

Agenda
ABJ80 TRB Statistical Methods Committee

Monday, Jan 8, 2018

1:30 AM to 3:15 PM, Marquis Ballroom Salon 10 (M2), Marriott Marquis

Chair: Linda Ng Boyle, University of Washington

Secretary: Bob Scopatz

Scope: The ABJ80 Committee is concerned with the appropriate application of statistical methods in the field of transportation. The committee serves as a resource on statistical matters for all TRB committees and related committees for the National Academies; fosters understanding and use of statistics through dissemination of educational activities; and identifies and fosters research needed in statistics within the transportation community.

All sessions are led by Linda Boyle unless otherwise noted.

1:30 to 1:35	TRB announcements/statements
1:35 to 1:40	Introductions
1:40 to 1:45	Approval of 2017 Meeting Minutes (<i>Bob Scopatz</i>)
1:45 to 1:50	Workshops/Sessions Sponsored and Co-Sponsored by ABJ80 for 2018
1:50 to 1:55	Committee Membership
1:55 to 2:10	2017-2018 paper reviews for ABJ80 (<i>Panagiotis Anastasopoulos</i>)
2:10 to 2:20	TRB Data Contest
2:20 to 2:25	Best Paper Award Process and Qualifications (<i>Peter Savolainen</i>)
2:25 to 2:30	Website, Social Media, and Outreach
2:30 to 2:40 am (floating):	TRB initiatives and Data Section News (<i>Bernardo Kleiner</i>)
2:40 to 2:45	Update on TRB Circular on Analytical Tools for Transportation Researchers and Practitioners
2:45 to 2:50	TSIG update (<i>Feng Guo</i>)
2:50 to 3:00	Future Committee Activities and Sessions (<i>Linda Boyle</i>)
3:00 to 3:05	Passing of the Guards
3:05 to 3:10	PICTURE TAKING
3:10 to 3:15	Call to Audience/relevant activities of other committees, conferences, etc.
3:15 pm	Adjourn

3

TRB 2018 ABJ80 Sponsored or Co-Sponsored Sessions/Workshops/Meetings

Event 243: Statistical Methods in Transportation-Poster Session

Monday, 8-9:45 am, Convention Center, Hall E

Md. Mazharul Haque, Queensland University of Technology, presiding

1. Gas Dynamic Analogous Exposure Approach to Interaction Intensity in Modeling Multiple-Vehicle Crash Frequency: A Case Study of Crashes Involving Taxis (18-00558)
F Meng, W Wong, S.C. Wong, X Pei, Y Chong Li, H Huang
2. A Full Bayes Approach to Road Safety Hotspot Identification with Prediction Validation (18-01020), *L Fawcett, J Matthews, N Thorpe, K Kremer*
3. A Multivariate Panel Copula-Based Count Model to Examine Intertemporal- and Intercrash-Type Correlations (18-01170), *G Mothafer, T Yamamoto, V Shankar*
4. Application of Dynamic (Time-Series) Artificial Neural Network Approach to Develop Collision Prediction Models: A Case Study in City of Kelowna, Canada (18-02311), *G Lovegrove, F Faghihi*
5. Development of a Random Parameters Negative Binomial–Lindley Generalized Linear Model to Analyze Highly Overdispersed Crash Data (18-02785), *M Razaur Shaon, X Qin, M Shirazi, D Lord, S Geedipally*
6. Characteristics-Based Heuristics to Select a Logical Distribution Between the Poisson Gamma and the Poisson Lognormal for Crash Data Modeling (18-03035), *M Shirazi, D Lord*
7. Comparing Latent Variable Approach with Observation Removal and Imputation to Dealing with Missing Data in Count Regression Models (18-03202), *A Pooyan Afghari, C Prato, S Washington, Md. Mazharul Haque*
8. Modeling Effects of Travel Time Reliability on Mode Choice Using Prospect Theory (18-04485), *S Ghader, L Zhang*
9. Autoregressive Continuous Logit: Formulation and Application to Time-of-Day Choice Modeling (18-04538), *Sepehr Ghader, Carlos Carrion, Lei Zhang*
10. A Novel Application of Catastrophe and Fractal Theories for Crash and Incident Modeling (18-05663), *S Chand, A Theofilatos, V Dixit*
11. A Multilevel Generalized Ordered Probit Fractional Split Model: Modeling Vehicle Speed on Arterial Roads in Orlando (18-06114), *T Bhowmik, S Yasmin, N Eluru*
12. Exploring the Influence of Rainfall on a Stochastic Evolution of Traffic Conditions (18-06187), *E Kidando, E Moses, A Kitali, S Lyimo, V Kwigizile, T Sando, D Chimba*
13. Spatiotemporal Short-Term Traffic Forecasting Using the Network Weight Matrix and Systematic Detrending (18-06541), *A Ermagun, D Levinson*

Event 264: Research Advances in Statistical and Econometric Methods-Lecture Session

Monday, 10:15-12:00 pm, Convention Center, 150B

Panagiotis Anastasopoulos, University at Buffalo, presiding

1. A Modified Mixed Generalized Ordered Response Model to Handle Misclassification in Injury Severity Data (18-02227), *L Balan, R Paleti*
2. A Multivariate Copula-Based Macrolevel Crash Count Model (18-01587), *S Yasmin, S Uddin Momtaz, T Nashad, N Eluru*
3. Jointly Specified Spatial Priors for Bayesian Models of Crash Frequency (18-05317), *J Agüero-Valverde*
4. Joint Modeling of Traffic Incident Duration Components (Reporting, Response, and Clearance Time): A Copula-Based Approach (18-03310), *H Laman, S Yasmin, N Eluru*

Event 426: Doctoral Student Research in Transportation Safety—Hybrid Session

Monday: 3:45-5:30 pm, Convention Center, Salon B

Peter Savolainen, Iowa State University, presiding

Co-Sponsored with *Safety Data, Analysis and Evaluation (ANB20)*

TRB 2018 ABJ80 Sponsored or Co-Sponsored Sessions/Workshops/Meetings (continue)

Event 591: Analysis of SHRP 2 Safety Data: Slice, Dice, Chop, or Julienne?

Tuesday, 1:30-3:15 pm, 102A Convention Center

Linda Boyle, University of Washington, presiding

- Using SHRP 2 Data to Capture the Most Dangerous Phase of Cell Phone Use (P18-21004), *F Guo*
- Selecting Matching Variables Using Lasso Regression to Analyze Crash Risk in SHRP 2 INSIGHT Data for a Case-Control Setting (P18-21005), *H Guo*
- SHRP 2 Naturalistic Engagement in Secondary Tasks (NEST) Distracted Driving Data Set: Baseline Sampling Method and Implications for Crash Risk Approximations (P18-21006), *B Donmez*
- Data Processing and Statistical Considerations in the Analysis of Site-Based Time-Series Data from the SHRP 2 NDS (P18-21007), *J Lee*
- ~~Pitfalls and Opportunities in SHRP 2 Data Analysis: An Example with Rear-End Events from SHRP 2 (P18-21008), P Jovanis (cancelled)~~