

# Grant G. Schultz, Ph.D., P.E., PTOE

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**Professor**

**Department of Civil and Construction Engineering**

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## EDUCATION

**Doctor of Philosophy**, Civil Engineering, Texas A&M University December 2003

Dissertation: *Developing a Methodology to Account for Commercial Motor Vehicles Using Microscopic Traffic Simulation Models*

**Master of Science**, Civil Engineering, Brigham Young University April 1995

Transportation Research Project: *Advanced Warning Flashers: A Comparison*

**Bachelor of Science**, Civil Engineering, Brigham Young University April 1994

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## EXPERIENCE

**Associate Department Chair** August 2022 – present

Department of Civil and Construction Engineering  
Brigham Young University, Provo, UT

**Professor** September 2021 – present

Department of Civil and Construction Engineering  
Brigham Young University, Provo, UT

**Professor** September 2015 – August 2021

Department of Civil and Environmental Engineering  
Brigham Young University, Provo, UT

**Associate Department Chair** May 2012 – May 2018

Department of Civil and Environmental Engineering  
Brigham Young University, Provo, UT

**Associate Professor** September 2010 – August 2015

Department of Civil and Environmental Engineering  
Brigham Young University, Provo, UT

**Assistant Professor** January 2004 – August 2010

Department of Civil and Environmental Engineering  
Brigham Young University, Provo, UT

**Graduate Research Assistant** January 2001 – December 2003

Texas A&M Transportation Institute  
The Texas A&M University System, College Station, TX

**Project Manager** July 1996 – December 2000

The Sear-Brown Group  
Salt Lake City, UT

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**Traffic Engineer**

Keller Associates, Inc.  
Boise, ID

May 1995 – July 1996

**Graduate Research Assistant**

Department of Civil and Environmental Engineering  
Brigham Young University, Provo, UT

September 1994 – April 1995

**PROFESSIONAL REGISTRATION**

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**Professional Engineer (P.E.)**, UT License #: 98-264949-2202

**Professional Traffic Operations Engineer™** (PTOE), Transportation Certification Board,  
Certificate #530

**PEER-REVIEWED JOURNAL ARTICLES** (\* denotes student co-author)

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**In Preparation Total: 0**

**Under Review Total: 2**

1. Lau, S. K.\*, **G. G. Schultz**, M. Shoaf\*, D. Bassett, and D. L. Eggett. Evaluating Signal Preemption Requests in Utah Using V2X DSRC Equipped Snowplows. Submitted to *Transportation Research Record: Journal of the Transportation Research Board*, 2022.
2. **Schultz, G. G.**, C. C. Lunt\*, T. Pew\*, and R. L. Warr. Using Complementary Intersection and Segment Analyses to Identify Crash Hot Spots. Submitted to *Safety Science*, 2022.

**Published Total: 30**

1. Daines, T. J.\*, **G. G. Schultz**, and G. S. Macfarlane. Evaluating Real Time Ramp Meter Queue Length and Wait Time Estimation. *Future Transportation*, 2022, 2, pp. 807-827. <https://doi.org/10.3390/futuretransp2040045>.
  2. Wang, B.\*, **G. G. Schultz**, G. S. Macfarlane, and S. McCuen\*. Evaluating Signal Systems using Automated Traffic Signal Performance Measures. *Future Transportation*, 2022, 2, pp. 659-674. <https://doi.org/10.3390/futuretransp2030036>.
  3. **Schultz, G. G.**, and M. L. Adamson\*. Study Area Analogy Method for Trip Distribution. *ITE Journal*, Vol. 91, No. 10, Institute of Transportation Engineers, Washington, DC, 2021.
  4. Macfarlane, G. S., M. H. Sheffield\*, L. S. Bennett\*, and **G. G. Schultz**. The Effect of Transit Signal Priority on Bus Rapid Transit Headway Adherence. *Findings*, 2021. <https://doi.org/10.32866/001c.24499>
  5. Sheffield, M. H.\*, **G. G. Schultz**, D. Bassett, and D. L. Eggett. Sensitivity Analysis of the Transit Signal Priority Requesting Threshold and the Impact on Bus Performance and General Traffic. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2675, Iss. 5, Transportation Research Board of the National Academies, Washington, DC, 2021, pp. 149-163. <https://doi.org/10.1177/0361198120985853>.
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6. **Schultz, G. G.** Review of *Traffic Operations at Intersections: Learning and Applying the Models and Methods of the Highway Capacity Manual Using Simplified Scenarios and Computational Engines* by Michael Kyte and Rod Troutbeck. *Journal of Transportation Engineering, Part A: Systems*, Vol. 147, Iss. 1, 2021, ISSN (print): 2473-2907. ISSN (online): 2473-2893. <https://doi.org/10.1061/jtepbs.0000487>.
  7. Pew, T.\*, R. L. Warr, **G. G. Schultz**, and M. Heaton. Justification for Considering Zero-Inflated Models in Intersection Safety Analysis. *Transportation Research Interdisciplinary Perspectives*, Vol. 8, 2020, 100249, ISSN 2590-1982. <https://doi.org/10.1016/j.trip.2020.100249>.
  8. Adamson, M. L.\*, **G. G. Schultz**, M. Saito, and M. D. Stevens\*. Developing Decision Boundaries for Left-Turn Treatments. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2674, Iss. 5, Transportation Research Board of the National Academies, Washington, DC, 2020, pp. 315-326. <https://doi.org/10.1177/0361198120915470>.
  9. **Schultz, G. G.**, P. Galvez de Leon\*, K. F. Shahandashti, and R. Chamberlin. Measuring Compliance of Driver Yielding at Enhanced Pedestrian Crossings in Utah. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2674, Iss. 5, Transportation Research Board of the National Academies, Washington, DC, 2020, pp. 327-339. <https://doi.org/10.1177/0361198120915466>.
  10. Wang, X. S., J. H. Yuan, and **G. G. Schultz**. Investigating the Safety Impacts of the Roadway Network Features of Suburban Arterials in Shanghai. *Journal of Accident Analysis and Prevention*, Vol. 113, 2018, pp. 137-148.
  11. Kim, K. M.\*, M. Saito, **G. G. Schultz**, and D. L. Eggett. Evaluating Safety Impacts of Access Management Alternatives with the Surrogate Safety Assessment Model. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2672, Iss. 17, Transportation Research Board of the National Academies, Washington, DC, 2018, pp. 120-128. <https://doi.org/10.1177/0361198118773505>.
  12. Chang, D. K.\*, M. Saito, **G. G. Schultz**, and D. L. Eggett. Use of Hi-Resolution Data for Evaluating the Accuracy of Traffic Volume Counts Collected by Microwave Sensors. In *Journal of Traffic and Transportation Engineering (English Edition)*, Vol. 4, Iss. 5, 2017, pp. 423-435.
  13. Frustaci, J.\*, M. Saito, and **G. G. Schultz**. Implementing the Highway Safety Manual Life-Cycle Benefit-Cost Analysis of Safety Improvements. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2636, Transportation Research Board of the National Academies, Washington, DC, 2017, pp. 23-31.
  14. Cook, A. A.\*, M. Saito, and **G. G. Schultz**. Heuristic Approach to Identifying Horizontal Curves and their Parameters Given LiDAR Point Cloud Data. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2521, Transportation Research Board of the National Academies, Washington, DC, 2015, pp. 22-30.
  15. **Schultz, G. G.**, S. T. Mineer\*, and D. L. Eggett. Carousel Method: A Reliable Method for Collecting Average Vehicle Occupancy Data for Multi-Lane Freeways. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2484, Transportation Research Board of the National Academies, Washington, DC, 2015, pp. 165-172.
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16. **Schultz, G. G.**, A. L. Dowell\*, R. Roundy\*, M. Saito, and C. S. Reese. Evaluating the Safety Effects of Signal Improvements. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2435, Transportation Research Board of the National Academies, Washington, DC, 2014, pp. 19-26.
  17. Wang, X. S., Y. Song, R. Yu, and **G. G. Schultz**, Safety Modeling of Suburban Arterials in Shanghai, China. *Journal of Accident Analysis and Prevention*, Vol. 70, 2014, pp. 215-224.
  18. Brimley, B. K.\*, M. Saito, and **G. G. Schultz**. Calibration of the Highway Safety Manual Safety Performance Function and Development of New Models for Rural Two-Lane Two-Way Highways. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2279, Transportation Research Board of the National Academies, Washington, DC, 2012, pp. 82-89.
  19. **Schultz, G. G.**, and J. E. Searle\*. Understanding the Economics of Transportation Projects. *Economics Research International*, Hindawi Publishing Corporation, New York, NY, Vol. 2012, Article ID 710282, 7 pages.
  20. **Schultz, G. G.**, D. J. Thurgood\*, A. N. Olsen\*, and C. S. Reese. Analyzing Raised Median Safety Impacts Using Bayesian Methods. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2223, Transportation Research Board of the National Academies, Washington, DC, 2011, pp. 96-103.
  21. Richards, P. W., G. P. Williams, **G. G. Schultz**, and E. J. Nelson. Present Sentiment about ASCE Policy Statement 465 among Business Owners, University Professors, and State Licensing Boards. *Journal of Professional Issues in Engineering Education and Practice*, Vol. 137, No. 3, 2011, pp. 122-126.
  22. **Schultz, G. G.**, C. G. Allen\*, and T. Boschert. Making the Most of the Existing System through Access Management in the Vicinity of Major-Arterial Crossroads. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2171, Transportation Research Board of the National Academies, Washington, DC, 2010, pp. 66-74.
  23. **Schultz, G. G.**, K. T. Braley\*, and T. Boschert. Relationship between Access Management and Other Physical Roadway Characteristics and Safety. *Journal of Transportation Engineering*, Vol. 136, No. 2, 2010, pp. 141-148.
  24. **Schultz, G. G.**, and A. P. Jensen\*. Evaluation and Installation Guidelines for Advance Warning Signal Systems. *IET Intelligent Transport Systems*, Vol. 3, Iss. 3, 2009, pp. 247-256.
  25. **Schultz, G. G.**, and E. Talbot\*. Advance Warning Signals: Long-term Monitoring Results. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2122, Transportation Research Board of the National Academies, Washington, DC, 2009, pp. 27-35.
  26. **Schultz, G. G.**, K. T. Braley\*, and T. Boschert. Prioritizing Access Management Implementation. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 2092, Transportation Research Board of the National Academies, Washington, DC, 2009, pp. 57-65.
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27. **Schultz, G. G.**, J. S. Lewis\*, and T. Boschert. Safety Impacts of Access Management Techniques in Utah. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 1994, Transportation Research Board of the National Academies, Washington, DC, 2007, pp. 35-42. (Note: This paper received the Transportation Research Board Transportation System Policy, Planning and Process Section Best Paper Award).
28. **Schultz, G. G.**, R. Peterson\*, D. L. Eggett, and B. C. Giles. Effectiveness of Blank-Out Overhead Dynamic Advance Warning Signals at High-Speed Signalized Intersections. *Journal of Transportation Engineering*, Vol. 133, No. 10, 2007, pp. 564-571.
29. **Schultz, G. G.**, and L. R. Rilett. Calibration of Distributions of Commercial Motor Vehicles in CORSIM. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 1934, Transportation Research Board of the National Academies, Washington, DC, 2005, pp. 246-255.
30. **Schultz, G. G.**, and L. R. Rilett. Analysis of Distribution and Calibration of Car-Following Sensitivity Parameters in Microscopic Traffic Simulation Models. In *Transportation Research Record: Journal of the Transportation Research Board*, No. 1876, Transportation Research Board of the National Academies, Washington, DC, 2004, pp. 41-51.

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**PEER-REVIEWED CONFERENCE PROCEEDINGS** (\* denotes student co-author)

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**Under Review Total: 0**

**Accepted Total: 1**

1. Ward, C. K.\*, and **G. G. Schultz**. An Evaluation of The Speed Limit Setting Procedure and Tool for Utah. Submitted to *International Conference on Transportation & Development 2023*, American Society of Civil Engineers, Austin, TX, 2023.

**Published Total: 49**

1. Berrett, J. J.\*, **G. G. Schultz**, and D. L. Eggett. Evaluating Pedestrian Walking Speeds at Signalized Intersections. In [Proceedings](#) of 6<sup>th</sup> *International Symposium on Highway Geometric Design*, Amsterdam, NL, 2022.
  2. Bennett, L. S.\*, **G. G. Schultz**, J. Hyer\*, M. Saito, and D. L. Eggett. The Benefits of Expanding the Incident Management Program in Utah. *International Conference on Transportation & Development 2022: Transportation Safety*, American Society of Civil Engineers, Reston, VA, Edited by H. Wei, 2022, pp. 264-276 (ISBN 978-0-7844-8433-3 (PDF)).
  3. **Schultz, G. G.**, C. C. Lunt\*, T. Pew\*, and R. L. Warr. Using Complementary Intersection and Segment Analyses to Identify Crash Hot Spots (Extended Summary). In *2022 Road Safety & Simulation International Conference Online Compendium of Papers*, Athens, GR, 2022.
  4. Bennett, L. S.\*, M. G. Hadfield\*, **G. G. Schultz**, M. Saito, and D. L. Eggett. Performance Measures Evaluation of UDOT's Traffic Incident Management Program. *International Conference on Transportation & Development 2021: Transportation Operations, Technologies, and Safety*, American Society of Civil Engineers, Reston, VA, Edited by C. R. Bhat, 2021, pp. 25-36 (ISBN 978-0-7844-8353-4 (PDF)).
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5. Hadfield, M. G.\*, L. S. Bennett\*, **G. G. Schultz**, M. Saito, and D. L. Eggett. User Cost Analysis of UDOT's Traffic Incident Management Program. *International Conference on Transportation & Development 2021: Transportation Planning and Development*, American Society of Civil Engineers, Reston, VA, Edited by C. R. Bhat, 2021, pp. 71-82 (ISBN 978-0-7844-8354-1 (PDF)).
  6. Gibbons, J. D.\*, **G. G. Schultz**, and M. Saito. A Methodology for Analyzing Intersection Safety. *International Conference on Transportation & Development 2019: Innovation and Sustainability in Smart Mobility and Smart Cities*, American Society of Civil Engineers, Reston, VA, Edited by D. A. Noyce, 2019, pp. 143-153 (ISBN 978-0-7844-8257-5 (PDF)).
  7. Seat, M. L.\*, **G. G. Schultz**, B. W. Clegg\*, and M. Saito. Analyzing the Safety Impacts of Raised Medians. *International Conference on Transportation & Development 2019: Innovation and Sustainability in Smart Mobility and Smart Cities*, American Society of Civil Engineers, Reston, VA, Edited by D. A. Noyce, 2019, pp. 84-95 (ISBN 978-0-7844-8257-5 (PDF)).
  8. Seat, C. J.\*, B. W. Clegg\*, M. Saito, and **G. G. Schultz**. Crash Severity Distributions for Life-Cycle Benefit-Cost Analysis of Safety-Related Improvements on Utah Roadways. In *Transportation Research Board 98<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2019.
  9. Browning, J. S.\*, M. Saito, and **G. G. Schultz**. High Accuracy Achieved in Determining Lengths and Locations of Horizontal Curves Using Light Detection and Ranging Point Cloud Data. In *2018 International Conference on Transportation & Development (ICTD 2018) Compendium of Papers*, American Society of Civil Engineers, Pittsburgh, PA, 2018.
  10. Seat, M. L.\*, **G. G. Schultz**, B. W. Clegg\*, and M. Saito. Using LiDAR Data to Analyze the Safety Impacts of Raised Medians. In *Transportation Research Board 97<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2018.
  11. Kim, K. M.\*, M. Saito, **G. G. Schultz**, and D. L. Eggett. Using the Surrogate Safety Assessment Model for Evaluating Safety Impacts of Access Management Alternatives. In *Transportation Research Board 97<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2018.
  12. Mineer, S. T.\*, **G. G. Schultz**, and M. Saito. Roadway Safety Modeling in Utah using the Roadway Safety Analysis Methodology. In *Proceedings of 2017 Road Safety & Simulation Conference*, Delft, NE, 2017.
  13. Frustaci, J.\*, M. Saito, and **G. G. Schultz**. HSM's Predictive-Method Based Life-Cycle Analysis of Safety Improvement Alternatives. In *Proceedings of International Conference on Maintenance and Rehabilitation of Constructed Infrastructure Facilities (MAIREINFRA)*, International Society of Maintenance and Rehabilitation of Transportation Infrastructures (iSMARTi), Seoul, Korea, 2017.
  14. Mineer, S. T.\*, **G. G. Schultz**, and M. Saito. Application of the Roadway Safety Analysis Methodology in Utah. In *Transportation Research Board 96<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2017.
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15. Frustaci, J.\*, M. Saito, and **G. G. Schultz**. Implementing the HSM Life-Cycle Benefit-Cost Analysis of Safety Improvements. In *Transportation Research Board 96<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2017.
  16. Sanchez, G. H.\*, M. Saito, **G. G. Schultz**, and D. L. Eggett. Use of High-Resolution Data to Evaluate the Accuracy of Mean and 85<sup>th</sup> Percentile Approach Speeds Collected by Microwave Sensors. In *Transportation Research Board 96<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2017.
  17. **Schultz, G. G.**, S. T. Mineer\*, and C. A. Hamblin\*. An Analysis of Express Lanes in Utah. In *Transportation Research Procedia, ISEHP 2016, International Symposium on Enhancing Highway Performance*, Vol. 15, 2016, pp. 561-572.
  18. Knecht, C.\*, M. Saito, and **G. G. Schultz**. Development of Crash Prediction Models for Curved Segments of Rural Two-Lane Highways. In *Proceedings of the Transportation & Development Institute International Conference*, American Society of Civil Engineers, Houston, TX, 2016, pp. 791-802.
  19. Chang, D. K.\*, M. Saito, **G. G. Schultz**, and D. Eggett. How Accurate are Turning Movement Counts Collected by Microwave Sensors? In *Proceedings of the Transportation & Development Institute International Conference*, American Society of Civil Engineers, Houston, TX, 2016, pp. 945-956.
  20. **Schultz, G. G.**, J. S. Farnsworth\*, and M. Saito. Mitigating Safety in Utah using the Hot Spot Identification and Analysis Methodology. In *Proceedings of the Transportation & Development Institute International Conference*, American Society of Civil Engineers, Houston, TX, 2016, pp. 1014-1025.
  21. Knecht, C.\*, M. Saito, and **G. G. Schultz**. Crash Prediction Modeling for Curved Segments of Rural Two-Lane Two-Way Highways in Utah. In *Transportation Research Board 95<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2016.
  22. Wang, X. S., J. H. Yuan, **G. G. Schultz**, and W. J. Meng. Investigating the Safety Impacts of the Roadway Network Features of Suburban Arterials in Shanghai. In *Transportation Research Board 95<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2016.
  23. Bassett, D. R., **G. G. Schultz**, and M. Saito. Use of Roadway Attributes in Hot Spot Identification and Analysis. In *Transportation Research Board 95<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2016.
  24. **Schultz, G. G.** and C. Kergaye. Using ITS Technology to Evaluate Express Lanes in Utah. In *22<sup>nd</sup> ITS World Congress Proceedings*, Paper Number ITS-2774, ERTICO ITS Europe and ITS America, Bordeaux, France, 2015.
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25. **Schultz, G. G.**, J. S. Farnsworth\*, and M. Saito. Hot Spot Identification and Analysis Methodology for Roadway Safety. In *Transportation Research Board 94<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2015.
  26. Riffkin, M., C. Allen, M. Baker, **G. G. Schultz**, and C. Kergaye. A Summary of the Economic Impacts of Raised Medians in Utah. In *Access Management Theories and Practices (Proceedings of the Second International Conference on Access Management)*, Shanghai, China, Edited by Z. Guo, B. Huang, and Z. Wang, 2015, pp. 12-22 (ISBN: 9780784413869).
  27. **Schultz, G. G.**, C. W. Black\*, and M. Saito. GIS Framework for Hierarchical Bayesian based Crash Data Analysis. In *T&DI Congress 2014: Planes, Trains, and Automobiles (Proceedings of the Second Transportation & Development Institute Congress)*, Orlando, FL, Edited by A. Varma, and G. Gosling, 2014, pp. 477-486 (ISBN: 9780784413586 (CD-ROM)).
  28. Kelly, P. C.\* , M. Saito, and **G. G. Schultz**. Creating a Case Study to Teach Systematic Safety Analysis Using *SafetyAnalyst*. In *T&DI Congress 2014: Planes, Trains, and Automobiles (Proceedings of the Second Transportation & Development Institute Congress)*, Orlando, FL, Edited by A. Varma, and G. Gosling, 2014, pp. 467-476 (ISBN: 9780784413586 (CD-ROM)).
  29. Larson, S. J.\* , M. Saito, and **G. G. Schultz**. Guidelines for Mobility-based Work Zone Performance Specifications. In *T&DI Congress 2014: Planes, Trains, and Automobiles (Proceedings of the Second Transportation & Development Institute Congress)*, Orlando, FL, Edited by A. Varma, and G. Gosling, 2014, pp. 420-429 (ISBN: 9780784413586 (CD-ROM)).
  30. **Schultz, G. G.**, S. C. Dudley\*, and M. Saito. Framework for Highway Safety Mitigation: The Utah Experience. In *ICTIS 2013: Improving Multimodal Transportation Systems- Information, Safety, and Integration (Proceedings of the 2<sup>nd</sup> International Conference on Transportation Information and Safety, (ICTIS 2013))*, Wuhan, China, 2013, pp. 1318-1323 (ISBN: 9780784413036).
  31. Chau, E.\* , M. Saito, and **G. G. Schultz**. Evaluating the Technical Feasibility of Incorporating Mobility-based Traffic Control Performance Measurement in Highway Construction Project Specifications. In *Proceedings of the 2013 International Highway Technology Summit: Innovative Approaches and Best Practice* (Publisher: China Highway & Transportation Society), Beijing, China, 2013, pp. 51-62.
  32. Saito, M., T. G. Jin\*, and **G. G. Schultz**. Development of a Statewide Commodity Flow Distribution Model Using Composite Friction Factors. In *Procedia: Social and Behavioral Sciences, Vol. 43. (Proceedings of the 8<sup>th</sup> International Conference on Traffic & Transportation Studies, (ICTTS'2012), Beijing, China)*, Elsevier, 2012, pp. 406-417.
  33. Macfarlane, G. S.\* , M. Saito, and **G. G. Schultz**. Delay Underestimation at Free Right-Turn Channelized Intersections. *Procedia: Social and Behavioral Sciences, Vol. 16. (Proceedings of the 6<sup>th</sup> International Symposium on Highway Capacity and Quality of Service, Stockholm, Sweden)*, Elsevier, 2011, pp. 560-567.
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34. **Schultz, G. G.** Safety Analysis of Access Management Implementation in Utah. In *Proceedings of the 1<sup>st</sup> International Conference on Access Management*, Athens, Greece, 2011.
  35. Macfarlane, G. S.\*, M. Saito, and **G. G. Schultz**. Driver Perceptions at Free Right-Turn Channelized Intersections. In *T&DI Congress 2011: Integrated Transportation and Development for a Better Tomorrow (Proceedings of the First Transportation & Development Institute Congress)*, Chicago, IL, Edited by I. Al-Qadi, and S. Murrell, 2011, pp. 1128-1137, ([http://dx.doi.org/10.1061/41167\(398\)108](http://dx.doi.org/10.1061/41167(398)108), ISBN: 9780784411674).
  36. Olsen, A. N.\*, **G. G. Schultz**, D. J. Thurgood\*, and C. S. Reese. Hierarchical Bayesian Modeling for Before and After Studies. In *Transportation Research Board 90<sup>th</sup> Annual Meeting On-line Compendium of Papers*, Transportation Research Board of the National Academies, Washington, DC, 2011.
  37. **Schultz, G. G.**, J. S. McGee\*, and M. Saito. Economic Development Criteria for Use in the Project Prioritization Process of Utah. In *Proceedings of the 7<sup>th</sup> Asia Pacific Conference on Transportation and the Environment (APTE)*, Semarang, Indonesia, 2010, pp. 36-46 (ISBN: 9789799716156).
  38. Winters, K. E.\*, and **G. G. Schultz**. Median Crossover Crashes in the Vicinity of Interchanges. In *Transportation Research Board 89<sup>th</sup> Annual Meeting Compendium of Papers* (CD-ROM), Transportation Research Board of the National Academies, Washington, DC, 2010.
  39. Nelson, E. J., G. P. Williams, P. W. Richards, **G. G. Schultz**, T. Wight\*, and J. D. Armstrong. Assessing State Engineering Examining Boards and Higher Education's Response to the 2006 NCEES Model Law for Professional Engineering Licensure. In *Proceedings of the 2009 American Society for Engineering Education Annual Conference and Exposition* (CD-ROM), Austin, TX, 2009.
  40. Peterson, R.\*, **G. G. Schultz**, and D. L. Eggett. Locating the Decision Zone on a High-Speed Signalized Intersection Approach. In *Proceedings of the 10<sup>th</sup> International Conference on Applications of Advanced Technologies in Transportation*, Athens, Greece, 2008.
  41. Turley, C.\*, and **G. G. Schultz**. Sensitivity Analysis of Driver Behavior and Vehicle Performance Parameters in a Microscopic Traffic Simulation Model. In *Proceedings of the 10<sup>th</sup> International Conference on Applications of Advanced Technologies in Transportation*, Athens, Greece, 2008.
  42. **Schultz, G. G.**, and L. W. Seegmiller\*. Utah Commercial Motor Vehicle Weigh-in-Motion Calibration: Current Practice and Recommended Procedure. In *Proceedings of the International Conference on Heavy Vehicles 5<sup>th</sup> International Conference on Weigh-in-Motion of Heavy Vehicles (HVPari2008-ICWIM5)*, Paris, France. Edited by B. Jacob, E. O'Brien, A. O'Connor, and M. Bouteldja, 2008, pp. 399-409 (ISBN: 9781848210592).
  43. Qu, Z., **G. G. Schultz**, and B. AlMalik. Multiple Regression Analysis on Safety of Traffic Transportation and Social Economic Development. *Transportation and Development Innovative Best Practices 2008 Proceedings of the First International Symposium*, Beijing, China. Edited by L. F. Cohn, 2008, pp. 210-215 (ISBN: 9780784409619).
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44. **Schultz, G. G.**, H. T. Young\*, and D. L. Eggett. Evaluating Safety Benefits of Drowsy Driving Signage. In *Transportation Research Board 87<sup>th</sup> Annual Meeting Compendium of Papers* (CD-ROM), Transportation Research Board of the National Academies, Washington, DC, 2008.
45. **Schultz, G. G.**, K. T. Braley\*, and T. Boschert. Correlating Access Management to Crash Rate, Severity, and Collision Type. In *Transportation Research Board 87<sup>th</sup> Annual Meeting Compendium of Papers* (CD-ROM), Transportation Research Board of the National Academies, Washington, DC, 2008.
46. **Schultz, G. G.**, and A. L. Stewart\*. Evaluating Economic Analysis Alternatives in the Transportation Decision Making Process. In *Proceedings of the First International Conference on Transportation Engineering*, Volume 3, Southwest Jiaotong University, Chengdu, China. Edited by Q. Peng, K. C. P. Wang, Y. Qiu, Y. Pu, X. Luo, and B. Shuai, 2007, pp. 3133-3139 (ISBN: 9780784409329).
47. **Schultz, G. G.**, R. Peterson\*, and D. L. Eggett. Evaluating the Long Term Effectiveness of Blank-Out Overhead Dynamic Advance Warning Signals. In *Transportation Research Board 86<sup>th</sup> Annual Meeting Compendium of Papers* (CD-ROM), Transportation Research Board of the National Academies, Washington, DC, 2007.
48. **Schultz, G. G.**, and L. R. Rilett. Calibrating CORSIM Commercial Motor Vehicle Distributions. In *Transportation Research Board, 84<sup>th</sup> Annual Meeting Compendium of Papers* (CD-ROM), Transportation Research Board of the National Academies, Washington, DC, 2005.
49. **Schultz, G. G.**, L. R. Rilett, and C. H. Spiegelman. The Use of Weigh-in-Motion Data to Develop Commercial Motor Vehicle Weight and Length Distributions at Vehicle Classification Sites. In *Transportation Research Board, 84<sup>th</sup> Annual Meeting Compendium of Papers* (CD-ROM), Transportation Research Board of the National Academies, Washington, DC, 2005.

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#### RESEARCH REPORTS (\* denotes student co-author)

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##### Published Total: 51

1. **Schultz, G. G.**, G. S. Macfarlane, B. Wang\*, and M. C. Davis\*. *Detecting Traffic Data Anomalies in Longitudinal Signal Performance Measures*. Report No. UT-22.21, Utah Department of Transportation Research & Innovation Division, Salt Lake City, 2022.
  2. **Schultz, G. G.**, C. K. Ward\*, and S. Andersen\*. *An Evaluation of the Safe Speed Limit Setting Procedure and Tool for Utah*. Report No. UT-22.17, Utah Department of Transportation Research & Innovation Division, Salt Lake City, 2022.
  3. **Schultz, G. G.**, S. K. Lau\*, M. Shoaf\*, D. Bassett, and D. L. Eggett. *Analysis of Using V2X DSRC Equipped Snowplows to Request Signal Preemption*. Report No. UT-22.14, Utah Department of Transportation Research & Innovation Division, Salt Lake City, 2022.
  4. **Schultz, G. G.**, G. S. Macfarlane, T. J. Daines\*, C. K. Ward\*, and J. Umphress. *Evaluating Ramp Meter Wait Time in Utah*. Report No. UT-22.06, Utah Department of Transportation Research & Innovation Division, Salt Lake City, 2022.
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5. **Schultz, G. G.**, M. Saito, L. S. Bennett\*, J. Hyer\*, and D. L. Eggett. *Analysis of Benefits of an Expansion to UDOT's Incident Management Program*. Report No. UT-21.13, Utah Department of Transportation Research & Innovation Division, Salt Lake City, 2021.
  6. **Schultz, G. G.**, G. S. Macfarlane, B. Wang\*, and S. McCuen. *Evaluating the Quality of Signal Operations using Signal Performance Measures*. Report No. UT-20.08, Utah Department of Transportation Research & Innovation Division, Salt Lake City, 2020.
  7. **Schultz, G. G.**, M. H. Sheffield\*, D. Bassett, and D. L. Eggett. *Impacts of Changing the Transit Signal Priority Requesting Threshold on Bus Performance and General Traffic: A Sensitivity Analysis*. Report No. UT-20.06, Utah Department of Transportation Research & Innovation Division, Salt Lake City, 2020.
  8. **Schultz, G. G.**, C. C. Lunt\*, T. Pew\*, R. L. Warr, and M. J. Heaton. *Segment and Intersection Crash Analysis Methodologies for Utah Highways*. Report No. UT-20.04, Utah Department of Transportation Traffic & Safety, Research & Innovation Divisions, Salt Lake City, 2020.
  9. **Schultz, G. G.**, J. J. Berrett\*, and D. L. Eggett. *Pedestrian Walking Speeds at Signalized Intersections in Utah*. Report No. UT-19.06, Utah Department of Transportation Research Division, Salt Lake City, 2019.
  10. **Schultz, G. G.**, M. L. Adamson\*, M. D. Stevens\*, and M. Saito. *An Analysis of Decision Boundaries for Left-Turn Treatments*. Report No. UT-19.05, Utah Department of Transportation Research Division, Salt Lake City, 2019.
  11. Fayyaz, K., P. Galvez de Leon\*, and **G. G. Schultz**. *Driver Compliance at Enhanced Pedestrian Crossings in Utah*. Report No. UT-19.03, Utah Department of Transportation Research Division, Salt Lake City, 2019.
  12. **Schultz, G. G.**, M. Saito, M. G. Hadfield\*, L. S. Bennett\*, and D. L. Eggett. *Analysis of Performance Measures of Traffic Incident Management in Utah*. Report No. UT-19.01, Utah Department of Transportation Research Division, Salt Lake City, 2019.
  13. Saito, M., C. J. Seat\*, **G. G. Schultz**, and B. W. Clegg. *Crash Severity Distributions for Life-Cycle Benefit-Cost Analysis of Safety-Related Improvements on Utah Roadways*. Report No. UT-18.07, Utah Department of Transportation Research Division, Salt Lake City, 2018.
  14. **Schultz, G. G.**, J. D. Gibbons\*, M. Saito, and B. W. Clegg\*. *Intersection Safety Analysis Methodology for Utah Roadways*. Report No. UT-18.06, Utah Department of Transportation Research Division, Salt Lake City, 2018.
  15. Saito, M., J. S. Browning\*, and **G. G. Schultz**. *Developing a Method to Identify Horizontal Curve Segments with High Crash Occurrences using the HAF Algorithm*. Report No. UT-18.02, Utah Department of Transportation Research Division, Salt Lake City, 2018.
  16. **Schultz, G. G.**, J. E. Alpers\*, and M. Saito. *Left-Turn Signal Warrant Procedures: A Synthesis of Practice*. Report No. UT-17.14, Utah Department of Transportation Research Division, Salt Lake City, 2017.
  17. Saito, M., K. M. Kim\*, and **G. G. Schultz**. *Analysis of Safety Impacts of Access Management Alternatives Using the Surrogate Safety Assessment Model*. Report No. UT-17.11, Utah Department of Transportation Research Division, Salt Lake City, 2017.
-

18. **Schultz, G. G.**, M. L. Seat\*, M. Saito, and W. Clegg\*. *Utilizing LiDAR Data to Analyze Access Management Criteria in Utah*. Report No. UT-17.09, Utah Department of Transportation Research Division, Salt Lake City, 2017.
  19. Saito, M., J. B. Frustaci\*, and **G. G. Schultz**. *Life-Cycle Benefit-Cost Analysis of Safety Related Improvements on Roadways*. Report No. UT-16.15, Utah Department of Transportation Research Division, Salt Lake City, 2016.
  20. **Schultz, G. G.**, S. T. Mineer\*, M. Saito, J. D. Gibbons\*, S. A. Siegel\*, and P. D. MacArthur\*. *Roadway Safety Analysis Methodology for Utah*. Report No. UT-16.13, Utah Department of Transportation Research Division, Salt Lake City, 2016.
  21. Saito, M., G. H. Sanchez\*, and **G. G. Schultz**. *Calibration of Automatic Performance Measures – Speed and Volume Data: Volume 2, Evaluation of the Accuracy of Approach Volume Counts and Speeds Collected by Microwave Sensors*. Report No. UT-16.05, Utah Department of Transportation Research Division, Salt Lake City, 2016.
  22. **Schultz, G. G.**, C. K. Haskell\*, D. R. Bassett\*, and S. K. Burbidge. *The Impact of Bicycle Corridors on Travel Demand in Utah*. Report No. UT-16.01, Utah Department of Transportation Research Division, Salt Lake City, 2016.
  23. Saito, M., D. K. Chang\*, and **G. G. Schultz**. *Calibration of Automatic Performance Measures – Speed and Volume Data: Volume 1, Evaluation of the Accuracy of Traffic Volume Counts Collected by Microwave Sensors*. Report No. UT-15.14, Utah Department of Transportation Research Division, Salt Lake City, 2015.
  24. Saito, M., C. S. Knecht\*, and **G. G. Schultz**. *Crash Prediction Modeling for Curved Segments of Rural Two-Lane Two-Way Highways in Utah*. Report No. UT-15.12, Utah Department of Transportation Research Division, Salt Lake City, 2015.
  25. **Schultz, G. G.**, D. R. Bassett\*, M. Saito, and C. S. Reese. *Use of Roadway Attributes in Hot Spot Identification and Analysis*. Report No. UT-15.10, Utah Department of Transportation Research Division, Salt Lake City, 2015.
  26. **Schultz, G. G.**, S. T. Mineer\*, C. A. Hamblin\*, D. B. Halliday\*, C. C. Groberg\*, and M. W. Burris. *I-15 Express Lanes Study Phase II: Recommendations*. Report No. UT-15.03, Utah Department of Transportation Research Division, Salt Lake City, 2015.
  27. **Schultz, G. G.**, D. K. Mitchell\*, Z. Pulver\*, S. T. Mineer\*, and M. W. Burris. *I-15 Express Lanes Study Phase I: System Evaluation*. Report No. UT-14.05, Utah Department of Transportation Research Division, Salt Lake City, 2014.
  28. **Schultz, G. G.**, J. S. Farnsworth\*, R. S. Roundy\*, M. Saito, C. S. Reese, and T. Briggs\*. *Hot Spot Identification & Analysis Methodology*. Report No. UT-13.15, Utah Department of Transportation Research Division, Salt Lake City, 2013.
  29. Saito, M., **G. G. Schultz**, S. J. Larson\*. *Evaluating the Feasibility of Incorporating Mobility-Based Work Zone Traffic Control Performance Measures in Highway Construction Project Specifications: Volume 2: Developing Guidelines for Mobility-Based Performance Measures*. Report No. UT-13.13b, Utah Department of Transportation Research Division, Salt Lake City, 2013.
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30. Saito, M., **G. G. Schultz**, E. J. Chau\*. *Evaluating the Feasibility of Incorporating Mobility-Based Work Zone Traffic Control Performance Measures in Highway Construction Project Specifications: Volume 1: Feasibility of Continuous Monitoring of Performance Measures*. Report No. UT-13.13a, Utah Department of Transportation Research Division, Salt Lake City, 2013.
  31. **Schultz, G. G.**, A. L. Dowell\*, M. Saito, and R. S. Roundy\*. *Evaluating the Safety Effects of Signal Improvements*. Report No. UT-13.05, Utah Department of Transportation Research Division, Salt Lake City, 2013.
  32. **Schultz, G. G.**, E. S. Johnson\*, C. W. Black\*, D. Francom\*, and M. Saito. *Traffic & Safety Statewide Model and GIS Modeling*. Report No. UT-12.06, Utah Department of Transportation Research Division, Salt Lake City, 2012.
  33. **Schultz, G. G.**, S. C. Dudley\*, and M. Saito. *Transportation Safety Data and Analysis: Volume 3: Framework for Highway Safety Mitigation and Workforce Development*. Report No. UT-10.12c, Utah Department of Transportation Research Division, Salt Lake City, 2011.
  34. Saito, M., B. K. Brimley\*, and **G. G. Schultz**. *Transportation Safety Data and Analysis: Volume 2: Calibration of the Highway Safety Manual and Development of New Safety Performance Functions*. Report No. UT-10.12b, Utah Department of Transportation Research Division, Salt Lake City, 2011.
  35. **Schultz, G. G.**, D. J. Thurgood\*, A. N. Olsen\*, and C. S. Reese. *Transportation Safety Data and Analysis: Volume 1: Analyzing the Effectiveness of Safety Measures Using Bayesian Methods*. Report No. UT-10.12a, Utah Department of Transportation Research Division, Salt Lake City, 2010.
  36. **Schultz, G. G.**, J. E. Searle\*, and M. Saito. *Understanding the Economics of Transportation in Utah*. Report No. UT-10.21, Utah Department of Transportation Research Divisions, Salt Lake City, 2010.
  37. **Schultz, G. G.**, and J. S. McGee\*. *Economic Development Criteria and Project Prioritization*. Report UT-09.07, Utah Department of Transportation Research Division, Salt Lake City, 2009.
  38. **Schultz, G. G.**, C. G. Allen\*, and D. L. Eggett. *Crashes in the Vicinity of Major Crossroads*. Report UT-08.25, Utah Department of Transportation Research Division, Salt Lake City, 2008.
  39. **Schultz, G. G.**, and E. Talbot\*. *Evaluation of Advance Warning Signal Installation, Phase II: Long-term Monitoring*. Report UT-08.04, Utah Department of Transportation Research Division, Salt Lake City, 2008.
  40. **Schultz, G. G.**, and H. T. Young\*. *A Safety Analysis of Fatigue and Drowsy Driving in the State of Utah*. Report UT-07.07, Utah Department of Transportation Research Division, Salt Lake City, 2007.
  41. **Schultz, G. G.**, and H. T. Young\*. *A Safety Analysis of Fatigue and Drowsy Driving in the State of Utah: Executive Summary*. Report UT-07.07a, Utah Department of Transportation Research Division, Salt Lake City, 2007.
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42. **Schultz, G. G.**, and A. P. Jensen\*. *Evaluation and Installation Guidelines for Utah Advance Warning Signal Systems*. Report UT-07.06, Utah Department of Transportation Research Division, Salt Lake City, 2007.
43. **Schultz, G. G.**, and K. T. Braley\*. *A Prioritization Process for Access Management Implementation in Utah*. Report UT-07.05, Utah Department of Transportation Research Division, Salt Lake City, 2007.
44. **Schultz, G. G.**, and K. T. Braley\*. *A Prioritization Process for Access Management Implementation in Utah: Executive Summary*. Report UT-07.05a, Utah Department of Transportation Research Division, Salt Lake City, 2007.
45. **Schultz, G. G.**, R. Peterson\*, B. C. Giles, and D. L. Eggett. *Evaluation of Advance Warning Signal Installation, Phase I Final Report*. Report UT-06.11, Utah Department of Transportation Research Division, Salt Lake City, 2006.
46. **Schultz, G. G.**, and L. W. Seegmiller\*. *Utah Commercial Motor Vehicle Weigh-in-Motion Data Analysis and Calibration Methodology*. Report UT-06.10, Utah Department of Transportation Research Division, Salt Lake City, 2006.
47. **Schultz, G. G.**, and J. S. Lewis\*. *Assessing the Safety Benefits of Access Management Techniques*. Report UT-06.08, Utah Department of Transportation Research Division, Salt Lake City, 2006.
48. **Schultz, G. G.**, M. Saito, A. L. Stewart\*, and C. Siler\*. *Assessing the Economic Impacts of Transportation Improvement Projects, Final Report*. Report UT-06.03, Utah Department of Transportation Research Division, Salt Lake City, 2006.
49. **Schultz, G. G.**, M. Saito, A. L. Stewart\*, and C. Siler\*. *Assessing the Economic Impacts of Transportation Improvement Projects, Executive Summary and Final Summary Report*. Report UT-06.03a, Utah Department of Transportation Research Division, Salt Lake City, 2006.
50. Eisele, W. L., W. E. Frawley, and **G. G. Schultz**. *Developing Access Management Guidelines for Texas*. Report FHWA/TX-02/4141-1, Texas Transportation Institute, Texas A&M University, College Station, 2002.
51. Thurgood, G. S., T. J. Taylor\*, R. C. Christensen\*, B. P. Walker\*, L. Cabell\*, and **G. G. Schultz\***. *Strategies to Reduce Recurring Interstate Congestion: Appendices A-E*. Report CEET.94-01, Department of Civil and Environmental Engineering, Brigham Young University, Provo, UT, 1994.

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**OTHER PUBLICATIONS** (\* denotes student co-author)

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**Published Total: 32**

1. **Schultz, G. G.** BYU and UDOT Partnership Develops Next Generation Transportation Safety Professionals. *West Region Transportation Workforce Center* (<http://wrtwc.org/success-stories/2019/byu-and-udot-partnership-develops-next-generation-transportation-safety-professionals/>), Western Transportation Institute, Montana State University, Bozeman, MT, 2019.
-

2. **Schultz, G. G.**, M. L. Seat\*, M. Saito, and W. Clegg\*. Utilizing LiDAR Data to Analyze Access Management Criteria in Utah. In *UDOT Research Newsletter – Summer 2017*, Utah Department of Transportation, Salt Lake City, UT, 2017.
  3. **Schultz, G. G.** and C. K. Haskell\*. Impact of Bicycle Corridors on Travel Demand in Utah. In *UDOT Research Newsletter – Winter 2016*, Utah Department of Transportation, Salt Lake City, UT, 2016.
  4. **Schultz, G. G.**, T. L. Jensen, and W. S. Jones. Use of Roadway Attributes in Hot-Spot Identification and Analysis. In *UDOT Research Newsletter – Fall 2015*, Utah Department of Transportation, Salt Lake City, UT, 2015.
  5. **Schultz, G. G.**, and K. Nichol. Hot Spot Identification and Analysis Methodology. In *UDOT Research Newsletter – Winter 2014*, Utah Department of Transportation, Salt Lake City, UT, 2014.
  6. **Schultz, G. G.**, E. S. Johnson\*, and C. W. Black\*. Modeling Safety in Utah. In *2013 Annual Meeting and Exhibit Compendium of Technical Papers* (on-line), Institute of Transportation Engineers, Boston, MA, and *2013 Western District Annual Meeting Compendium of Technical Papers* (on-line), Institute of Transportation Engineers, Phoenix, AZ, 2013.
  7. **Schultz, G. G.** Evaluating the Safety Effects of Signal Improvements. In *UDOT Research Newsletter – Summer 2013*, Utah Department of Transportation, Salt Lake City, UT, 2013.
  8. **Schultz, G. G.**, B. K. Brimley\*, and M. Saito. Calibration of the Highway Safety Manual (HSM) Safety Performance Functions (SPFs) and Development of Independent Models for Utah. In *2012 Western District Annual Meeting Compendium of Technical Papers* (on-line), Institute of Transportation Engineers, Santa Barbara, CA, 2012.
  9. **Schultz, G. G.**, and S. C. Dudley\*. Taking a Proactive Approach to Safety in Utah. In *2012 Western District Annual Meeting Compendium of Technical Papers* (on-line), Institute of Transportation Engineers, Santa Barbara, CA, 2012.
  10. **Schultz, G. G.**, D. J. Thurgood\*, and A. N. Olsen\*. A Hierarchical Bayesian Analysis of Safety Improvements in Utah. In *2011 Western District Annual Meeting Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Anchorage, AK, 2011.
  11. **Schultz, G. G.**, J. E. Searle\*, and J. Thomas. Economics of Transportation Projects in Utah. In *UDOT Research Division Newsletter – January 2011*, Utah Department of Transportation, Salt Lake City, UT, 2011.
  12. **Schultz, G. G.**, and C. G. Allen\*. The Safety Effects of Access Management Treatments in the Vicinity of Major Arterial Crossroads in Utah. In *2010 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Vancouver, Canada, and *2010 Western District Annual Meeting Compendium of Technical Papers* (USB), Institute of Transportation Engineers, San Francisco, CA, 2010.
  13. **Schultz, G. G.**, and J. S. McGee\*. Prioritizing Transportation Projects in Utah using Economic Development Criteria. In *2010 Western District Annual Meeting Compendium of Technical Papers* (USB), Institute of Transportation Engineers, San Francisco, CA, 2010.
-

14. **Schultz, G. G.** The Use of Crash Data in Transportation Safety Studies in Utah. In *2009 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, San Antonio, TX, and *2009 Western District Annual Meeting Compendium of Technical Papers* (USB), Institute of Transportation Engineers, Denver, CO, 2009.
  15. **Schultz, G. G.** Advance Warning Signals: The Final Chapter. In *2009 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, San Antonio, TX, and *2009 Western District Annual Meeting Compendium of Technical Papers* (USB), Institute of Transportation Engineers, Denver, CO, 2009.
  16. **Schultz, G. G.**, and H. T. Young\*. A Low-Cost Approach to Address Fatigue and Drowsy Driving. In *2009 Western District Annual Meeting Compendium of Technical Papers* (USB), Institute of Transportation Engineers, Denver, CO, 2009.
  17. **Schultz, G. G.**, K. T. Braley\*, and T. Boschert. Prioritizing Access Management Implementation. In *Transportation Research Board 8<sup>th</sup> National Conference on Access Management Compendium of Technical Papers* (CD-ROM), Transportation Research Board of the National Academies, Baltimore, MD, 2008.
  18. **Schultz, G. G.**, J. S. Lewis\*, and T. Boschert. Evaluating the Impact of Raised Median Installations. In *2007 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Pittsburg, PA, and *2007 Western District Annual Meeting Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Portland, OR, 2007.
  19. **Schultz, G. G.**, J. S. Lewis\*, and T. Boschert. Safety Impacts of Access Management Techniques in Utah. In *Transportation Research Board 7<sup>th</sup> National Conference on Access Management Compendium of Technical Papers* (CD-ROM), Transportation Research Board of the National Academies, Park City, UT, 2006.
  20. **Schultz, G. G.**, R. Peterson\*, B. C. Giles, and S. J. Lewis. Assessing the Safety Benefits of Advance Warning Signals. In *2006 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Milwaukee, WI, *2006 Western District Annual Meeting Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Honolulu, HI, and *2006 Institute of Transportation Engineers Intermountain Section Meeting Papers*, Jackson, WY, 2006. This paper received the Outstanding Paper and Presentation Award at the Intermountain Section Meeting.
  21. **Schultz, G. G.** Publish and Prosper, Observations of a New Assistant Professor in Transportation. In *Transportation Education Council Newsletter*, Institute of Transportation Engineers, Washington, DC, 2005.
  22. **Schultz, G. G.**, and L. R. Rilett. Estimating Infrastructure Impacts Using ITS Data and Traffic Simulation Models. In *2005 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Melbourne, VIC, Australia, and *2005 Western District Annual Meeting Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Kalispell, MT, 2005.
  23. **Schultz, G. G.** *Developing a Methodology to Account for Commercial Motor Vehicles Using Microscopic Traffic Simulation Models*. Ph.D. dissertation, Texas A&M University, College Station, 2003.
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24. **Schultz, G. G.** Advanced Technology Warning Devices: A Survey of United States Practice. In *2003 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Seattle, WA, 2003.
25. **Schultz, G. G.** The Use of ITS Technologies to Develop Commercial Motor Vehicle Weight Distributions. In *2003 Integrative Graduate Education and Research Traineeship Student Research Conference Compendium of Papers and Presentations* (CD-ROM), Institute of Transportation Studies, University of California, Davis, 2003.
26. **Schultz, G. G.**, W. L. Eisele, and W. E. Frawley. Implementing a Comprehensive Access Management Program in the State of Texas. In *2002 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Philadelphia, PA, 2002.
27. **Schultz, G. G.**, W. L. Eisele, and W. E. Frawley. Technical Issues Encountered in Developing a Comprehensive Access Management Program in the State of Texas. In *Transportation Research Board 5<sup>th</sup> National Conference on Access Management Compendium of Technical Papers* (CD-ROM), Transportation Research Board of the National Academies, Austin, TX, 2002.
28. **Schultz, G. G.** Advanced Technology Warning Devices to Improve Motorist Response to Unexpected Conditions. In *Compendium: Papers on Advanced Surface Transportation Systems, 2001* (C. L. Dudek, ed.). Report SWUTC/01/473700-00003-3. Southwest Region University Transportation Center, Texas Transportation Institute, Texas A&M University, College Station, 2001, pp. 242–278.
29. **Schultz, G. G.**, and P. I. Doctors. Utah's First Modern Roundabout Interchange – St. George, Utah. In *2001 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Chicago, IL, 2001.
30. Adams, D. D., P. J. Mannix, and **G. G. Schultz**. Closing Main Street – Salt Lake City, Utah. In *2000 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Nashville, TN, 2000.
31. **Schultz, G. G.** Salt Lake City Intermodal Center: Providing a Transit Interface along the Wasatch Front. In *1999 Annual Meeting and Exhibit Compendium of Technical Papers* (CD-ROM), Institute of Transportation Engineers, Las Vegas, NV, 1999.
32. **Schultz, G. G.** Main Street Closure – An Analysis Using TRAF NETSIM. In *1997 Western District Annual Meeting Compendium of Technical Papers*, Institute of Transportation Engineers, Salt Lake City, UT, 1997.

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**SCHOLARLY PRESENTATIONS** (\* denotes student co-presenter)

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**International and National Total: 83 (5 invited)**

1. **Schultz, G. G.** *Evaluating the Impacts of Signal Preemption on Snowplow Operations in Utah*. Poster presentation at the 2022 Institute of Transportation Engineers Annual Meeting and Exhibit, New Orleans, LA, August 2022.
  2. **Schultz, G. G.** *Evaluating Pedestrian Walking Speeds at Signalized Intersections*. Presentation at the 6<sup>th</sup> International Symposium on Highway Geometric Design, Featuring the 6<sup>th</sup> Urban Streets Symposium, Amsterdam, NL, June 2022.
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3. **Schultz, G. G.** *Using Complementary Intersection and Segment Analyses to Identify Crash Hotspots.* Virtual Presentation at the 8<sup>th</sup> Road Safety & Simulation International Conference, Athens, GR, June 2022.
  4. **Schultz, G. G.** *The Benefits of Expanding the Incident Management Program in Utah.* Presentation at the American Society of Civil Engineers International Conference on Transportation & Development, Seattle, WA, June 2022.
  5. **Schultz, G. G.** *Striving for Zero Fatalities using a Suite of Safety Analysis Tools in Utah.* Presentation at the 2021 Institute of Transportation Engineers Annual Meeting and Exhibit, Virtual Conference, August 2021.
  6. **Schultz, G. G.** *User Cost Analysis of UDOT's Traffic Incident Management Program.* Presentation at the American Society of Civil Engineers International Conference on Transportation & Development, Virtual Conference, June 2021.
  7. **Schultz, G. G.** *Performance Measure Evaluation of UDOT's Traffic Incident Management Program.* Presentation at the American Society of Civil Engineers International Conference on Transportation & Development, Virtual Conference, June 2021.
  8. Sheffield, M. H.\* and **G. G. Schultz.** *A Sensitivity Analysis on the Transit Signal Priority Requesting Threshold and the Impact on Bus Performance and General Traffic.* Poster presentation at the Transportation Research Board 100<sup>th</sup> Annual Meeting, Virtual Conference, January 2021.
  9. **Schultz, G. G.** *Transit Signal Priority and Requesting Thresholds – Is There a Connection?* Presentation at the 2020 Institute of Transportation Engineers Annual Meeting and Exhibit, Virtual Conference, August 2020.
  10. **Schultz, G. G.** *Measuring Driver Compliance at Enhanced Pedestrian Crossings.* Presentation at the Transportation Research Board 99<sup>th</sup> Annual Meeting, Washington, DC, January 2020.
  11. Berrett, J. J.\* and **G. G. Schultz.** *Pedestrian Walking Speeds at Signalized Intersections in Utah.* Poster presentation at the Transportation Research Board 99<sup>th</sup> Annual Meeting, Washington, DC, January 2020.
  12. Adamson, M. L.\* and **G. G. Schultz.** *Developing Decision Boundaries for Left-Turn Treatments.* Poster presentation at the Transportation Research Board 99<sup>th</sup> Annual Meeting, Washington, DC, January 2020.
  13. Hadfield, M.\* and **G. G. Schultz.** *Analyzing the Benefits of Incident Management Programs in Utah.* Presentation at the 2019 Institute of Transportation Engineers Annual Meeting and Exhibit, Austin, TX, July 2019.
  14. **Schultz, G. G.** *Improving Compliance at Enhanced Pedestrian Crossings – Solutions that Work.* Presentation at the 2019 Institute of Transportation Engineers Annual Meeting and Exhibit, Austin, TX, July 2019.
  15. **Schultz, G. G.** *A Methodology for Analyzing Intersection Safety.* Presentation at the American Society of Civil Engineers International Conference on Transportation & Development, Alexandria, VA, June 2019.
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16. **Schultz, G. G.** *Analyzing the Safety Impacts of Raised Median Islands.* Presentation at the American Society of Civil Engineers International Conference on Transportation & Development, Alexandria, VA, June 2019.
  17. Seat, C. J.\*, B. W. Clegg\*, M. Saito, and **G. G. Schultz.** *Crash Severity Distributions for Life-Cycle Benefit-Cost Analysis of Safety-Related Improvements on Utah Roadways.* Poster presentation at the Transportation Research Board 98<sup>th</sup> Annual Meeting, Washington, DC, January 2019.
  18. **Schultz, G. G.** *Using the Surrogate Safety Assessment Model to Evaluate Access Management Alternatives.* Poster presentation at the 2018 Institute of Transportation Engineers Annual Meeting and Exhibit, Minneapolis, MN, August 2018.
  19. **Schultz, G. G.** *Using LiDAR Data to Analyze Access Categories and Raised Median Safety in Utah.* Presentation at the Transportation Research Board 12<sup>th</sup> National Conference on Access Management, Madison, WI, July 2018.
  20. **Schultz, G. G.** *Evaluating Safety Impacts of Access Management using the Surrogate Safety Assessment Model (SSAM).* Presentation at the Transportation Research Board 12<sup>th</sup> National Conference on Access Management, Madison, WI, July 2018.
  21. **Schultz, G. G.** *Using LiDAR Data to Analyze the Safety Impacts of Raised Medians.* Presentation at the Transportation Research Board 97<sup>th</sup> Annual Meeting, Washington, DC, January 2018.
  22. **Schultz, G. G.** *Roadway Safety Modeling in Utah using the Roadway Safety Analysis Methodology.* Presentation at the Road Safety and Simulation International Conference 2017 (RSS2017), The Hague, Netherlands, October 2017.
  23. **Schultz, G. G.** *Zero Fatalities: Applying the Roadway Safety Analysis Methodology in Utah.* Presentation at the 2017 Institute of Transportation Engineers Annual Meeting and Exhibit, Toronto, ON, August 2017.
  24. Frustaci, J. B.\*, M. Saito, and **G. G. Schultz.** *Implementing Highway Safety Manual Life-Cycle Benefit-Cost Analysis of Safety Improvements.* Poster presentation at the Transportation Research Board 96<sup>th</sup> Annual Meeting, Washington, DC, January 2017.
  25. Mineer, S. T.\*, **G. G. Schultz,** and M. Saito. *Application of the Roadway Safety Analysis Methodology in Utah.* Poster presentation at the Transportation Research Board 96<sup>th</sup> Annual Meeting, Washington, DC, January 2017.
  26. Sanchez, G.\*, M. Saito, **G. G. Schultz,** and D. L. Eggett. *Use of High-Resolution Data to Evaluate Accuracy of Mean and 85<sup>th</sup>-Percentile Approach Speeds Collected by Microwave Sensors.* Poster presentation at the Transportation Research Board 96<sup>th</sup> Annual Meeting, Washington, DC, January 2017.
  27. **Schultz, G. G.** *Analyzing Safety of Access Management Implementation on Utah Roadways.* Presented at the 3<sup>rd</sup> International Conference on Access Management, Pretoria, South Africa, July 2016.
  28. **Schultz, G. G.** *Access Management and the Transportation Research Board (Keynote Address).* Presented at the 3<sup>rd</sup> International Conference on Access Management, Pretoria, South Africa, July 2016 (invited).
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29. **Schultz, G. G.**, S. T. Mineer\*, and C. A. Hamblin\*. *An Analysis of Express Lanes in Utah*. Presented at the International Symposium on Enhancing Highway Performance (ISEHP), Berlin, Germany, June 2016.
  30. **Schultz, G. G.**, D. R. Bassett\*, and M. Saito. *Use of Roadway Attributes in Hot Spot Identification and Analysis*. Poster presentation at the Transportation Research Board 95<sup>th</sup> Annual Meeting, Washington, DC, January 2016.
  31. Knecht, C.\* , M. Saito, and **G. G. Schultz**. *Crash Prediction Modeling for Curved Segments of Rural Two-Lane Highways in Utah*. Poster presentation at the Transportation Research Board 95<sup>th</sup> Annual Meeting, Washington, DC, January 2016.
  32. **Schultz, G. G.** *Safety Hot Spot Analysis Methodology in Utah*. Presentation at the 2015 Institute of Transportation Engineers Annual Meeting and Exhibit, Hollywood, FL, August 2015.
  33. **Schultz, G. G.**, J. S. Farnsworth\*, and M. Saito. *Hot Spot Identification and Analysis Methodology for Roadway Safety*. Poster presentation at the Transportation Research Board 94<sup>th</sup> Annual Meeting, Washington, DC, January 2015.
  34. **Schultz, G. G.**, and S. T. Mineer\*. *Carousel Method: A Reliable Method for Collecting Average Vehicle Occupancy Data for Multi-Lane Freeways*. Poster presentation at the Transportation Research Board 94<sup>th</sup> Annual Meeting, Washington, DC, January 2015.
  35. **Schultz, G. G.** *Safety Analysis of Access Management Implementation in Utah*. Presented at the 2<sup>nd</sup> International Conference on Access Management, Shanghai, China, September 2014.
  36. **Schultz, G. G.** *An Assessment of Raised Median Impacts in Utah*. Presented at the 2<sup>nd</sup> International Conference on Access Management, Shanghai, China, September 2014.
  37. **Schultz, G. G.** *Signalized Intersection Safety in Utah*. Presentation at the 2014 Institute of Transportation Engineers Annual Meeting and Exhibit, Seattle, WA, August 2014.
  38. **Schultz, G. G.** *GIS Framework for Hierarchical Bayesian based Crash Data Analysis*. Presentation at the Transportation & Development Institute (T&DI) Congress 2014: Planes, Trains, and Automobiles, Orlando, FL, June 2014.
  39. **Schultz, G. G.** *Evaluating the Safety Effects of Signal Improvements*. Poster presentation at the Transportation Research Board 93<sup>rd</sup> Annual Meeting, Washington, DC, January 2014.
  40. **Schultz, G. G.** *Modeling Safety in Utah*. Presentation at the 2013 Institute of Transportation Engineers Annual Meeting and Exhibit, Boston, MA, August 2013.
  41. **Schultz, G. G.** *Access Management: The US Introduction*. Workshop Presentation at Tongji University, Shanghai, China, July 2013 (invited).
  42. **Schultz, G. G.** *Framework for Highway Safety Mitigation: The Utah Experience*. Presentation at Tongji University, Shanghai, China, June 2013 (invited).
  43. **Schultz, G. G.** *Safety Benefits of Median Installations in Utah*. Presentation at the Transportation Research Board 10<sup>th</sup> National Conference on Access Management, Dallas, TX, July 2012.
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44. Brimley, B. K.\*, M. Saito, and **G. G. Schultz**. *Calibration of the Highway Safety Manual Safety Performance Function and Development of New Models for Rural Two-Lane Two-Way Highways*. Poster presentation at the Transportation Research Board 91<sup>st</sup> Annual Meeting, Washington, DC, January 2012.
  45. **Schultz, G. G.** *A Hierarchical Bayesian Analysis of Safety Improvements in Utah*. Poster presentation at the 2011 Institute of Transportation Engineers Annual Meeting and Exhibit, St. Louis, MO, August 2011.
  46. **Schultz, G. G.** *Are Free Right-Turn Channelized Intersections Performing as They Should?* Poster presentation at the 2011 Institute of Transportation Engineers Annual Meeting and Exhibit, St. Louis, MO, August 2011.
  47. **Schultz, G. G.** *Modeling Crashes on Rural Two-Lane Roads in Utah*. Presented at the Highway Safety Manual (HSM) Lead State Peer-Exchange Meeting, Irvine, CA, August 2011 (invited).
  48. **Schultz, G. G.** *Safety Analysis of Access Management Implementation in Utah*. Presented at the 1<sup>st</sup> International Conference on Access Management, Athens, Greece, June 2011.
  49. **Schultz, G. G.** *Analyzing Raised Median Safety Impacts Using Bayesian Techniques*. Presentation at the Transportation Research Board 90<sup>th</sup> Annual Meeting, Washington, DC, January 2011.
  50. **Schultz, G. G.** *Hierarchical Bayesian Modeling for Before and After Studies*. Poster presentation at the Transportation Research Board 90<sup>th</sup> Annual Meeting, Washington, DC, January 2011.
  51. **Schultz, G. G.** *Making the Most of the Existing System Through Access Management at Major Arterial Intersections*. Presentation at the Transportation Research Board 9<sup>th</sup> National Conference on Access Management, Natchez, MS, October 2010.
  52. **Schultz, G. G.** *The Safety Effects of Access Management Treatments in the Vicinity of Major Arterial Crossroads in Utah*. Presentation at the 2010 Institute of Transportation Engineers Annual Meeting and Exhibit, Vancouver, Canada, August 2010.
  53. Winters, K. E.\*, and **G. G. Schultz**. *Median Crossover Crashes in the Vicinity of Interchanges*. Poster presentation at the Transportation Research Board 89<sup>th</sup> Annual Meeting, Washington, DC, January 2010.
  54. **Schultz, G. G.** *Making the Most of the Existing System Through Access Management at Major Arterial Intersections*. Presentation at the Transportation Research Board 89<sup>th</sup> Annual Meeting, Washington, DC, January 2010.
  55. **Schultz, G. G.** *The Use of Crash Data in Transportation Safety Studies in Utah*. Presentation at the 2009 Institute of Transportation Engineers Annual Meeting and Exhibit, San Antonio, TX, August 2009.
  56. **Schultz, G. G.** *Advance Warning Signals: The Final Chapter*. Presentation at the 2009 Institute of Transportation Engineers Annual Meeting and Exhibit, San Antonio, TX, August 2009.
  57. **Schultz, G. G.** *Prioritizing Access Management Implementation*. Presentation at the Transportation Research Board 88<sup>th</sup> Annual Meeting, Washington, DC, January 2009.
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58. **Schultz, G. G.** *Advance Warning Signals: Long-term Monitoring Results.* Presentation at the Transportation Research Board 88<sup>th</sup> Annual Meeting, Washington, DC, January 2009.
  59. **Schultz, G. G.** *Prioritizing Access Management Implementation.* Presentation at the Transportation Research Board 8<sup>th</sup> National Conference on Access Management, Baltimore, MD, July 2008.
  60. **Schultz, G. G.** *Locating the Decision Zone on a High-Speed Signalized Intersection Approach.* Presentation at the 10<sup>th</sup> International Conference on Applications of Advanced Technologies in Transportation, Athens, Greece, May 2008.
  61. **Schultz, G. G.** *Evaluation and Installation Guidelines for Advance Warning Signal Systems.* Presentation at the 10<sup>th</sup> International Conference on Applications of Advanced Technologies in Transportation, Athens, Greece, May 2008.
  62. **Schultz, G. G.** *Sensitivity Analysis of Driver Behavior and Vehicle Performance Parameters in a Microscopic Traffic Simulation Model.* Presentation at the 10<sup>th</sup> International Conference on Applications of Advanced Technologies in Transportation, Athens, Greece, May 2008.
  63. **Schultz, G. G.** *Utah Commercial Motor Vehicle Weigh-in-Motion Calibration: Current Practice and Recommended Procedure.* Presentation at the 5<sup>th</sup> International Conference on Weigh-in-Motion of Heavy Vehicles, Paris, France, May 2008.
  64. **Schultz, G. G.,** and H. T. Young\*. *Evaluating Safety Benefits of Drowsy Driving Signage.* Poster presentation at the Transportation Research Board 87<sup>th</sup> Annual Meeting, Washington, DC, January 2008.
  65. **Schultz, G. G.** *Correlating Access Management to Crash Rate, Severity, and Collision Type.* Presentation at the Transportation Research Board 87<sup>th</sup> Annual Meeting, Washington, DC, January 2008.
  66. **Schultz, G. G.** *Evaluating the Impact of Raised Median Installations.* Presentation at the 2007 Institute of Transportation Engineers Annual Meeting and Exhibit, Pittsburg, PA, August 2007.
  67. **Schultz, G. G.** *Safety Impacts of Access Management Techniques in Utah.* Presentation at the Transportation Research Board 86<sup>th</sup> Annual Meeting, Washington, DC, January 2007.
  68. **Schultz, G. G.** *Evaluating the Long Term Effectiveness of Blank-Out Overhead Dynamic Advance Warning Signals.* Poster presentation at the Transportation Research Board 86<sup>th</sup> Annual Meeting, Washington, DC, January 2007.
  69. **Schultz, G. G.** *Safety Impacts of Access Management Techniques in Utah.* Presentation at the Transportation Research Board 7<sup>th</sup> National Conference on Access Management, Park City, UT, August 2006.
  70. **Schultz, G. G.** *Assessing the Safety Benefits of Advance Warning Signals.* Presentation at the 2006 Institute of Transportation Engineers Annual Meeting and Exhibit, Milwaukee, WI, August 2006.
  71. **Schultz, G. G.** *Advance Warning Signals: An Evaluation of Effectiveness.* Traffic Control Devices Committee (AHB50) Meeting presentation at the Transportation Research Board 85<sup>th</sup> Annual Meeting, Washington, DC, January 2006 (invited).
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72. **Schultz, G. G.** *Calibration of the Vehicle Behavior and Car-Following Sensitivity Parameters in CORSIM.* Presentation at the Traffic Modeling Workshop: Simulation Models: From the Labs to the Trenches, Sedona, AZ, September 2005.
  73. **Schultz, G. G.** *Estimating Infrastructure Impacts Using ITS Data and Traffic Simulation Models.* Presentation at the 2005 Institute of Transportation Engineers Annual Meeting and Exhibit, Melbourne, VIC, Australia, August 2005.
  74. **Schultz, G. G.** *Calibrating CORSIM Commercial Motor Vehicle Distributions.* Poster presentation at the Transportation Research Board 84<sup>th</sup> Annual Meeting, Washington, DC, January 2005.
  75. **Schultz, G. G.** *The Use of Weigh-in-Motion Data to Develop Commercial Motor Vehicle Weight and Length Distributions at Vehicle Classification Sites.* Presentation at the Transportation Research Board 84<sup>th</sup> Annual Meeting, Washington, DC, January 2005.
  76. **Schultz, G. G.** *An Analysis of the Distribution and Calibration of Car-Following Sensitivity Parameters in Microscopic Traffic Simulation Models.* Poster presentation at the Transportation Research Board 83<sup>rd</sup> Annual Meeting, Washington, DC, January 2004.
  77. **Schultz, G. G.** *Advanced Technology Warning Devices: A Survey of United States Practice.* Presentation at the 2003 Institute of Transportation Engineers Annual Meeting and Exhibit, Seattle, WA, August 2003.
  78. **Schultz, G. G.** *The Use of ITS Technologies to Develop Commercial Motor Vehicle Weight Distributions.* Presentation at the Integrative Graduate Education and Research Traineeship Student Research Conference on Advanced Transportation Technologies, University of California, Davis, June 2003.
  79. **Schultz, G. G.** *Implementing a Comprehensive Access Management Program in the State of Texas.* Presentation at the 2002 Institute of Transportation Engineers Annual Meeting and Exhibit, Philadelphia, PA, August 2002.
  80. **Schultz, G. G.** *Technical Issues Encountered in Developing a Comprehensive Access Management Program in the State of Texas.* Presentation at the Transportation Research Board 5<sup>th</sup> National Conference on Access Management, Austin, TX, June 2002.
  81. **Schultz, G. G.** *Utah's First Modern Roundabout Interchange – St. George, Utah.* Presentation at the 2001 Institute of Transportation Engineers Annual Meeting and Exhibit, Chicago, IL, August 2001.
  82. **Schultz, G. G.** *Closing Main Street – Salt Lake City, Utah.* Presentation at the 2000 Institute of Transportation Engineers Annual Meeting and Exhibit, Nashville, TN, August 2000.
  83. **Schultz, G. G.** *Salt Lake City Intermodal Center: Providing a Transit Interface along the Wasatch Front.* Poster presentation at the 1999 Institute of Transportation Engineers Annual Meeting and Exhibit, Las Vegas, NV, August 1999.
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**Regional and Local Total: 66 (5 invited)**

1. Ward, C. K.\*, and **G. G. Schultz**. *An Evaluation of the Safe Speed Limit Setting Procedure and Tool for Utah*. Presentation at the 2022 Utah Department of Transportation Annual Conference, Salt Lake City, UT, October 2022.
  2. **Schultz, G. G.** *Evaluating the Impacts of Signal Preemption on Snowplow Operations in Utah*. Presentation at the 2022 Institute of Transportation Engineers Mountain District Annual Meeting, Boise, ID, June 2022.
  3. **Schultz, G. G.** *Using Occupancy Data to Estimate Ramp Meter Wait Time in Utah*. Presentation at the 2022 Institute of Transportation Engineers Mountain District Annual Meeting, Boise, ID, June 2022.
  4. Andersen, S.\*, G. S. Macfarlane, and **G. G. Schultz**. *Developing a New Method to Analyze Speed and Braking Data Using V2X Technology*. Poster Presentation at the 2022 Utah Conference on Undergraduate Research (UCUR), Dixie State University, St. George, UT, February 2022.
  5. Lau, S.\*, and **G. G. Schultz**. *Analysis of the Effectiveness of DSRC on Snowplow Operations in Utah*. Presentation at the 2021 Utah Department of Transportation Annual Conference, Salt Lake City, UT, October 2021.
  6. Sheffield, M. S.\*, and **G. G. Schultz**. *Analysis of Connected Vehicle Transit Signal Priority Effectiveness and Impacts*. Presentation at the 2019 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2019 (invited).
  7. **Schultz, G. G.** *Compliance at Pedestrian Crossings*. Presentation at the 2019 Institute of Transportation Engineers Western District Annual Meeting, Monterey, CA, June 2019.
  8. **Schultz, G. G.** *Pedestrian Walking Speeds at Signalized Intersections in Utah*. Presentation at the 2018 Pedestrian Summit, Kearns, UT, November 2018.
  9. **Schultz, G. G.** *Analysis of Access Category Guidelines in Utah*. Presentation at the 2018 Institute of Transportation Engineers Joint Western and Texas District Annual Meeting, Keystone, CO, June 2018.
  10. **Schultz, G. G.** *Zero Fatalities: Applying the Roadway Safety Analysis Methodology in Utah*. Presentation at the 2017 Institute of Transportation Engineers Western District Annual Meeting, San Diego, CA, June 2017.
  11. **Schultz, G. G.** *So What's a Bike Lane in Utah Good For, Anyway?* Presentation at the 2017 Institute of Transportation Engineers Western District Annual Meeting, San Diego, CA, June 2017.
  12. **Schultz, G. G.** *Application of the Roadway Safety Analysis Methodology in Utah*. Presentation at the 2017 Institute of Transportation Engineers Intermountain Section Meeting, Jackson, WY, May 2017.
  13. **Schultz, G. G.** *So What's a Bike Lane Good For, Anyway?* Presentation at the 2015 Annual Utah Department of Transportation Annual Conference, Salt Lake City, UT, October 2015.
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14. Farnsworth, J. S.\*, and **G. G. Schultz**. *Safety Hot Spot Analysis Methodology in Utah*. Presentation at the 2015 Institute of Transportation Engineers Western District Annual Meeting, Las Vegas, NV, July 2015.
  15. Mineer, S. T.\*, and **G. G. Schultz**. *Using the Carousel Method to Collect Average Vehicle Occupancy Data for Multi-Lane Freeways*. Presentation at the 2015 Institute of Transportation Engineers Western District Annual Meeting, Las Vegas, NV, July 2015.
  16. **Schultz, G. G.** *Hot Spot Identification and Analysis Methodology for Roadway Safety*. Poster presentation at the 2015 Annual Utah Chapter Institute of Transportation Engineers Conference, Salt Lake City, UT, January 2015.
  17. **Schultz, G. G.** *Carousel Method: A Reliable Method for Collecting Average Vehicle Occupancy Data for Multi-Lane Freeways*. Poster presentation at the 2015 Annual Utah Chapter Institute of Transportation Engineers Conference, Salt Lake City, UT, January 2015.
  18. **Schultz, G. G.** *Utah Crash Prediction Model: Where are We Now?* Presentation at the 2014 Utah Department of Transportation Annual Conference, Salt Lake City, UT, October 2014.
  19. **Schultz, G. G.** *Utah Crash Prediction Model: Where are We Now?* Presentation at the Civil & Environmental Engineering Scholarship Society Life-Long Learning Conference, Provo, UT, October 2014.
  20. **Schultz, G. G.** *An Assessment of Raised Median Economic Impacts in Utah*. Presentation at the 2014 Institute of Transportation Engineers Joint Western & Midwestern District Annual Meeting, Rapid City, SD, June/July 2014.
  21. **Schultz, G. G.** *Ethics of our Profession*. Presentation at the 2014 Institute of Transportation Engineers Joint Western & Midwestern District Annual Meeting, Rapid City, SD, June/July 2014.
  22. **Schultz, G. G.** *Signalized Intersection Safety in Utah*. Presentation at the 2014 Institute of Transportation Engineers Intermountain Section Meeting, Jackson, WY, May 2014.
  23. **Schultz, G. G.** *Evaluating the Safety Effects of Signal Improvements*. Poster presentation at the 2014 Annual Utah Chapter Institute of Transportation Engineers Conference, Salt Lake City, UT, January 2014.
  24. **Schultz, G. G.** *Evaluating the Safety Effects of Signal Improvements*. Presentation at the 2013 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2013.
  25. **Schultz, G. G.** *Modeling Safety in Utah*. Presentation at the 2013 American Public Works Association (APWA) Fall Conference & Stormwater Expo, Salt Lake City, UT, October 2013 (invited).
  26. Farnsworth, J. S.\*, and **G. G. Schultz**. *Modeling Safety in Utah*. Presentation at the 2013 Institute of Transportation Engineers Western District Annual Meeting, Phoenix, AZ, July 2013.
  27. **Schultz, G. G.** *Traffic & Safety Statewide GIS Modeling*. Presentation at the 2012 Utah Department of Transportation Annual Conference, Salt Lake City, UT, October 2012.
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28. **Schultz, G. G.** *Calibration of the Highway Safety Manual (HSM) Safety Performance Functions (SPFs) and Development of Independent Models for Utah.* Poster presentation at the 2012 Utah Department of Transportation Annual Conference, Salt Lake City, UT, October 2012.
  29. **Schultz, G. G.** *Taking a Proactive Approach to Safety in Utah.* Presentation at the 2012 Institute of Transportation Engineers Western District Annual Meeting, Santa Barbara, CA, June 2012.
  30. **Schultz, G. G.** *Calibration of the Highway Safety Manual (HSM) Safety Performance Functions (SPFs) and Development of Independent Models for Utah.* Presentation at the 2012 Institute of Transportation Engineers Western District Annual Meeting, Santa Barbara, CA, June 2012.
  31. **Schultz, G. G.** *Improving Roadway Safety Statewide.* Presentation at the 2011 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2011.
  32. **Schultz, G. G.** *A Hierarchical Bayesian Analysis of Safety Improvements in Utah.* Presentation at the 2011 Institute of Transportation Engineers Western District Annual Meeting, Anchorage, AK, July 2011.
  33. **Schultz, G. G.** *Analyzing Safety Using Bayesian Techniques.* Presentation at the 2010 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2010.
  34. **Schultz, G. G.** *Prioritizing Transportation Projects in Utah using Economic Development Criteria.* Presentation at the 2010 Institute of Transportation Engineers Western District Annual Meeting, San Francisco, CA, June 2010.
  35. **Schultz, G. G.** *The Safety Effects of Access Management Treatments in the Vicinity of Major Arterial Crossroads in Utah.* Presentation at the 2010 Institute of Transportation Engineers Western District Annual Meeting, San Francisco, CA, June 2010.
  36. **Schultz, G. G.** *Economic Development Criteria and Project Prioritization.* Presentation at the 2009 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2009.
  37. **Schultz, G. G.** *The Use of Crash Data in Transportation Safety Studies in Utah.* Presentation at the 2009 Institute of Transportation Engineers Western District Annual Meeting, Denver, CO, July 2009.
  38. **Schultz, G. G.** *A Low-Cost Approach to Address Fatigue and Drowsy Driving.* Presentation at the 2009 Institute of Transportation Engineers Western District Annual Meeting, Denver, CO, July 2009.
  39. **Schultz, G. G.** *Advance Warning Signals: The Final Chapter.* Poster presentation at the 2009 Institute of Transportation Engineers Western District Annual Meeting, Denver, CO, July 2009.
  40. **Schultz, G. G.** *Evaluation of Advance Warning Signals on Bangerter Highway.* Presentation at the American Society of Civil Engineers Central Utah Branch Meeting, Provo, UT, February 2009 (invited).
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41. **Schultz, G. G.** *Evaluation of Advance Warning Signals on Bangerter Highway.* Presentation at the 2009 Institute of Transportation Engineers Utah Chapter Seminar, Salt Lake City, UT, January 2009.
  42. **Schultz, G. G.**, and C. G. Allen\*. *Crashes in the Vicinity of Major Crossroads.* Presentation at the 2008 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2008.
  43. **Schultz, G. G.** *A Safety Analysis of Fatigue and Drowsy Driving.* Presentation at the Montana State University College of Engineering 2008 Fall Seminar Series, Bozeman, MT, October 2008 (invited).
  44. **Schultz, G. G.** *Transportation Engineering.* Presentation at the Montana State University Institute of Transportation Engineers Student Chapter Meeting, Bozeman, MT, October 2008 (invited).
  45. **Schultz, G. G.**, and K. T. Braley\*. *A Prioritization Process for Access Management Implementation in Utah.* Presentation at the 2007 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2007.
  46. **Schultz, G. G.** *Advance Warning Signal Systems.* Presentation at the 2007 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2007.
  47. **Schultz, G. G.**, and H. T. Young\*. *A Safety Analysis of Fatigue and Drowsy Driving in the State of Utah.* Presentation at the 2007 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2007.
  48. **Schultz, G. G.** *Evaluating the Impact of Raised Median Installations.* Presentation at the 2007 Institute of Transportation Engineers Western District Annual Meeting, Portland, OR, July 2007.
  49. **Schultz, G. G.**, and A. L. Stewart\*. *Assessing the Economic Impacts of Transportation Improvement Projects.* Presentation at the 2006 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2006.
  50. **Schultz, G. G.**, and J. S. Lewis\*. *Assessing the Safety Impacts of Access Management Techniques.* Presentation at the 2006 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2006.
  51. **Schultz, G. G.** *Advanced Warning Signals at High-Speed Isolated Intersections.* Presentation at the 2006 Fall Transportation Conference, Las Vegas, NV, October 2006.
  52. **Schultz, G. G.** *Assessing the Safety Benefits of Advance Warning Signals.* Presentation at the 2006 District 6 Institute of Transportation Engineers Annual Meeting, Honolulu, HI, June 2006.
  53. **Schultz, G. G.**, and S. J. Lewis. *Advance Warning Signals at Isolated High-Speed Intersections.* Presentation at the 2006 Institute of Transportation Engineers Intermountain Section Meeting, Jackson, WY, May 2006.
  54. **Schultz, G. G.**, S. J. Lewis, and M. Taylor. *Evaluation of Bangerter Highway Advance Warning Signal Installation.* Presentation at the 2006 Institute of Transportation Engineers Utah Chapter Seminar, Salt Lake City, UT, January 2006.
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55. **Schultz, G. G.**, S. J. Lewis, and M. Taylor. *Evaluation of Bangerter Highway Advance Warning Signal Installation*. Presentation at the 2005 Utah Department of Transportation Annual Conference, Salt Lake City, UT, November 2005.
56. **Schultz, G. G.** *Estimating Infrastructure Impacts Using ITS Data and Traffic Simulation Models*. Presentation at the 2005 District 6 Institute of Transportation Engineers Annual Meeting, Kalispell, MT, July 2005.
57. **Schultz, G. G.** *Advanced Technology Warning Devices: A Survey of United States Practice*. Presentation at the 2002 TexITE (District 9) Summer Meeting, League City, TX, June 2002.
58. **Schultz, G. G.** *Traffic Access and Impact Studies for Site Development*. Presentation at the ASCE Southern Utah Chapter Meeting, Washington City, UT, August 2000.
59. **Schultz, G. G.** *Salt Lake City Gateway – Where Are We Now?* Presentation at the 2000 Institute of Transportation Engineers Intermountain Section Meeting, Jackson, WY, May 2000.
60. **Schultz, G. G.** *Salt Lake City Gateway Area Railroad Consolidation Project*. Presentation at the 1998 Utah Department of Transportation Annual Conference, Snowbird, UT, November 1998.
61. **Schultz, G. G.** *Salt Lake City Gateway Area Railroad Consolidation Project*. Presentation at the 1998 Institute of Transportation Engineers Intermountain Section Meeting, Jackson, WY, May 1998.
62. **Schultz, G. G.** *Main Street Closure - An Analysis Using TRAF NETSIM*. Presentation at the 1997 District 6 Annual Meeting, Salt Lake City, UT, July 1997.
63. **Schultz, G. G.** *Advance Warning Flashers: A Comparison*. Presentation at the 1996 Institute of Transportation Engineers Intermountain Section Meeting, Jackson, Wyoming, May 1996.
64. **Schultz, G. G.** *Advance Warning Flashers: A Comparison*. Presentation at the Institute of Transportation Engineers Utah Chapter Meeting, Salt Lake City, UT, April 1996.
65. **Schultz, G. G.** *Freeway Ramp Metering: The Red Light on Traffic Congestion*. Presentation at the 1995 Institute of Transportation Engineers Intermountain Section Meeting, Jackson, WY, May 1995.
66. **Schultz, G. G.** *Freeway Ramp Metering: The Red Light on Traffic Congestion*. Presentation at the Institute of Transportation Engineers Utah Chapter Meeting, Salt Lake City, UT, April 1995.

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## RESEARCH FUNDING

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### External Funded Total: \$3,117,050 (\$2,577,109 as Principal Investigator)

1. **Schultz, G. G.**, and R. Warr. SPF Development and Research, Utah Department of Transportation, \$26,000. January 2023 (Principal Investigator).
  2. **Schultz, G. G.** Effect of Lighting on Safety in Utah Roadways, Avenue Consultants/Utah Department of Transportation, \$28,000. January 2023 (Principal Investigator).
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3. **Schultz, G. G.** Effectiveness of ITS on Utah Roadways, Utah Department of Transportation, \$75,000. January 2022 (Principal Investigator).
  4. Macfarlane, G. S., and **G. G. Schultz.** Optimizing Traffic Incident Management Deployment in Utah, Utah Department of Transportation, \$69,995. October 2021 (Co-Principal Investigator).
  5. **Schultz, G. G.,** and G. S. Macfarlane. Analysis of Performance Measures of UDOT's Traffic Incident Management Program, Phase III, Utah Department of Transportation, \$29,998. October 2021 (Principal Investigator).
  6. Heaton, M. J., **G. G. Schultz,** P. A. White, and R. Warr. Point Process Models for Traffic Risk Analysis and Crash Prevention, National Science Foundation, \$199,941. August 2021 (Co-Principal Investigator).
  7. **Schultz, G. G.** Safe Speed Limit Guidance for Utah, Utah Department of Transportation, \$40,000. May 2021 (Principal Investigator).
  8. **Schultz, G. G.,** and R. Warr. BYU Safety Modeling FY21, Utah Department of Transportation, \$119,998. April 2021 (Principal Investigator).
  9. **Schultz, G. G.,** and G. S. Macfarlane. Signal Performance Measures Longitudinal Analysis, Utah Department of Transportation, \$70,000. November 2020 (Principal Investigator).
  10. **Schultz, G. G.,** and G. S. Macfarlane. Evaluating Ramp Meter Delay in Utah, Utah Department of Transportation, \$64,996. January 2020 (Principal Investigator).
  11. **Schultz, G. G.** Analysis of Performance Measures of UDOT's Traffic Incident Management Program, Phase II, Utah Department of Transportation, \$74,996. September 2019 (Principal Investigator).
  12. **Schultz, G. G.** Analysis of the Effectiveness of DSRC on Snowplow Operations in Utah, Utah Department of Transportation, \$69,997. September 2019 (Principal Investigator).
  13. **Schultz, G. G.,** and G. Macfarlane. Evaluating the Quality of Signal Operations using Signal Performance Measures, Utah Department of Transportation, \$60,000. January 2019 (Principal Investigator).
  14. **Schultz, G. G.** A Sensitivity Analysis of Benefits of DSRC on UTA Bus Operations, Utah Department of Transportation, \$70,000. September 2018 (Principal Investigator).
  15. **Schultz, G. G.** Intersection Safety Model (BYU Safety Modeling FY19), Utah Department of Transportation, \$119,999. June 2018 (Principal Investigator).
  16. **Schultz, G. G.** Pedestrian Walking Speeds at Signalized Intersections, Utah Department of Transportation, \$50,000. February 2018 (Principal Investigator).
  17. **Schultz, G. G.,** and M. Saito. Analysis of Decision Boundaries for Left-Turn Treatments, Utah Department of Transportation, \$70,000. January 2018 (Principal Investigator).
  18. **Schultz, G. G.,** and M. Saito. Analysis of Performance Measures of UDOT's Traffic Incident Management Program, Utah Department of Transportation, \$70,000. January 2018 (Principal Investigator).
  19. **Schultz, G. G.** Driver Compliance at Enhanced Pedestrian Crossings in Utah, Utah Department of Transportation, \$21,825. January 2018 (Principal Investigator).
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20. **Schultz, G. G.** Analysis of Left-Turn Warrants in Utah, Utah Department of Transportation, \$15,000. December 2016 (Principal Investigator).
  21. Saito, M., and **G. G. Schultz**. Developing a Method to Identify Horizontal Curve Segments with Worst Crash Histories using the HAF Algorithm, Utah Department of Transportation, \$60,000. December 2016 (Co-Principal Investigator).
  22. **Schultz, G. G.**, and M. Saito. Intersection Safety Model (BYU Safety Modeling FY17), Utah Department of Transportation, \$120,000. June 2016 (Principal Investigator).
  23. **Schultz, G. G.**, and M. Saito. Analysis of Access Management Impacts, Utah Department of Transportation, \$65,000. November 2015 (Principal Investigator).
  24. **Schultz, G. G.**, and M. Saito. BYU Traffic Safety Data Research 2015-2016, Utah Department of Transportation, \$120,000. March 2015 (Principal Investigator).
  25. **Schultz, G. G.** Impact of Bicycle Corridors on Travel Demand in Utah, Utah Department of Transportation, \$50,000. December 2014 (Principal Investigator).
  26. **Schultz, G. G.** I-15 HOT Lanes Study Phase II, Utah Department of Transportation, \$35,000. July 2014 (Principal Investigator).
  27. **Schultz, G. G.** I-15 HOT Lanes Study, Utah Department of Transportation, \$33,000. December 2013 (Principal Investigator).
  28. **Schultz, G. G.**, and M. Saito. Traffic & Safety Modeling 2013/2014, Utah Department of Transportation, \$135,000. October 2013 (Principal Investigator).
  29. Saito, M., and **G. G. Schultz**. Calibration of Automatic Performance Measures: Speed and Volume Data, Utah Department of Transportation, \$135,000. October 2013 (Co-Principal Investigator).
  30. Balling, R. J., **G. G. Schultz**, M. J. Clay, M. R. Jones, M. B. Borup, C. B. Farnsworth, C. J. Ward, L. C. Walters, P. J. Tripeny. Greenplex – A Sustainable Urban Form for the 21<sup>st</sup> Century, U.S. Environmental Protection Agency, \$15,000. September 2013 (Co-Principal Investigator).
  31. **Schultz, G. G.**, and M. Saito. Traffic & Safety Modeling 2012, Utah Department of Transportation, \$100,000. August 2012 (Principal Investigator).
  32. **Schultz, G. G.**, and M. Saito. Traffic & Safety Statewide Model and GIS Modeling, Utah Department of Transportation, \$35,000. December 2011 (Principal Investigator).
  33. **Schultz, G. G.**, and M. Saito. Evaluating the Safety Effects of Signal Improvements, Utah Department of Transportation, \$60,000. October 2011 (Principal Investigator).
  34. Saito, M., and **G. G. Schultz**. Evaluating the Feasibility of Incorporating Mobility-Related Work Zone Traffic Control Performance Measurements in Highway Construction Project Specifications, Utah Department of Transportation, \$60,000. October 2011 (Co-Principal Investigator).
  35. **Schultz, G. G.** UDOT Traffic & Safety Support On-Call, Utah Department of Transportation, \$200,000. October 2010 (Principal Investigator).
  36. **Schultz, G. G.**, and M. Saito. Understanding the Economics of Transportation in Utah, Utah Department of Transportation, \$50,000. February 2010 (Principal Investigator).
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37. **Schultz, G. G.**, and M. Saito. Transportation Safety Data and Analysis, Utah Department of Transportation, \$100,000. September 2009 (Principal Investigator).
38. **Schultz, G. G.** Economics and Project Prioritization, Utah Department of Transportation, \$35,000. March 2008 (Principal Investigator).
39. **Schultz, G. G.** Crashes in the Vicinity of Major Crossroads, Utah Department of Transportation, \$40,000. September 2007 (Principal Investigator).
40. **Schultz, G. G.** Safety Analysis of Fatigue and Drowsy Driving, Utah Department of Transportation, \$40,000. September 2006 (Principal Investigator).
41. **Schultz, G. G.** Evaluation of Advance Warning Signal Installation Phase II: Additional Monitoring, Utah Department of Transportation, \$17,000. June 2006 (Principal Investigator).
42. **Schultz, G. G.** Access Management Performance Index Scoping, Utah Department of Transportation, \$35,000. March 2006 (Principal Investigator).
43. **Schultz, G. G.** Advance Warning Signal Site Selection Evaluation Matrix, Utah Department of Transportation, \$35,000. January 2006 (Principal Investigator).
44. **Schultz, G. G.** Assessing the Safety Benefits of Access Management Techniques, Utah Department of Transportation, \$20,000. January 2005 (Principal Investigator).
45. **Schultz, G. G.**, and M. Saito. Assessing the Economic Impacts of Transportation Improvement Projects, Utah Department of Transportation, \$34,500. January 2005 (Principal Investigator).
46. **Schultz, G. G.** Utah Commercial Motor Vehicle Weight Monitoring Program Evaluation, Utah Department of Transportation \$31,805. October 2004 (Principal Investigator).
47. **Schultz, G. G.** Evaluation of Advance Warning Signal Installation, Utah Department of Transportation, \$30,000. July 2004 (Principal Investigator).

**Internal Funded Total: \$34,200 (\$34,200 as Principal Investigator)**

1. **Schultz, G. G.** Transportation Safety Laboratory, Ira A. Fulton College of Engineering and Technology and Department of Civil and Environmental Engineering, \$10,000, May 2009 (Principal Investigator).
2. **Schultz, G. G.** Median Crossover Crashes, Department of Civil and Environmental Engineering, \$4,200, September 2008 (Principal Investigator).
3. **Schultz, G. G.** CORSIM Calibration and Sensitivity Analysis, Ira A. Fulton College of Engineering and Technology \$10,000, January 2006 (Principal Investigator).
4. **Schultz, G. G.** Evaluation of Advance Warning Signal Installation, Ira A. Fulton College of Engineering and Technology, \$10,000, May 2004 (Principal Investigator).

**GRADUATE COMMITTEES**

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**Thesis/Dissertation Committee Chair: 28 completed, 4 in progress**

1. Hyer, J. C. *Incident Management Research*, Master of Science Thesis, expected April 2024.
  2. Davis, M. *ITS Research*, Master of Science Thesis, expected December 2023.
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3. Wang, B. *Evaluating the Quality of Signal Operations using Signal Performance Measures*, Doctor of Philosophy Dissertation, expected April 2023.
  4. Barriga, T. *Safety Research*, Master of Science Thesis, expected April 2023.
  5. Lau, S. K. *Analysis of using V2X DSRC Snowplows to Request Signal Preemption*, Master of Science Thesis, August 2022.
  6. Daines, T. J. *Evaluating Ramp Meter Wait Time in Utah*, Master of Science Thesis, April 2022.
  7. Bennett, L. *Analysis of Benefits of an Expansion to UDOT's Incident Management Program*, Master of Science Thesis, August 2021.
  8. Lunt, C. C. *Segment and Intersection Crash Analysis Methodologies for Utah Highways*, Master of Science Thesis, December 2020.
  9. Sheffield, M. H. *Impacts of Changing the Transit Signal Priority Requesting Threshold on Bus Performance and General Traffic: A Sensitivity Analysis*, Master of Science Thesis, June 2020.
  10. Hadfield, M. G. *Analysis of Performance Measures of Traffic Incident Management in Utah*, Master of Science Thesis, June 2020.
  11. Adamson, M. L. *An Analysis of Decision Boundaries for Left-Turn Treatments*, Master of Science Thesis, April 2019.
  12. Berrett, J. J. *Pedestrian Walking Speeds at Signalized Intersections in Utah*, Master of Science Thesis, April 2019.
  13. Gibbons, J. D. *Intersection Safety Analysis Methodology for Utah Roadways*, Master of Science Thesis, June 2018.
  14. Seat, M. L. *Using LiDAR Data to Analyze Access Management Criteria in Utah*, Master of Science Thesis, April 2017.
  15. Mineer, S. T. *Roadway Safety Analysis Methodology*, Master of Science Thesis, August 2016.
  16. Haskell, C. K. *The Impact of Bicycle Corridors on Travel Demand in Utah*, Master of Science Thesis, April 2016.
  17. Bassett, D. R. *Use of Roadway Attributes in Hot Spot Identification and Analysis*, Master of Science Thesis, August 2015.
  18. Farnsworth, J. S. *Safety Hot Spot Identification and Analysis Methodology*, Master of Science Thesis, December 2013.
  19. Dowell, A. L. *Understanding the Safety Effects of Signal Improvements*, Master of Science Thesis, June 2013.
  20. Searle, J. E. *Understanding the Economics of Transportation in Utah*, Master of Science Thesis, December 2010.
  21. Thurgood, D. T. *Analyzing the Effectiveness of Safety Measures using Bayesian Methods*, Master of Science Thesis, August 2010.
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22. McGee, J. S. *Economic Development Criteria and Project Prioritization*, Master of Science Thesis, August 2009.
23. Winters, K. E. *Median Crossover Crashes in the Vicinity of Interchanges on Utah Interstates*, Master of Science Thesis, December 2008.
24. Allen, C. G. *Crashes in the Vicinity of Major Crossroads*, Master of Science Thesis, December 2008.
25. Young, H. T. *A Safety Analysis of Fatigue and Drowsy Driving in the State of Utah*, Master of Science Thesis, August 2007.
26. Jensen, A. P. *Evaluation and Installation Guidelines for Advance Warning Signal Systems in Utah*, Master of Science Thesis, August 2007.
27. Braley, K. T. *Access Management Performance Index Evaluation*, Master of Science Thesis, August 2007.
28. Turley, C. *Calibration Procedure for a Microscopic Traffic Simulation Model*, Master of Science Thesis, April 2007.
29. Seegmiller, L. W. *Utah Commercial Motor Vehicle Weigh-in-Motion Data Analysis and Calibration Methodology*, Master of Science Thesis, December 2006.
30. Lewis, J. S. *Assessing the Safety Impacts of Access Management Techniques*, Master of Science Thesis, August 2006.
31. Peterson, R. *Evaluation of the Effectiveness of Blank-Out Overhead Dynamic Advance Warning Signal Systems*, Master of Science Thesis, August 2006.
32. Stewart, A. L. *Assessing the Economic Impacts of Transportation Improvement Projects*, Master of Science Thesis, April 2006.

**Thesis/Dissertation Committee Member: 41 completed, 5 in progress**

1. Jarvis, D. L. *Transportation IMT Planning Research*, Master of Science Thesis, expected December 2023.
  2. McDivitt, P. M. *Pavements Research*, Master of Science Thesis, expected August 2023.
  3. Atchley, S. H. *Transportation Planning Research*, Master of Science Thesis, expected August 2023.
  4. Mickelson, T. D. *Pavements Research*, Master of Science Thesis, expected August 2023.
  5. Gray, N. M. *Sensitivity Analysis of Systemic Resiliency on Utah Highways*, Master of Science Thesis, expected April 2023.
  6. Riches, G. M. *Transforming GPS Points to Daily Activities using Simultaneously Optimized DBSCAN-TE Parameters*, Master of Science Thesis, December 2022.
  7. Day, C. S. *Forecasting Ride-hailing across Multiple Model Frameworks*, Master of Science Thesis, December 2022.
  8. Smith, A. B. *Investigation of Skid Resistance on Asphalt Pavements in Utah*, Doctor of Philosophy Dissertation, April 2022.
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9. Barnes, M. E. *Resiliency of Utah's Road Network: A Logit-Based Approach*, Master of Science Thesis, December 2021.
  10. Lant, N. J. *Estimation and Simulation of Daily Activity Patterns for Individuals Using Wheelchairs*, Master of Science Thesis, June 2021.
  11. Emery, T. W. *Development of a Management Guide for Concrete Bridge Decks in Utah*, Doctor of Philosophy Dissertation, December 2020.
  12. Vickery, C. D. *Quantifying the Conditioning Period for Geogrid-Reinforced Aggregate Base Materials Through Cyclic Loading*, Master of Science Thesis, June 2020.
  13. Stevens, R. J. *Polyester Polymer Concrete for Bridge Deck Overlays*, Doctor of Philosophy Dissertation, April 2020.
  14. Browning, J. S. *Developing a Method to Identify Horizontal Curve Segments with High Crash Occurrences using the HAF Algorithm*, Master of Science Thesis, April 2019.
  15. Oh, S. S. *Experimental Evaluation of Replaceable Shear Fuse Moment Connections*, Master of Science Thesis, December 2018.
  16. Seat, C. J. *Crash Severity Distributions for Life-Cycle Benefit-Cost Analysis of Safety-Related Improvements on Utah Roadways*, Master of Science Thesis, August 2018.
  17. De Leon, J. T. *Effects of Surface Treatments on National Bridge Inventory Condition Ratings for Concrete Bridge Decks in Utah*, Master of Science Thesis, April 2018.
  18. Kim, K. M. *Analysis of Safety Impacts of Access Management Alternatives Using the Surrogate Safety Assessment Model*, Master of Science Thesis, December 2017.
  19. Hilton, S. T. *Full-Scale Pavement Testing of Aggregate Base Material Stabilized with Triaxial Geogrid*, Master of Science Thesis, April 2017.
  20. Frustaci, J. *Life-Cycle Benefit-Cost Analysis of Safety Related Improvements on Roadways*, Master of Science Thesis, December 2016.
  21. Sweat, E. J. *Investigation of Structural Capacity of Geogrid-Reinforced Aggregate Base Materials in Flexible Pavements*, Master of Science Thesis, June 2016.
  22. Sanchez, G. H. *Evaluation of the Accuracy of Approach Volume Counts and Speeds Collected by Microwave Sensors*, Master of Science Thesis, April 2016.
  23. Chang, D. K. *Calibration of Automatic Performance Measures: Speed and Volume Data*, Master of Science Thesis, August 2015.
  24. Knecht, C. S. *Crash Prediction Modeling for Curved Segments of Rural Two-Lane Two-Way Highways in Utah*, Master of Science Thesis, December 2014.
  25. Tolbert, J. C. *Effect of High Percentages of Reclaimed Asphalt Pavement on the Mechanical Properties of Cement-Treated Base Material*, Master of Science Thesis, August 2014.
  26. Christensen, S. D. *A Model for Analyzing Heating and Cooling Demand for Atria between Tall Buildings*, Master of Science Thesis, August 2014.
  27. Yamagata, S. *Effect of Video Camera-Based Remote Roadway Condition Monitoring on Snow Removal-Related Maintenance Operations*. Master of Science Thesis, June 2014.
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28. McCall, A. J. *Structural Analysis and Optimization of Skyscrapers Connected with Skybridges and Atria*, Doctor of Philosophy Dissertation, December 2013.
  29. Anderson, N. *Frost Susceptibility of Base Materials Treated with Asphalt Emulsion*, Master of Science Thesis, December 2013.
  30. Larson, S. J. *Developing Guidelines for Including Mobility-based Performance Specifications in Highway Construction Contracts*, Master of Science Thesis, December 2013.
  31. Jin, T. G. *Using Commodity Flow Data for Predicting Truck Freight Flow on State Truck Routes*, Doctor of Philosophy Dissertation, December 2011.
  32. Dixon, P. A. *Effect of Mixing Quality on Cement Treated Road Base*, Master of Science Thesis, June 2011.
  33. Brimley, B. K. *Calibration of the Highway Safety Manual Safety Performance Function and Development of Jurisdiction-Specific Models for Rural Two-Lane Two-Way Roads in Utah*, Master of Science Thesis, April 2011.
  34. Wilson, B. T. *Strength and Deformation Characteristics of a Cement-Treated Reclaimed Pavement with a Chip Seal*, Master of Science Thesis, April 2011.
  35. Quick, T. J. *Temporal and Spatial Variability of Base Material Treated with Asphalt Emulsion*, Master of Science Thesis, April 2011.
  36. Forbush, T. R. *Automated Delay Estimation at Signalized Intersections: Phase I Concept and Algorithm Development*, Master of Science Thesis, April 2011.
  37. Wilson, A. B. *Evaluation of the Effectiveness of a Variable Advisory Speed System on Queue Mitigation in Work Zones*, Master of Science Thesis, April 2011.
  38. Keita, Y. M. *Evaluation of the Accuracy of the Incremental Queue Accumulation Delay Estimation Method*. Master of Science Thesis, August 2010.
  39. Butler, M. J. *Comparison of AC-10 and PG 64-34 Asphalt Overlays as Evaluated by Pavement Performance and MEPDG Modeling*, Master of Science Thesis, April 2010.
  40. Parker, J. W. *Evaluation of Laboratory Durability Tests for Stabilized Subgrade Soils*, Master of Science Thesis, August 2008.
  41. Chuo, K. *Evaluation of the Applicability of the Interactive Highway Safety Design Model to Safety Audits of Two-Lane Rural Highways*, Master of Science Thesis, April 2008.
  42. Reese, G. B. *Use of the Clegg Hammer to Assess Rutting of Cement-Treated Base Material Under Early Trafficking*, Master of Science Thesis, December 2007.
  43. Ash, K. G. *Increasing Speed Limit Compliance in Reduced-Speed School Zones*, Master of Science Thesis, April 2006.
  44. Blankenagel, B. J. *Characterization of Recycled Concrete for Use as Pavement Base Material*, Master of Science Thesis, December 2005.
  45. Adams, M. R. *Development of a User Cost Estimation Procedure for Work Zones*, Master of Science Thesis, August 2005.
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46. Lowry, M. B. *Coordinated Regional and City Planning Using a Genetic Algorithm*, Master of Science Thesis, August 2004.

**Project Committee Chair: 9 completed, 0 in progress**

1. Ward, C. K. *An Evaluation of the Safe Speed Limit Setting Procedure and Tool for Utah*, Master of Science Project, December 2022.
2. Sanders, R. F. *Synthesis of Case Studies and Development of Video-Sharing Procedure for Access Management Professionals*, Master of Science Project, April 2018.
3. Alpers, J. *Left-Turn Signal Warrant Procedures: A Synthesis of Practice*, Master of Science Project, April 2018.
4. Jean, D. *Hot Spot Identification and Analysis of Utah County Highways using SafetyAnalyst*, Master of Science Project, August 2015.
5. Callison, E. G. *Comparison of Transit Overlay Corridors with Single-Route Service along Redwood Road and 4500 South in Salt Lake City, Utah*, Master of Science Project, December 2012.
6. Johnson, E. S. *Statistical and GIS Modeling of Crashes on Utah Highways*, Master of Science Project, December 2012.
7. Dudley, S. C. *A Framework for Highway Safety Mitigation and Workforce Development*, Master of Science Project, December 2011.
8. Minchin, W. G. *Transportation Sustainability in Hyperstructures*, Master of Science Project, August 2010.
9. Jacobs, L. E. *Traffic Analysis of 1600 North and 800 East in Orem Utah*, Master of Science Project, December 2006.

**Project Committee Member: 17 completed, 1 in progress**

1. Ritchie, J. E. *Safety Modeling*, Master of Science Project (Department of Statistics), expected April 2023.
  2. Pew, T. *Comparing Bayesian Hierarchical Implementations of Negative Binomial-Lindley and Zero-Inflated Poisson Generalized Linear Models*, Master of Science Project (Department of Statistics), June 2020.
  3. Davis, C. L. *Hot Spot Identification Analysis Using a Fully Bayesian Spatial Generalized Linear Mixed Model*, Master of Science Project (Department of Statistics), April 2019.
  4. Centeno, N. E. *Using the Surrogate Safety Assessment Model (SSAM) for Evaluating the Effects of Improvements on Traffic Safety*, Master of Science Project, December 2016.
  5. Stewart, C. S. *Optimization of Military Installation Siting based on Explosive Safety Standards using Genetic Algorithms*, Master of Science Project, April 2015.
  6. Evans, A. M. *Evaluating the Cost Efficiency of Purchasing a New Fleet versus Keeping and Maintaining Older Fleet: A Case Study of a Small Trucking Company*, Master of Science Project, December 2014.
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7. Kelly, P. C. *Traffic Safety Analysis of Utah County Highways using SafetyAnalyst*, Master of Science Project, June 2013.
8. Chau, E. J-S. *Evaluating the Feasibility of Incorporating Mobility-Based Work Zone Traffic Control Performance Measures in Highway Construction Project Specifications*, Master of Science Project, December 2012.
9. Leslie, A. J. *Analysis of Traffic Flow and Capacity at the Beck Street Work Zone*, Master of Science Project, August 2012.
10. Albrecht, B. E. *A Trophic State Analysis of Selected Lakes and Ponds in Yellowstone National Park*, Master of Science Project, April 2012.
11. Batioja, D. D. *Evaluation of Cement Stabilization of a Road Base Material in Conjunction with Full-Depth Reclamation in Huaquillas, Ecuador*, Master of Science Project, August 2011.
12. Olsen, A. N. *Hierarchical Bayesian Methods for Evaluation of Traffic Project Efficacy*, Master of Science Project (Department of Statistics), April 2011.
13. Theodore, B. W. *The Economic and Social Benefits of Hyperstructures*, Master of Science Project, August 2010.
14. Ng, G. T. *Spatial Analysis of Crashes Involving Trucks on Utah Truck Routes*, Master of Science Project, April 2010.
15. Merkley, M. C. *Tools and Techniques for Mitigating Queues at Work Zones*, Master of Science Project, April 2010.
16. Lancaster, R. D. *Analysis of Unclassified Roads in the Vernon Division of the Uinta National Forest*, Master of Science Project, April 2007.
17. Richards, S. J. N. *Centerline Rumble Strips on Rural, Two-Way, Undivided Highways*, Master of Science Project, April 2006.
18. Larsen, J. D. *Results of Raising Speed Limits in Orem, Utah*, Master of Science Project, December 2004.

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## **OTHER STUDENT MENTORING**

### **Research Assistant Total: 77**

1. Oh, S. *Intelligent Transportation Systems Research*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2022-present.
  2. Hyer, J. *Traffic Incident Management Research, Phase III*, Undergraduate Research Assistant/Graduate Research Assistant, research funded by the Utah Department of Transportation, 2021-present.
  3. Holdsworth, W. H. *Traffic Incident Management Research, Phase III*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2021-present.
  4. Davis, M. *Intelligent Transportation Systems Research*, Undergraduate Research Assistant/Graduate Research Assistant, research funded by the Utah Department of Transportation, 2021-present.
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5. Hill, A. *Intelligent Transportation Systems Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2021-present.
  6. Ward, C. *Safe Speed Limit Guidance for Utah*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2021-2022.
  7. Andersen, S. *Safe Speed Limit Guidance for Utah*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2021-2022.
  8. Daines, T. *Evaluating Ramp Meter Wait Times in Utah*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2021-present.
  9. Barriga, T. *Safety Model Research*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2021-present.
  10. Runyan, S. *Safety Model Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2021-present.
  11. Ward, C. *Evaluating Ramp Meter Wait Times in Utah*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2021.
  12. Lau, S. *DSRC Snowplow Research*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2020-present.
  13. Davis, M. *Signal Performance Measures Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2020-2022.
  14. Umphress, J. *Evaluating Ramp Meter Delay in Utah*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2020-2021.
  15. Daines, T. *Evaluating Ramp Meter Delay in Utah*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2020-2021.
  16. Bennett, L. *Traffic Incident Management Research, Phase II*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2019-2021.
  17. Hyer, J. *Traffic Incident Management Research, Phase II*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2019-2021.
  18. Lau, S. *DSRC Snowplow Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2019-2020.
  19. Shoaf, M. *DSRC Snowplow Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2019-2021.
  20. Vanderhoeven, C. *Evaluating Ramp Meter Delay in Utah*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2020.
  21. Barriga, T. *Safety Model Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2019-2020.
  22. Hadfield, M. *Traffic Incident Management Research, Phase II*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2019-2020.
  23. McCuen, S. *Signal Performance Measures Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2019-2020.
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24. Bueckers, M. *DSRC Snowplow Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2019.
  25. Shoaf, M. *Benefits of DSRC on UTA Bus Operations Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2019.
  26. Moreno, A. *Benefits of DSRC on UTA Bus Operations Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2019.
  27. Hadfield, M. *Traffic Incident Management Research*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2019.
  28. Wang, B. *Signal Performance Measures Research*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2018-present.
  29. Pew, T. *Safety Model Research*, Graduate Research Assistant (Statistics Dept.), research funded by the Utah Department of Transportation, 2018-2020.
  30. Davis, C. L. *Safety Model Research*, Graduate Research Assistant (Statistics Dept.), research funded by the Utah Department of Transportation, 2018-2019.
  31. Andrus, E. *Signal Performance Measures Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018-2019.
  32. Sheffield, M. *Benefits of DSRC on UTA Bus Operations Research*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2018-2020.
  33. Taylor, N. T. *Safety Model Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018-2020.
  34. Andersen, H. *Benefits of DSRC on UTA Bus Operations Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018-2019.
  35. Zin, L. *Safety Model Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018-2019.
  36. Adamson, M. L. *Left-Turn Decision Boundaries Research*, Graduate Research Assistant, research funded by the Utah Department of Transportation, 2018-2019.
  37. Galvez de Leon, P. J. *Pedestrian Walking Speed Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018-2019.
  38. Butt, S. *Pedestrian Walking Speed Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018-2019.
  39. Hadfield, M. *Traffic Incident Management Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018.
  40. Bennett, L. *Traffic Incident Management Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018-2019.
  41. Romero Bustamante, G. E. *Pedestrian Walking Speed Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018.
  42. Fox, A. *Traffic Incident Management Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2018.
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43. Stevens, M. *Left-Turn Decision Boundaries Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2017-2019.
  44. Adamson, M. L. *Left-Turn Decision Boundaries Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2017-2018.
  45. Lunt, C. *Safety Model Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2017-2019.
  46. Parkinson, M. *Safety Model Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2017-2018.
  47. Lant, N. *Safety Model Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2017.
  48. Clegg, B. W. *Safety Model Research*, Graduate Research Assistant (Statistics Dept.), research funded by the Utah Department of Transportation, 2016-2018.
  49. Snow, A. *Safety Model Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2016-2017.
  50. McArthur, P. *Safety Model Research*, Undergraduate Research Assistant (Statistics Dept.), research funded by the Utah Department of Transportation, 2016.
  51. He, J. W. *Safety Model Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2016.
  52. Gibbons, J. D. *BYU Traffic Safety Data Research 2015-2016*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2015-2017.
  53. Garey, R. L. *Access Management Research*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2015-2016.
  54. Seat, C. J. *Analysis of Access Management Impacts in Utah*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2015-2016.
  55. Siegel, S. A. *Safety Model Research*, Undergraduate Research Assistant (Statistics Dept.), research funded by the Utah Department of Transportation, 2015-2016.
  56. Brown, N. M. *BYU Traffic Safety Data Research 2015-2016*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2015-2016.
  57. Browning, J. S. *Impact of Bicycle Corridors on Travel Demand in Utah*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2015.
  58. Brown, N. M. *Traffic & Safety Modeling 2013/2014*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2014.
  59. Keane, S. L. *Traffic & Safety Modeling 2013/2014*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2014-2015.
  60. Standiford, N. B. *Traffic & Safety Modeling 2013/2014*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2014-2015.
  61. Groberg, C. C. *I-15 HOT Lanes Study – Phase II*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2014.
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62. Hamblin, C. A. *I-15 HOT Lanes Study – Phase II*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2014.
63. Halliday, D. B. *I-15 HOT Lanes Study – Phase II*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2014.
64. Mineer, S. T. *I-15 HOT Lanes Study – Phase II*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2014-2015.
65. Pulver, Z. J. *I-15 HOT Lanes Study*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2013-2014.
66. Mitchell, D. K. *I-15 HOT Lanes Study*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2013-2014.
67. Jean, D. *Traffic & Safety Modeling 2013/2014*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2013-2014.
68. Bassett, D. R. *Traffic & Safety Modeling 2013/2014*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2013-2014.
69. Cook, A. A. *Traffic & Safety Modeling 2013/2014*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2013-2014.
70. Buxton, J. *Greenplex Design*, Undergraduate Research Assistant, research funded internally, 2013-2014.
71. Briggs, T. B. *Traffic & Safety Modeling 2012*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2012-2013.
72. Hess, M. O. *Traffic & Safety Modeling 2012*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2012-2013.
73. Roundy, R. S. *Traffic & Safety Modeling 2012*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2012-2013.
74. Black, C. W. *Traffic & Safety Statewide Model and GIS Modeling*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2011-2012.
75. Francom, D. C. *Traffic & Safety Statewide Model and GIS Modeling*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2011-2012.
76. Talbot, E. *Evaluation of Advance Warning Signal Installation Phase II: Long-term Monitoring*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2008.
77. Siler, C. *Assessing the Economic Impacts of Transportation Improvement Projects*, Undergraduate Research Assistant, research funded by the Utah Department of Transportation, 2006.

**Office of Research and Creative Activities Mentored Environment Grant Total: 3**

1. Black, C. W. *Geographic Information Systems and Transportation Safety: A Prototype*, Brigham Young University Office of Research and Creative Activities Mentored Environment Grant, 2012.
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2. Macfarlane, G. S. *Globalized Engineering and the Beijing Olympic Transportation Plan*, Brigham Young University Office of Research and Creative Activities Mentored Environment Grant, 2008.
3. Law, S. M. *Transportation and People: A Study of Transportation Laws in China*, Brigham Young University Office of Research and Creative Activities Mentored Environment Grant, 2008.

**College Freshman Mentoring and Experiential Learning Students Total: 9**

1. Jones, B. *Intelligent Transportation System Research*, College Freshman Mentoring Program, 2021-2022.
2. Andersen, S. *V2X Research*, Experiential Learning Program, 2021-2022.
3. Huber, R. *Intersection Safety Model Research*, College Freshman Mentoring Program, 2018-2019.
4. Tuft, J. *Lateness Threshold Research*, College Freshman Mentoring Program, 2018.
5. Barret, L. *Intersection Safety Model Research*, College Freshman Mentoring Program, 2017-2018.
6. McGuire, K. *Intersection Safety Model Research*, College Freshman Mentoring Program, 2016-2017.
7. Stancliffe, A. *Traffic & Safety Modeling*, College Freshman Mentoring Program, 2014-2015.
8. Cummings, K. M. *Greenplex Design*, College Freshman Mentoring Program, 2013-2014.
9. Askew, L. M. *Transit and Parking Alternatives on Brigham Young University Campus*, College Freshman Mentoring Program, 2010.

**Undergraduate Honors Thesis Total: 1**

1. Macfarlane, G. S. *Delay Patterns and Perceptions at Free Right-turn Channelized Intersections*, Undergraduate Honors Thesis, December 2009 (Committee Member).

**TEACHING EXPERIENCE**

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1. **Professor.** Introduction to Civil Engineering (CE En 101). Brigham Young University, Provo, UT. Winter 2017.
  2. **Professor.** Foundations of Global Leadership (CCE 231). Brigham Young University, Provo, UT. Winter 2022, Winter 2023.
  3. **Professor.** Foundations of Global Leadership (CE En 231). Brigham Young University, Provo, UT. Winter 2020, Spring 2020, Winter 2021.
  4. **Professor.** Introduction to Transportation Engineering (CE 361). Brigham Young University, Provo, UT. Fall 2021, Fall 2022.
  5. **Professor.** Introduction to Transportation Engineering (CE En 361). Brigham Young University, Provo, UT. Fall 2015, Fall 2016, Fall 2017, Fall 2018, Winter 2019, Fall 2019, Fall 2020.
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6. **Professor.** International Megacities (CE En 467). Brigham Young University, Provo, UT. Spring 2017.
  7. **Professor.** Europe Civil Engineering Infrastructure and Global Leadership Prep Course (CE En 498R). Brigham Young University, Provo, UT. Winter 2018, Winter 2020, Winter 2023.
  8. **Professor.** Traffic Engineering (CE 562). Brigham Young University, Provo, UT. Fall 2021, Fall 2022.
  9. **Professor.** Traffic Engineering (CE En 562). Brigham Young University, Provo, UT. Fall 2018, Fall 2019, Fall 2020.
  10. **Professor.** Urban Transportation Planning (CE En 565). Brigham Young University, Provo, UT. Fall 2015, Fall 2016, Fall 2017.
  11. **Professor.** Transportation Site Planning (CE 664). Brigham Young University, Provo, UT. Winter 2022, Winter 2023.
  12. **Professor.** Transportation Site Planning (CE En 664). Brigham Young University, Provo, UT. Winter 2016, Winter 2017, Winter 2018, Winter 2019, Winter 2020, Winter 2021.
  13. **Professor.** Foundations of Global Leadership (EngT 231). Brigham Young University, Provo, UT. Winter 2016, Winter 2018, Spring 2018 (Study Abroad).
  14. **Associate Professor.** Introduction to Transportation Engineering (CE En 361). Brigham Young University, Provo, UT. Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2014.
  15. **Associate Professor.** International Megacities (CE En 467). Brigham Young University, Provo, UT. Spring 2015.
  16. **Associate Professor.** Urban Transportation Planning (CE En 565). Brigham Young University, Provo, UT. Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2014.
  17. **Associate Professor.** China Megacities (CE En 594R). Brigham Young University, Provo, UT. Spring 2011, Spring 2012, Spring 2013.
  18. **Associate Professor.** Transportation Site Planning (CE En 664). Brigham Young University, Provo, UT. Winter 2011, Winter 2012, Winter 2013, Winter 2014, Winter 2015.
  19. **Associate Professor.** Graduate Seminar (CE En 691R). Brigham Young University, Provo, UT. Fall 2011, Winter 2012.
  20. **Associate Professor.** Foundations of Global Leadership (EngT 231). Brigham Young University, Provo, UT. Winter 2013, Winter 2014.
  21. **Assistant Professor.** Engineering Drawing with CAD Application (CE En 112). Brigham Young University, Provo, UT. Fall 2004.
  22. **Assistant Professor.** Introduction to Transportation Engineering (CE En 361). Brigham Young University, Provo, UT. Fall 2005, Winter 2006, Winter 2007, Winter 2008, Winter 2009, Fall 2009.
  23. **Assistant Professor.** Urban Transportation Planning (CE En 565). Brigham Young University, Provo, UT. Winter 2004, Fall 2005, Fall 2006, Fall 2007, Fall 2008, Fall 2009.
  24. **Assistant Professor.** China Megacities (CE En 594R). Brigham Young University, Provo, UT. Spring 2010.
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25. **Assistant Professor.** Transportation Site Planning (CE En 664). Brigham Young University, Provo, UT. Winter 2005 (taught as CE En 594R), Winter 2006 (taught as CE En 564), Winter 2007, Winter 2008, Winter 2009, Winter 2010.
26. **Instructor.** ASCE Fundamentals of Engineering (FE) Transportation Review Session. Brigham Young University, Provo, UT. Yearly.
27. **Guest Lecturer.** Graduate Seminar in Transportation (CVEN 681). *Developing a Methodology to Account for Commercial Motor Vehicles Using Microscopic Traffic Simulation Models.* Texas A&M University, College Station, TX. October 2003.
28. **Guest Lecturer.** Special Topics in Transportation Statistics (STAT 689). *Statistical Sampling.* Texas A&M University, College Station, TX. February 2003.
29. **Guest Lecturer.** Urban Transportation Planning (CVEN 672). *Project Evaluation – Multiple Objectives.* Texas A&M University, College Station, TX. December 2002.
30. **Guest Lecturer.** Graduate Seminar in Transportation (CVEN 681). *Advanced Technology Warning Devices to Improve Motorist Response to Unexpected Conditions.* Texas A&M University, College Station, TX. October 2002.
31. **Guest Lecturer.** Design for Sustainable Transportation (PLAN 689). *Access Management.* Texas A&M University, College Station, TX. April 2002.
32. **Instructor.** Utah League of Cities and Towns Road School. *Traffic Access and Impact Studies for Site Development.* St. George, UT, April 2000.
33. **Guest Lecturer.** Transportation in Urban Planning (CE En 565). *Salt Lake City Gateway Area Railroad Consolidation Project.* Brigham Young University, Provo, UT. March 2000.

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## AWARDS AND RECOGNITION

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1. **UTRAC Trailblazer Award**, Utah Department of Transportation, 2022
  2. **Outstanding Educator**, Institute of Transportation Engineers Mountain District, 2020
  3. **Engineering Educator of the Year**, Utah Engineers Council, 2019
  4. **Educator of the Year**, Institute of Transportation Engineers Utah Chapter, 2018
  5. **Wilbur S. Smith Distinguished Transportation Educator Award**, Institute of Transportation Engineers, 2014
  6. **College Citizenship Award Nominee**, Ira A. Fulton College of Engineering & Technology, Brigham Young University, 2014
  7. **Executive Director’s Excellence in Transportation Safety Award for Utah Crash Prediction Model**, Utah Department of Transportation, 2014
  8. **Engineering Educator of the Year Nominee**, Utah Engineers Council, 2012, 2013
  9. **BYU Class of 1949 Endowed Young Faculty Award**, Brigham Young University, 2012
  10. **Educator of the Year**, Institute of Transportation Engineers Utah Chapter, 2011
  11. **Fellow**, Institute of Transportation Engineers, 2010–present
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12. **Outstanding Transportation Educator**, Institute of Transportation Engineers Western District, 2008–2009
13. **Outstanding Faculty Award**, Department of Civil and Environmental Engineering, Brigham Young University, 2008
14. **Best Paper Award**, Transportation Research Board, Transportation System Policy, Planning and Process Section (paper topic: *Safety Impacts of Access Management Techniques in Utah*), 2007
15. **Outstanding Paper and Presentation Award**, Institute of Transportation Engineers Intermountain Section, (paper topic: *Advance Warning Signals at Isolated High-Speed Intersections*), 2006
16. **Student of the Year**, University Transportation Centers Program, Southwest Region University Transportation Center, Region 6, 2003
17. **Dr. Robert Herman Award**, Southwest Region University Transportation Center, 2003
18. **Academic Excellence Award**, Texas A&M University, 2002–2003
19. **Jack R. Gilstrap Award**, American Public Transportation Foundation, 2001–2003
20. **Outstanding Doctoral Student**, Southwest Region University Transportation Center, 2002
21. **Ph.D. Student of the Year in Transportation**, Texas A&M University, Southwest Region University Transportation Center, 2002
22. **Outstanding Student**, Institute of Transportation Engineers Texas District, 2002
23. **Eno Fellow**, Eno Transportation Foundation Leadership Development Training, 2002

#### UNIVERSITY SERVICE

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1. **Associate Department Chair**, Department of Civil and Construction Engineering, 2022–present
  2. **Chair**, Department of Civil and Construction Engineering Ad-Hoc Search Committee, 2022
  3. **Member**, Faculty Advisory Council (FAC), Ira A. Fulton College of Engineering Representative, 2021–present
  4. **Member**, Faculty Development Committee, Department of Civil and Construction Engineering, 2021–2022
  5. **Chair**, Department of Civil and Environmental Engineering Ad-Hoc Search Committee, 2021
  6. **Member**, Library Advisory Council (LAC), Ira A. Fulton College of Engineering Representative, 2019–2022
  7. **Member**, Ira A. Fulton College of Engineering Proposal Review Committee, 2019–2022
  8. **Member**, Graduate Committee, Department of Civil and Environmental Engineering, 2018–2021
  9. **Associate Department Chair**, Department of Civil and Environmental Engineering, 2012–2018
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10. **Graduate Coordinator**, Department of Civil and Environmental Engineering, 2011–2012
11. **Chair**, Graduate Committee, Department of Civil and Environmental Engineering, 2011–2012
12. **Member**, Leadership, Innovation, Global awareness, cHaracter, Technical excellence (LIGHT) Committee, Department of Civil and Environmental Engineering, 2010–2011
13. **Chair**, Department of Civil and Environmental Engineering Transportation Group, 2007–2011
14. **Proposal Reviewer**, Brigham Young University Office of Research and Creative Activities (ORCA) Mentored Environment Grant (MEG); and Oregon Transportation Research and Education Consortium (OTREC) 2007–2008
15. **Honors Coordinator**, Department of Civil and Environmental Engineering, 2006–2013
16. **Member**, Graduate Committee, Department of Civil and Environmental Engineering, 2006–2010
17. **Member**, Undergraduate Committee, Department of Civil and Environmental Engineering, 2004–2006

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#### PROFESSIONAL SERVICE

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1. **Executive Committee Member**, Institute of Transportation Engineers Transportation Education Council, 2023–present
  2. **Panel Member**, National Cooperative Highway Research Program Project 20-123(17), FY 2023, *Highway Safety Manual Development and Research Roadmap*, 2022–present
  3. **Member**, Transportation Research Board Standing Committee on Safety Performance Analysis (ACS20), 2020–present
  4. **Chair**, Transportation Research Board Standing Committee on Access Management (AHB70/ACP60), 2019–present
  5. **Member**, Institute of Transportation Engineers Strategic Planning Task Force, 2019–2020
  6. **Member**, Institute of Transportation Engineers Professional Development Strategic Planning Task Force, 2019–2020
  7. **Panel Member**, National Cooperative Highway Research Program Synthesis Topic 50-05, FY 2018, *Incorporating Access Management into Local Ordinances*, 2018–2020
  8. **Faculty Advisor**, American Railway Engineering and Maintenance-of-Way Association (AREMA) BYU Student Chapter, 2018– present
  9. **Chair**, Institute of Transportation Engineers Transportation Education Council, 2017–2019
  10. **Faculty Advisor**, Institute of Transportation Engineers BYU Student Chapter, 2015– present
  11. **Panel Member**, National Cooperative Highway Research Program Project 15–64, FY 2016, *Unsignalized Median Openings in Close Proximity to Signalized Intersections*, 2015–2019
  12. **Secretary**, Transportation Research Board Standing Committee on Access Management (AHB70), 2015–2019
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13. **Panel Member**, National Cooperative Highway Research Program Project 17–72, FY 2015, *Update of Crash Modification Factors for the Highway Safety Manual*, 2014–2021
  14. **Member**, Transportation Research Board Standing Committee on Highway Safety Performance (ANB25), 2014–2020
  15. **Vice-Chair**, Institute of Transportation Engineers Transportation Education Council, 2014–2016
  16. **Member**, Institute of Transportation Engineers Student Chapter Award Committee, 2014–2015
  17. **Panel Member**, National Cooperative Highway Research Program Project 25–47, FY 2014, *Strategies to Reduce Agency Costs and Improve Benefits Related to Highway Access Management*, 2013–2022
  18. **Panel Member**, National Cooperative Highway Research Program Project 17–63, FY 2013, *Guidance for the Development and Application of Crash Modification Factors*, 2012–2017
  19. **Panel Member**, National Cooperative Highway Research Program Project 17–58, FY 2012, *Safety Prediction Models for Six-Lane and One-Way Urban and Suburban Arterials*, 2011–2017
  20. **Member**, Institute of Transportation Engineers Ethics Issues Committee, 2010–2015
  21. **Member**, Institute of Transportation Engineers Western District Traffic Bowl Standing Committee (3-year appointment), 2010–2013
  22. **Panel Member**, National Cooperative Highway Research Program Project 20–05/Topic 40–11, FY 2008, *The State of Practice in Roadway Access Management*, 2008–2009
  23. **Chair**, Transportation Research Board Standing Committee on Access Management (AHB70) Research Subcommittee (AHB70(2)), 2008–2015
  24. **Executive Committee Member**, Institute of Transportation Engineers Transportation Education Council, 2008–2019
  25. **Member**, Institute of Transportation Engineers Transportation Planning Curriculum Advisory Committee and Fellowship Selection Committee, 2007–2009
  26. **Paper Reviewer**: *Journal of Intelligent Transportation Systems*, *Journal of Transportation Safety & Security*, and *International Journal of Injury Control and Safety Promotion*, Taylor & Francis Group; *Computer-Aided Civil and Infrastructure Engineering*, John Wiley & Sons, Inc.; *2009 American Society for Engineering Education Annual Conference and Exposition*, American Society for Engineering Education; *Journal of Urban Planning and Development*, *10<sup>th</sup> International Conference on Application of Advanced Technologies in Transportation*, and *Journal of Transportation Engineering*, American Society of Civil Engineers; *Institute of Electrical and Electronics Engineers International Conference on Intelligent Transportation Systems*, Institute of Electrical and Electronics Engineers; *Transportation Research Record: Journal of the Transportation Research Board*, Transportation Research Board of the National Academies, 2003–present
  27. **President**, Institute of Transportation Engineers Texas A&M University Student Chapter, 2002
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## **SCHOLARSHIPS AND GRANTS**

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1. **Young Professional Scholarship**, Institute of Transportation Engineers Annual Meeting and Exhibit, Melbourne, VIC, Australia, 2005
2. **Faculty Development Series Course Development Project Grant**, Brigham Young University, 2004
3. **Faculty Development Series Program Grant**, Brigham Young University, 2004
4. **Jack R. Gilstrap Scholarship**, American Public Transportation Foundation, 2001–2003
5. **Advanced Institute in Transportation Ph.D. Fellowship**, Texas A&M University, 2001–2002

## **HONOR SOCIETY MEMBERSHIPS**

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1. **Sigma Xi**, The Scientific Research Society, Texas A&M University Chapter
2. **Chi Epsilon**, National Civil Engineering Honor Society, Texas A&M University Chapter
3. **Tau Beta Pi**, National Engineering Honor Society, Brigham Young University Chapter
4. **Golden Key National Honor Society**, Brigham Young University Chapter

## **PROFESSIONAL AFFILIATIONS**

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1. **Member, Standing Committee on Safety Performance Analysis (ACS20)**, Transportation Research Board, 2020–present
  2. **Chair, Standing Committee on Access Management (AHB70/ACP60)**, Transportation Research Board, 2019–present
  3. **Member, Standing Committee on Highway Safety Performance (ANB25)**, Transportation Research Board, 2014–2020
  4. **Member and Secretary, Standing Committee on Access Management (AHB70)**, Transportation Research Board, 2015–2018
  5. **Member, Committee Research Coordinator (CRC), and Research Subcommittee Chair, Standing Committee on Access Management (AHB70)**, Transportation Research Board, 2006–2015
  6. **Member, Committee on Urban Freight Transportation (AT025)**, Transportation Research Board, 2003–2009
  7. **Member, American Society of Civil Engineers**, 1995–present
  8. **Member, Institute of Transportation Engineers**, 1994–present
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