Academic Resume March 2022

# PANAGIOTIS (PANOS) CH. ANASTASOPOULOS

Associate Professor and Stephen E. Still Chair of Transportation Engineering, Dept. of Civil, Structural and Environmental Engineering

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#### **BIO SKETCH**

Panos Anastasopoulos is Associate Professor and Stephen E. Still Chair of Transportation Engineering, in the Department of Civil, Structural and Environmental Engineering at the University at Buffalo. He received his bachelor's degree from the Athens University of Economics and Business (Greece), and his master's and doctorate from Purdue University (USA). He is the Director of the Stephen Still Institute for Sustainable Transportation and Logistics (SISTL), Director and Founder of the Engineering Statistics and Econometrics Application research lab (ESEA), and Scientific Consultant for *Inferenx Labs Inc.*, a start-up focusing on transportation and infrastructure systems solutions.

His research interests include: transportation systems design, analysis, and evaluation; policy and decision making; integration of human behavior with advanced air vehicles and automated/ connected vehicles; urban air mobility; infrastructure and crisis management; transportation safety; transportation economics; travel behavior; and statistical and econometric modeling of engineering problems. He has published over 190 papers, book chapters, and reports, and the textbook "Statistical and econometric methods for transportation data analysis" (3<sup>rd</sup> edition). His work has been featured in various media outlets, such as the World Economic Forum, The Independent, Forbes, and CNN.

He is Executive Associate Editor and Founding Editorial Board Member of Analytic Methods in Accident Research (AMAR) (ranked #1 Journal in both Safety Research and Transportation subject areas by both Scopus and Web-of-Science), Associate Editor of the ASCE Journal of Infrastructure Systems (JIS) and of Frontiers in Built Environment, Transportation and Transit Systems (FBE), Academic Editor of Advances in Civil Engineering (ACE), Advisory Editor of the International Journal of Critical Illness and Injury Science (IJCIIS), and Editorial Board Member of Accident Analysis and Prevention (AAP).

He is also the Chair of the TRB Statistical Methods Committee (<u>AED60</u>), Vice Chair of the ASCE Transportation and Development Institute, T&DI Economics and Finance Committee (<u>E&F</u>), and coinventor of two U.S. patent applications. Among other honors and awards, he has been recognized three times (<u>2019</u>, <u>2020</u>, and <u>2021</u>) as a <u>Web of Science Highly Cited Researcher</u> <sup>1</sup> for his work during the last twelve years, which has produced multiple highly cited papers ranked in the top 1% by citations for a publication field and year.

<sup>&</sup>lt;sup>1</sup> According to Web of Sience<sup>TM</sup> (<u>Highly Cited Researchers 2020 Executive Summary Report</u>): "Each year, Clarivate<sup>TM</sup> identifies the world's most influential researchers — the select few who have been most frequently cited by their peers over the last decade." In 2019, fewer than 6,300, or 0.1%, of all the world's researchers, across 21 research fields, have earned the distinction of being a globally highly cited researcher; while, in 2020, fewer than 6,200, or about 0.1%, of the world's researchers, in 21 research fields and across multiple fields, have earned this exclusive distinction (<u>Clarivate identifies global scientific pioneers on annual Highly Cited Researchers list</u>). In 2021, 6.602 researchers are named in one or more of 21 fields or across several fields (<u>Highly Cited Researchers 2021 Executive Summary Report</u>).

# IN THE NEWS

WORLD ECONOMIC FORUM

Flying cars and driverless buses the future of urban mobility has landed



Learning from techno-hype



Flying cars: The future of green transit, or another rich guy fantasy?



Flying cars: The future of mobility?



Flying cars, a new transportation that is in front of the eye



SR-22 Insurance Guide
Key things to know about SR-22
insurance before buying.

#### ACADEMIC BACKGROUND

| 2009 | Ph.D., Civil Engineering (Transportation and Infrastructure Systems), Purdue University, West Lafayette, IN. |
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| 2007 | M.Sc., Civil Engineering (Transportation and Infrastructure Systems), Purdue University, West Lafayette, IN. |
| 2004 | B.S., Business, Management, and Economics, Athens University of Economics & Business,                        |

# PROFESSIONAL HISTORY

2002

Athens, Greece.

| PROFESSIONAL HISTORY   |  |  |
|--|--|--|
| Scientific Consultant, Inferenx Labs Inc. ( <u>INFERENX</u> ).  Director, Stephen Still Institute for Sustainable Transportation and Logistics ( <u>ISTL</u> ).                                |  |  |
| Associate Professor and Stephen E. Still Chair of Transportation Engineering, Dept. of Civil, Structural and Environmental Engineering, University at Buffalo.                                 |  |  |
| Director, Engineering Statistics and Econometrics Application (E-SEA) Research Laboratory.   |  |  |
| Associate Director, Institute for Sustainable Transportation and Logistics ( <u>ISTL</u> ).  |  |  |
| Assistant Professor, Dept. of Civil, Structural and Environmental Engineering, University at Buffalo, Institute for Sustainable Transportation and Logistics ( <u>ISTL</u> ).                  |  |  |
| Consulting Engineer, Senior Analyst, SGM Engineering Inc., San Francisco, CA, and West Lafayette, IN.  |  |  |
| Visiting Assistant Professor, School of Civil Engineering, Purdue University, Indiana's Local Technical Assistance Program (LTAP), USDOT Region V Regional UTC (NEXTRANS), West Lafayette, IN. |  |  |
| Research Program Manager, Center for Road Safety, West Lafayette, IN.  |  |  |
| Post-Doctoral Research Fellow, School of Civil Engineering, Purdue University, West Lafayette, IN.   |  |  |
| Project Associate, AgileAssets Inc., Infrastructure Asset Management Solutions, Austin, TX.  |  |  |
| Graduate Research Assistant, School of Civil Engineering, Purdue University, West Lafayette, IN.   |  |  |
|  |  |  |
| Co-Founder and General Partner, Hellenic Center of Information and Education.  |  |  |
| Business Development Manager, 2004-2006, Hellenic Center of Information and Education.   |  |  |
| Consultant, Analyst, SGM-Engineering Inc.  |  |  |
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Business Analyst Intern, Procter & Gamble.

#### ADMINISTRATIVE/LEADERSHIP EXPERIENCE AND ACCOMPLISHMENTS

Director (2017-Present); Associate Director (2014-2017) Stephen Still Institute for Sustainable Transportation and Logistics (<u>ISTL</u>), UB

Leading strategy, governance and operation of an Institute consisting of 25 tenured/tenure-track faculty members (8 ISTL-funded faculty members, 10 core faculty members, and 7 affiliate faculty members) from the School of Engineering and Applied Sciences – Departments of Industrial Engineering, Civil Engineering, and Computer Science – and the School of Management – Department of Operations Management and Strategy; 55 graduate students enrolled in the MS in Sustainable Transportation and Logistics (STL); \$18 million in research expenditures; overseeing a \$5 million budget.

# **Top-5 Key Metrics**

- 1. Raised the Global Ranking of Academic Subjects by the Shanghai Ranking Consultancy of ISTL in the subject of Transportation Science and Technology 57 positions: from 125 (listed within positions 101-150) to 68 (listed within positions 51-75) between 2018 and 2021 (out of 200 programs evaluated).
- 2. Led the hiring of nine faculty members over five years: seven tenure-track assistant professors (three of whom are *women*), one teaching assistant professor (also *woman*), and one professor of practice (with a volunteer appointment). This grew the *underrepresented minorities* in our ISTL funded faculty to ~43%, and to ~32% overall.
- 3. Led a significant growth of student enrollment from 3 students in the first year of operation of the MS in STL, to 55 in 2021-2022 (~1700% increase within 4 years). This enrollment is characterized by nearly half *underrepresented and minority* students and was the outcome of targeted efforts.
- 4. Led the execution of my ISTL Sponsored Pilot Research (SPR) program initiative, which resulted in funding 5 grant applications submitted by 12 faculty from 3 Schools and ten Departmental units, totaling \$536K for a 2-year period. 3 out of the 4 *underrepresented or minority* faculties' grant applications were successful through a thorough double-blind review process.
- 5. Led the growth of the Institute's research funding from \$4 million in 2017-2018 to \$18 million in 2021-2022 (~350% growth).

#### **Organizational and Operational Excellence**

- Prioritized and paid timely attention to all matters related to ISTL operations. Provided timely information, as requested, to the Deans' Offices (School of Engineering and Applied Sciences and School of Management) and upper administration.
- Formed External Advisory Board (EAB), involving leading representatives and stakeholders from Logistics and Transportation firms and public agencies in the Western New York region, the Buffalo Niagara Partnership Logistics Council, and various others. The EAB provides guidance and strategic direction for the Institute (and its Graduate Program), and suggestions and guidance to enhance opportunities for industry interactions and placement for the students in the Program.
- Engaged the EAB in semi-annual planning and review meetings, in a modernized multi-panel format.
- Developed the EAB's By-Laws and Rules of Operation, and elected the first Chair of the Board.
- Engaged members of the Advisory Board, and supported a Professor of Practice appointment of the newly elected Chair within ISTL and the Department of Civil, Structural and Environmental Engineering. The outcome of this is the offering of two new courses in Emerging Technologies in Transportation, and in Transportation and Urban Planning Under Uncertainty.
- Conducted SWOT analysis for ISTL, and re-evaluated the Institute's goals and priorities according to the findings.
- Currently conducting Market Research analysis (externally) to identify specific demand and supply elements, in terms of what the Institute's educational and research components should offer, and assess the Institute's strategic goals in the near- and long-term (especially after the COVID pandemic). Moreover, through Market Research, we will formally investigate the future viability of an undergraduate degree program in Transportation Engineering, which will be the logical next step subsequent to the successful benchmarks already in place for the Graduate-only STL program.

#### Strategic Planning and Implementation (Including Engagement with External Stakeholders)

- Prioritized faculty, staff and student *diversity* and leadership development in all activities.
- Undertook a strategic planning exercise based on discussions with faculty, students, staff and alumni to develop an aspirational vision for the Institute with a five-year plan. The anticipated outcomes of this very recent initiative are to increase research funding and student enrollment (especially of *underrepresented and minority* students).
- Approached all aspects of ISTL administration with energy and enthusiasm. Created an open-door policy style of management and an informal (proven effective) main office atmosphere.
- Developed a direct communications and marketing strategy to enhance external visibility and recognition (periodic e-newsletters, targeted mailings, enhanced online presence, etc.).
- Leverage EAB members as ambassadors for ISTL in seeking benefaction to support on-going curricular activities and development of partnerships with industry.
- Currently developing initiative to transform graduate hands on learning experiences. The goal is to create a showcase to support industry-relevant infrastructure and learning experiences and to promote innovation/entrepreneurship.

#### **Faculty Excellence**

- Actively engaged in faculty hiring in areas of strategic interest to the Institute.
- Hired since 2014 seven new tenure-track faculty (three of whom are *women*).
- Supported (through reference letters, etc.) the promotion and tenure (including reappointments at mid-tenure review) of multiple faculty members in the Institute (including that of a tenured Associate Professor to Full Professor).
- To reduce faculty load in the face of growing student population, and to encourage pursuit of external funding, strategically hired one (*female*) Teaching Professor and one Professor of Practice (volunteer appointment, with no cost to the Institute).
- Organized the Institute's staff responsibilities to better support emerging faculty needs including hiring a Program Manager to support data, projections, budgets, and digital communications.
- Proactively nominated students, staff and faculty members (including *underrepresented and minority* individuals) for external awards, society fellowships and internal honors, with a high success rate.

#### **Administration and Management**

- Developed a Graduate Studies Manual for the MS in STL.
- Formed a Graduate Studies Committee with representation from all ISTL participating departments.
- Ensured that the Graduate Studies Committee consists of at least 40% faculty members from *underrepresented* or *minority* populations.
- Appointed the first *woman* to serve as Director of Graduate Studies for the MS in STL (a first ever appointment in many of the School of Engineering and Applied Sciences Departments at UB).
- Developed an administrative mechanism so that ISTL takes appropriately deserved credit of research efforts put forth by ISTL funded, core, and affiliate faculty members.
- Hired (in 2018) a Research Support Coordinator to provide support to research active faculty on both pre- and post-award tasks including budget preparation, proposal docket development, student appointments, and purchasing. This resulted (within 3 years) in an increase of the proposals credited to ISTL by ~150%, and an increase in funded research by over 500%. The ISTL faculty have been successful in securing large grants from federal and regional organizations (NSF, FHWA, USDOT, etc.), through partnerships with local and regional public and private entities.
- Through a recurring endowment income, conceptualized and implemented the ISTL Sponsored Pilot Research (SPR) program initiative. The SPR program was very successful, attracting a dozen proposals with the participation of over 30 faculty members across 3 Schools and 12 Departmental units. Based on double-blind peer review and a thorough and fair evaluation process, 5 grants were awarded to 12 faculty from 3 Schools and 10 Departmental units, totaling \$536K for a 2-year period. Note that 3 out of the 4 *underrepresented or minority* faculties' grant applications were successful through the double-blind review process.

#### **Educational Excellence / Student Experiences**

- Maintain the MS degree program in STL to remain in line with the strategic priorities of UB, including full alignment and compliance with the Mission Review Memorandum of Understanding, as well as the Middle States Reaccreditation Review.
- Increased MS in STL enrollment from 3 students in its first year of operation, to 55 in its current year (over 1700% increase).
- Currently in the process of adding a new "track" in MS in STL in the area of automation, which is anticipated to attract majors in Computer Science, and bridge the gap between traditional transportation engineering and emerging mobility and transportation technologies.
- Targeted attracting *underrepresented and minority* students for the MS in STL, leading to 14 enrollments of such students out of 30 in the Fall 2020 cohort (nearly 50%), and 7 out of 13 in the Fall 2021 cohort (over 50%).
- Acquired STEM certification for the Institute, which allows the international students to use OPT and CPT temporary employment options related to their F-1 visas.
- Co-sponsored and participated in the School of Management's Case Competition, Organized by the Supply Chain and Operations Management Student Club to strengthen ties with the Industry.
- Developed student exchange partnerships, and online (elective) courses and certificates in online educational forums. Currently developing online versions of existing core courses, professional certificates, and discipline badges, in order to incorporate them in Coursera and other online educational forums.
- Developed annual Fall information sessions for incoming students.
- Conducted exit interviews of all graduating students, with very positive feedback for the Program.
- Created a mentor program for the students.

#### **Institute Culture and Outreach**

- Developed Distinguished Lecturer Series (two globally recognized experts visited from University
  of Michigan and ETH Zurich, Switzerland) and the Legends Talk (featuring a world renowned
  expert from the industry). These lectures have offered ISTL high visibility and have promoted the
  Institute's mission.
- Developed a regular ISTL seminar series, which hosts presentations from our students and faculty, on a biweekly basis, and which serves as a platform for faculty and researchers to discuss ideas and form teams for future research endeavors (proposals, etc.). To ensure a diverse representation, I have reserved a subset of the seminars to host outstanding *female* and *underrepresented minority* PhD students and postdocs. This initiative has significantly contributed in the successful partnerships of several of our faculty members in receiving over \$18 million in competitive grants since its inception in 2017, and in the successful placement of our graduates to prominent positions in the industry and in academia.
- Currently instituting a series of Professional Development workshops for ISTL students covering Professional Networking, Gender Issues in Sustainable Transportation and Logistics, and Career Pathways.
- Held receptions at TRB for 7 consecutive years (due to the pandemic, the reception was not held during the virtual 2021 TRB annual meeting, and during the 2022 meeting that observed very low attendance). The last two receptions (2019 and 2020) were arguably the most well attended (over 150 registered attendees, plus hundreds passing by) and were very well received.
- Sponsored for the fourth consecutive time (since 2017) the UB's National Summer Transportation Institute (NSTI). NSTI successfully attracts ~30 local high school students to a 1-week long summer educational program in transportation. Offered full financial support for *underrepresented* and minority students to encourage their participation in the summer camp, which has been a successful incentive (nearly 50% of the participants are *underrepresented* and minority students).
- Made available to our graduate students the Career Services offered by the School of Management, which helped them identify and secure jobs at large companies and organizations, such as Amazon, HDR Inc., Lactalis American Group, AVC Auctions, Exponent, Bergmann, Turkish Airlines, CDM Smith, Kapsch TrafficCom North America, NYSDOT, and NITTEC.

■ Increased engagement with students and career services resources on campus (e.g., coordinated career services workshops for our students for incoming student cohorts; joint effort with School of Management and UB career services to increase awareness of services available to our students from both organizations; two STL students won the 1st round of contest hosted in 2020 by the School of Management CRC 2-minute pitch contest – currently completing for chance at an interview with TESLA as a result).

#### **Infrastructure and Operations**

- Pursued and received a new endowment (in 2019) to build a new space in Ketter Hall and house ISTL in its own location (a newly redesigned and remodeled space, that accommodates faculty and staff offices, a conference room, and workstations for students).
- Acquired (in 2020) the Motion Simulation Lab (MSL), and developed it as a signature ISTL facility. This marquee research facility features our SimRING Simulator, anchored by a six degree-of-freedom motion-based driving simulator with a fully-surround field-of-view. The facility was leveraged for academic research collaborations, industry partnerships, and workforce development. This allowed for the development of a state-of-the-art facility for fundamental research in human factors, autonomous and connected vehicles, and transportation technologies, and for pursuing center-type funding. The MSL also has an educational mission for the society, in terms of training young drivers for safer trips. In the nearly two years since the acquisition of the MSL, the research expenditure associated with MSL has nearly doubled.
- Led the re-design of our Institute's website to better communicate critical information to current and potential students, parents, current and potential faculty, and other external site visitors.
- Led the development of both digital and printed communication pieces capturing timely and current events, awards, and ISTL accolades.
- Developing a State-of-the-art Facility to realize emerging transportation technologies, such as self-driving vehicles, flying cars, and E-VTOLs, with the goal to establish ISTL as one of the leaders in the upcoming transportation revolution. The new facility will allow the design, development, testing, and deployment of ground based self-driving and advanced air vehicles in the existing transportation system.

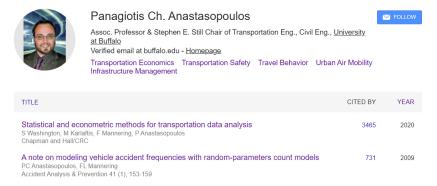
#### **Examples of Leadership Demonstrating Commitment to Diversity and Inclusion**

- Led the Institute's hiring efforts to broaden *gender* and *ethnic diversity* to meet the Schools' and University's *diversity* goals. Combed through CVs and worked with personal connections to promote highly qualified *diversity* candidates. This resulted in successful hiring of 3 tenure-track *female* faculty, and 1 *female* non-tenure track faculty (teaching assistant professor).
- Successfully supported the promotion and tenure of 2 *female* tenure-track faculty (including through reappointment mid-tenure review), and 1 *female* teaching faculty (through promotion to teaching associate professor).
- Appointed the first *woman* Director of Graduate Studies for the MS in STL.
- Appointed 40% faculty members from *underrepresented* or *minority* populations as members of the Graduate Studies Committee.
- Ensured participation of *underrepresented or minority* faculty members in the ISTL Sponsored Pilot Research (SPR) program initiative, which resulted in 3 out of the 4 *underrepresented or minority* faculties' grant applications to be successful through a double-blind review process.
- Attracted *underrepresented and minority* students for the MS in STL, whose enrollment has reached nearly 50% over the last two years.
- Offered full financial support for *underrepresented and minority students* to encourage their participation in the UB's National Summer Transportation Institute (NSTI). Out of 30 local high school students, nearly half of them were *underrepresented and minority* students.
- Nominated *underrepresented and minority* students and faculty members for external awards, society fellowships and internal honors, with a high success rate.
- Reserved a subset of the Institute seminars to host select *female* and *underrepresented minority* PhD students and postdocs.

#### LIST OF PUBLICATIONS

#### Citations of Published Work

• Google Scholar citation metrics as of March 2022 (finding 109 documents):





• Scopus citation metrics as of March 2022:



• Clarivate<sup>TM</sup> Web of Science<sup>2</sup> citation metrics as of March 2022:



 ORCID iD https://orcid.org/0000-0002-4871-1288

<sup>&</sup>lt;sup>2</sup> Formerly, the Thomson Reuters ISI Web of Knowledge.

#### **Refereed Journal Publications** [Asterisks denote student advisees.]

- J70. \*Ahmed, S., Corman, F., **Anastasopoulos, P.**, 2022. Accounting for unobserved heterogeneity and spatial instability in the analysis of crash injury-severity at highway-rail grade crossings: A random parameters with heterogeneity in the means and variances approach. Forthcoming, *Analytic Methods in Accident Research*.
- J69. \*Pang, J., Adam, S., Benedyk, I., \*Ahmed, S., **Anastasopoulos, P.**, 2022. A temporal instability analysis of environmental factors affecting accident occurrences during snow events: The random parameters hazard-based duration model with means and variances heterogeneity. Forthcoming, *Analytic Methods in Accident Research*.
- J68. \*Ahmed, S., Alnawmasi, N., **Anastasopoulos, P.**, Mannering, F., 2022. The effect of higher speed limits on crash-injury severity rates: A correlated random parameters bivariate tobit approach. Forthcoming, *Analytic Methods in Accident Research*.
- J67. \*Eker, U., \*Fountas, G., \*Ahmed, S., **Anastasopoulos, P.**, 2022. Survey data on public perceptions towards flying cars and flying taxi services. *Data in Brief*, 107981.
- J66. \*Pantangi, S., \*Fountas, G., \*Sarwar, T., Bhargava, A., Mohan, S., Savolainen, P., **Anastasopoulos**, **P.**, 2021. The impact of public-private partnerships for roadway projects on traffic safety: An exploratory empirical analysis of crash frequencies. *Analytic Methods in Accident Research*, 33, 100192.
- J65. \*Ahmed, S., \*Fountas, G., \*Eker, U., **Anastasopoulos, P.**, 2021. Are we willing to relocate with the future introduction of flying cars? An exploratory empirical analysis of public perceptions in the United States. *Transportmetrica A: Transport Science*, 1-28, https://doi.org/10.1080/23249935.2021.1916643.
- J64. \*Ahmed, S., Cohen, J., **Anastasopoulos, P.**, 2021. A correlated random parameters with heterogeneity in means approach of deer-vehicle collisions and resulting injury-severities. *Analytic Methods in Accident Research*, 30, 100160.
- J63. \*Pantangi, S., \*Ahmed, S., \*Fountas, G., Majka, K. **Anastasopoulos, P.**, 2021. Do high visibility crosswalks improve pedestrian safety? A correlated grouped random parameters approach using naturalistic driving study data. *Analytic Methods in Accident Research*, 30, 100155.
- J62. Guo, Y., Li, Y., **Anastasopoulos, P.**, Peeta, S., Lu, J., 2021. China's millennial car travelers' mode shift responses under congestion pricing and reward policies: A case study in Beijing. *Travel Behaviour and Society*, 23, 86-99.
- J61. \*Ahmed, S., \*Fountas, G., \*Eker, U., Still, S., **Anastasopoulos, P.**, 2021. An exploratory empirical analysis of willingness to hire and pay for flying taxis and shared flying car services. *Journal of Air Transport Management*, 90, 101963.
- J60. \*Ahmed, S., \*Pantangi, S., \*Eker, U., \*Fountas, G., Still, S., **Anastasopoulos, P.**, 2020. Analysis of safety benefits and security concerns from the use of autonomous vehicles: A grouped random parameters bivariate probit approach with heterogeneity in means. *Analytic Methods in Accident Research*, 28, 100134. <sup>3</sup>
- J59. \*Ahmed, S., Hulme, K., \*Fountas, G., \*Eker, U., Benedyk, I., Still, S., **Anastasopoulos, P.**, 2020. The Flying Car Challenges and Strategies towards Future Adoption. *Frontiers in Built Environment*, 6, 106.
- J58. \*Eker, U., \*Fountas, G., **Anastasopoulos, P.**, 2020. An exploratory empirical analysis of willingness to pay for and use flying cars. *Aerospace Science and Technology*, 104, 105993.
- J57. \*Androutselis, T., \*Sarwar, T., \*Eker, U., **Anastasopoulos, P.**, Agalianos, A., Sakellariadis, L., Anastasopoulos, I., 2020. Real-time seismic damage assessment of various bridge types using a nonlinear three-stage least squares approach. *ASCE Journal of Infrastructure Systems*, 26(3), 04020019.

<sup>&</sup>lt;sup>3</sup> 24<sup>th</sup> most cited article since 2019, in Analytic Methods in Accident Research.

- J56. \*Eker, U., \*Fountas, G., **Anastasopoulos, P.**, Still, S., 2020. An exploratory investigation of public perceptions towards key benefits and concerns from the future use of flying cars. *Travel Behaviour and Society*, 19, 54-66. 4.5
- J55. Guo, Y., Wang, J., Peeta, S., **Anastasopoulos, P.**, 2020. Personal and societal impacts of motorcycle ban policy on motorcyclists' home-to-work morning commute in China. *Travel Behaviour and Society*, 19, 137-150. <sup>6</sup>
- J54. \*Pantangi, S., \*Fountas, G., **Anastasopoulos, P.**, Pierowicz, J., Majka, K., Blatt, A., 2020. Do High Visibility Enforcement programs affect aggressive driving behavior? An empirical analysis using Naturalistic Driving Study data. *Accident Analysis and Prevention*, 138, 105361.
- J53. \*Eker, U., \*Ahmed, S., \*Fountas, G., **Anastasopoulos, P.** 2019. An exploratory investigation of public perceptions towards safety and security from the future use of flying cars in the United States. *Analytic Methods in Accident Research*, 23, 100103. <sup>7,8</sup>
- J52. \*Jordan, G., **Anastasopoulos, P.**, Peeta, S., Somenahali, S., Rogerson, P., 2019. Identifying elderly travel time disparities using a correlated grouped random parameters hazard-based duration approach. *Research in Transportation Business & Management*, 30, 100369. 9
- J51. \*Fountas, G., \*Pantangi, S., Hulme, K.F., **Anastasopoulos, P.**, 2019. The effects of driver fatigue, gender, and distracted driving on perceived and observed aggressive driving behavior: A correlated grouped random parameters bivariate probit approach. *Analytic Methods in Accident Research*, 22, 100091. <sup>10,11</sup>
- J50. \*Pantangi, S., \*Fountas, G., \*Sarwar, T., **Anastasopoulos, P.**, Blatt, A., Majka, K., Pierowicz, J., Mohan, S. 2019. A preliminary investigation of the effectiveness of high visibility enforcement programs using naturalistic driving study data. *Analytic Methods in Accident Research*, 21, 1-12. 12,13
- J49. Ghaisi, A., \*Fountas, G., **Anastasopoulos, P.**, Mannering, F., 2019. Statistical assessment of peer opinions in higher education rankings: The case of engineering graduate programs. *Journal of Applied Research in Higher Education*, 11(3), 481-492.
- J48. Anastasopoulos, I., **Anastasopoulos**, **P.**, Sakellariadis, L., Agalianos, A., Kourkoulis, R., Gelagoti, F., Gazetas, G., 2018. Development of RApid REsponse (RARE) system for motorway bridges: Overview and pilot application to Attiki Odos motorway. *International Journal of Geoengineering Case Histories*, 4(4), 306-326.
- J47. \*Fountas, G., **Anastasopoulos, P.**, 2018. Analysis of accident injury-severity outcomes: The zero-inflated hierarchical ordered probit model with correlated disturbances. *Analytic Methods in Accident Research*, 20, 30-45. <sup>14</sup>

<sup>&</sup>lt;sup>4</sup> 6<sup>th</sup> (tied) most cited article since 2019, in Travel Behaviour and Society.

<sup>&</sup>lt;sup>5</sup> As of May/June 2021, this highly cited paper received enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year. Data from Essential Science Indicators<sup>™</sup> - Web of Science.

<sup>&</sup>lt;sup>6</sup> 18<sup>h</sup> most cited article since 2019, in Travel Behaviour and Society.

<sup>&</sup>lt;sup>7</sup> 7<sup>th</sup> most cited article since 2019, in Analytic Methods in Accident Research.

<sup>&</sup>lt;sup>8</sup> As of May/June 2021, this highly cited paper received enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year. Data from Essential Science Indicators<sup>™</sup> - Web of Science.

<sup>&</sup>lt;sup>9</sup> 21<sup>st</sup> (tied) most cited article since 2018, in Research in Transportation Business & Management.

<sup>&</sup>lt;sup>10</sup> 1<sup>st</sup> most cited article since 2019, in Analytic Methods in Accident Research.

<sup>&</sup>lt;sup>11</sup> As of July/August 2020, this highly cited paper received enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year. Data from Essential Science Indicators<sup>™</sup> - Web of Science.

<sup>&</sup>lt;sup>12</sup> 8<sup>th</sup> (tied) most cited article since 2019, in Analytic Methods in Accident Research.

<sup>&</sup>lt;sup>13</sup> As of November/December 2019, this highly cited paper received enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year. Data from Essential Science Indicators<sup>SM</sup> - Web of Science.

<sup>&</sup>lt;sup>14</sup> 4<sup>th</sup> (tied) most cited article since 2018, in Analytic Methods in Accident Research.

- J46. Guo, Y., Wang, J., Peeta, S., **Anastasopoulos, P.**, 2018. Impacts of internal migration, household registration system, and family planning policy on travel mode choice in China. *Travel Behaviour and Society*, 13, 128-143. <sup>15</sup>
- J45. \*Fountas, G., **Anastasopoulos, P.**, Abdel-Aty, M., 2018. Analysis of accident injury-severities using a correlated random parameters ordered probit approach with time variant covariates. *Analytic Methods in Accident* Research, 18, 57-68. <sup>16,17</sup>
- J44. \*Fountas G., **Anastasopoulos, P.**, Mannering, F., 2018. Analysis of vehicle accident-injury severities: A comparison of segment- versus accident-based latent-class ordered probit models with class-probability functions. *Analytic Methods in Accident Research*, 18, 15-32. <sup>18,19</sup>
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As of July/August 2020, this highly cited paper received enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year. Data from Essential Science Indicators<sup>™</sup> - Web of Science.

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- J1. **Anastasopoulos**, **P.**, Tarko, A., Mannering, F., 2008. Tobit analysis of vehicle accident rates on interstate highways. *Accident Analysis and Prevention*, 40(2), 768-775.

#### Papers Under Review in Refereed Journals and Working Papers [Asterisks denote student advisees.]

- V11. \*Mahmood, K., \*Pang, J., \*Ahmed, S., \*Yu, G., Benedyk, I., **Anastasopoulos, P.** Lessons learned from Naturalistic Driving data processing in a data enclave: Preliminary discoveries from analyzing dash camera videos. (Under journal review.)
- V10. Song, D., Yang, X., **Anastasopoulos, P.**, Zu, X., Yue, X. Temporal stability of the impact of roadside barriers on injury-severity of mountainous crashes: A random parameters logit approach with heterogeneity in means and variances. (Under journal review.)
- V9. \*David, D., \*Ahmed, S., \*Sarwar, T., \*Fountas, G., **Anastasopoulos, P.** An empirical analysis of pavement performance and pavement service life of various public private partnership pavement rehabilitation treatments. (Under journal review.)
- V8. Balusus, S., \*Ahmed, S., **Anastasopoulos, P.**, Mannering, F. Crash occurrence and injury-severity analysis using bivariate count data random parameters models with mean and variance heterogeneity. (Under journal review.)
- V7. \*Ahmed, S., \*Fountas, G., **Anastasopoulos, P.**, Peeta, S. The correlated grouped random parameters bivariate hazard-based duration model: Simultaneously accounting for cross-equation error correlation, endogeneity, and unobserved heterogeneity. (Under journal review.)
- V6. \*Fettahoglu, M., \*Jordan, G., Benedyk, I., **Anastasopoulos, P.** Macroscopic state-level empirical analysis of pavement roughness using a time-space econometric modeling approach. (Under journal review.)

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- V5. Dua, R., Chen, S., Li, Y., Ha, P., Dong, J., Labi, S., **Anastasopoulos, P.** Addressing accident-imminent situations involving autonomous vehicles in mixed traffic: A cooperation-based methodology. (Under journal review.)
- V4. \*Pang, J., \*Mahmood, K., \*Ahmed, S., Benedyk, I., **Anastasopoulos, P.** How did the COVID-19 pandemic affect willingness to pay for and use autonomous vehicles in the USA? An exploratory econometric analysis. (Working paper.)
- V3. \*Mahmood, K., \*Pang, J., \*Ahmed, S., \*Fountas, G., \*Eker, U., Benedyk, I., **Anastasopoulos, P.** Tracking public attitudes towards the use of automated vehicles in the USA before and during the outbreak of the COVID-19 pandemic. (Working paper.)
- V2. \*Pang, J., \*Mahmood, K., \*Ahmed, S., \*Fountas, G., \*Eker, U., Benedyk, I., Still, S., **Anastasopoulos, P.** Evaluating passenger experience on surface access trips to the airport in the USA: Is there a shift of satisfaction and of its determinants during the COVID-19 pandemic? (Working paper.)
- V1. \*Mahmood, K., \*Pang, J., \*Ahmed, S., \*Fountas, G., \*Eker, U., Benedyk, I., Still, S., **Anastasopoulos, P.** How does air travel purpose influence surface access to the airport? A statistical assessment of air passengers' mode preferences before and during the outbreak of the COVID-19 pandemic. (Working paper.)

#### **Books**

B1. Washington, S., Karlaftis, M., Mannering, F., **Anastasopoulos, P.**, 2020. <u>Statistical and econometric methods for transportation data analysis</u>. Third edition, CRC Press, Taylor and Francis Group, New York, NY (Amazon).

#### **Refereed Parts of Books**

- PB2. Warith, K., Anastasopoulos, P., Richardson, W., Fricker, J., Haddock, J., 2016. Design of roadway infrastructure to service sustainable energy facilities. Chapter 2 in *Transportation and the Environment: Assessments and Sustainability*, by Gabriela Ionescu (Editor), Apple Academic Press, CRC Press Taylor & Francis Group, New Jersey.
- PB1. Tarko, A., **Anastasopoulos, P.**, 2011. Transportation Systems Modeling and Evaluation. Chapter 4 in *Handbook of Transportation Engineering, Volume I: Systems and Operations*, by Myer Kutz (Editor), Second Edition, McGraw-Hill, New York.

#### **Peer Reviewed Conference Proceedings** [Asterisks denote student advisees.]

- C51. \*Ahmed, S., Majka, K., Pierowicz, J., Blatt, A., **Anastasopoulos, P.**, \*Pantangi, S., \*Eker, U., \*Fountas, G., 2022. Phase 2 High Visibility Crosswalk Pedestrian Study: Concept to Countermeasure Research to Deployment Using the SHRP2 Safety Data. *101st Transportation Research Board Annual Meeting*, Washington DC, 1/9-13, 2022. 42
- C50. \*Pang, J., Adam, S., Benedyk, I., \*Ahmed, S., \*Mahmood, K., **Anastasopoulos, P.**, 2022. Investigation of environmental factors affecting accidents occurrence during snow events: A random parameters hazard-based duration modeling approach with heterogeneity in means and variances. *101st Transportation Research Board Annual Meeting*, Washington DC, 1/9-13, 2022. *Best paper award*, given by the Transportation Research Board's Committee on Statistical Methods (AED60).
- C49. Hulme, K., Lim., R., Benedyk, I., Still, S., **Anastasopoulos, P.**, \*Ahmed, S., \*Fountas, G., 2021. Advanced Air Mobility (AAM) Innovating Modeling & Simulation (M&S) to Revolutionize the Future of Transportation. *Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) Innovating and Accelerating Training: Adapting to an Unexpected Future!*, Orlando, Florida, 11/29-12/3, 2021. *Best Tutorial Award*.

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- C48. Dua, R., Chena, S., Li, Y., Ha, P., Dong, J., Labi, S., **Anastasopoulos, P.**, 2021. A cooperative crash avoidance framework for autonomous vehicles under collision-imminent situations in mixed traffic stream. *24th IEEE Intelligent Transportation Systems Conference (ITSC 2021)*, Indianapolis, IN, 9/19-22, 2021.
- C47. \*Ahmed, S., Cohen, J., **Anastasopoulos, P.**, 2021. An exploratory analysis of factors causing deervehicle collisions: A case study in Pennsylvania. *100<sup>th</sup> Transportation Research Board Annual Meeting*, Virtual Event, 1/2021. *Best paper award*, given by the Transportation Research Board's Committee on Statistical Methods (AED60).
- C46. \*Ahmed, S., \*Fountas, G., \*Eker, U., Still, S., **Anastasopoulos, P.**, 2021. An exploratory empirical analysis of public willingness to hire and pay for flying taxis and shared flying car services. *100<sup>th</sup> Transportation Research Board Annual Meeting*, Virtual Event, 1/2021.
- C45. *Invited:* \*Ahmed, S., \*Fountas, G., \*Eker, U., Still1, S., **Anastasopoulos, P.**, 2020. Advanced air vehicles and willingness to hire and to pay for urban air mobility services: A correlated grouped random parameters bivariate probit approach. *2nd Annual Conference on Next-Generation Transport Systems (NGTS-2)*, Virtual Event, Purdue University, West Lafayette, IN, 12/28-31, 2020. *Best presentation award* (presented by \*S. Ahmed).
- C44. Hulme, K., **Anastasopoulos, P.**, Still, S., Lim, R., \*Ahmed, S., Benedyk, I., \*Pantangi, S., \*Fountas, G., Smolinski, G., 2020. The future of motorized and autonomous mobility (is now): Modeling & Simulation (M&S) requirements for flying cars. Forthcoming, *2020 Interservice/Industry Training, Simulation & Education Conference*, Orlando, FL, 11/20-12/4, 2020.
- C43. \*Eker, U., \*Fountas, G., **Anastasopoulos, P.**, 2020. Identifying the early adopters of flying cars: Who is willing to pay for and use them? *99th Transportation Research Board Annual Meeting*, Washington DC, 1/11-17, 2020.
- C42. \*Ahmed, S., \*Fountas, G., **Anastasopoulos, P.**, 2020. Simultaneous modeling of travel time and distance: A bivariate hazard-based approach with correlated grouped random parameters. *99<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/11-17, 2020.
- C41. Guo, Y., Wang, J., Peeta, S., **Anastasopoulos, P.**, 2020. Understanding motorcycle full ban policy's personal and societal impacts in China. *99<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/11-17, 2020.
- C40. Hulme, K., **Anastasopoulos, P.**, Still, S., \*Pantangi, S., \*Eker, U., \*Ahmed, S., \*Fountas, G., 2019. The flying car Emergent modeling and simulation (M&S) policies and standards concerns. *2019 Interservice/Industry Training, Simulation & Education Conference*, Orlando, FL, 12/2-6, 2019.
- C39. \*Eker, U., \*Fountas, G., **Anastasopoulos, P.**, Still, S., 2019. An exploratory investigation of public perceptions towards key benefits and concerns from the future use of flying cars. *98th Transportation Research Board Annual Meeting*, Washington DC, 1/13-17, 2019.
- C38. \*Jordan, G., **Anastasopoulos, P.**, Peeta, S., Somenahalli, S., Rogerson, P., 2019. Correlated grouped random parameters hazard-based duration analysis of elderly travel times. *98th Transportation Research Board Annual Meeting*, Washington DC, 1/13-17, 2019.
- C37. Guo, Y., Wang, J., Peeta, S., **Anastasopoulos, P.**, 2019. Understanding the impacts of internal migration and household registration system on travel mode choice in China. *98th Transportation Research Board Annual Meeting*, Washington DC, 1/13-17, 2019.
- C36. \*Fountas, G., **Anastasopoulos, P.**, 2019. Analysis of accident injury-severity outcomes: The zero-inflated hierarchical ordered probit model with correlated disturbances. *98<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/13-17, 2019.
- C35. \*Pantangi, S., \*Fountas, G., **Anastasopoulos, P.**, Pierowicz, J., Majka, K., Blatt, A., 2019. Effect of high visibility enforcement programs on aggressive driving behavior: An empirical analysis using SHRP2 Naturalistic Driving Study (NDS) data. *98<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/13-17, 2019.
- C34. \*Sarwar, T., Bhargava, A., **Anastasopoulos, P.**, Mohan, S., 2019. Public-Private Partnerships for roadway construction and preservation, and traffic safety: An exploratory empirical analysis of crash frequencies. *98<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/13-17, 2019.

- C33. \*Fountas, G., **Anastasopoulos, P.**, Abdel-Aty, M., 2018. Analysis of accident injury-severities using a time-variant correlated random parameters ordered probit approach. *97<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/7-11, 2018.
- C32. \*Fountas, G., \*Sarwar, T., **Anastasopoulos, P.**, Blatt, A., Majka, K., 2017 Analysis of stationary and dynamic factors affecting highway accident occurrence. *96<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/8-12, 2017.
- C31. \*Sarwar, T., \*Fountas, G., \*Bentley, C., **Anastasopoulos, P.**, Blatt, A., Pierowicz, J., Majka, K., Limoges, R., 2017. A preliminary investigation of the effectiveness of high visibility crosswalks on pedestrian safety. *96<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/8-12, 2017.
- C30. \*Golshani, N., \*Sarwar, T., Anastasopoulos, P., Hulme, K., 2017. Exploratory empirical analysis of measured and perceived aggressive driving behavior in a driving simulation environment. 96<sup>th</sup> Transportation Research Board Annual Meeting, Washington DC, 1/8-12, 2017.
- C29. Hulme, K., **Anastasopoulos**, **P.**, \*Androutselis, T., \*Eker, U., 2016. Design of a game-based modeling and simulation environment with implementation to examine task-unrelated thought while driving. *MODSIM World 2016*, Virginia Beach, Virginia, 4/26-28, 2016.
- C28. \*Sarwar, T., **Anastasopoulos, P.**, Ukkusuri, S., Murray-Tuite, P., Mannering, F., 2016. A statistical analysis of the dynamics of household hurricane-evacuation decisions. *95<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/10-14, 2016.
- C27. \*Sarwar, T., **Anastasopoulos, P.** A three-stage least squares analysis of post-rehabilitation pavement performance. *95<sup>th</sup> Transportation Research Board Annual Meeting*, Washington DC, 1/10-14, 2016.
- C26. Hulme, K., Morris, K., Fabiano, G., Frank, M., Houston, R., **Anastasopoulos, P.**, 2015. Multimeasure assessment of internal distractions on driver performance. *Interservice/ Industry Training, Simulation, and Education Conference (I/ITSEC)*, Orlando, Florida, 11/30-12/4, 2015.
- C25. Anastasopoulos, I., **Anastasopoulos**, **P.**, Agalianos, A., Sakellariadis L. On the development of a Rapid Response System for Motorways. *6th International Conference on Earthquake Geotechnical Engineering*, Christchurch, New Zealand, 11/1-4, 2015.
- C24. **Anastasopoulos, P.**, 2015. Random parameters multivariate tobit and zero-inflated count data models: Addressing unobserved and zero-state heterogeneity in accident injury-severity rate and frequency analysis. *2015 Road Safety & Simulation International Conference*, Orlando, Florida, 10/6-8, 2015.
- C23. \*Sarwar, T., **Anastasopoulos, P.**, 2015. The effect of long term non-invasive pavement deterioration on accident injury-severity rates: A seemingly unrelated equations approach. 2015 Road Safety & Simulation International Conference, Orlando, Florida, 10/6-8, 2015.
- C22. \*Sarwar, T., \*Nahidi, A., **Anastasopoulos, P.**, 2015. Analysis of accident injury-severities of helmeted and non-helmeted motorcyclists. *2015 Road Safety & Simulation International Conference*, Orlando, Florida, 10/6-8, 2015.
- C21. Warith, K., **Anastasopoulos, P.**, Seidel, J., Haddock, J., 2014. Simple empirical guide to low-volume road design. *93rd Transportation Research Board Annual Meeting*, Washington DC, 1/12-16, 2014.
- C20. **Anastasopoulos, P.**, Islam, M., Perperidou, D., Karlaftis, M., 2012. An analysis of urban travel times: A random parameters hazard-based approach. *91st Transportation Research Board Annual Meeting*, Washington DC, 1/22-26, 2012.
- C19. **Anastasopoulos, P.**, Karlaftis, M., Haddock, J. Mannering, F., 2012. An analysis of household automobile and motorcycle ownership with the random parameters bivariate ordered probit model. *91st Transportation Research Board Annual Meeting*, Washington DC, 1/22-26, 2012.
- C18. Tarko, A., **Anastasopoulos, P.**, Pérez-Zuriaga, A. Can Education and Enforcement Affect Behavior of Car and Truck Drivers on Urban Freeways? *3<sup>rd</sup> International Conference on Road Safety and Simulation*, Indianapolis, IN, 9/14-16, 2011.

- C17. Leckrone, S., Tarko, A., **Anastasopoulos, P.** On improving safety at high-speed rural intersections. 3<sup>rd</sup> International Conference on Road Safety and Simulation, Indianapolis, IN, 9/14-16, 2011.
- C16. Labi, S., Bai, Q., Kumar, I, Ahmed, A., **Anastasopoulos, P.**, 2011. Quantifying System Vulnerability as a Performance Measure for Systems Investment Evaluation and Decision-making. *International Conference on Vulnerability and Risk Analysis and Management (ICVRAM) and the Fifth International Symposium on Uncertainty Modeling and Analysis (ISUMA), Hyattsville, MD, 4/11-13, 2011.*
- C15. **Anastasopoulos, P.**, Islam, M., Volovski, M., Powell, J., Labi, S., 2011. Comparative analysis of public-private partnerships in roadway preservation. *90th Transportation Research Board Annual Meeting*, Washington DC, 1/23-27, 2011.
- C14. Anwaar, A., **Anastasopoulos, P.**, Islam, M., Labi, S., 2011. Road fatalities, health service quality, and motorization level: An empirical analysis using aggregate country-level data. *90th Transportation Research Board Annual Meeting*, Washington DC, 1/23-27, 2011.
- C13. **Anastasopoulos, P.**, Islam, M., Karlaftis, M., 2011. A travel time-to-destination analysis in urban metropolitan areas. *90th Transportation Research Board Annual Meeting*, Washington DC, 1/23-27, 2011.
- C12. **Anastasopoulos, P.**, Mannering, F., Tarko, A., 2011. A note on vehicle crash-injury severity analysis with the mixed logit model. *90th Transportation Research Board Annual Meeting*, Washington DC, 1/23-27, 2011.
- C11. Scheinberg, T., **Anastasopoulos, P.**, 2010. Pavement Preservation Programming: A Multi-Year Multi-Constraint Optimization Methodology. *89th Transportation Research Board Annual Meeting*, Washington DC, 1/10-14, 2010.
- C10. McCullouch, B., **Anastasopoulos, P.**, 2009. Performance Based Contracting, Yes or No, an In-Depth Analysis. *12th AASHTO/TRB Maintenance Management Conference*, Annapolis, MD, 7/19-23, 2009.
- C9. Irfan, M., Bilal Khurshid, M., **Anastasopoulos, P.**, Labi, S., 2009. An Econometric Analysis of the Influence of Highway Project Size, Project Type, and Contract Type on Project Duration. *88th Transportation Research Board Annual Meeting*, Washington DC, 1/11-15, 2009.
- C8. **Anastasopoulos, P.,** Labi S., McCullouch, B., 2009. Analyzing Duration and Prolongation of Performance-Based Contracts Using Hazard-Based Duration and Zero-Inflated Random Parameters Poisson Models. 88th Transportation Research Board Annual Meeting, Washington DC, 1/11-15, 2009.
- C7. **Anastasopoulos, P.,** Mannering, F., 2009. Modeling Vehicle-Accident Frequencies with Random-Parameter Count Models. 88th Transportation Research Board Annual Meeting, Washington DC, 1/11-15, 2009.
- C6. **Anastasopoulos, P.,** Labi S., McCullouch, B., 2009. Identifying Appropriate Contract Type on the Basis of Highway Maintenance and Rehabilitation Project Characteristics. *88th Transportation Research Board Annual Meeting*, Washington DC, 1/11-15, 2009.
- C5. **Anastasopoulos, P.**, Labi, S., Karlaftis, M., Mannering, F., 2009. Exploring Relationships between Aggregate Pavement Performance, and Surface Geology, Climate, and Expenditure: An Econometric Analysis of State-level Data. 88th Transportation Research Board Annual Meeting, Washington DC, 1/11-15, 2009.
- C4. Bhargava, A., **Anastasopoulos, P.**, Mannering, F., Sinha, K.C., Labi, S., 2008. Analyzing time delay of highway construction transportation contracts: An exploratory study. *2008 Joint Statistical Meetings*, Denver, CO, 7/31-8/7, 2008.
- C3. Bhargava, A., **Anastasopoulos, P.**, Labi, S., Sinha, K.C., Mannering, F., 2008. An analysis of cost and time overruns of construction contracts using system equation methods. *10th International Conference on Applications of Advanced Technologies in Transportation*, Athens, Greece, 5/27-31, 2008.

- C2. Bhargava, A., **Anastasopoulos, P.**, Labi, S., Sinha, K.C., Mannering, F., 2008. A simple model for predicting delay at actuated signalized intersections. *10th International Conference on Applications of Advanced Technologies in Transportation*, Athens, Greece, 5/27-31, 2008.
- C1. **Anastasopoulos, P.**, Gkritza, K., McCullouch, B., Mannering, F., Sinha, K.C., 2008. Performance-based contracting for roadway maintenance: An exploratory empirical analysis. *10th International Conference on Applications of Advanced Technologies in Transportation*, Athens, Greece, 5/27-31, 2008.

# Papers at Conferences, and Technical and Professional Meetings (Abstract Reviewed) [Asterisks denote student advisees.]

- A35. *Invited:* \*David, D., \*Ahmed, S., \*Sarwar, T., \*Fountas, G., **Anastasopoulos, P.**, 2022. An in-depth econometric analysis of pavement performance and service life by pavement rehabilitation treatment type and delivery method. To be presented at the *4th International Symposium on Infrastructure Asset Management (SIAM4)*, Northwestern University Transportation Center, Northwestern University, Evanston, IL, June 6/4-5, 2022.
- A34. \*Ahmed, S., \*Pantangi, S., \*Eker, U., \*Fountas, G., Still, S., **Anastasopoulos, P.**, 2021. Accounting for multilayered unobserved heterogeneity in bivariate probit modeling with the grouped random parameters bivariate probit model with heterogeneity in means. *15th Annual International Conference on Statistics: Teaching, Theory & Applications*, Athens, Greece, 6/28-7/1, 2021.
- A33. \*Pantangi, S., \*Ahmed, S., \*Fountas, G., Majka, K., **Anastasopoulos, P.**, 2021. Improving pedestrian safety using High Visibility Crosswalks: A correlated grouped random parameter approach with heterogeneity in means. *11th Annual International Conference on Civil Engineering*, Athens, Greece, 6/21-24, 2021.
- A32. \*Ahmed, S., \*Fountas, G., **Anastasopoulos, P.**, 2019. Accounting for cross-equation error correlation and unobserved heterogeneity in a bivariate hazard-based duration modeling framework. *13th Annual International Conference on Mathematics & Statistics: Teaching, Theory & Applications*, ATINER, Athens, Greece, 7/1-4, 2019.
- A31. \*Eker, U., \*Ahmed, S., \*Fountas, G., Still, S., **Anastasopoulos, P.**, 2019. Will flying cars be safe and secure: An exploratory empirical analysis of public perceptions. *13th Annual International Conference on Mathematics & Statistics: Teaching, Theory & Applications*, ATINER, Athens, Greece, 7/1-4, 2019.
- A30. \*Pantangi, S., \*Sarwar, T., Bhargava, A., \*Fountas, G., Mohan, S., **Anastasopoulos, P.**, 2019. Public-private partnerships for roadway construction and preservation, and traffic safety: An exploratory empirical analysis of crash frequencies. *9th Annual International Conference on Civil Engineering*, ATINER, Athens, Greece, 6/24-27, 2019.
- A29. \*Ahmed, S., \*Pantangi, S., \*Eker, U., \*Fountas, G., Still, S., Anastasopoulos, P., 2019. Public willingness to use autonomous vehicles and flying cars for airport access trips. *15th Annual International Conference on Tourism*, ATINER, Athens, Greece, 6/10-13, 2019.
- A28. \*Pantangi, S., \*Ahmed, S., \*Eker, U., \*Fountas, G., Still, S., **Anastasopoulos, P.**, 2019. Public perceptions on safety benefits and security concerns from the future use of autonomous and connected vehicles. *5th Annual International Conference on Transportation*, ATINER, Athens, Greece, 6/3-6, 2019.
- A27. \*Fountas, G., \*Pantangi, S., Hulme, K., **Anastasopoulos, P.**, 2019. The effect of driver's cognitive states on observed and perceived aggressive driving behavior: A correlated grouped random parameters approach. *5th Annual International Conference on Transportation*, ATINER, Athens, Greece, 6/3-6, 2019.
- A26. \*Ahmed, S., \*Fountas, G., \*Eker, U., Still, S., **Anastasopoulos, P.**, 2019.An empirical exploratory analysis of potential residence relocation trends from the future introduction of flying cars. *5th Annual International Conference on Transportation*, ATINER, Athens, Greece, 6/3-6, 2019.

- A25. \*Jordan, G., **Anastasopoulos, P.**, 2018. Comparing temporal and spatial trip durations for elderly travelers using the 2009 and 2017 national household travel surveys. *National Household Travel Survey (NHTS) Data for Transportation Applications Workshop*, Washington DC, 8/8-9, 2018.
- A24. \*Jordan, G., **Anastasopoulos, P.**, Peeta, S. Somenahalli, S., Rogerson, P. 2018. Correlated grouped random parameters hazard-based duration analysis of elderly travel times. *5th Annual Summer Conference on Livable Communities*, Western Michigan University, Kalamazoo, MI, 6/21-22, 2018.
- A23. Blatt, A., Pierowicz, J., Majka, K., \*Pantangi, S., \*Sarwar, T., **Anastasopoulos, P.**, Thor, C., 2016. The development of new insights into driver behavior to improve high visibility enforcement programs. *Fifth International Symposium on Naturalistic Driving Research*, Blacksburg, Virginia, 8/30-31, 2016.
- A22. \*Sarwar, T., \*Eker, U., **Anastasopoulos, P.**, 2016. An analysis of time-to-accident occurrence using random parameters hazard-based duration models. *ASCE International Conference on Transportation & Development (ICTD 2016)*, Houston, Texas, 6/26-29, 2016.
- A21. \*Eker, U., **Anastasopoulos, P.**, 2016. Factors affecting accident frequencies on curved and straight/level highway segments. *ASCE International Conference on Transportation & Development (ICTD 2016)*, Houston, Texas, 6/26-29, 2016.
- A20. \*Nahidi, A., \*Golshani, N., \*Sarwar, T., **Anastasopoulos, P.**, 2016. An empirical exploratory analysis of factors determining high-crash locations using the random parameters ordered probit model. *17th Road Safety in Five Continents (RS5C) Conference*, Rio de Janeiro, Brazil, 5/17-19, 2016.
- A19. \*Golshani, N., **Anastasopoulos, P.**, Hulme, K., 2016. A grouped random parameters bivariate probit analysis of perceived and observed aggressive driving behavior: A driving simulation study. *17th Road Safety in Five Continents (RS5C) Conference*, Rio de Janeiro, Brazil, 5/17-19, 2016.
- A18. **Anastasopoulos, P.,** Mannering, F., 2016. The effect of speed limits on drivers' speed choice: A random parameters seemingly unrelated equations approach. *17th Road Safety in Five Continents (RS5C) Conference*, Rio de Janeiro, Brazil, 5/17-19, 2016.
- A17. \*Sarwar, T., \*Golshani, N., **Anastasopoulos, P.**, 2016. A random thresholds random parameters ordered probit analysis of highway accident injury-severities. *17th Road Safety in Five Continents* (RS5C) Conference, Rio de Janeiro, Brazil, 5/17-19, 2016.
- A16. Limoges, R., Blatt, A., Pierowicz, J., **Anastasopoulos, P.**, Majka, K., Adams, D., 2015. Crosswalk markings and corridor studies: An engineering perspective to improving pedestrian safety. *New York Highway Safety Annual Fall Symposium*, Binghamton, New York, 10/18-21, 2015.
- A15. \*Eker, U., \*Androutselis, T., \*Golshani, N., **Anastasopoulos, P.**, 2015. Do the same factors affect accident frequencies on highway segments with different traffic volumes and traffic compositions? 56<sup>th</sup> Annual Transportation Research Forum, Atlanta, Georgia, 3/12-14, 2015.
- A14. \*Androutselis, T., **Anastasopoulos, P.**, Anastasopoulos, I., 2015. Assessment of seismic damage of a bridge pier using a seemingly unrelated nonlinear equations approach. *56<sup>th</sup> Annual Transportation Research Forum*, Atlanta, Georgia, 3/12-14, 2015.
- A13. \*Sarwar, T., **Anastasopoulos, P.**, 2015. A three-stage least squares analysis of post-rehabilitation pavement performance. *56<sup>th</sup> Annual Transportation Research Forum*, Atlanta, Georgia, 3/12-14, 2015.
- A12. \*Jordan, G., \*Androutselis, T., **Anastasopoulos, P.**, Somenahalli, S., Peeta, S., 2015. A random parameters hazard-based duration analysis of senior travelers' activity-based travel time and distance. 56<sup>th</sup> Annual Transportation Research Forum, Atlanta, Georgia, 3/12-14, 2015.
- A11. Tanaka, A., **Anastasopoulos, P.**, Carboneau, N., Fricker, J., Habermann, J., Haddock, J., 2012. Construction of sustainable energy facilities: Policy considerations for local agencies. *53rd Transportation Research Forum*, Tampa, FL, 3/15-17, 2012.
- A10. Warith, K., **Anastasopoulos, P.**, Seidel, J., Carboneau, N., Habermann, J., Haddock. J., 2012. A simple guide on low volume road design. *53rd Transportation Research Forum*, Tampa, FL, 3/15-17, 2012.

- A9. Warith, A., Richardson, W., **Anastasopoulos, P.**, Carboneau, N., Fricker, J., Habermann, J., Haddock, J., 2012. Impacts of Sustainable Energy Facility Construction on Local Roads. *53rd Transportation Research Forum*, Tampa, FL, 3/15-17, 2012.
- A8. Figueroa Bueno, C., Slusher, L., **Anastasopoulos, P.**, Carboneau, N., Habermann, J., 2011. Evaluation of Sign Replacement Projects in Rural Indiana. *2011 SURF Research Symposium*, West Lafayette, IN, 8/3, 2011.
- A7. **Anastasopoulos, P.**, Mannering, F., 2011. Pavement deterioration modeling: Accounting for heterogeneity and simultaneous relationships. *52nd Transportation Research Forum*, Long Beach, CA, 3/10-12, 2011.
- A6. **Anastasopoulos**, **P.**, 2011. Analytical estimation of safety-determined pavement performance thresholds. *52nd Transportation Research Forum*, Long Beach, CA, 3/10-12, 2011.
- A5. Anwaar, A., Volovski, M., **Anastasopoulos, P.**, Labi, S., Sinha, K., 2011. Passenger car equivalents for basic freeway segments based on lagging headways: Some new evidence using a system of equations approach. *52nd Transportation Research Forum*, Long Beach, CA, 3/10-12, 2011.
- A4. **Anastasopoulos, P.**, Mannering, F., 2011. Survival analysis of pavement service lives with limited data: A random parameters hazard-based duration framework. *52nd Transportation Research Forum*, Long Beach, CA, 3/10-12, 2011.
- A3. **Anastasopoulos, P.,** Islam, M., Karlaftis, M., 2011. Hazard-based analysis of travel distance in urban environments: A longitudinal data approach. *52nd Transportation Research Forum*, Long Beach, CA, 3/10-12, 2011.
- A2. Islam, M., **Anastasopoulos, P.**, Perperidou, D., Karlaftis, M., 2011. Car and motorcycle ownership in a congested environment. *52nd Transportation Research Forum*, Long Beach, CA, 3/10-12, 2011
- A1. Anastasopoulos, P., Labi, S., 2009. Public-Private Partnerships (PPPs) in Highway Reconstruction, Rehabilitation, and Operations. *InStep, InLine, OnTime: Regional Strategies for Trade, Security and Mobility Challenges at the U.S.-Canada Border*, A Nextrans Conference, Purdue University Discovery Park, West Lafayette, IN, 11/16, 2009.

#### Thesis and Dissertation

- Ph.D. Dissertation, 2009. Infrastructure Asset Management: A Case Study on Pavement Rehabilitation. Purdue University, West Lafayette, IN. Available electronically from http://upload.cos.com/etdadmin/files/43/13462\_pdf\_A7F9D4C8-2E08-11DE-B14E-0869F0E 6BF1D.pdf. Dissertation Committee: Fred Mannering (Supervisor), John Haddock, Brigitte Waldarf, Samuel Labi, Bobby McCullouch.
- M.Sc. Thesis, 2007. Performance-based contracting for roadway maintenance operations. Purdue University, West Lafayette, IN. Thesis Committee: Kumares Sinha (Supervisor), Fred Mannering, Bobby McCullouch.

#### Editorials, Manuals, and Other Scholarly Publications [Asterisks denote student advisees.]

- O12. **Anastasopoulos, P.**, Durango-Cohen, P., Labi, S., 2021. 2020 Matthew G. Karlaftis Best Paper Award. Forthcoming, *ASCE Journal of Infrastructure Systems*.
- O11. Labi, S., **Anastasopoulos, P.**, Miralinaghi, M., Ong, G.P., Zhu, F., 2021. Editorial: Advances in planning for emerging transportation technologies: Towards automation, connectivity, and electric propulsion. Forthcoming, *Frontiers in Built Environment*.
- O10. \*Fountas, G., **Anastasopoulos, P.**, Boyle, L., 2020. Opportunities and challenges in statistical analysis of transportation data: Where we are and where we are going. *Centennial Papers*, Transportation Research Board. http://onlinepubs.trb.org/onlinepubs/centennial/papers/ABJ80-Final.pdf.
- O9. **Anastasopoulos, P.**, Durango-Cohen, P., Labi, S., 2020. 2019 Matthew G. Karlaftis Best Paper Award. *ASCE Journal of Infrastructure Systems*. 26(3), 01220001-1.

- O8. \*Eker, U., **Anastasopoulos, P.**, 2017. Revised Series of Manuals for Geometric Design of Highways Using CARLSON and AutoCAD: (1) Getting Started; (2) Creating Horizontal Alignments; (3) Creating a Surface Model; (4) Extracting Cross-sections and Creating a Vertical Profile; (5) Creating a Typical Section; and (6) Plotting Drawings and Output. University at Buffalo, The State University of New York, NY.
- O7. \*Nahidi, A., \*Golshani, N., **Anastasopoulos, P.**, 2014. Revised Series of Manuals for Geometric Design of Highways Using CARLSON and AutoCAD: (1) Getting Started; (2) Creating Horizontal Alignments; (3) Creating a Surface Model; (4) Extracting Cross-sections and Creating a Vertical Profile; (5) Creating a Typical Section; and (6) Plotting Drawings and Output. University at Buffalo, The State University of New York, NY.
- O6. Islam, M., **Anastasopoulos, P.**, 2010. TACT Phase II Video Processing: Manual for Observing Aggressive Driving Behavior. Center for Road Safety, West Lafayette, IN.
- O5. Islam, M., **Anastasopoulos, P.**, 2010. Video Processing with Traffic Tracker: A TACT Phase I Manual. Center for Road Safety, West Lafayette, IN.
- O4. Volovski, M., Tanaka, A., **Anastasopoulos, P.**, 2010. Series of Manuals for Geometric Design of Highways Using CARLSON and CIVIL 3D: (1) Getting Started; (2) Creating Horizontal Alignments; (3) Creating a Surface Model; (4) Extracting Cross-sections and Creating a Vertical Profile; (5) Creating a Typical Section; and (6) Plotting Drawings and Output. Purdue University, West Lafayette, IN.
- O3. Islam, M., Ahmed, A., **Anastasopoulos, P.**, 2010. Setting Up the Mobile Traffic Laboratory (MoTraL). Purdue University, West Lafayette, IN.
- O2. **Anastasopoulos, P.**, 2009. An Easy Guide to Pavement ANAlysis Software Tool PANAST. Purdue University, West Lafayette, IN.
- O1. **Anastasopoulos**, **P.**, 2007. Impacts of Transportation on Economic Development Regional Economic Simulation Models (REMI): Policy Insight. Short Course in REMI, Course: CE561 Transportation Systems Evaluation, Purdue University, West Lafayette, IN, http://cobweb.ecn.purdue.edu/~srg/book/present.htm.

#### **TECHNICAL REPORTS** [Asterisks denote student advisees.]

- R21. Phase 2 High Visibility Crosswalk Pedestrian Study: Concept to Countermeasure Research to Deployment Using the SHRP2 Safety Data. New York State Department of Transportation, Report No. C-16-04 (with K. Majka, J. Pierowicz, A. Blatt, \*S. Pantangi, \*U. Eker, \*G. Fountas, \*S. Ahmed), 2020. 43
- R20. Correlated grouped random parameters hazard-based duration analysis of elderly travel times and distances. Region II University Transportation Research Center (with \*G. Jordan), 2020.
- R19. Applications of Knowledge Discovery In Massive Transportation Data: The Development of a Transportation Research Informatics Platform (TRIP). Federal Highway Administration, FHWA BAA No. DTFH61-14-R-00017 (with \*G. Fountas, K. Majka, A. Blatt, A. Sadek), 2019.
- R18. Factors affecting perceived and observed aggressive driving behavior: An empirical analysis of driver fatigue, and distracted driving. Transportation Informatics Tier I University Transportation Center (with \*G. Fountas, \*S. Pantangi, \*S. Ahmed, \*U. Eker), 2019.
- R17. Phase 2 Research Utilizing the SHRP2 Safety Data to Support Highway Safety: The Development of New Insights into Driver Behavior to Improve High Visibility Highway Safety Enforcement Programs (HVE). Federal Highway Administration, Strategic Highway Research Program, SHRP2 (with \*S. Pantangi, \*G. Fountas, A. Blatt, J. Pierowicz, K. Majka), 2018.
- R16. Effectiveness of Various Public Private Partnership Pavement Rehabilitation Treatments: A Big Data Informatics Survival Analysis of Pavement Service Life. TransInfo University Transportation Center (with \*D. David, \*G. Fountas, \*T. Sarwar, \*U. Eker, \*S. Akpinar), 2017.

<sup>&</sup>lt;sup>43</sup> Selected as a *High Value Research (HVR) project* by the American Association of State Highway and Transportation Officials (AASHTO) Region 1 RAC.

- R15. Research Utilizing the SHRP2 Safety Data to Support Highway Safety: The Development of New Insights into Driver Behavior to Improve High Visibility Highway Safety Enforcement Programs (HVE). Federal Highway Administration, Strategic Highway Research Program, SHRP2 (with \*T. Sarwar, \*S. Pantangi, A. Blatt, J. Pierowicz, K. Majka), 2016.
- R14. Development of Earthquake Rapid Response System for Metropolitan Motorways. European Commission, EU General Secretary of Research and Development. European Commission, EU General Secretary of Research and Development, (with I. Anastasopoulos, G. Gazetas, B. Halkias, K. Pitilakis), 2015.
- R13. Concept to Countermeasure Research to Deployment Using the SHRP2 Safety Data: Pedestrian Safety and High Visibility Markings. Federal Highway Administration, Strategic Highway Research Program, SHRP2 (with \*T. Sarwar, \*C. Bentley, A. Blatt, J. Pierowicz, K. Majka, R. Limoges), 2015.
- R12. Evaluation of Public-Private Partnership Contract Types for Roadway Construction, Maintenance, Rehabilitation, and Preservation. Region II University Transportation Research Center (with \*A. Nahidi, \*T. Sarwar, \*N. Golshani, \*U. Eker, A. Sadek, N. Suresh), 2015.
- R11. Sustainable Energy: Policy Considerations for Local Agencies. Indiana Local Technical Assistance Program and the Indiana Department of Transportation (with A. Tanaka, J. Fricker, J. Haddock), 2012.
- R10. Impacts of Sustainable Development Projects on Local Roads in Indiana. Indiana Local Technical Assistance Program and the Indiana Department of Transportation (with K. Warith, J. Fricker, J. Haddock), 2012.
- R9. Low Volume Road Design. Indiana Local Technical Assistance Program and the Indiana Department of Transportation (with K. Warith, J. Haddock), 2012.
- R8. Evaluation of Sign Replacement Projects in Rural Indiana. Federal Highway Administration, Hazard Elimination Program for Existing Roads and Streets (with C. Figueroa Bueno, L. Slusher, N. Carboneau, J. Habermann, J. Haddock), 2011.
- R7. Horizontal Curves on Rural Roads, a Systematic Approach to Increasing Safety in Indiana. Federal Highway Administration, Accelerating Safety Activities Program (with I. Duncanson, L. Slusher, N. Carboneau, J. Habermann, J. Haddock), 2011.
- R6. Ticketing Aggressive Cars and Trucks (TACT): Evaluation of the Program Effectiveness (in Local Roads). Federal Motor Carrier Safety Administration and the Indiana State Police (with E. Atisso A. Tarko), 2011.
- R5. Public Private Partnerships (PPPs) in Highway Reconstruction, Rehabilitation, and Operations. US Department of Transportation, USDOT Region V Regional University Transportation Center Final Report, NEXTRANS Project No. 045PY02 (with M. Volovski, S. Pradhan, M. Islam, S. Labi), 2011.
- R4. Analysis and Methods of Improvements of Safety at High-Speed Rural Intersections. Joint Transportation Research Program, Indiana Department of Transportation, Federal Highway Administration, 08-05-61, SPR-3316, (with S. Leckrone, A. Tarko), 2010. 44
- R3. Ticketing Aggressive Cars and Trucks (TACT): Evaluation of the Program Effectiveness. Federal Motor Carrier Safety Administration and the Indiana State Police (with A. Tarko, A. Perez), 2010.
- R2. Effectiveness and service lives/survival curves of various pavement rehabilitation treatments. Joint Transportation Research Program, Indiana Department of Transportation, Federal Highway Administration, C-36-78Q, (with F. Mannering, J. Haddock), 2009.
- R1. Performance-Based Contracting for Highway Preservation and Maintenance. Joint Transportation Research Program, Indiana Department of Transportation, Federal Highway Administration, FHWA/IN/JTRP-2008/12, SPR 3130, (with B. McCullouch, K. Sinha), 2009.

<sup>&</sup>lt;sup>44</sup> Selected as a *High Value Research (HVR) project* by the American Association of State Highway and Transportation Officials (AASHTO) Region 3 RAC.

#### **CONSULTING ACTIVITIES (selected)**

2015-Present Developed novel metrics to study transportation phenomena, estimated advanced statistical

and econometric models using big transportation data, provided forecasting accuracy measures, identified measurable safety countermeasures, developed technologies and

devices for safety improvements.

Scientific Consultant: Inferenx Labs Inc.

Consultant: Engineering Statistics and Econometrics Application Research Lab.

Clients: CUBRC; NYS Police; NYSDOT; PennDOT; CAL Business Solutions, Inc.

2012-2013 Developed GIS database containing technical data of all structures of Attica's Tollway,

Greece. Developed algorithms to extract information from sensors, and through field measurements, ensured accurate and flawless data collection, transfer, cleansing, assembling, processing, analysis, evaluation, linking, and post-analysis validation.

Consultant: SGM Engineering.

Client: Attica Tollway S.A.

2010-2012 Identified and evaluated sustainable-energy development projects in the US and EU, and

developed a comprehensive guide for the identification of the impacts and policy

considerations from their construction and life-cycle operation.

Consultant: INLTAP.

Client: INDOT.

2010-2012 Developed an empirical design guide for low-volume roads that requires agencies to gather

limited and readily available information, and which is simple for agencies to use, but customizable to account for specific weather and subgrade conditions.

Consultant: INLTAP.

Client: INDOT.

2009-2011 Analyzed several types of aggressive driving behavior in urban and rural interstates, and

identified policy interventions for the drivers, such as the Ticketing Aggressive Cars and

Trucks campaign in Indiana.

Consultant: Center for Road Safety.

Client: Indiana State Police.

2009 Developed a multi-year multi-constraint optimization methodology for pavement

management system's network analysis. The developed methodology resulted in over 20% cost savings for the Indiana's pavement management, and in a \$1.8M funded project for

developing Iowa's pavement management system.

Consultant: AgileAssets Inc.

Client: <u>IowaDOT</u>.

2009 Prepared Virginia's pavement management system tutorial/manual, and managed/updated

North Carolina's assets databases.

<u>Consultant: AgileAssets Inc.</u> <u>Clients: VDOT; NCDOT.</u>

2004-2006 Developed technical specifications, guides and rules for the transportation/traffic study for

the metropolitan area of Athens, Greece.

Consultant: Private

Client: Greece's Ministry of Infrastructure, Transport and Network.

#### **FUNDED GRANTS (Total Awarded: \$4,500,442)**

- G21. <u>Principal Investigator:</u> Integrated simulation and virtual reality test environment for next-generation transportation sustainability: Human factors and advanced air mobility. Stephen Still Institute for Sustainable Transportation and Logistics, \$130,280, 2022.
- G20. <u>Principal Investigator:</u> RASCAL Risk Analysis System for Collision Avoidance with Wildlife. National Science Foundation's Innovation Corps (NSF I-Corps<sup>TM</sup>) Program, \$50,000, 2021.
- G19. <u>Principal Investigator:</u> Analysis of High Visibility Crosswalks Using SHRP2 NDS Data. Federal Highway Administration, \$241,289, 2019.
- G18. <u>Principal Investigator:</u> Accident occurrence discrepancies in an urban setting: Equity perspectives before and during the COVID-19 pandemic. Stephen Still Institute for Sustainable Transportation and Logistics, \$240,550, 2018.
- G17. <u>Principal Investigator:</u> Phase 2: Factors affecting perceived and observed aggressive driving behavior: An empirical analysis of driver fatigue, and distracted driving. TransInfo University Transportation Center, \$37,500, 2018 (with G. Fountas, University at Buffalo, The State University of New York).
- G16. <u>Principal Investigator:</u> Factors affecting perceived and observed aggressive driving behavior: An empirical analysis of driver fatigue, and distracted driving. TransInfo University Transportation Center, \$75,000, 2017 (with G. Fountas, University at Buffalo, The State University of New York).
- G15. <u>Principal Investigator UB:</u> Phase 2 Research Utilizing the SHRP2 Safety Data to Support Highway Safety: The Development of New Insights into Driver Behavior to Improve High Visibility Highway Safety Enforcement Programs (HVE). Federal Highway Administration, Strategic Highway Research Program (SHRP 2), \$353,585 (with A. Blatt, J. Pierowicz, and K. Majka, CUBRC), 2016.
- G14. Principal Investigator UB: Phase 2 Research to Deployment Using the SHRP2 Safety Data: Pedestrian Safety and High Visibility Markings. New York State Department of Transportation, Federal Highway Administration, Strategic Highway Research Program (SHRP 2), \$503,585 (with A. Blatt, J. Pierowicz, and K. Majka, CUBRC), 2016.
- G13. <u>Principal Investigator:</u> Effectiveness of Various Public Private Partnership Pavement Rehabilitation Treatments: A Big Data Informatics Survival Analysis of Pavement Service Life. TransInfo University Transportation Center, \$75,000, 2016.
- G12. Principal Investigator UB: Research Utilizing the SHRP2 Safety Data to Support Highway Safety: The Development of New Insights into Driver Behavior to Improve High Visibility Highway Safety Enforcement Programs (HVE). Federal Highway Administration, Strategic Highway Research Program (SHRP 2), \$99,931 (with A. Blatt, J. Pierowicz, and K. Majka, CUBRC), 2015.
- G11. <u>Principal Investigator UB:</u> Applications of Knowledge Discovery In Massive Transportation Data: The Development of a Transportation Research Informatics Platform (TRIP). FHWA BAA No. DTFH61-14-R-00017, \$989,000 (with K. Majka, and A. Blatt, CUBRC; and A. Sadek, University at Buffalo, The State University of New York), 2015.
- G10. <u>Principal Investigator:</u> Correlated grouped random parameters hazard-based duration analysis of elderly travel times and distances. AITE Region II University Transportation Research Center, \$25,000, 2014.
- G9. <u>Principal Investigator UB:</u> Concept to Countermeasure Research to Deployment Using the SHRP2 Safety Data: Pedestrian Safety and High Visibility Markings. Federal Highway Administration, Strategic Highway Research Program (SHRP 2), \$118,145 (with R. Limoges, New York State Department of Transportation; A. Blatt, J. Pierowicz, and K. Majka, CUBRC), 2014.
- G8. <u>Principal Investigator and Project Coordinator:</u> Evaluation of Public-Private Partnership Contract Types for Roadway Construction, Maintenance, Rehabilitation, and Preservation. Region II University Transportation Research Center, \$160,032 (with A. Sadek, and N. Suresh, University at Buffalo, The State University of New York), 2014.

- G7. <u>Co-Principal Investigator:</u> "SYNERGY 2011" Development of Earthquake Rapid Response System for Metropolitan Motorways. GGET-EYDE-ETAK, EPAN II Competitiveness & Entrepreneurship, European Commission, EU General Secretary of Research and Development, European Social Fund, \$864,489 − €628,262 (with G. Gazetas, National Technical University of Athens, and SGM Engineering, <u>Principal Investigator</u>; I. Anastasopoulos, University of Dundee; B. Halkias, Attikes Diadromes S.A.; and K. Pitilakis, Aristotle University Thessaloniki), 2012.
- G6. <u>Co-Principal Investigator:</u> Ticketing Aggressive Cars and Trucks (TACT): Evaluation of the Program Effectiveness (in Local Roads). Indiana State Police, Federal Motor Carrier Safety Administration, \$115,000 (with A. Tarko, Principal Investigator), 2011.
- G5. <u>Co-Principal Investigator:</u> Estimation of Average Daily Traffic and Vehicle Miles Traveled on Local Roads in Indiana. Indiana Local Technical Assistance Program, \$87,056 (with A. Tarko, <u>Principal Investigator</u>), 2010.
- G4. <u>Co-Principal Investigator:</u> Best Practices for INDOT Funded Work-zone Police Patrols. Joint Transportation Research Program, Indiana Department of Transportation, \$115,000 (with A. Tarko, Principal Investigator), 2010.
- G3. <u>Co-Principal Investigator:</u> Warrants for Median Barriers on Rural Open Roads. Joint Transportation Research Program, Indiana Department of Transportation, \$35,000 (with A. Tarko, <u>Principal Investigator</u>), 2010.
- G2. <u>Co-Author of the Proposal:</u> Effectiveness and Service Lives/Survival Curves of Various Pavement Rehabilitation Treatments. Joint Transportation Research Program, Indiana Department of Transportation, \$100,000 (with F. Mannering, Principal Investigator, and J. Haddock), 2008.
- G1. <u>Co-Author of the Proposal:</u> Performance-Based Contracting for Highway Maintenance and Preservation. Joint Transportation Research Program, Indiana Department of Transportation, \$85,000 (with B. McCullouch, and K. Sinha, <u>Principal Investigator</u>), 2006.

#### **PATENTS** [Asterisks denote student advisees.]

- T2. Application: Cohen, J., **Anastasopoulos, P.**, Fogelwicz, D., \*Ahmed, S., Scholtz, J., Dodd, E. *Devices, interfaces, and predictive models for analyzing risk and preventing collisions between vehicles and wildlife.* Provisional filed April 30, 2020, (Application Number: 63018034).
- T1. Application: Cohen, J., **Anastasopoulos**, **P.**, \*Ahmed, S., *Wildlife-vehicle collision risk prediction model*. Provisional filed July 31, 2020, (Application Number: 63059530).

### REFEREE WORK AND REVIEWING ACTIVITIES

# Articles Serving as (Executive) Associate Editor or Chair/Paper Review Coordinator

| Journal/Conference   | Number |
|--|--------|
| Analytic Methods in Accident Research  | 45     |
| ASCE Journal of Infrastructure Systems   | 26     |
| Advances in Civil Engineering  | 6      |
| Frontiers in Built Environment, Transportation and Transit Systems                 | 8      |
| Journal of Transportation of the ITE   | 2      |
| Chair/Paper Review Coordinator: Transportation Research Record, (ABJ80/AED60)      | 119    |
| Paper Review Coordinator: 3 <sup>rd</sup> Int. Conf. on Road Safety and Simulation | 322    |
| Associate Editor: Special Issues in Business Economics                             | 10     |

# Referee Work in Journals and Special Issues

| Journal   | Number |
|---|--------|
| Accident Analysis and Prevention (Elsevier)                               | 77     |
| Analytic Methods in Accident Research (Elsevier)                          | 66     |
| Transportation Research Record (SAGE)                                     | 62     |
| ASCE Journal of Infrastructure Systems                                    | 47     |
| ASCE Journal of Construction Engineering and Management                   | 26     |
| ASCE Journal of Transportation Engineering                                | 19     |
| Transportation Research Part C: Emerging Technologies (Elsevier)          | 16     |
| Transportation Research Part A: Policy and Practice                       | 13     |
| ASCE Journal of Urban Planning and Development                            | 10     |
| Journal of Transportation Safety and Security (Taylor & Francis)          | 8      |
| ASCE International Conference on Transportation & Development (2020-2022) | 8      |
| Transport Policy (Elsevier)   | 8      |
| Transportmetrica (Taylor & Francis)                                       | 6      |
| Travel Behaviour and Society (Elsevier)                                   | 4      |
| Journal of Transportation of the Institute of Transportation Engineers    | 3      |
| Procedia - Social and Behavioral Sciences (Elsevier)                      | 3      |
| Application of Advanced Technologies in Transportation 2008 Papers        | 3      |
| Journal of Advanced Transportation (Wiley)                                | 3      |
| Safety Science (Elsevier)   | 3      |
| Special Issues on Road Safety and Simulation 2015 Papers                  | 3      |
| Transportation Research Part B: Methodological                            | 2      |
| IEEE Annual Conference on Intelligent Transportation Systems              | 2      |
| Journal of the Operational Research Society (Palgrave Macmillan)          | 2      |
| Statistics and Probability Letters (Elsevier)                             | 2      |
| The Arabian Journal for Science and Engineering (Springer)                | 2      |
| Journal of Applied Statistics   | 2      |
| Journal of Transport Geography (Elsevier)                                 | 2      |
| Transportation Research Part F: Traffic Psychology and Behaviour          | 2      |
| IET Intelligent Transport Systems   | 1      |
| Cognitive Science   | 1      |
| Networks and Spatial Economics  | 1      |
| Journal of Transport & Health   | 1      |
| Reliability Engineering and System Safety (Elsevier)                      | 1      |
| Journal of the Royal Statistical Society: Series A                        | 1      |
| Frontiers in Medicine   | 1      |
| Applied Mathematical Modeling (Elsevier)                                  | 1      |
| Journal of Transportation and Statistics (OST-R)                          | 1      |
| Advances in Engineering Software (Elsevier)                               | 1      |
| Special Issues on Road Safety & Simulation 2011                           | 1      |
| International Journal of Critical Illness and Injury Science (Medknow)    | 1      |
| Science of the Total Environment (Elsevier)                               | 1      |

#### SOME PROFESSIONAL MEMBERSHIPS AND OTHER ACTIVITIES

- American Society of Civil Engineers (ASCE).
- Institute of Transportation Engineers (ITE).
- Transportation Research Forum (TRF), Cost Analysis Chapter.
- Institute of Mathematical Statistics (IMS).
- Hellenic Associations of Young Entrepreneurs (Brussels' member of "YES for Europe").
- World Energy Council (WEC).
- Economic Chamber of Greece.
- Transportation Research Board Reviewer for Committees on:
  - Safety Data, Analysis and Evaluation, ANB20;
  - > Paratransit, AP060:
  - Urban Transportation Data and Information Systems, ABJ30;
  - ➤ Highway Safety Performance, ANB25; and
  - > Railroad Operational Safety, AR070.

#### PROFESSIONAL ACTIVITIES, AWARDS AND RECOGNITION

#### Service/Administrative Activities

| 2021-Present | Chair, SSISTL Sponsored Pilot Research Program Committee, Stephen Still Institute for |
|--------------|---|
|              | Sustainable Transportation and Logistics.   |

2021-Present Chair, Review Panel for SSISTL Sponsored Pilot Research Program, Stephen Still Institute for Sustainable Transportation and Logistics.

2021-Present Member, IFR Policy Committee, Department of Civil, Structural and Environmental Engineering.

Member, Facilities Program Coordinator Search Committee, Stephen Still Institute for Sustainable Transportation and Logistics.

2020-Present UUP Department Representative, Department of Civil, Structural and Environmental Engineering.

2019-Present Mentor Faculty for Dr. Irina Benedyk, Tenure-Track Assistant Professor in the Department of Civil, Structural and Environmental Engineering.

2019-2021 Member, Transportation Systems Faculty Search Committee, Department of Civil, Structural and Environmental Engineering and Stephen Still Institute for Sustainable Transportation and Logistics (ISTL).

Member, IFR Policy Committee, Department of Civil, Structural and Environmental Engineering.

2017-Present Director, Stephen Still Institute for Sustainable Transportation and Logistics (<u>ISTL</u>).

2014-Present Director and Founder, Engineering Statistics and Econometrics Application (E-SEA) Research Laboratory.

2017-Present Program Coordinator (Transportation Systems), Department of Civil, Structural and Environmental Engineering.

2017-2019 Member, Strategic Planning Committee, Department of Civil, Structural and Environmental Engineering.

2017-2018 Chair, Transportation Systems Faculty Search Committee (Two Positions), Department of Civil, Structural and Environmental Engineering.

2014-2018 Member, Graduate Studies Committee, Department of Civil, Structural and Environmental Engineering.

| 2016-2017 | Member, Research Support Specialist Search Committee, Institute for Sustainable             |
|-----------|---|
|           | Transportation and Logistics, Transportation Informatics Center.                            |
| 2014-2017 | Associate Director, Institute for Sustainable Transportation and Logistics ( <u>ISTL</u> ). |
| 2014-2016 | Member, Transportation Systems Faculty Search Committee, Department of Civil,               |
|           | Structural, and Environmental Engineering.  |

# **Editorial Activities**

| 2022-Present | Executive Associate Editor, Analytic Methods in Accident Research (Elsevier).   |
|--------------|---|
| 2021-Present | Academic Editor, Advances in Civil Engineering (John Wiley & Sons, Inc., Hindawi).  |
| 2020-2021    | Guest editor, Frontiers in Built Environment - Transportation and Transit Systems. Special Issue: Advances in Planning for Emerging Transportation Technologies: Towards Automation, Connectivity, and Electric Propulsion (with Samuel Labi, Mohammad Miralinaghi, Feng Zhu, and Ghim Ping Ong). |
| 2019-Present | Associate Editor, Journal of Infrastructure Systems (American Society of Civil Engineers, ASCE).  |
| 2018-Present | Editorial Board Member, Accident Analysis and Prevention (Elsevier).  |
| 2017-2021    | Associate Editor, Analytic Methods in Accident Research (Elsevier).   |
| 2016-2020    | Associate Editor, Advances in Civil Engineering (John Wiley & Sons, Inc., Hindawi).   |
| 2015-Present | Associate Editor, Frontiers in Built Environment, Transportation and Transit Systems (Nature Publishing Group, NPG).  |
| 2015-2019    | Associate Editor, Journal of Transportation of the Institute of Transportation Engineers (ITE).   |
| 2014-2018    | Chair, Transportation Research Board Paper Review Sub-Committee AED60 (formerly ABJ80) Statistical Methods.   |
| 2013-Present | Founding Editorial Board Member, Analytic Methods in Accident Research (Elsevier).  |
| 2010-Present | Advisory Editor (Statistical and Econometric Methodologies), International Journal of Critical Illness and Injury Science (Medknow Publications).   |
| 2009-Present | Editorial Board Member, Journal of Infrastructure Systems (American Society of Civil Engineers, ASCE).  |
|              |   |

(AASHTO) Region 1 RAC.

| Awards and Recognition |   |  |
|------------------------|---|--|
| 2022                   | Best paper award (Pang, J., Krathaus, A., Benedyk, I., Ahmed, S., <b>Anastasopoulos, P.</b> , 2022. Investigation of Environmental Factors Affecting Accidents Occurrence During Snow Events: A Random Parameters Hazard-Based Duration Modeling Approach with Heterogeneity in Means and Variances). Given by the Transportation Research Board's Statistical Methods Committee (AED60), 2022. |  |
| 2021                   | Recognized as a <b>2021 Highly Cited Researcher from the Web of Science Group</b> . During the last decade, identified to have produced multiple highly cited papers, which are defined as those ranking in the top 1% by citations for a publication field and year.   |  |
| 2021                   | New York State Department of Transportation (NYSDOT) Project "Phase 2 - High Visibility Crosswalk Pedestrian Study: Concept to Countermeasure – Research to Deployment Using the SHRP2 Safety Data" selected as a <i>High Value Research (HVR) project</i> by the American Association of State Highway and Transportation Officials  |  |

| 2021      | Best tutorial award (Hulme, K., Lim., R., Benedyk, I., Still, S., <b>Anastasopoulos, P.</b> , Ahmed, S., Fountas, G., 2021. Advanced Air Mobility (AAM) – Innovating Modeling & Simulation (M&S) to Revolutionize the Future of Transportation). Given by the National Defense Industrial Association (NDIA) and the National Training & Simulation Association (NTSA) at the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC), 2021. |
|-----------|--|
| 2021      | "I need that!" award for the deer whistles idea/product discovered during the National Science Foundation's Innovation Corps (NSF I-Corps <sup>TM</sup> ) Program.   |
| 2021      | Best paper award (Ahmed, S., Cohen, J., <b>Anastasopoulos, P.</b> , 2021. An exploratory analysis of factors causing deer-vehicle collisions: A case study in Pennsylvania). Given by the Transportation Research Board's Statistical Methods Committee (AED60), 2021.   |
| 2020      | Best presentation award (Ahmed, S., Fountas, G., Eker, U., Still1, S., <b>Anastasopoulos, P.</b> , 2020. Advanced air vehicles and willingness to hire and to pay for urban air mobility services: A correlated grouped random parameters bivariate probit approach – <i>Presented by S. Ahmed</i> ). Given by the 2nd Annual Conference of the Next-Generation Transportation Systems (NGTS-2020), 2020.  |
| 2020      | Recognized as a <b>2020 Highly Cited Researcher from the Web of Science Group</b> . During the last decade, identified to have produced multiple highly cited papers, which are defined as those ranking in the top 1% by citations for a publication field and year.  |
| 2019      | Recognized as a 2019 Highly Cited Researcher from the Web of Science Group. During the last decade, identified to have produced multiple highly cited papers, which are defined as those ranking in the top 1% by citations for a publication field and year.  |
| 2016      | School of Engineering and Applied Sciences (SEAS) Early Career Researcher of the Year Award.   |
| 2016      | Certificate of Outstanding Contribution in Reviewing, Transportation Research Part C: Emerging Technologies (Elsevier).  |
| 2015      | Outstanding Reviewer for the American Society of Civil Engineers (ASCE) Journal of Infrastructure Systems.   |
| 2013      | Joint Transportation Research Program (JTRP) Project "Analysis and Methods of Improvements of Safety at High-Speed Rural Intersections" selected as a <i>High Value Research (HVR) project</i> by the American Association of State Highway and Transportation Officials (AASHTO) Region 3 RAC.  |
| 2011      | Outstanding Reviewer for the American Society of Civil Engineers (ASCE) Journal of Infrastructure Systems.   |
| 2011      | Outstanding Reviewer for the American Society of Civil Engineers (ASCE) Journal of Transportation Engineering.   |
| 2010      | "Young Greek Internationally Distinguished Scientist" award. Greek Departments of Education and Defense.   |
| 2010      | "Thumbs Up", School of Civil Engineering, College of Engineering, Purdue.  |
| 2006-2009 | Purdue University Graduate Research Assistantships (3) recipient.  |

#### Other Honors and Professional Activities

| 2022-Present | Member, SciOPS (Scientist Opinion Panel Survey) panel, Center for Science, Technology |
|--------------|---|
|              | and Environmental Policy Studies, Arizona State University.                           |

Juror, Doctoral Colloquium Competition, Co-Sponsored by the AED60 Statistical Methods Committee and the ACS20 Safety Performance Analysis Committee of the Transportation Research Board of the National Academies.

| 2021 B       |   |
|--------------|---|
| 2021-Present | Co-Chair of the subcommittee for Research Awards and Recognitions, American Society of Civil Engineers (ASCE) Transportation and Development Institute's (T&DI) Economics and Finance Committee.                |
| 2021-Present | Vice Chair and Member of the American Society of Civil Engineers (ASCE) Transportation and Development Institute's (T&DI) Economics and Finance (E&F) Committee.  |
| 2020         | Elected in Sigma Xi: The Scientific Research Honor Society, SUNY at Buffalo Chapter.  |
| 2019-Present | Best paper award selection committee, ASCE Journal of Infrastructure Systems.   |
| 2018-Present | Chair, Transportation Research Board Committee AED60 (formerly ABJ80) Statistical Methods.  |
| 2018-Present | Member, Transportation Research Board Committee AED00 (formerly ABJ00) Section - Data and Information Systems.  |
| 2018         | Chair of the session "Research Advances in Statistical and Econometric Methods" at the 97 <sup>th</sup> Transportation Research Board Annual Meeting, Washington DC (Jan. 8, 2018).                             |
| 2017-2021    | Vice Chair for Economics and Member of the American Society of Civil Engineers (ASCE) Transportation and Development Institute's (T&DI) Planning, Economics and Finance Committee.                              |
| 2016-Present | Reviewer for the Council of University Transportation Centers (CUTC) Pikarsky MS and PhD awards, for the Wooton MS and PhD awards, and for the Parker awards (since 2017).                                      |
| 2011-Present | Member, Transportation Research Board Committee AED60 (formerly ABJ80) Statistical Methods (four terms, 2011-2013, 2014-2016, 2017-2019, 2020-Present).   |
| 2017         | Chair of the session "Statistical Methods in Transportation" at the 96 <sup>th</sup> Transportation Research Board Annual Meeting, Washington DC (Jan. 9, 2017).  |
| 2016         | Chair of the session "Innovations in Statistical Methods for Transportation Researchers and Practitioners" at the 95 <sup>th</sup> Transportation Research Board Annual Meeting, Washington DC (Jan. 12, 2016). |
| 2015         | Chair of the session "Research in Statistical Methods in Transportation" at the 94 <sup>th</sup> Transportation Research Board Annual Meeting, Washington DC (Jan. 12, 2015).                                   |
| 2014-2015    | Chair, Transportation Research Board Best Paper Award Sub-Committee AED60 (formerly ABJ80) Statistical Methods.   |
| 2014         | Moderator of the Regulatory Solutions Panel, 2014 Buffalo Niagara Transportation Summit, Buffalo, NY (May 2, 2014).   |
| 2014         | Reviewer for the 2013 Eric Pas Dissertation Prize, International Association for Travel Behavior Research (IATBR).  |
| 2011         | Chair of the session "Statistical Analysis of Crashes II" at the 3 <sup>rd</sup> International Conference on Road Safety and Simulation, Indianapolis, IN (Sept. 15, 2011).                                     |

#### INVITED TALKS

2008

I24. An in-depth econometric analysis of pavement performance and service life by pavement rehabilitation treatment type and delivery method. 4th International Symposium on Infrastructure Asset Management. Northwestern University Transportation Center, Evanston, IL, June 2022.

Elected in Tau Beta Pi, Indiana Alpha Chapter, Engineering Honor Society.

I23. Automated ground-based transportation and advanced air mobility: Integrated regulatory framework, safety & security, public perceptions. Technische Universität München (Technical University of Munich – TUM), Fakultät für Luftfahrt, Raumfahrt und Geodäsie (Department of Aerospace and Geodesy), Munich, Germany, Virtual Presentation, April 2021.

- I22. Track Transition Curves for Ultra-High-Speed Rail: Current Design Practices and Standards. Technische Universität München (Technical University of Munich TUM), Fakultät für Luftfahrt, Raumfahrt und Geodäsie (Department of Aerospace and Geodesy), Munich, Germany, Virtual Presentation, April 2021.
- I21. Advanced Air Mobility Rises. University of South Florida, Tampa, FL, Virtual Presentation, November 2020.
- I20. A RApid REsponse (RARE) system for Attiki Odos motorway. School of Civil Engineering, National Technical University of Athens, Greece, July 2018.
- 119. Assessment of bridge seismic damage with a non-linear three-stage least squares model. Department of Civil, Environmental and Geomatic Engineering, Eidgenössische Technische Hochschule Zürich (Swiss Federal Institute of Technology in Zurich ETH Zurich), Switzerland, June 2018.
- I18. Instrumenting safety: From accident analysis with massive real time data, to connected and autonomous vehicles. Department of Civil and Coastal Engineering, University of Florida, Gainesville, FL, August 2016.
- I17. Simple method for real-time seismic damage assessment of bridges. School of Civil Engineering, National Technical University of Athens, Greece, January 2016.
- 116. Assessment of seismic damage of various bridge structures using seemingly unrelated nonlinear regression equations. School of Science and Engineering, University of Dundee, Dundee, UK, December 2015.
- I15. Unobserved Heterogeneity and Highway Safety: How Random Parameters Modeling Improves Decision Making Reliability. Rudolf Mößbauer Symposium, Technische Universität München (Technical University of Munich TUM) and TUM Institute for Advanced Study (TUM-IAS), Munich, Germany, November 2014.
- I14. Short-Course: Statistical Modeling Applications in Civil Engineering Problems. School of Civil Engineering, National Technical University of Athens, Greece, July 2014.
- Inproving Motorway Network Safety under Normal Conditions and Extreme Events. Department of Civil, Structural and Environmental Engineering, The State University of New York, Buffalo, April 2013.
- I12. Random Parameters Modeling: Improving Reliability in Transportation/Infrastructure Systems Decision Making. Department of Mechanical and Process Engineering, Eidgenössische Technische Hochschule Zürich (Swiss Federal Institute of Technology in Zurich ETH Zurich), Switzerland, November 2012.
- III. Recent and Ongoing Research, and Future Directions in Transportation/Infrastructure Asset Management. Division of Infrastructure and Geomatics, University of Nottingham, UK, November 2012.
- I10. The Utility of Random Parameter Models in Infrastructure Systems Decision Making. Department of Civil and Materials Engineering, University of Illinois at Chicago, April 2012.
- I9. Transportation Safety and Road Asset Management. Department of Civil Engineering, University of New Mexico, March 2011.
- I8. Transportation Safety and Infrastructure Asset Management. Department of Civil and Construction Engineering, Western Michigan University, February 2011.
- I7. Statistical Tools and their Applications in Civil Engineering. School of Civil Engineering, National Technical University of Athens, Greece, July 2010.
- I6. Pavement Rehabilitation: Deterioration Modeling, Threshold Determination, and Service Life Survival Analysis. School of Civil Engineering, National Technical University of Athens, Greece, July 2010.
- I5. Econometric Theory and Modeling in Engineering. School of Civil Engineering, National Technical University of Athens, Greece, July 2010.
- I4. Spatial Considerations in Infrastructure Asset Management: Public Private Partnerships in Highway Maintenance and Rehabilitation. Department of Business Administration and Management, Athens University of Economics & Business, Greece, May 2009.

- I3. Cutting Costs in Infrastructure Management Systems: A Case Study on Highway Construction. Department of Business Administration and Management, Athens University of Economics & Business, Greece, May 2009.
- I2. Change Orders, Cost Overruns and Time Delays in Construction Management. Department of Business Administration and Management, Athens University of Economics & Business, Greece, August 2008.
- I1. Managing Sustainability: The Case of Performance-Based Contracting in Roadway Preservation. Department of Business Administration and Management, Athens University of Economics & Business, Greece, August 2008.

# PRESENTATIONS IN CONFERENCES AND PROFESSIONAL MEETINGS – FOR PEER REVIEWED PAPERS [Asterisks denote student advisees]

- P91. "Phase 2 High Visibility Crosswalk Pedestrian Study: Concept to Countermeasure Research to Deployment Using the SHRP2 Safety Data". 101<sup>st</sup> Transportation Research Board Annual Meeting, by S. Ahmed\*, Washington DC, 1/9-13, 2022. <sup>45</sup>
- P90. "Investigation of environmental factors affecting accidents occurrence during snow events: A random parameters hazard-based duration modeling approach with heterogeneity in means and variances." 101st Transportation Research Board Annual Meeting, by J. Pang\*, Washington DC, 1/9-13, 2022. *Best paper award*.
- P89. "Advanced Air Mobility (AAM) Innovating Modeling & Simulation (M&S) to Revolutionize the Future of Transportation." Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) Innovating and Accelerating Training: Adapting to an Unexpected Future!, by K. Hulme, Orlando, FL, 11/29-12/3, 2021. *Best tutorial award*.
- P88. "A cooperative crash avoidance framework for autonomous vehicles under collision-imminent situations in mixed traffic stream." 24th IEEE Intelligent Transportation Systems Conference (ITSC 2021), by R. Dua, Indianapolis, IN, 9/19-22, 2021.
- P87. "Accounting for multilayered unobserved heterogeneity in bivariate probit modeling with the grouped random parameters bivariate probit model with heterogeneity in means." 15th Annual International Conference on Statistics: Teaching, Theory & Applications, by S. Ahmed\*, Athens, Greece, 6/28-30 & 7/1, 2021.
- P86. "Improving pedestrian safety using High Visibility Crosswalks: A correlated grouped random parameter approach with heterogeneity in means." 11th Annual International Conference on Civil Engineering, by S. Ahmed\*, Athens, Greece, 6/21-24, 2021.
- P85. "An exploratory analysis of factors causing deer-vehicle collisions: A case study in Pennsylvania." 100<sup>th</sup> Transportation Research Board Annual Meeting, by S. Ahmed\*, Virtual Event, Washington DC, 1/2021. *Best paper award*.
- P84. "An exploratory empirical analysis of public willingness to hire and pay for flying taxis and shared flying car services." 100<sup>th</sup> Transportation Research Board Annual Meeting, by S. Ahmend\*, Virtual Event, Washington DC, 1/2021.
- P83. *Invited:* "Advanced air vehicles and willingness to hire and to pay for urban air mobility services: A correlated grouped random parameters bivariate probit approach." 2nd Annual Conference on NEXT-GENERATION TRANSPORT SYSTEMS (NGTS-2), by S. Ahmed\*, Virtual Event, Purdue University, West Lafayette, IN, 12/28-31, 2020. *Best presentation award*.
- P82. "Identifying the early adopters of flying cars: Who is willing to pay for and use them?" 99<sup>th</sup> Transportation Research Board Annual Meeting, by G. Fountas\*, Washington DC, 1/11-17, 2020.
- P81. "Simultaneous modeling of travel time and distance: A bivariate hazard-based approach with correlated grouped random parameters." 99<sup>th</sup> Transportation Research Board Annual Meeting, by S. Ahmed\*, Washington DC, 1/11-17, 2020.

<sup>&</sup>lt;sup>45</sup> Selected as a *High Value Research (HVR) project* by the American Association of State Highway and Transportation Officials (AASHTO) Region 1 RAC.

- P80. "Understanding motorcycle full ban policy's personal and societal impacts in China." 99<sup>th</sup> Transportation Research Board Annual Meeting, by Y. Guo, Washington DC, 1/11-17, 2020.
- P79. "The flying car Emergent modeling and simulation (M&S) policies and standards concerns." 2019 Interservice/Industry Training, Simulation & Education Conference, by K. Hulme, Orlando, FL, 12/2-6, 2019.
- P78. "Accounting for cross-equation error correlation and unobserved heterogeneity in a bivariate hazard-based duration modeling framework". 13th Annual International Conference on Mathematics & Statistics: Teaching, Theory & Applications, ATINER, by S. Ahmed\*, Athens, Greece, 7/1-4, 2019.
- P77. "Will flying cars be safe and secure: An exploratory empirical analysis of public perceptions". 13th Annual International Conference on Mathematics & Statistics: Teaching, Theory & Applications, ATINER, by S. Ahmed\*, Athens, Greece, 7/1-4, 2019.
- P76. "Public-private partnerships for roadway construction and preservation, and traffic safety: An exploratory empirical analysis of crash frequencies". 9th Annual International Conference on Civil Engineering, ATINER, by S. Pantangi\*, Athens, Greece, 6/24-27, 2019.
- P75. "Public willingness to use autonomous vehicles and flying cars for airport access trips". 15th Annual International Conference on Tourism, ATINER, by S. Ahmed\*, Athens, Greece, 6/10-13, 2019.
- P74. "Public perceptions on safety benefits and security concerns from the future use of autonomous and connected vehicles". 5th Annual International Conference on Transportation, by S. Pantangi\*, ATINER, Athens, Greece, 6/3-6, 2019.
- P73. "The effect of driver's cognitive states on observed and perceived aggressive driving behavior: A correlated grouped random parameters approach". 5th Annual International Conference on Transportation, ATINER, by \*G. Fountas, Athens, Greece, 6/3-6, 2019.
- P72. "An empirical exploratory analysis of potential residence relocation trends from the future introduction of flying cars". 5th Annual International Conference on Transportation, ATINER, by S. Ahmed\*, Athens, Greece, 6/3-6, 2019.
- P71. "An exploratory investigation of public perceptions towards key benefits and concerns from the future use of flying cars". 98<sup>th</sup> Transportation Research Board Annual Meeting, by U. Eker\*, Washington DC, 1/13-17, 2019.
- P70. "Correlated grouped random parameters hazard-based duration analysis of elderly travel times". 98<sup>th</sup> Transportation Research Board Annual Meeting, by G. Jordan\*, Washington DC, 1/13-17, 2019.
- P69. "Understanding the impacts of internal migration and household registration system on travel mode choice in China". 98<sup>th</sup> Transportation Research Board Annual Meeting, by Y. Guo, Washington DC, 1/13-17, 2019.
- P68. "Analysis of accident injury-severity outcomes: The zero-inflated hierarchical ordered probit model with correlated disturbances". 98<sup>th</sup> Transportation Research Board Annual Meeting, by G. Fountas\*, Washington DC, 1/13-17, 2019.
- P67. "Effect of high visibility enforcement programs on aggressive driving behavior: an empirical analysis using SHRP2 Naturalistic Driving Study (NDS) data". 98<sup>th</sup> Transportation Research Board Annual Meeting, by S. Pantangi\*, Washington DC, 1/13-17, 2019.
- P66. "Public-Private Partnerships for roadway construction and preservation, and traffic safety: An exploratory empirical analysis of crash frequencies". 98th Transportation Research Board Annual Meeting, by S. Pantangi\*, Washington DC, 1/13-17, 2019.
- P65. "Comparing temporal and spatial trip durations for elderly travelers using the 2009 and 2017 national household travel surveys. National Household Travel Survey (NHTS) Data for Transportation Applications Workshop, by G. Jordan\*, Washington DC, 8/8-9, 2018.
- P64. "Correlated grouped random parameters hazard-based duration analysis of elderly travel times". 5th Annual Summer Conference on Livable Communities, by G. Jordan\*, Western Michigan University, Kalamazoo, MI, 6/21-22, 2018.
- P63. "Analysis of accident injury-severities using a time-variant correlated random parameters ordered probit approach". 97<sup>th</sup> Transportation Research Board Annual Meeting, by G. Fountas\*, Washington DC, 1/7-11, 2018.
- P62. "Exploratory empirical analysis of measured and perceived aggressive driving behavior in a driving simulation environment", 96<sup>th</sup> Transportation Research Board Annual Meeting, by T. Sarwar\*, Washington DC, 1/8-12, 2017.

- P61. "Analysis of stationary and dynamic factors affecting highway accident occurrence", 96<sup>th</sup> Transportation Research Board Annual Meeting, by G. Fountas\*, Washington DC, 1/8-12, 2017.
- P60. "A preliminary investigation of the effectiveness of high visibility crosswalks on pedestrian safety", 96<sup>th</sup> Transportation Research Board Annual Meeting, by T. Sarwar\*, Washington DC, 1/8-12, 2017.
- P59. "An analysis of time-to-accident occurrence using random parameters hazard-based duration models", ASCE International Conference on Transportation & Development (ICTD 2016), by U. Eker\*, Houston, Texas, 6/26-29/2016.
- P58. "Factors affecting accident frequencies on curved and straight/level highway segments", ASCE International Conference on Transportation & Development (ICTD 2016), by U. Eker\*, Houston, Texas, 6/26-29/2016.
- P57. "An empirical exploratory analysis of factors determining high-crash locations using the random parameters ordered probit model", 17th Road Safety in Five Continents (RS5C) Conference, by T. Sarwar\*, Rio de Janeiro, Brazil, 5/17-19, 2016.
- P56. "The effect of speed limits on drivers' speed choice: A random parameters seemingly unrelated equations approach", 17th Road Safety in Five Continents (RS5C) Conference, by T. Sarwar\*, Rio de Janeiro, Brazil, 5/17-19, 2016.
- P55. "A grouped random parameters bivariate probit analysis of perceived and observed aggressive driving behavior: A driving simulation study", 17th Road Safety in Five Continents (RS5C) Conference, by T. Sarwar\*, Rio de Janeiro, Brazil, 5/17-19, 2016.
- P54. "A random thresholds random parameters ordered probit analysis of highway accident injury-severities", 17th Road Safety in Five Continents (RS5C) Conference, by T. Sarwar\*, Rio de Janeiro, Brazil, 5/17-19, 2016.
- P53. "A three-stage least squares analysis of post-rehabilitation pavement performance", 95<sup>th</sup> Transportation Research Board Annual Meeting, by T. Sarwar\*, Washington DC, 1/10-14, 2016.
- P52. "A statistical analysis of the dynamics of household hurricane-evacuation decisions", 95<sup>th</sup> Transportation Research Board Annual Meeting, by T. Sarwar\*, Washington DC, 1/10-14, 2016.
- P51. "Multi-measure assessment of internal distractions on driver performance", Interservice/ Industry Training, Simulation, and Education Conference (I/ITSEC), by K. Hulme, Orlando, Florida, 12/2015.
- P50. "Crosswalk markings and corridor studies: An engineering perspective to improving pedestrian safety", New York Highway Safety Annual Fall Symposium, by T. Sarwar\* and R. Limoges, Binghamton, New York, 10/2015.
- P49. "Random parameters multivariate tobit and zero-inflated count data models: Addressing unobserved and zero-state heterogeneity in accident injury-severity rate and frequency analysis", 2015 Road Safety & Simulation International Conference, by T. Sarwar\*, Orlando, Florida, 10/2015.
- P48. "The effect of long term non-invasive pavement deterioration on accident injury-severity rates: A seemingly unrelated equations approach", 2015 Road Safety & Simulation International Conference, by T. Sarwar\*, Orlando, Florida, 10/2015.
- P47. "Analysis of accident injury-severities of helmeted and non-helmeted motorcyclists", 2015 Road Safety & Simulation International Conference, by T. Sarwar\*, Orlando, Florida, 10/2015.
- P46. "Do the same factors affect accident frequencies on highway segments with different traffic volumes and traffic compositions?", 56<sup>th</sup> Annual Transportation Research Forum, by U. Eker\* and T. Androutselis\*, Atlanta, Georgia, 3/2015.
- P45. "Assessment of seismic damage of a bridge pier using a seemingly unrelated nonlinear equations approach", 56<sup>th</sup> Annual Transportation Research Forum, by T. Androutselis\*, Atlanta, Georgia, 3/2015.
- P44. "A three-stage least squares analysis of post-rehabilitation pavement performance", 56<sup>th</sup> Annual Transportation Research Forum, by T. Sarwar\*, Atlanta, Georgia, 3/2015.
- P43. "A random parameters hazard-based duration analysis of senior travelers' activity-based travel time and distance", 56th Annual Transportation Research Forum, by T. Androutselis\*, Atlanta, Georgia, 3/2015.
- P42. "A fixed effects bivariate ordered probit analysis of perceived and observed aggressive driving behavior: A driving simulation study", 94th Transportation Research Board Annual Meeting, by N. Golshani\*, Washington DC, 1/2015.

- P41. "An empirical exploratory analysis of factors affecting highway segment hazard-level likelihood using random parameters ordered probit regression", 94th Transportation Research Board Annual Meeting, by A. Nahidi\* and N. Golshani\*, Washington DC, 1/2015.
- P40. "Simple method for real–time seismic damage assessment of bridges", 94th Transportation Research Board Annual Meeting, by T. Androutselis\* and **P. Anastasopoulos**, Washington DC, 1/2015.
- P39. "Simple empirical guide to low-volume road design", 93rd Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/12-16, 2014.
- P38. "Exploratory empirical random parameter hazard-based analysis of travel distance for sustainable transport habits", 93rd Transportation Research Board Annual Meeting, by M. Karlaftis, Washington DC, 1/12-16, 2014.
- P37. "Safety-oriented pavement performance thresholds: Multiobjective optimization and goal programming analysis", 93rd Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/12-16, 2014.
- P36. "An analysis of pavement overlay and replacement performance using random-parameters hazard-based duration models", 93rd Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/12-16, 2014.
- P35. "Construction of sustainable energy facilities: Policy considerations for local agencies", 53rd Transportation Research Forum, by J. Haddock, Tampa, FL, 3/15-17 2012.
- P34. "A simple guide on low volume road design", 53rd Transportation Research Forum, by J. Haddock, Tampa, FL, 3/15-17 2012.
- P33. "Impacts of Sustainable Energy Facility Construction on Local Roads", 53rd Transportation Research Forum, by J. Haddock, Tampa, FL, 3/15-17 2012.
- P32. "Cost overrun in public-private partnerships: Toward sustainable highway maintenance and rehabilitation", 91st Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/22-26, 2012.
- P31. "On improving system wide sustainability in pavement preservation programming", 91st Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/22-26, 2012.
- P30. "An analysis of urban travel times: A random parameters hazard-based approach", 91st Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/22-26, 2012.
- P29. "An analysis of household automobile and motorcycle ownership with the random parameters bivariate ordered probit model", 91st Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/22-26, 2012.
- P28. "A study of factors affecting highway accident rates using the random-parameters tobit model", 91st Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/22-26, 2012.
- P27. "On improving safety at high-speed rural intersections", 3<sup>rd</sup> International Conference on Road Safety and Simulation, by S. Leckrone, Indianapolis, IN, 9/14-16, 2011.
- P26. "Can education and enforcement affect behavior of car and truck drivers on urban freeways?", 3<sup>rd</sup> International Conference on Road Safety and Simulation, by A. Tarko, Indianapolis, IN, 9/14-16, 2011.
- P25. "Evaluation of Sign Replacement Projects in Rural Indiana", 2011 SURF Research Symposium, by C. Figueroa Bueno, West Lafayette, IN, 8/3, 2011.
- P24. "Quantifying system vulnerability as a performance measure for systems investment evaluation and decision-making", International Conference on Vulnerability and Risk Analysis and Management (ICVRAM) and the 5<sup>th</sup> International Symposium on Uncertainty Modeling and Analysis (ISUMA), by S. Labi, Hyattsville, MD, 4/11-13, 2011.
- P23. "Comparative evaluation of public-private partnerships in roadway preservation", 97th Annual Purdue Road School, by M. Volovski, West Lafayette, IN, 3/10-12, 2011.
- P22. "Pavement deterioration modeling: Accounting for heterogeneity and simultaneous relationships", 52nd Transportation Research Forum, by M. Islam, Long Beach, CA, 3/10-12, 2011.
- P21. "Analytical estimation of safety-determined pavement performance thresholds", 52nd Transportation Research Forum, by M. Islam, Long Beach, CA, 3/10-12, 2011.

- P20. "Survival analysis of pavement service lives with limited data: A random parameters hazard-based duration framework", 52nd Transportation Research Forum, by M. Islam, Long Beach, CA, 3/10-12, 2011.
- P19. "Passenger car equivalents for basic freeway segments based on lagging headways: Some new evidence using a system of equations approach", 52nd Transportation Research Forum, by M. Islam, Long Beach, CA, 3/10-12, 2011.
- P18. "Car and motorcycle ownership in a congested environment", 52nd Transportation Research Forum, by M. Islam, Long Beach, CA, 3/10-12, 2011.
- P17. "Hazard-based analysis of travel distance in urban environments: A longitudinal data approach", 52nd Transportation Research Forum, by M. Islam, Long Beach, CA, 3/2011.
- P16. "Comparative analysis of public-private partnerships in roadway preservation", 90th Transportation Research Board Annual Meeting, by M. Volovski, Washington DC, 1/23-27, 2011.
- P15. "A travel time-to-destination analysis in urban metropolitan areas", 90th Transportation Re-search Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/23-27, 2011.
- P14. "A Note on vehicle crash-injury severity analysis with the mixed logit model", 90th Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/23-27, 2011.
- P13. "Road fatalities, health service quality, and motorization level: An empirical analysis using aggregate country-level data", 90th Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/23-27, 2011.
- P12. "Pavement Preservation Programming: A Multi-Year Multi-Constraint Optimization Methodology", 89th Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/10-14, 2010.
- P11. "Public-Private Partnerships (PPPs) in Highway Reconstruction, Rehabilitation, and Operations", InStep, InLine, OnTime: Regional Strategies for Trade, Security and Mobility Challenges at the U.S.-Canada Border, A Nextrans Conference, Purdue University Discovery Park, by P. Anastasopoulos, West Lafayette, IN, 11/16, 2009.
- P10. "Performance Based Contracting, Yes or No, an In-Depth Analysis", 12th AASHTO/TRB Maintenance Management Conference, by B. McCullouch, Annapolis, MD, 7/19-23, 2009.
- P9. "Exploring Relationships between Aggregate Pavement Performance, and Surface Geology, Climate, and Expenditure: An Econometric Analysis of State-level Data", 88th Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/11-15, 2009.
- P8. "Identifying Appropriate Contract Type on the Basis of Highway Maintenance and Rehabilitation Project Characteristics", 88th Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/11-15, 2009.
- P7. "Modeling Vehicle-Accident Frequencies with Random-Parameters Count Models", 88th Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/11-15, 2009.
- P6. "Analyzing Duration and Prolongation of Performance-Based Contracts Using Hazard-Based Duration and Zero-Inflated Random Parameters Poisson Models", 88th Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/11-15, 2009.
- P5. "An Econometric Analysis of the Influence of Highway Project Size, Project Type, and Contract Type on Project Duration", 88th Transportation Research Board Annual Meeting, by **P. Anastasopoulos**, Washington DC, 1/11-15, 2009.
- P4. "Analyzing time delay of highway construction transportation contracts: An exploratory study", 2008 Joint Statistical Meetings, by A. Bhargava, Denver, CO, 7/31-8/7, 2008.
- P3. "Performance-based contracting for roadway maintenance: An exploratory empirical analysis", 10th International Conference on Applications of Advanced Technologies in Transportation, by N. Gkritza, Athens, Greece, 5/27-31, 2008.
- P2. "A simple model for predicting delay at actuated signalized intersections", 10th International Conference on Applications of Advanced Technologies in Transportation, by A. Bhargava, Athens, Greece, 5/27-31, 2008.
- P1. "An analysis of cost and time overruns of construction contracts using system equation methods", 10th International Conference on Applications of Advanced Technologies in Transportation, by A. Bhargava, Athens, Greece, 5/27-31, 2008.

#### TEACHING EXPERIENCE

#### University at Buffalo, The State University of New York (all are 3-credit courses)

- CIE500PA4: Statistical and Econometric Methods II [Spring 2021, 2022]
- CIE633: Statistical and Econometric Methods [Fall 2016, 2017, 2019, 2020, 2021]
- CIE574: Traffic Safety [Spring 2014; Fall 2014, 2015].
- CIE475 / CIE576: Geometric Design of Highways [Fall 2013; Spring 2015, 2016, 2017, 2018, 2019, 2020]. (Serves as an alternative option for CIE416 Civil Engineering Capstone Design.)
- CIE 308: Engineering Statistics [Summer 2015, 2016, 2017, 2018].
- Independent Studies:
  - ✓ CIE499: Statistical Methods in Transportation Engineering [Fall 2014].
  - ✓ CIE501(a): Advanced Transportation Modeling [Fall 2014, 2016].
  - ✓ CIE502(a): Advanced Infrastructure Modeling [Spring 2014, 2016].
  - ✓ CIE502(b): Advanced Pavement Performance Modeling [Spring 2014].
  - ✓ CIE501/2(c): Advanced Statistical Modeling [Spring 2015, 2018; Fall 2015, 2016, 2018].
  - ✓ CIE601(a): Advanced Traffic Safety Modeling [Fall 2014, 2021; Spring 2019].
  - ✓ CIE602(a): Advanced Statistical & Econometric Methods [Spring 2015, 2016; Fall 2015, 2019].

#### **Student Ratings (see titles of courses in section above)**

| Course*       | Semester    | Nu. of Students | Course Rating | Instructor Rating |
|---------------|-------------|-----------------|---------------|-------------------|
| CIE475/CIE576 | Fall 2013   | 12              | 4.3/5.0       | 4.5/5.0           |
| CIE574        | Spring 2014 | 10              | 4.3/5.0       | 4.7/5.0           |
| CIE574        | Fall 2014   | 10              | 4.7/5.0       | 4.9/5.0           |
| CIE475/CIE576 | Spring 2015 | 26              | 4.4/5.0       | 4.6/5.0           |
| CIE308        | Summer 2015 | 20              | 4.5/5.0       | 4.9/5.0           |
| CIE574        | Fall 2015   | 7               | 4.4/5.0       | 4.7/5.0           |
| CIE475/CIE576 | Spring 2016 | 8               | 4.8/5.0       | 4.8/5.0           |
| CIE308        | Summer 2016 | 14              | 4.9/5.0       | 5.0/5.0           |
| CIE633        | Fall 2016   | 13              | 4.7/5.0       | 4.8/5.0           |
| CIE475/CIE576 | Spring 2017 | 31              | 4.4/5.0       | 4.5/5.0           |
| CIE308        | Summer 2017 | 16              | 4.5/5.0       | 4.9/5.0           |
| CIE633        | Fall 2017   | 7               | 4.8/5.0       | 5.0/5.0           |
| CIE475/576    | Spring 2018 | 36              | 4.5/5.0       | 4.5/5.0           |
| CIE475/576    | Spring 2019 | 31              | 4.6/5.0       | 4.7/5.0           |
| CIE633        | Fall 2019   | 9               | 4.7/5.0       | 4.9/5.0           |
| CIE475/576**  | Spring 2020 | 34              | 4.7/5.0       | NA**              |
| CIE633        | Fall 2020   | 13              | 4.8/5.0       | 4.8/5.0           |
| CIE500PA4     | Spring 2021 | 10              | 5.0/5.0       | 5.0/5.0           |
| CIE633        | Fall 2021   | 37              | 4.5/5.0       | 4.8/5.0           |
| CIE500PA4     | Spring 2022 | 7               | NA            | NA                |

<sup>\*</sup> Avg. scores – excluding the highest and lowest score – are presented. Response rate for all courses exceeded 90%.

### **Purdue University (all are 3-credit courses)**

- CE697<sup>†</sup>: Graduate Independent Study ~ Advanced Modeling of Transportation Systems [Spring 2011, 2012].
- CE697: Graduate Independent Study ~ Advanced Modeling of Pavement Drainage [Spring 2012].
- CE697: Graduate Independent Study ~ Advanced Travel Demand Econometric Modeling [Fall 2011].
- CE562: Geometric Design of Highways [Spring 2010 (Lab Instructor, Teaching Assistant), 2011].
- CE597: Graduate Independent Study ~ Advanced Tools for Transportation Design [Fall 2010].
- CE463: Highway Traffic Characteristics [Fall 2010 (Teaching Assistant)].

<sup>\*\*</sup> Avg. scores – excluding the highest and lowest score – are presented. Due to COVID-19, there was no Instructor Rating question, and the response rate for this specific course and semester was 50%.

#### **Student Ratings (see titles of courses in section above)**

| Course*            | Semester    | Nu. of Students | Course Rating | Instructor Rating |
|--------------------|-------------|-----------------|---------------|-------------------|
| CE597              | Fall 2010   | 2               | 5.0/5.0       | 5.0/5.0           |
| CE562              | Spring 2011 | 10              | 4.8/5.0       | 4.8/5.0           |
| CE697 <sup>†</sup> | Spring 2012 | 3               | 5.0/5.0       | 5.0/5.0           |

<sup>\*</sup> See titles of courses above. Average scores – excluding the single one highest and lowest score – are presented. Response rate for all courses exceeded 90%.

#### Other Course/Seminar Lectures at Purdue University, West Lafayette, IN

- CE568: Highway Infrastructure Management Systems, Spring 2010, Purdue University, West Lafayette, IN. "Applied Methodologies in Infrastructure Management Systems" (2 lectures).
- CE697M: Statistical and Econometric Methods II, Spring 2009, Purdue University, West Lafayette, IN. "Infrastructure Asset Management: A Case Study on Pavement Rehabilitation" (1 lecture).
- CE561: Transportation Systems Evaluation, Fall 2007, Purdue University, West Lafayette, IN. "Impacts of Transportation on Economic Development: The Regional Economic Simulation Models" (2 lectures).
- Institute of Transportation Engineers Seminar, Fall 2008, Purdue University, West Lafayette, IN. "Effectiveness and Service Lives of Various Pavement Rehabilitation Treatments" (Seminar lecture).
- Institute of Transportation Engineers Seminar, Spring 2007, Purdue University, West Lafayette, IN. "Performance-Based Contracting for Highway Maintenance Operations" (Seminar lecture).

#### Athens University of Economics & Business, Greece, 2002-2006 (Teaching Assistant)

- 22005: Principles of Business Administration.
- 24009: Management I.
- 27001: Management II.
- 28001: Topics in Business Policy and Strategy.

#### STUDENT MENTORSHIP

| Student Advising Summary |               |                            |  |  |  |
|--------------------------|---------------|----------------------------|--|--|--|
| Academic Year            | Undergraduate | Graduate (Committee Chair) |  |  |  |
| 2009-10 (Purdue)         |               | 1                          |  |  |  |
| 2010-11 (Purdue)         |               | 2                          |  |  |  |
| 2011-12 (Purdue)         | 2             | 1                          |  |  |  |
| 2012-13 (Purdue)         |               | 2                          |  |  |  |
| 2013-14 (UB)             | 12            | 6 (4)                      |  |  |  |
| 2014-15 (UB)             | 12            | 13 (8)                     |  |  |  |
| 2015-16 (UB)             | 12            | 18 (13)                    |  |  |  |
| 2016-17 (UB)             | 10            | 20 (16)                    |  |  |  |
| 2017-18 (UB)             | 10            | 13 (9)                     |  |  |  |
| 2018-19 (UB)             | 10            | 12 (7)                     |  |  |  |
| 2019-20 (UB)             | 13            | 12 (7)                     |  |  |  |
| 2020-21 (UB)             | 14            | 12 (7)                     |  |  |  |
| 2021-22 (UB)             | 15            | 15 (9)                     |  |  |  |

#### University at Buffalo, The State University of New York, Buffalo, NY

#### **Doctoral students**

1. Md. Tawfiq Sarwar, 2015.

Assistant Professor, Department of Civil Engineering, East West University, Bangladesh. (Previously: Research Associate, Federal Highway Administration, Washington DC).

2. <u>Joseph W. Delaney</u>, 2018 (co-advised with S. Mohan).

Assistant Teaching Professor, University of Southern Mississippi; and President, CM Group at Delaney CMS.

3. Grigorios Fountas, 2018.

Assistant Professor, School of Engineering and The Built Environment, Edinburgh Napier University, UK.

4. Gary Jordan, 2018.

Assistant Professor, Department of Civil Engineering, King's College, Wilkes-Barre, PA. (Previously: Post-Doctoral Researcher, Alabama Transportation Institute, University of Alabama).

5. Ugur Eker, 2019.

Turkish Airlines.

6. Sarvani Sonduru Pantangi, 2019.

Post-Doctoral Research Associate, Michigan State University, MI.

- 7. Mehmet Berk Fettahoglu (exp. 2022 co-advised with I. Benedyk), current student.
- 8. Sheikh Shahriar Ahmed (exp. 2022), current student.
- 9. Kaiser Mahmood (exp. 2023 co-advised with I. Benedyk), current student.
- 10. <u>Jiajun Pang</u> (exp. 2023 co-advised with I. Benedyk), current student.
- 11. Gongda Yu (exp. 2024), current student.
- 12. Jason Schanil, new student (joining Fall 2022).

# Masters students (\*Thesis completed or ongoing)

| 1.  | *Ataa Nahidi, Post-Doctoral Researcher, University of Waterloo, Canada.     | 2015        |
|-----|---|-------------|
| 2.  | *Nima Golshani, Research Scientist II, Georgia Institute of Technology, GA. | 2015        |
| 3.  | *Thomas Androutselis, Senior Associate, Exponent, CA.                       | 2015        |
| 4.  | *Courtney Bentley, Project Engineer, Transportation, Bergmann, NY.          | 2015        |
| 5.  | *Damien David, Design Engineer II, CDM Smith, WA.                           | 2017        |
| 6.  | *Ugur Eker, Turkish Airlines, Turkey.                                       | 2017        |
| 7.  | *Aafiya Shah, Consultant, Kapsch TrafficCom North America, MD.              | 2017        |
| 8.  | *Mehmet Berk Fettahoglu, Ph.D. Candidate, University at Buffalo, NY.        | 2018        |
| 9.  | *Sheikh Shahriar Ahmed, Ph.D. Candidate, University at Buffalo, NY.         | 2020        |
| 10. | *Jonathan Ho, Amazon, Seattle, WA.  | (exp. 2022) |
| 11. | *Afif Allahma Farabi.   | (exp. 2022) |
| 12. | *Adam Krathaus (co-advised with I. Benedyk).                                | (exp. 2022) |
| 13. | *Haris Ismail, New York State Department of Transportation.                 | (exp. 2023) |
| 14. | *Nathanael Niles.   | (exp. 2023) |

#### **Doctoral Committees**

Lei Lin, Shuai Tang, Alexandros Nikellis, Labros Sakellariadis (external committee member – ETH, Zurich, Switzerland, Department of Civil, Environmental and Geomatic Engineering), Athanasios Agalianos (external committee member – ETH, Zurich, Switzerland, Department of Civil, Environmental and Geomatic Engineering), Chunfu Xin (external committee member – University of South Florida, Department of Civil and Environmental Engineering), Suryaprasanna Kumar Balusu (external committee member – University of South Florida, Department of Civil and Environmental Engineering), Ya-Ting Ho.

#### M.S. Committees

Labros Sakellariadis (external committee member – University of Dundee, Scotland, Division of Civil Engineering), Athanasios Agalianos (external committee member – University of Dundee, Scotland, Division of Civil Engineering), Satyavardhan Gogineni, Winifred Lao, Hao Wang.

#### Purdue University, West Lafayette, IN

#### **Doctoral Committees**

Erdong Chen<sup>46</sup>, Anwaar Ahmed<sup>46</sup>.

#### M.S. Commitees

Samuel Leckrone<sup>46</sup>, Md. Tawfiq Sarwar<sup>47</sup>.

#### LABORATORY AND SOFTWARE DEVELOPMENT (selected)

#### Engineering Statistics and Econometrics Application Research Laboratory, UB

- Founded and led the Engineering Statistics and Econometrics Application (<u>E-SEA</u>) research lab with a focus on supporting decision making for Engineers and Scientists in problems involving statistical and econometric methodologies and modeling.
- The lab currently employs 6 graduate research assistants (4 of which are PhD candidates), and is already well connected, having several affiliate members from governmental agencies (<u>NYSDOT</u>, <u>NITTEC</u>) and the industry (<u>CUBRC</u>, <u>HDR Inc.</u>, <u>Mueser Rutledge</u>, <u>Buckland & Taylor</u> | <u>COWI</u>, <u>T.Y. Lin</u>).

#### Mobile Traffic Laboratory, Center for Road Safety

- Upgraded the Mobile Traffic Laboratory (an equipped van capable of recording video material for a prolonged period from cameras mounted on a 42-foot telescoping mast) with new high definition infrared cameras and cable connections.
- Installed a large capacity digital video recorder with dynamic domain name system (DDNS) server (with dynamic IP address) to simultaneously record in four channels and have remote access via internet connection.
- Coordinated, managed and trained two groups of twenty (ten each group) graduate and undergraduate research assistants to extract and process video image-data collected with the Mobile Traffic Laboratory.

#### Software tools (co-)developed (selected)

- (a) Application that conducts sensitivity analysis for accident frequencies at different levels of injury-severity. Input: intersection and road geometrics, traffic characteristics, and geographic/demographic information. Output: number of fatal, injury and PDO accidents.
- (b) Application that categorizes specific maintenance contract characteristics and activities into appropriate maintenance contract types (performance-based contracting, design-bid-build-operate-maintain, warranty clauses, lane rentals, cost-plus-time, incentives/ disincentives, and others) to maximize cost savings. The tool utilizes econometric equations to link cost savings with contract characteristics.
- (c) Pavement Analysis Software Tool PAnaST: tool that evaluates and identifies appropriate/optimal pavement rehabilitation treatments. Input: past pavement condition, traffic information, drainage class, and inflation adjustments. Output: directly comparable pavement deterioration curves for any pavement rehabilitation treatment.
- (d) Transportation Research Informatics Platform TRIP: an informatics based system designed to handle massive amounts of transportation data, provide researchers an efficient way to interact with this data, and allow for the straightforward use of analytical tools to assess the data. TRIP is an ongoing project funded under the Federal Highway Administration's Exploratory Advanced

<sup>&</sup>lt;sup>46</sup> Co-advised student, but did not formally serve as member in the student's academic committee.

<sup>&</sup>lt;sup>47</sup> Formally served as member in the student's M.Sc. committee.

Research Program. The objectives of TRIP include: Handle massive amounts of transportation data (e.g., terabytes of data); Utilize open source technologies & tools to ingest, store, align, and process data; Provide an efficient way to query data without in-depth knowledge of metadata; Integrate with open source and consumer off the shelf products; Visualize data to provide greater insights and understanding. The platform is capable of supporting a wide range of planning and operations activities as well. TRIP is a project funded under the Federal Highway Administration's Exploratory Advanced Research Program, and conducted in collaboration with CUBRC.

#### ORGANIZATION OF INTERNATIONAL CONFERENCES AND SEMINARS

- M15. Member of the organizing committee: 2017 Council of University Transportation Centers (CUTC) Summer Meeting, June 19-21 2017, Buffalo, NY, USA.
- M14. Member of the organizing and scientific committees: 2<sup>nd</sup> Annual Symposium on Transportation Informatics, Aug. 4-5 2016, Arlington, VA, USA.
- M13. Member of the organizing and scientific committees: 1<sup>st</sup> Annual Symposium on Transportation Informatics, Aug. 13-14 2015, Buffalo, NY, USA.
- M12. Member of the organizing and scientific committees: 3<sup>rd</sup> International Conference on Road Safety and Simulation (RSS) 2011, Sept. 14-16 2011, Indianapolis, IN, USA. (Major Contribution.)
- M11. Member of the organizing committee: 3<sup>rd</sup> Greece–Japan Workshop on Seismic Design, Observation, and Retrofit of Foundations, Sept. 23-24 2009, Santorini, Greece.
- M10. Member of the organizing committee: 3<sup>rd</sup> National Conference on Earthquake Engineering and Engineering Seismology, Nov. 5-7 2008, Athens, Greece.
- M9. Member of the organizing committee: 2nd Japan–Greece Workshop on Seismic Design, Observation, and Retrofit of Foundations, Apr. 3-4 2007, Tokyo, Japan.
- M8. Member of the organizing committee: *The Evolution of Earthquake Engineering during the Last Three Centuries*, Seminar organized by the Hellenic Center of Information and Education and the National Technical University of Athens, Jan. 31 2006, Athens, Greece.
- M7. Co-chair of the organizing committee: *New Bridge Engineering Codes and State-of-the-Art Computational Tools*, Seminar organized by the Hellenic Center of Information and Education, Nov. 11 2005, Athens, Greece. (Major Contribution.)
- M6. Member of the organizing committee: *Ist Greece–Japan Workshop: Seismic Design, Observation, and Retrofit of Foundations*, Oct. 11-12 2005, Athens, Greece.
- M5. Co-chair of the organizing and scientific committees: *Bridge Engineering : Modern Design, Construction, and Management Methods*, Seminar organized by the Hellenic Center of Information and Education, May 27-28 2005, Athens, Greece. (Major Contribution.)
- M4. Co-chair of the organizing committee: *Design and Construction of Timber Structures*, Seminar organized by the Hellenic Center of Information and Education, Feb. 11-12 2005, Athens, Greece. (Major Contribution.)
- M3. Co-chair of the organizing committee: *Preservation and Seismic Retrofitting of Cultural Heritage*, May 7-8 2004, Seminar organized by the Hellenic Center of Information and Education, Patras, Greece. (Major Contribution.)
- M2. Co-chair of the organizing committee: *Design of Seismic Isolation Systems*, Seminar organized by the Hellenic Center of Information and Education, Dec. 12-13 2003, Athens, Greece. (<u>Major Contribution</u>.)
- M1. Co-chair of the organizing committee: *Preservation and Seismic Retrofitting of Cultural Heritage*, Seminar organized by the Hellenic Center of Information and Education, Nov. 14-15 2003, Athens, Greece. (Major Contribution.)