Presented at the 3rd Safe Routes to School National Conference, Minneapolis, Minnesota.
- Lowry, M.** (2011) "What Makes a "Complete Street" Complete? A Robust Definition Based on Context and Public Input." Presented at the 90th Annual Meeting of the Transportation Board. Washington, D.C.
- Lowry, M.,** Laninga, T., *Zimmerman, M., and *Kingsbury, K. (2011). "Using Traffic Simulation Software to Manage Recreational River Boats on Public Lands." Presented at the 90th Annual Meeting of the Transportation Board. Washington, D.C.
- Lowry, M.** (2010) "A context-sensitive approach to complete street assessment." Presented at the Transportation Systems for Livable Communities Conference. Washington, D.C.
- Lowry, M.,** Fischer, T. (2009). "The Typology and Selection of Sustainable Transportation Indicators." Presented at the 50th Annual Transportation Research Forum. Portland, Oregon.
- Lowry, M.** (2008). "Case Study in Online Public Participation for Transportation Planning." Presented at the 88th Annual Meeting of the Transportation Board. Washington, D.C.

- Lowry, M.,** Fischer, T. (2008). “Defining requirements of EST indicators from the planning and decision making point of view.” Presented at the annual meeting of COST Action 356 Towards the definition of a measurable environmentally sustainable transport. Lyon, France.
- Lowry, M.,** Rutherford, G.S., and Nyerges, T. (2008). “Using cluster analysis to design tax packages that fund transportation projects.” Presented at the Tenth International Conference on Application of Advanced Technologies in Transportation. Athens, Greece.
- Lowry, M.,** Rutherford, G.S., and Nyerges, T. (2008). “An internet portal for large-group participation in transportation programming decisions.” Presented at the 87th Annual Meeting of the Transportation Board. Washington, D.C.
- Lowry, M.,** Zhong, T. Young, R., Rutherford, G.S., and Nyerges, T. (2007). “An Analytic-Deliberative Framework for Transportation Programming.” Presented at the 86th Annual Meeting of the Transportation Board. Washington, D.C.
- Lowry, M.,** Rutherford, G.S. (2006). “Travel Time Savings for a Traveler Information System.” Presented at the 85th Annual Meeting of the Transportation Research Board. Washington, D.C.
- Lowry, M.,** Balling, R. and Saito, M. (2003). “Regional Land Use and Transportation Planning with a Genetic Algorithm.” Presented at the 82nd Annual Meeting of the Transportation Research Board. Washington, D.C.

Invited Presentations:

- Lowry, M.,** (2016). “Tools and Strategies for Improving Citywide Bicycle Travel”, Distinguished Seminar Series, Northeastern University, Boston, Massachusetts.
- Lowry, M.,** (2014). “GIS Tools for Bicycle Network Analysis and Planning”, OTREC Transportation Seminar, Portland State University, Portland, Oregon.
- Lowry, M.,** (2013). “Using Street Topology to Estimate Traffic Volumes”, PacTrans Transportation Seminar, University of Washington, Seattle, Washington.

Other Peer Reviewed Publications:

- Pimentel, D., *Koglin, T., and **Lowry, M.** (2020) *Review of shared micro-mobility laws*, PacTrans, USDOT University Transportation Center for Federal Region 10.
- Wang, Y. Moudon, A., Shen, Q., Ban, X., **Lowry, M.** and *Mills, M. (2020) *Analysis of Travel Demand for Shared Mobility Services*, PacTrans, USDOT University Transportation Center for Federal Region 10.
- Pimentel, R. and **Lowry, M.** (2020) *Motivators and Deterrents to Shared Micro-Mobility*, PacTrans, USDOT University Transportation Center for Federal Region 10.
- Lowry, M.** (2017) *Bicycle Facility Data Elements for a Statewide Inventory*, Report KLK-573, National Institute for Advanced Transportation Technology.
- Johnstone, D., Nordback, L., and **Lowry, M.** (2017) *Collecting Network-wide Bicycle and Pedestrian Data. A guidebook for When and Where to Count*, Washington State Department of Transportation.
- Lowry, M.** (2017) *Spatial Analysis of Bicycle Count Data*, PacTrans, USDOT University Transportation Center for Federal Region 10.
- Wang, H. Wang, Y. **Lowry, M.**, Pu, Z. and Chen, C. (2016) *Bicycle Safety Analysis: Crowdsourcing Bicycle Travel Data to Estimate Risk Exposure and Create Safety Performance Functions*, PacTrans, USDOT University Transportation Center for Federal Region 10.
- Lowry, M.** Chang, K., Cook, R., and Seely, B. (2015) *Daily Travel Feedback to Encourage Eco-Routing*, TranLive.

- Lowry, M.**, McGrath, R., Cool, S., Cook, R., Skiles, M., Li, Z., Henrickson, K., Dunlap, M., and Wang, Y. (2015) *Data Collection and Spatial Interpolation of Bicycle and Pedestrian Data*, PacTrans, USDOT University Transportation Center for Federal Region 10.
- Dixon, M., **Lowry, M.** *Brunello, R., Wang, Y., Porter, D., and Kim, D. (2014) *Urban Street Performance Measurement for the auto, bicycles, and pedestrians*, PacTrans, USDOT University Transportation Center for Federal Region 10.
- *Peterson, J., **Lowry, M.**, LaPaglia, K., and *Tower, B. (2014) *Summer Camp Instructor's Guide: Sustainable Transportation - Technology, Engineering, and Science*, Report KLK-909, National Institute for Advanced Transportation Technology.
- Lowry, M.** and Dixon, M. (2012) *GIS Tools to Estimate Annual Average Daily Traffic*, Report KLK-725, National Institute for Advanced Transportation Technology.
- Lowry, M.** and *Callister, D. (2012) *Analytical Tools for Identifying Bicycle Route Suitability, Coverage, and Continuity*, Report 204, Idaho Transportation Department.
- Cook, P., *Cummings, C., Vollmer, D., Hollenhorst, S., and **Lowry, M.** (2011) *Supplemental Report - Greenhouse Gas Emissions from U.S. Department of the Interior Employee Commuting: Estimates for Fiscal Year 2010*, Park Studies Unit, University of Idaho.
- Cook, P., Vollmer, D., Hollenhorst, S., and **Lowry, M.** (2011) *Greenhouse Gas Emissions from U.S. Department of the Interior Employee Commuting: Estimates for Fiscal Year 2010*, Park Studies Unit, University of Idaho.
- Fischer, T., Dalkmann, H., **Lowry, M.**, and Tennøy, A. (2010) "The dimensions and context of transport decision making", in *Indicators of Environmental Sustainability in Transport: An interdisciplinary approach to methods*, Editors Joumard, R. and Gudmundsson, H., INRETS report, Recherches R282, Bron, France
- Lowry, M.** (2008) *An online analytic-deliberative approach to public participation for transportation investment decisions*, PhD Dissertation 59033, University of Washington.
- Lowry, M.** and Fischer, T. (2008) *Defining requirements of environmental sustainable transportation indicators from the planning and decision making point of view*, STSM Report 356-03924, Cost Action 356
- Tennøy, A. and **Lowry, M.** (2008). *Reisevaner for ansatte i CIENS-bedriftene før og etter samlokalisering i Forskningsparken (Travel survey among employees in the CIENS institutes before and after relocation to Forskningsparken)*, Report 997-2008, Transportøkonomisk institutt (Transport Economic Institute), Oslo, Norway.
- Tennøy, A. and **Lowry, M.** (2008). "Godt kollektivtilbud og dårlige p-muligheter etter flytting: Færre kjører bil til jobben (Good public transport and bad parking opportunities after relocation: Less people drive their cars to work)" *Samferdsel Nr. 4*. Transportøkonomisk Institutt (Transport Economic Institute), Oslo, Norway.
- Hagman, R. and **Lowry, M.** (2007). *Klimapåvirkning og energiforbruk, VW Passat BlueMotion (Greenhouse gases and fuel consumption for a VW Passat BlueMotion)*, Report SM-1911-2007, Transportøkonomisk institutt (Transport Economic Institute), Oslo, Norway.
- Kristof, T., **Lowry, M.** and Rutherford, G.S. (2005). *Assessing the Benefits of Traveler and Transportation Information Systems*, Report No. WA-RD 597.1, TRAC and Washington DOT.
- Saito, M. and **Lowry, M.** (2005). *Evaluation of Four Recent Traffic and Safety Initiatives, Volume I: Developing Guidelines For Roundabouts*, Report No. UT-04.10, Utah DOT.
- Lowry, M.** (2004) *Coordinated Regional and City Planning Using a Genetic Algorithm*, MS Thesis, Brigham Young University.

Grants and Contracts Awarded:**Total = \$2,919,159**

- (2020) **Lowry, M.** “Evaluation of Highway Safety Improvement Program” *Idaho Department of Transportation*, **\$120,000**, 2 years, 8/16/2020 – 8/15/2022.
- (2020) **Lowry, M.**, Watson, P., and Alward, A. “Estimating county to county transportation and trade flow” *US Department of Transportation administered by PacTrans the Region X University Transportation Center*, **\$40,000**, 2 years, 8/16/2020 – 8/15/2022.
- (2020) Qing, A., Ban, J., **Lowry, M.** and Moudon, A. “Shared Mobility Options for the Commute Trip: Opportunities for Employers and Employees” *US Department of Transportation administered by PacTrans the Region X University Transportation Center*, **\$180,000**, 2 years, 8/16/2020 – 8/15/2022.
- (2020) Liao, H. and **Lowry, M.** “Tracking, Mapping and Modeling Mobility Changes and Business Recovery amid the COVID19 pandemic” *US Department of Transportation administered by PacTrans the Region X University Transportation Center*, **\$10,000**, 1 year, 7/1/2020 – 6/31/2021.
- (2019) Handy, S. Fitch, D., **Lowry, M.**, and Davies, R. “Active Transportation Benefit-Cost Tool” *California Department of Transportation (Caltrans)*, **\$273,101**, 2 years, 8/1/2019 – 7/31/2021.
- (2018) **Lowry, M.**, Pimentel, D., and Pimentel, R. “Taming and Tapping the Bike Share Explosion” *US Department of Transportation administered by PacTrans the Region X University Transportation Center*, **\$105,000**, 2 years, 8/16/2018 – 8/15/2020.
- (2018) Moudon, A., Ban, J., **Lowry, M.**, and Qing, S. “The Impact of Shared Mobility Options on Travel Demand” *US Department of Transportation administered by PacTrans the Region X University Transportation Center*, **\$180,000**, 2 years, 8/16/2018 – 8/15/2020.
- (2018) Kassem, E. and **Lowry, M.** “Deterioration of Green Conflict Paint for Bicycle Facilities” *US Department of Transportation administered by PacTrans the Region X University Transportation Center*, **\$20,000**, 2 years, 8/16/2018 – 8/15/2020.
- (2018) Abdel-Rahim, A., Chang, K., and **Lowry, M.** “Improving Safety for RITI Communities in Idaho – Documenting Crash Rates and Possible Intervention Measures” *US Department of Transportation administered by CSET a Tier 1 University Transportation Center*, **\$115,000**, 1 year, 8/16/2018 – 8/15/2019.
- (2018) **Lowry, M.** and Chang, K. “Barriers and Opportunities for Using Rail-Trails for Safe Travel in Rural, Isolated, and Tribal Communities” *US Department of Transportation administered by CSET a Tier 1 University Transportation Center*, **\$120,000**, 1 year, 8/16/2018 – 8/15/2019.
- (2017) **Lowry, M.** “Creating an Open Street Map Network Extractor” *Rails to Trails Conservancy*, **\$3,400**, 2 months, 11/3/2017 – 12/15/2017.
- (2015) **Lowry, M.** “Spatial and Temporal Analysis of Bicycle and Pedestrian Data” *Washington Department of Transportation (\$60,000) and US Department of Transportation administered by PacTrans the Region X University Transportation Center (\$60,000)*, **\$120,000** (In conjunction with Nordback, K. and **Lowry, M.** “Optimizing Washington’s Bicycle and Pedestrian Documentation Project” *Washington Department of Transportation* an additional **\$130,000** for Nordback, K.), 2 years, 12/16/2015 – 12/15/2017.
- (2015) **Lowry, M.** and Godfrey, B. “Bicycle and Pedestrian Facility Inventory Database Design” *Idaho Transportation Department*, **\$100,000**, 2 years, 6/1/2015 – 6/31/2017.
- (2015) Johnson, B., Bauer, D., **Lowry, M.**, Roll, M., Sharma, Sunil, and Barlow, F. “Career Launch in Engineering Scholarship Program” *National Science Foundation*, **\$500,000**, 3.5 years, 8/1/2015 – 8/1/2019
- (2015) Wang, H., **Lowry, M.**, and Wang, Y. “Bicycle Safety Analysis using Crowdsourcing Bicycle Travel Data to Estimate Risk Exposure and Create Safety Performance Functions” *US Department of Transportation administered by PacTrans the Region X University Transportation Center*, **\$180,000**, 18 months, 01/16/2015 – 06/15/2016.

- (2014) **Lowry, M.** “The Trail Modeling & Assessment Platform (T-MAP): Creating a GIS tool to Assess Network Connectivity” *Rails to Trails Conservancy*, **\$74,258**, 1 year, 8/1/2014 – 9/30/2015.
- (2013) **Lowry, M.** Dixon, M., Abdel-Rahim, A., Wang, Y., and Hallenbeck, M. “Data Collection and Spatial Interpolation of Bicycle and Pedestrian Data: Improving Safety and Building Livable Communities by Identifying Critical Intersections and Street Segments for Non-motorized Travel” *US Department of Transportation administered by PacTrans the Region X University Transportation Center*, **\$200,000**, 2 years, 07/01/2013 – 6/30/2015.
- (2013) **Lowry, M.** and Dixon, M. “Daily Travel Feedback to Encourage Eco-Routing” *US Department of Transportation administered by TranLIVE a Tier 1 University Transportation Center*, **\$40,000**, 1 year, 8/16/2013 – 8/15/2014.
- (2013) **Lowry, M.** and Abdel-Rahim, A. “Curriculum Development for K-12 Sustainable Transportation Education.” *US Department of Transportation administered by TranLIVE a Tier 1 University Transportation Center (\$25,000) and US Department of Education TRIO program (\$50,000)*, **\$75,000**, 1 year, 8/16/2013 – 8/15/2014.
- (2012) Dixon, M, **Lowry, M.** and Abdel-Rahim, A. “Performance Monitoring for Safe and Livable Communities: Fusing Data to Improve Arterials for All Users” *US Department of Transportation administered by PacTrans the Region X University Transportation Center*, **\$152,000**, 1.5 years, 05/01/2012 – 9/30/2014
- (2012) **Lowry, M.** “Sustainable Planning Specialist: Active Travel Community Assessments.” *AmeriCorps*, **\$22,400**, 8/16/2012 – 8/15/2013.
- (2011) **Lowry, M.** “Analytical Tools for Identifying Bicycle Route Suitability, Coverage, and Continuity,” *Idaho Transportation Department*, **\$50,000**, 14 months, 1/3/2011 – 2/29/2012.
- (2011) Kyte, M. Dixon, M, Beyerlein, S., **Lowry, M.**, and Anderson, J. “The National Transportation Curriculum Project: Activity-Based Learning Modules for the Introductory Transportation Engineering Course,” *US Department of Transportation administered by NIATT a Tier 1 University Transportation Center*, **\$75,000**, 1 year, 8/16/2011 – 8/15/2012.
- (2011) **Lowry, M.** and Dixon, M. “A New Method to Estimate Average Annual Daily Traffic Based on Street Configuration,” *US Department of Transportation administered by NIATT a Tier 1 University Transportation Center*, **\$32,000**, 1 year, 8/16/2011 – 8/15/2012.
- (2010) **Lowry, M.** “Congestion analysis of recreational river boats” subcontract to “South Fork River Management”, *Bureau of Land Management*, **\$30,000**, 1 year, 8/16/2010 – 8/15/2011.
- (2010) Hollenhorst, S., Cook, P. and **Lowry, M.** “Greenhouse Gas Commuter Transportation Survey,” *US Department of the Interior*, **\$100,000**, 1 year, 8/16/2010 – 8/15/2011.
- (2009) **Lowry, M.** “Developing a sustainable transportation course for engineers and planners,” *University of Idaho, Sustainable Idaho Greening the Curriculum*, **\$2,000**, 5 months, 8/16/2009 – 12/15/2009.

Honors and Awards:

Excellence in Technology Transfer Award, PacTrans, USDOT Region X UTC, 2019
 Outstanding Young Faculty Award, College of Engineering, University of Idaho, 2014
 City of Moscow Mayor’s Earth Day Award (for engineering outreach and service), Moscow, Idaho, 2014
 Short Term Scientific Mission Scholar, COST Action 356, Liverpool, United Kingdom, 2008
 Valle Fellow, Valle Scholarship and Scandinavian Exchange Program, Oslo, Norway, 2007
 College of Engineering Community of Innovators Award, University of Washington, 2007
 Washington ITE Scholarship Recipient, Seattle, Washington, 2006
 Eno Fellow, Eno Transportation Leadership Development Foundation, 2006
 ITS America and Women’s Transportation Seminar Scholarship Recipient, Seattle, Washington, 2006
 University Transportation Center (UTC) Student of the Year, TransNow, 2005
 Technology Entrepreneurship Award, UW Center for Innovation and Entrepreneurship, 2005

First place Washington ITE Student Paper Competition, Seattle, Washington, 2005
 First place TransNow Student Presentation Competition, Corvallis, Oregon, 2005
 First place TransNow Student Poster Competition, Corvallis, Oregon, 2005
 Valle Scholarship Recipient, Valle Scholarship and Scandinavian Exchange Program, 2004
 ITE District 6 Scholarship Recipient, Western ITE, 2004
 Civil and Environmental Engineering Graduate Scholarship Recipient, BYU, 2004
 Civil and Environmental Engineering Graduate Scholarship Recipient, BYU, 2003
 Civil and Environmental Engineering Department Scholarship Recipient, BYU, 2002
 Joseph Layne Black Scholarship Recipient, BYU, 2001
 Joseph Layne Black Scholarship Recipient, BYU, 2000
 Marriot School of Business Entrepreneur Scholarship Recipient, BYU, 1999

SERVICE:

Major Committee Assignments:

National Service

TRB ACH20: Bicycle Transportation Research, 2015 – Present
 Chair of Paper Review, TRB ACH20: Bicycle Transportation, 2019 – Present
 TRB ADA50: Programming and Investment Decision-Making, 2010 – 2020
 Expert Panel, NCHRP Synthesis 47-10, *Resource Allocation of Available Funding to Programs*, 2015 – 2016
 Expert Panel, NCHRP Synthesis 41-11, *Transportation Improvement Program Revision Process*, 2009 – 2010

State, Region, and Local Service

Chair Annual Conference, PacTrans, Region X UTC of the USDOT, Moscow, Idaho, 2020
 Technical Advisor, City of Moscow Transportation Commission, Moscow, Idaho, 2017
 Volunteer, City of Moscow Pathways Commission, Moscow, Idaho, 2009 – Present
 Volunteer, Safe Routes to School, Moscow, Idaho, 2009 – Present
 Board Member, Regional Public Transportation, Inc (RPT), Board of Directors, 2012 – 2016

University of Idaho Service

Member, University Transportation Advisory Group, 2009 – Present
 Member and COE Representative, University Safety and Loss Control Committee, 2013 – 2016
 Faculty Advisor, Students for Place-based Planning and Urban Design (SPPUD), 2010 – 2013

College of Engineering Service

Member, College Safety Committee, 2013 – 2016

Civil and Environmental Engineering Department

Chair, CEE Curriculum Committee, 2015 – Present
 Co-Chair, CEE Curriculum Committee, 2015 – Present
 Co-Chair, CEE ABET Committee, 2017 – 2019
 Chair, CEE Petition Committee, 2011 – 2015
 Member, Promotion and Tenure Review Committee for CE faculty, 2012, 2017, 2020
 Member, CEE Chair Search Committee, 2015
 Member, CEE Graduate Admissions Committee, 2009 – 2011
 Member, CEE Petition Committee, 2009 – 2011

Bioregional Planning Program

Member, BIOP Academic Program Committee, 2009 – 2016
 Member, BIOP Curriculum Subcommittee, 2009 – 2016

Professional Society Membership:

American Society of Civil Engineers (ASCE), intermittent 1998 – Present
 Transportation Research Board (TRB), 2002 – Present

Institute of Transportation Engineers (ITE), 2002 – Present
Women's Transportation Seminar (WTS), 2005 – 2006
Students for New Urbanism (SNU), 2002 – 2004

Professional Society Leadership:

Faculty Advisor, UI Student Chapter of APA, 2011
President, UW Student Chapter of ITE, 2004
Vice President, BYU Student Chapter of ITE, 2003
Treasurer, BYU Student Chapter of ITE, 2002
President, BYU Student Chapter of ASCE, 2001

PROFESSIONAL DEVELOPMENT:

Teaching:

ABET Fundamentals of Program Assessment Workshop, Hollywood, Florida, April 13, 2016
CUBE Model Comprehensive Training, Salt Lake City, UT, October 8-10, 2015
Bicycle and Pedestrian Education Workshop, Portland, OR, July 19-20, 2012
Transportation Engineering Educator's Conference, Seattle, WA, July 31-Aug 1, 2012
Mini-ExCEEEd Teaching Workshop, Portland, OR, June 24, 2009
Transportation Education Conference, Portland, OR, June 22-23, 2009

Scholarship:

Sustainable Urban Transportation Course, Delft, Netherlands, July 1-15, 2016
Bright Star Grant Writing Clinic, University of Idaho, December 9-11, 2009

PERSONAL INFORMATION:

Citizenship:

United States of America
Canada

Language Fluency:

English, ILR Level 5: Native
Spanish, ILR Level 3: Professional working proficiency