

TRB ABJ80 Statistical Methods

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Monday, Jan 8, 2018, 1:30-3:30 pm
Marriott Marquis: Supreme Court M4

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In case of evacuation, attendees should gather on the lawn of the Carnegie Library, across the street from the main entrance to the Convention Center. (*If blocked by construction fence, walk left to access the lawn on the 7th Street side of the library.*)

1:30 to 1:35 TRB announcements/statements

1:35 to 1:40 Introductions

1:40 to 1:45 Approval of 2017 Meeting Minutes (Bob Scopatz)

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 (Panagiotis Anastasopoulos)

2:10 to 2:20 TRB Data Contest

2:20 to 2:25 Best Paper Award Process and Qualifications (Peter Savolainen)

2:25 to 2:30 Website, Social Media, and Outreach

2:30 to 2:40 am (floating): TRB initiatives and Data Section News (Bernardo Kleiner)

2:40 to 2:45 Update on TRB Circular on Analytical Tools for Transportation

Researchers and Practitioners

2:45 to 2:50 TSIG update (Feng Guo)

2:50 to 3:00 Future Committee Activities and Sessions (Linda Boyle)

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

3:15 pm Adjourn

Agenda

- 1:35 to 10:40: Introductions
- 1:40 to 1:45: Approval of 2017 Meeting Minutes
- 1:45 to 1:50: Workshops/Sessions Sponsored and Co-Sponsored by ABJ80 for 2018

Event 243: Poster Session

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
- 13 posters

Event 264: Lecture Session

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
- 4 papers

Event 426: Doctoral Colloquium

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

- Mon: 3:45-5:30 pm, Convention Center, Salon B
- Peter Savolainen, ISU, presiding
- 12 students
- 9 volunteers from ABJ80 and ANB20
 - THANKS to Gord L., Bidisha G., Jonathan W., Eun Sug P., Mehdi N., Bo L., Yiyi W., Juan M.

Event 591: Lecture/Panel

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

Agenda

- 1:50 to 10:55: Committee Membership

Committee Membership

- Membership
 - Rotate 1/3 of the committee on Jan 31, 2017
- Goal
 - 25 Main members (chair included)
 - 5 additional slots for non-US members
 - 4 additional slots for “young” members (< 35)
 - 2 additional slots for state DOTs

Committee Membership

- 9-year limit for an individual to serve as a committee member
 - Can be rotated back in after one rotation
- Balance of disciplines & geographic region
- Balance of employer types, affiliations
- Appropriate representation of various modes
- Proper consideration of women and minorities
- No more than one member from any single organization
- No more than 2 committee membership

Membership Roster

- TOTAL: 26 members (including chair)
 - 21 from academic institutions
 - 6 international members (Australia, Canada, China, Costa Rica, Ireland, Taiwan)
 - 1 “young” members (35 years or younger)
 - 1 state DOTs

Membership Expectations

- ACTIVE participation, which includes:
 - Attending committee meetings
 - Paper reviews
 - Chairing and/or being actively involved subcommittees
 - Coordinating sessions and workshops

Current Roles

- Secretary: *Bob Scopatz*
- Committee Research Coordinators: *TBD*
- Paper Review Coordinator: *Panos Anastasopoulos*
- Best Paper Award: *Peter Savolainen (Chair)*
- TRB Data Contest: *Naveen Eluru*
- Triennial Strategic Plan: *David Reinke*
- Social Media: *Mazharul [Shimul] Haque*
- Coordination of Future Sessions/Workshops: *TBD*
- TRB Circular: *Danny Xiao*

Changing of the Guards

- Outgoing Chair: Linda Boyle
- *Incoming Chair: Panos Anastasopoulos*

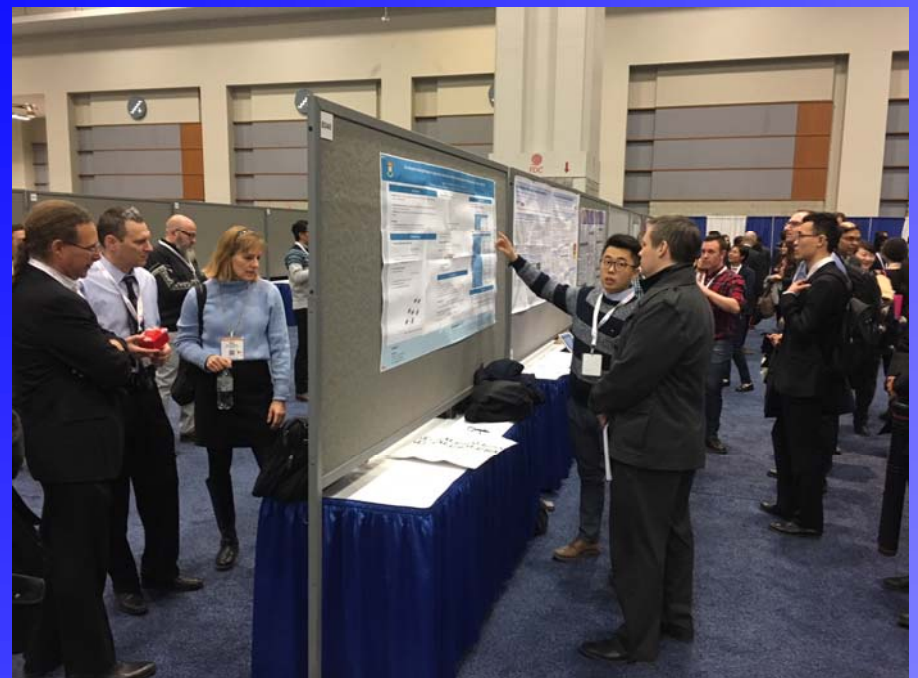
Agenda

1:55 to 2:10

2017-2018 paper reviews for ABJ80
(*Panogiotis Anastasopoulos*)

2018 ABJ80 Poster Session

- Statistical Methods in Transportation (Mon, Jan 08, 18); Chaired by Shimul Haque
- 13 papers, Attendance: Very good



Photos: Shimul Haque

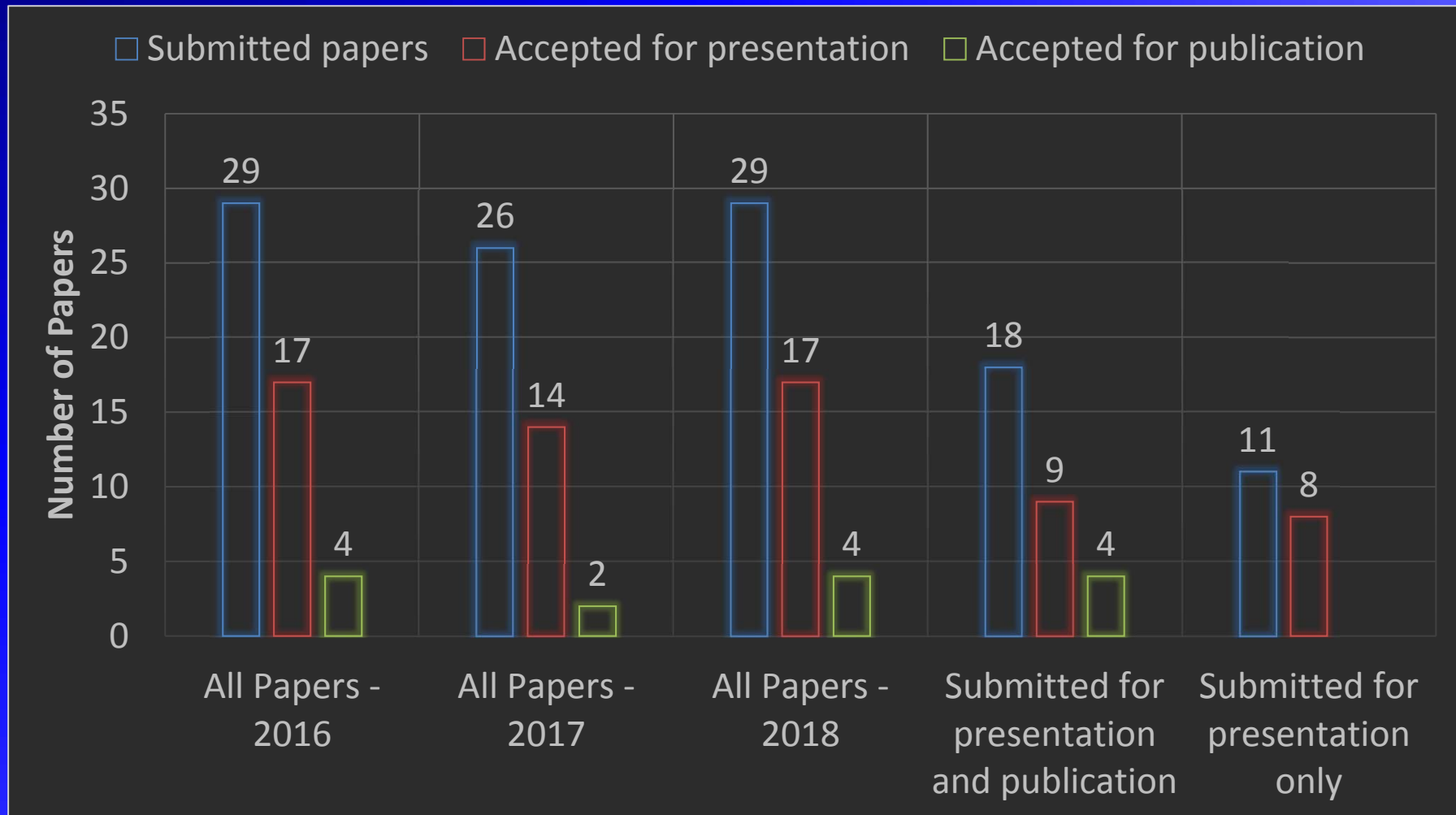
2018 ABJ80 Lectern Session

- Research Advances in Statistical and Econometric Methods (Mon, Jan 08, 18)
- 4 papers, Attendance: 120

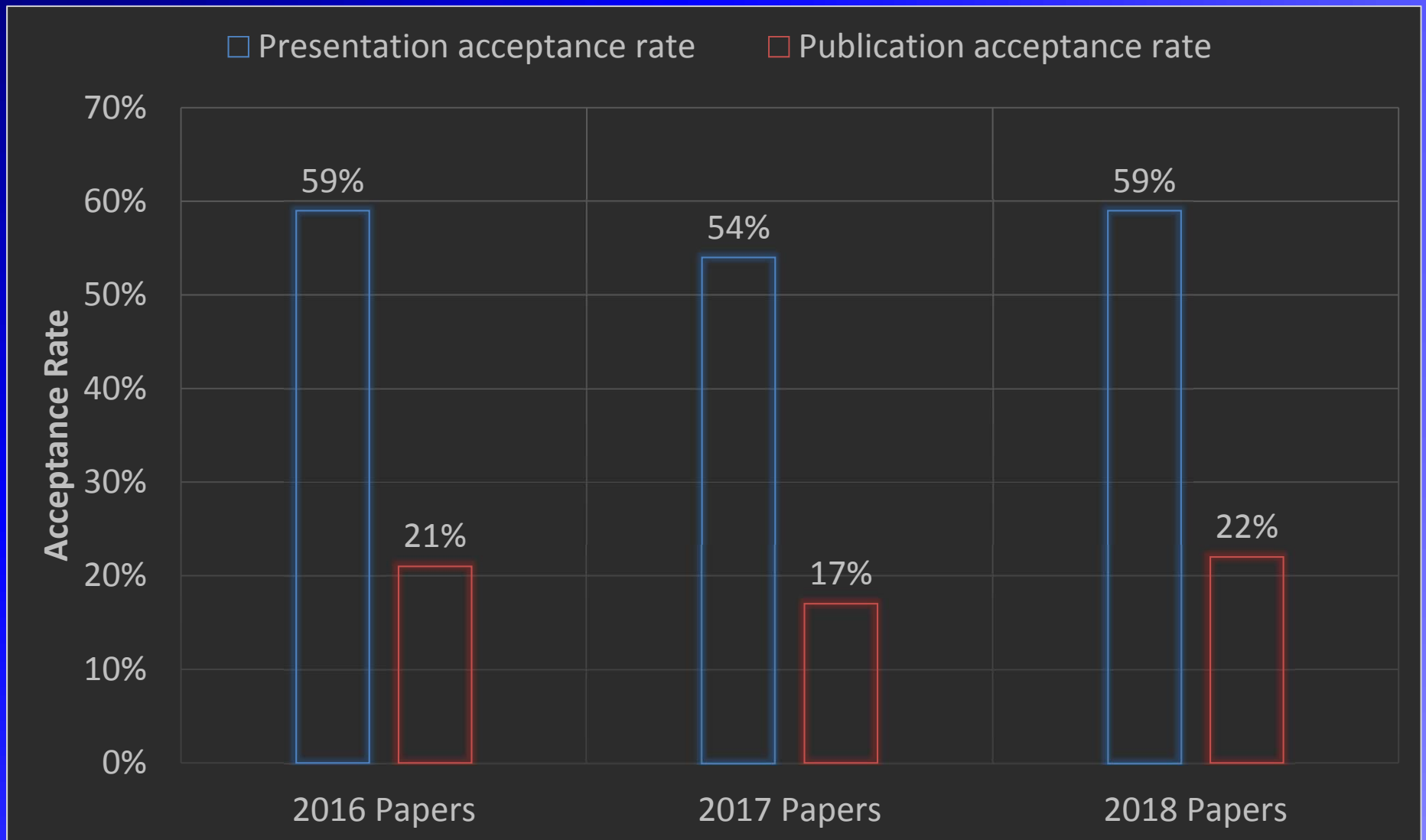


Photos: Panagiotis Anastasopoulos

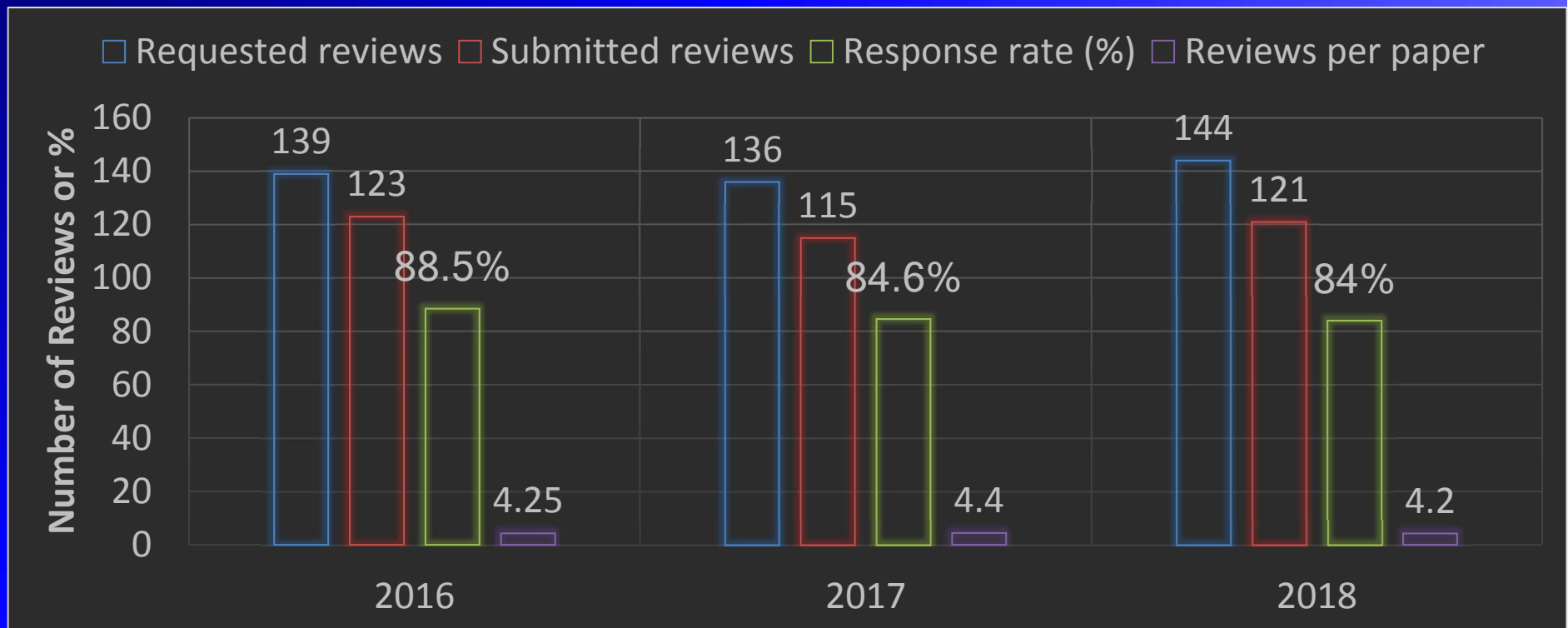
2018 Paper Review



2018 Paper Review [cont.]



2018 Paper Review [cont.]



- **Thank You!**
- Reviews for 10 other Committees:
 - ✓ Contributed **18 Reviewers** for **15 papers**

A Cordial Thank You to ABJ80 Reviewers!

Ali Behnood	Feng Guo	Kevin Majka	Ram Pendyala
Anuj Sharma	Fred Mannering	Konstantina Gkritza	Robert Scopatz
Birsen Donmez	George Yannis	Kun-Feng Wu	Sal Hernandez
Bo Lan	Gordon Lovegrove	Linda Boyle	Shahram Heydari
Brendan Russo	Grigorios Fountas	Matthew Volovski	Shamsunnahar Yasmin
Carol Flannagan	Hani Mahmassani	Md Tawfiq Sarwar	Sivaramakrishnan Srinivasan
Constantinos Antoniou	Jenny Guarino	Md. Mazharul Haque	Srinivas Geedipally
Danny Xiao	Jeremy Lea	Michael Pawlovich	Stephen Remias
David Levinson	John Ivan	Miltos Kyriakidis	Tariq Usman Saeed
Deogratias Eustace	Jonathan Agüero-Valverde	Naveen Eluru	Thomas Brennan
Dominique Lord	Jonathan Wood	Panos Anastasopoulos	Xiao Qin
Eleni Vlahogianni	Kara Kockelman	Paul Jovanis	Yiyi Wang
Eleonora Papadimitriou	Karim El-Basyouny	Peter Savolainen	Zhaoxing Xie
Eun Sug Park	Kevin Hulme	Rajesh Paleti	Zoi Christoforou

Agenda

2:10 to 2:20 TRB Data Contest

TRB Data Contest

- No data contest for 2018, but have set up a dataset for 2019
- Spatial data using bike and ped data from Seattle DOT (available on data.gov)
 - Develop a research question(s)
 - Create or have a data dictionary
 - Data needs to be POSTED by July 15, 2018
 - “Call Center”: someone to answer questions from contestants (SDOT will help)
 - Submissions (with short paper) due Nov 30, 2018
 - Need to recruit reviewers by Nov 30, 2018

Agenda

2:20 to 2:25: Best Paper Award Process and Qualifications

ABJ80 Best Paper Award Criteria

- No best paper award for 2017 as there was no consensus regarding:
 - Overall Top Contender
 - Novelty of approach
 - Contribution to the existing/current body of knowledge
 - Potential impact

ABJ80 Best Paper Award

Best Paper Award Committee (2015–present):

- Chair: Peter Savolainen, Iowa State U.
- Jonathan Aquero-Valverde, Universidad de Costa Rica
- Bo Lan, UNC

Thank You, Best Paper Award Committee!

Agenda

2:25-2:30: Website, Social Media and Outreach

- Website: <http://trbstats.weebly.com/>
- ABJ80 LinkedIn Site

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Scope

TRB Committee ABJ80 is concerned with the appropriate application of statistical methods in the field of transportation. The committee will serve as a resource on statistical matters for all other TRB committees or activities; will foster understanding and use of statistics through dissemination and education activities; and will identify and foster research needed in statistics for use in transportation.

TRB Sessions 2017

ABJ80 sponsored (or co-sponsored) activities
(for full details [click here](#))

Spatial Analysis (Workshop 147)
Sunday, January 8, 2017 9:00AM - 12:30PM, Convention Center, 154
Yiyi Wang, Montana State University, presiding

Latest Updates

TRB 2017 - Committee Meeting Presentation
([Click here](#))

TRB 2016 - Committee Meeting Minutes
([Click here](#))

TRB 2016 Committee Meeting Presentation
([Click here](#))

Members

Bidisha Ghosh

Assistant Professor

[Trinity College Dublin](#)

[Google Scholar Profile](#)

Birsen Donmez

Assistant Professor

[University of Toronto](#)

[Google Scholar Profile](#)

≡ Google Scholar



Bidisha Ghosh

Assistant Professor, [Trinity College Dublin](#)

Verified email at tcd.ie

[Traffic Forecasting](#) [Sustainable Transportation](#) [Intelligent Tra](#)

TITLE

[Multivariate short-term traffic flow forecasting using time-series analysis](#)

B Ghosh, B Basu, M O'Mahony

IEEE transactions on intelligent transportation systems 10 (2), 246-254

[Bayesian time-series model for short-term traffic flow forecasting](#)

B Ghosh, B Basu, M O'Mahony

Journal of transportation engineering 133 (3), 180-189

[Perception of safety of cyclists in Dublin City](#)

AR Lawson, V Pakrashi, B Ghosh, WY Szeto

Accident Analysis & Prevention 50, 499-511

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TRB ABJ80 Statistical Methods

219 members

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ABOUT THIS GROUP

The committee will serve as a resource on statistical matters for all other TRB committees or activities; will foster understanding and use of statistics through dissemination and education activities; and will identify and foster research needed in statistics for use in transportation.

MEMBERS

219 members

[Invite others](#)

[Conversations](#) [Jobs](#)



Daniel Emaasit

Data Scientist at Haystax Technology & Doctoral Candidate at Universit...

... 1y

Webinar: Model-Based Machine Learning and Probabilistic Programming using RStan

Webinar: Model-Based Machine Learning and Probabilistic Programming using RStan

Other Outreach Activities?

Agenda

2:30-2:40: TRB initiatives and Data Section News (Bernardo Kleiner)

Agenda

2:40-2:45:

TRB Circular on Analytical Tools for
Transportation Researchers and
Practitioners

TRB Circular: Statistics for Transportation Practitioners

Background

Objective: This TRB circular is a compilation of papers based on past EDUCATIONAL workshops sponsored by the Statistical Methods committee (ABJ80). It is intended to provide transportation state agencies, graduate students, and researchers insights on commonly asked statistics questions.

- Each chapter uses the TRB author guide.
- Each chapter acknowledges all contributors/co-authors

TRB Circular Chapters

Overview (Linda)

1. Handling Missing Data (*Danny Xiao, Gaurav Mehta, Promod*)
2. Sampling Weights (*Mehdi N., Promod, Priyanka*)
3. Ensuring Data Quality: What Are the Pitfalls and How Can We Overcome Them? (*Bob Scopatz, Thomas Jonsson*)
4. Bayesian Statistics (*Jonathan A, Gord L, Bo Lan*)
5. Time Series Modeling (*Bidisha, Birsen Donmez, Deo E.*)
6. Traditional Statistics vs Artificial Intelligence (*Naveen Eluru*)
7. Statistical Challenges with Naturalistic Data (*Ken Wu, Paul Jovanis, Feng G., Carol F., Karin B*)
8. Spatial (*Yiyi Wang, Jonathan A.*)
9. Appendix can include TRB Data Contest data sets, codes, relevant textbooks
10. Common Definitions/Glossary

TRB Circular

- BIG THANKS to all contributors and reviewers
- To Danny Xiao and Yiyi Wang for keeping us on track and helping to set up web meetings.

Agenda

2:45 to 2:50

*Transportation Statistics Interest Group
(TSIG) – Feng Guo*

- In conjunction with Joint Statistical Meeting (JSM)

Future Committee Activities/Sessions

2:50 to 3:00: Future Committee Activities and Sessions

- Proposed sessions
 - Dealing with small samples
 - e.g., nonparametric, Full Bayes, bootstrapping
 - Quantifying risks associated with increasing vehicle automation (co-sponsor: Safety Section)
 - Data Fusion: How to work with disparate datasets
 - e.g., matching, linking issues

Agenda

3:00 to 3:05: Passing of the Guard

3:05 to 3:10: PictureTaking!

2015



2016



2017



Agenda

3:10 to 3:15: Call to Audience

Relevant activities of other committees,
other conferences, etc.

3:15: Adjourn