

Privileged Information - Minutes of all TRB meetings are regarded as privileged and not for public release without prior approval of the Executive Director.

Draft Minutes of Committee Meeting

Statistical Methodology and Statistical Computer Software in Transportation Research,
A5011

Congressional, Marriott Hotel
Washington, D.C.
January 9, 2001
8:00 am - 10:30 am

The Chairman, Michael Griffith, called the meeting to order at 8:00 a.m. followed by self-introduction of members and friends. Copies of the agenda were distributed.

1. Introductions

New members were welcomed to the committee. A list of current committee members with address and appointment term was sent around for validation. A list of members and friends who attended the meeting is attached.

2. Minutes of 2000 annual meeting

Minutes from the 2000 annual meeting of the Committee were distributed and approved by a unanimous vote.

3. Review of the Mid-Year Meeting

Jennifer Ogle presented a brief overview of the issues discussed at the mid-year meeting. A listing of topics covered will be posted to the web site in the meeting minutes section.

4. Research Problem Statements

The committee decided to take a proactive stance this year with problem statement submissions. Several problem statement ideas were discussed at the mid-year meeting, and the inventors were asked to develop the ideas further to share with the committee. Jerry Sacks made a presentation on his idea "Statistical Strategies for Evaluating Complex Computer Models in Transportation". Several comments were made noting the complexity of this topic, and suggestions were made on how to best scope this very broad issue. David Banks presented 3 ideas as follows: "Risk Analysis in Highway Accidents", "Congestion Measurement", and "Uncertainties in Risk Estimates". Peter Bajorski presented "Guidelines for Experimental Design". Del Stewart mentioned that the A3B05 committee has submitted this idea and that he would coordinate efforts by both committees. I don't think this

statement is correct? I think Del referred to a different effort not “Guidelines for Experimental Design”. Jennifer Ogle volunteered to post the statements on the web site and coordinate receipt of comments that will be used to determine problem statements to submit.

5. General Items for the Record

Cliff Spiegelman suggested the formation of a panel to improve statistical methodology in transportation research. Simon Washington agreed to be a panelist.

Bob Scopatz recommended that the committee look into becoming a Resource Bureau or Honest Broker for statistical advice. The objective would be to provide good and useful, but brief advice to the practitioner. Advice would answer such questions as ‘What kind of person do I need to hire?’, or ‘What do we do next time to make this better?’. Ed Milton agreed stating that one can be left at the mercy of the vendor when you are trying to build a database, etc. Mike Griffith and Ed Milton are on another related committee and will review the idea.

Ed Milton introduced a new course being developed ‘Obtaining the Numbers: Quantitative Methods for Managers’.

Simon Washington passed out a promotional flyer for a new statistical text for transportation professionals.

David Banks mentioned that the BTS Statistical Grants applications were due January 19. Four to six awards will be made for a total of \$500,000.

The International Traffic Records Forum will be held in Louisiana from July 28 – Aug 2.

Best practitioners paper contest has submitted a general call for papers.

6. 2000 Committee Program

a) Sessions

The committee sponsored three sessions and one Human Factors Workshop at the 2001 annual meeting:

Session #38 (Six Sigma: A Breakthrough Strategy – How Can We Use Industry’s Experience in Continuous Improvement?) – Peter Bajorski

This was a panel session with members from industry, DOT, and FHWA. There were better than 100 participants, and the session turned out to be a success.

Session #263 (Developments in Statistical Methods for High Risk Sites, Road Safety Improvements, ITS, and Crash Rates) – Mike Griffith

This session contained presentations of papers received and reviewed by the committee.

Session #401 (Applied Sampling Techniques in Transportation) – Mehdi Nassirpour

This session focused on sampling methodology – how to draw a sample. Topics included sampling error and an overview of applied version of sampling. There were 4 presenters with varying paper topics.

Human Factors in Transportation Workshop Session (Statistical Applications for Transportation Professionals) – Simon Washington

Simon Washington presented a one-day summary of the 4-day NHI course “Scientific Approaches for Transportation Research” (NCHRP project 20-45) at the Human Factors Workshop this year. NCHRP project 20-45 is part 2 of a 2-part series: Volume I addresses empirical experimental design, while Volume II addresses statistical methods - how to select the best method and interpret the results. The course materials will be available in multiple formats (manual, CD-ROM, Web site, and NHI Course) toward the middle of this calendar year. The target audience would include state DOT researchers and managers. NCHRP will be requesting bids to teach the course around the country. Twenty people attended the workshop. Simon suggested that the workbook be placed on the committee web site.

b) Papers

The committee reviewed seven papers (3 electronic, 4 paper). Of the seven, six were accepted for presentation. Three or four will be accepted for publication. Four to five reviewers were selected for each paper.

This was the first year for electronic submission of papers. The following are summaries of various comments on the Electronic Review Process:

The new process is very convenient, but does have some problems. For example, one problem is the pool of reviewers – some don't have email addresses and there is no way to find out except they didn't reply back. A second problem in the electronic review process is that the default response is no – should be blank. The biggest headache occurred if both paper and electronic papers were submitted to the committee for review. The process is not integrated, and thus requires two separate handling operations. Paper comments seemed to be handled better than electronic. A personal letter was sent with each 'paper' review, but a form message is returned to each author of electronic papers. (Karl Kim)

The electronic review system timed out during input of comments, all comments were lost. (Robert Hanson)

Disappointed with lack of detail in electronic review. (Mohammad Qureshi)

Received the same paper twice – once from the stats committee and once from the safety data committee. The system assumed that the paper was getting reviewed twice, but it actually received one review. (Simon Washington)

TRB is currently working on a Circular for Paper Reviews. The process will be revised based on the feedback. TRB would like to see all papers submitted in electronic format in the future.

Comments regarding how to best handle paper reviews and communication with authors:

- CC everything
- Circulate reviews to all reviewers
- Allow sufficient review time
- Paper authors don't know reviewers – might be a good idea to not have reviewers know authors`
- Balance paper reviews – many members review for several committees.

Last year the committee discussed the idea of distributing reviewers' comments to all reviewers of the same paper. The Committee decided this was a good idea, and the committee chair mailed out the relevant review comments to the reviewers. Mixed comments were expressed about the distribution of review comments, but overall most are in favor of seeing all of the comments. Mike Griffith and Karl Kim volunteered to distribute the comments from the 2001 paper review process.

6. Committee Business

Web Site - The web site can be found at www.a5011.gati.org
Jennifer Ogle will continue to serve as the committee's web master, with help from Mohammad Qureshi. A suggestion was made to reinstate the discussion capability to the site.

Statistical Software Resource - This resource is posted on the web site. It provides descriptions of various statistical software packages and hyperlinks to them. Review comments on the use of certain software packages are presented, and have been provided by committee members and transportation professionals. The next task for this effort will be to advertise this resource to the transportation community possibly through *TR News*. The challenge facing the committee is to keep the list of software packages current. A suggestion was made to add a review button to the statistical software pages on the web site.

Conference Sessions for TRB 2002 meeting – Mehdi Nassirpour suggested a sampling workshop (Human Factors Workshop Format). Mehdi Nassirpour, Del Stewart, and Simon Washington agreed to coordinate the workshop. Gary Davis volunteered to lead a conference session on computational-intensive statistics. Jennifer Ogle volunteered to lead a co-sponsored poster session with A3B05 on spatial statistics/GIS. Mehdi Nassirpour suggested a session for the NCHRP Project

Report Statistical Methods for Highway Safety Analysis' co-sponsored with A3B05, and Mike Griffith volunteered to help. On average, each committee can sponsor 2.5 sessions per year. Other ideas for paper sessions included: Statistical methods in non-destructive testing for reproducibility – Peter Bajorski; ASTM should be reviewed as a guide for statistical testing – Robert Hanson.

Mid-Year Meeting – Suggestions were made to hold the mid-year meeting in conjunction with the ASA meeting again this year. The ASA meeting will be in Atlanta in August. Other suggestions included a joint meeting with the planning committees in Vail, CO July 27-29, or to go back to meeting with the data committees. Mike Griffith will make the final decision and information will be distributed this spring.

Paper Review Process – Mohammad Qureshi volunteered to coordinate the paper review process. This process includes the distribution of reviewers' comments to all reviewers of the same paper.

Outreach Activities – Several suggestions were made to determine effective ways of reaching out to other committees as a paper review resource. A few ideas included: searching keywords for statistical content, doing a keyword search through the abstracts, include a checkbox on the submission form for voluntary statistical review, and to develop a checkbox sheet for all paper review chairs.

7. Adjourn

The Committee adjourned at 10:30 a.m.