

TRB ABJ80 STATISTICAL METHODOLOGY AND STATISTICAL COMPUTER SOFTWARE IN TRANSPORTATION RESEARCH COMMITTEE

July 11th, 2005
Boston, Massachusetts

1. WELCOME

Mike welcomed everyone to the meeting and everyone attending introduced themselves.

2. ATTENDANCE

- Chen Zhang, University of Connecticut, chzoolooz@engr.uconn.edu
- John Ivan, University of Connecticut, john.ivan@uconn.edu
- Michael P Chohen, BTS/RITA, Michael.chohen@dot.gov
- Promod Chandhok, BTS/ RITA, Promod.chandhou@dot.gov
- Ramkumar Venkatanarayana, University of Virginia, Ramkumar@virginia.edu
- Roya Amjadi, Ohio DOT, Ohio DOT, ramjadi@dot.state.oh.us
- Thomas Jonsson, University of Connecticut, john.ivan@uconn.edu
- Ziaoduan Sun, University of Louisiana, xsun@louisiana.edu
- Ida van Schalkwyk, Arizona State University, idavan@asu.edu
- Mike Griffith, FHWA, mike.griffith@fhwa.dot.gov

3. PLANNED SESSIONS FOR 2006 ANNUAL TRB MEETING

We will sponsor three sessions.

Workshop on cause and effect of observational cross-section studies by Ezra Hauer. We're also cosponsoring a session with the Safety Data and Analysis Committee. There won't be a fee for the session that would take place on Sunday. As we get closer to the annual meeting, Mike will let us know.

Time series analysis would be another session that we'll be sponsoring. The presenters would also represent various international speakers. Information about the session is attached to the minutes (Appendix A).

We talked about a misuse of statistics session and we have enough speakers for the session so we'll go ahead doing it. Rick Pain kept a session open for us.

The last session is about Bayesian Statistics. We'll have 4 to 5 speakers for that session. Information about the session is attached to the minutes (Appendix B).

We also have a call for papers for the annual meeting of 2006: Evaluation Of The Appropriateness and Robustness of Rigorous Statistical Methodologies Versus Soft Computing for Transportation Modeling Applications. It is attached to the minutes as Appendix C. The deadline for the papers is August 1st.

4. RESEARCH PROBLEM STATEMENTS

John Ivan discussed the research problem statements that were written: four of the several initial topics resulted in problem statements. John also discussed the comments he received on the statements. The material he covered is included in Appendix D. John pointed out that the problem statements need to be a particular format – the format is provided on the committee website (www.trbstats.org/downloads). It also includes edited comments provided regarding the statements.

It is not clear whether we can go forward with all four of the statements. We'd like to assess these and also perhaps solicit support for some of these from the other data related committees. John is also represented on the Research Subcommittee of the Data Committee and Promod will represent John at the meeting. Part of the goals of that meeting would be to develop problem statements as well – this may provide valuable input for the Data Committee meeting on July 12th, 2005 in the Congress Room at 7:30am.

RPS1: Guidelines for Managing and Archiving ITS Sensor Data

John Ivan suggests a title change to the problem statement because there are two issues, the first is potential missing data and the second is dealing with total malfunction. Mike commented that this may be related to an existing FHWA project. Ramkumar commented that it is beyond the ADIS Project. Mike will forward it to the project manager to determine how beneficial they would regard it. Their input will be used to assess the problem statement.

RPS 5: TEXT MINING

John Ivan remarked that a text field in a database may become more useful if this problem statement can provide answers.

Roya also commented that a text field describing the location of the accident would be an example of such a text field. Mike noted that the narrative of the police of the accident can also be beneficial in identifying groups of accidents.

Mike is concerned that this is more appropriate for the ABJ70 (A5008) Artificial Intelligence and Advanced Computing Applications.

Promod will follow up with Demetra Collia at BTS to make sure that we're building on previous work by BTS.

Mike commented that this research problem statement is more of a data committee statement. Do we know whether these field search technology exists in other fields? A sister agency of TRB, xx identified a Information Fusion and Data Mining Project and BTS is providing funding to look at transportation applications – this is for long-term implementation.

RPS 6: QUALITY CONTROL ISSUES

John Ivan commented that the quality traffic count data is particularly of a concern.

Roya noted that contradictory field entries are used as an indication of the quality of the accident data that she uses on a daily basis.

Thomas asked whether there are any ways in which Ohio State can know what accidents are not reported.

A discussion took place about underreporting of accidents, the CODES project, and other related issues. This is a concern because it affects the data that gets used for statistical analysis.

Mike commented that there seems to be a need for this project.

Another discussion took place about the final product of the project, the ideas discussed includes a “how-to” guideline, and data quality issues, the use of GIS technologies, etc.

RSP7: A MANUAL FOR METHODOLOGY OF EXPERIMENTAL DESIGN AND ANALYSIS

Comments about improvement would be valuable. This is a problem statement that was identified as important to the committee previously and in fact just missed the cut last year.

John Ivan will check with Peter whether Sreenivas of New York State will still support the proposal. We can also add our committee name on the Statement to show our support.

5. REVIEW OF THE SOFTWARE

Promod commented that the review of the software packages that we currently have on the website may need to be updated. Roya commented that the misuse of statistics is a concern. Promod noted that education in the proper use of statistics is critical. Mike commented that this is why we have the workshops at the annual meeting. John also noted that a lack of resources can also result in the misuse of statistics. The previous version prepared by David Hunt is posted on the committee website: <http://www.trbstats.org/software.htm>.

6. NEW WEBSITE AND COMMUNICATIONS

Ida made a presentation of the new committee website: www.trbstats.org. She thanked Jennifer Ogle, the previous committee secretary for the work she did in the past. It helped greatly in the preparation of the website.

Listserv were set up for the members and friends of the committee. The addresses are:

- ABJ80 Members: ABJ80_M@lists.asu.edu
- ABJ80 Friends: ABJ80_F@lists.asu.edu

Send email to both lists if email is intended for both groups.

Members and friends are requested to add ABJ80_M@lists.asu.edu and ABJ80_F@lists.asu.edu to their list of trusted email addresses to ensure that the spam filters of the servers they receive their emails from would not keep them from receiving email related to the ABJ80 committee.

To-do items for the website:

- change to members – not include friends list on website
- invite resources/links for website

The website contains subcommittee information but it will be updated after the 2006 annual meeting. Subcommittees will be a topic at the January meeting.

Members and friends are invited to provide comments on the website and give input where possible in terms of resources, links, and other items that may be beneficial to members and friends.

7. OUTREACH EFFORTS WITH OTHER COMMITTEES

Mike has attended various other committee meetings for outreach efforts. He offered assistance from our committee for paper reviews etc. The other committees do want to work with us, particularly in terms of paper reviews.

Our committee will continue to provide educational opportunities at the TRB annual meeting. Ziaoduan commented that it is also a need at state level for such opportunities and that the states need to take responsibility as well.

8. TRB PAPER REVIEW FOR 2006

An expertise matrix was developed and will be posted on the website (John Ivan and Mohammed are the references).

9. OPEN DISCUSSION

ASA (American Statistical Association) Conference

There will be ten statistical papers and also a session on automotive risk assessment (exposure measures) that would be interesting. Michael noted that the 2006 ASA meeting will take place in Seattle.

Future Items

At the January 2006 meeting the committee subcommittees will be reviewed.

Summer Conference 2006

Next year's summer conference will take place in San Diego and a date is already set. We will make a decision about the location and date of the meeting at the January 2006 meeting.

Data Information Technology Meeting, July 11th

Our committee will present 4 research statements to the meeting.

APPENDIX A: Time Series Analysis Session

APPENDIX B: Bayesian Statistics Session

APPENDIX C: Call for papers for the annual meeting of 2006: Evaluation Of The Appropriateness and Robustness of Rigorous Statistical Methodologies Versus Soft Computing for Transportation Modeling Applications

APPENDIX D: Research problem statements and Comments Received (John Ivan)