Guillermo Basulto-Elias, PhD	
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EDUCATION

- PhD, Statistics, Iowa State University, Ames, IA, 2016
- MS, Probability and Statistics, Center for Research in Mathematics, Guanajuato, Guanajuato, Mexico, 2011
- BS, Mathematics, University of Guanajuato, Guanajuato, Guanajuato, Mexico, 2009

PROFESSIONAL EXPERIENCE

- 2019-Present **Research Scientist**, *Institute for Transportation (InTrans) at Iowa State University*, Ames, IA, USA. Statistician and data scientist.
- 2019–2019 **Postdoctoral appointment**, *Institute for Transportation (InTrans) at Iowa State University*, Ames, IA, USA. Carry out research and mentor students.
- 2016–2018 **Postdoctoral appointment**, *Center for Statistics and Applications in Forensic Evidence (CSAFE) at Iowa State University*, Ames, IA, USA. Carry out research, mentor students, and contribute to all missions of the CSAFE.
- 2011-2016 **Graduate Assistant**, *Iowa State University*, Ames, IA, USA. Research assistant, course instructor, and teaching assistant duties.

SELECTED RESEARCH PROJECTS

- 2020-Present. Monitoring Real-World Driver Behavior for Classification and Early Prediction of Alzheimer's Disease (National Institute of Health through the University of Nebraska). Collect data through a naturalistic driving study of older drivers in Nebraska and Iowa to establish relationships between cognitive features and driving through statistical analyses.
- 2021-Present. Highway System Information System (HSIS through VHB). Provide analyses and process researcher data requests.
- 2021-Present. Iowa Crashes Visualization Tool for the Reactor Lab. Develop a web-based interactive tool to visualize the crash location, crash annotated images, and crash animation (GIFs). Also, providing links to download the crash video.
- 2022-2023. Determining Effectiveness of Combined High Visibility Enforcement (HVE), sponsored by Behavioral Traffic Safety (BTS17). This research aims to develop a scalable evaluation framework and methodologies to determine the effectiveness of HVE campaigns to reduce crash frequency and severity involving road user behaviors such as impaired driving, lack of seat belt use, distracted driving, and speeding.

- 2021-2022. Road Safety Calculator Improvement and Expansion, Phase II (World Bank). Bring the memoranda from phase with data sources to design and implement a web-based road safety calculator.
- 2019-2020. Road Safety Calculator Improvement and Expansion, Phase I (World Bank). Develop technical memoranda for various traffic interventions to assess their inclusion in a web-based road safety calculator. Technical reviews consisted of systematic reviews and meta-analyses.

PUBLICATIONS

- **Basulto-Elias, G.**, Hallmark, S., Barnwal, A., Sharma, A., Rizzo, M., Merickel, J. (2023) Strategy and Safety at Stop Intersections in Older Adults with MCI and Visual Decline. Transportation Research Interdisciplinary Perspectives Journal (**Accepted**).
- Hallmark, S., **Basulto-Elias, G.**, Oneyear, N., Goswamy, A., Thapa, R., Chrysler, S., and Smadi, O. (2023). Evaluation of the Impact of Work Zone Traffic Control Devices on Change of Speed Using the SHRP 2 Naturalistic Driving Study Data. Transportation Research Record, 03611981231163789.
- Oneyear, N., Hallmark, S., Goswamy, A., Thapa, R., & **Basulto-Elias, G.** (2023). Analysis of Stopping Behavior at Rural T-Intersections Using Naturalistic Driving Study Data. Journal of Transportation Technologies, 13(2), 208-221.
- **Basulto-Elias, G.**, Carriquiry, A., De Brabanter, K. and Nordman, D. (2020) Bivariate kernel deconvolution with panel data. Sankhya B: The Indian Journal of Statistics.
- Goswamy, A., Hallmark, S., **Basulto-Elias, G.**, and Pawlovich, M. (2019) Safety Evaluation of Stop-Sign Mounted Beacons—A Cross-Sectional Study. Journal of Transportation Technologies, Vol. 09, No. 01.
- **Basulto-Elias, G.**, Carriquiry, A., De Brabanter, K. and Nordman, D. (2017) "fourierin": An R package to compute Fourier integrals. The R Journal, Vol. 9, No. 2.

PROFESSIONAL AFFILIATIONS, HONORS, AND SERVICE

- 2019–2020 **President**, *American Statistical Association, Iowa Chapter*, IA, USA.
- 2018–2019 **Vice President**, *American Statistical Association, Iowa Chapter*, IA, USA.
- 2016-2018 **Organizer** of weekly discussion meetings at CSAFE. Students and faculty affiliated with CSAFE at Iowa State present their progress and plans every week to encourage collaboration and immediate feedback.
- 2011–2012 **Student representative officer**, *American Statistical Association, Iowa Chapter*, IA, USA.