



The Stats Source: Newsworthy Notes from the Ed Stats SIG

President's Column

It will be so wonderful to see you all soon in San Francisco, the City by the Bay! Sean Mulvenon, our program chair, has put together an awesome program, sure to be our best yet! Thank you, Sean, for all your work on our program. Details are provided later in this newsletter, but here are some highlights of the program.

First, our business meeting is Sunday, April 9, at 6:15pm to 8:15pm. Although the specific info isn't available through the online program, our invited speaker is Dr. Will Shadish, who will entertain us with his talk, *The Good, The Bad, and The Ugly: My Experience on the What Works Clearinghouse Technical Advisory Group*. Dr. Shadish is Professor and Founding Faculty at the University of California, Merced. His expertise is in areas of experimental and quasi-experimental de-

sign, meta analysis, and theories of program evaluation. This is Will's first visit to AERA, and I'm honored to have him present to our SIG. Please make sure you can attend what is sure to be an informative and stimulating discussion.

Our social is on Monday this year, a different day from our business meeting (I guess the powers that be at AERA deemed it necessary for us to have a day to recover from all the excitement of our business meeting!). The social is April 10, 7pm to 9pm. Co-sponsoring SIGS include SEM, and MLR: The GLM. Once again, I'm sure our social will rock! Sean has also been working on some external sponsorship of our social - I'll let him fill you in on that!

We have two symposia sponsored by our SIG this year, in addition to 5 paper sessions, 1 roundtable, and 1 poster

session. The first symposium is titled [Improving Educational Data, Statistical Models, and Assessment Designs for No Child Left Behind: The Role of Educational Statisticians](#), the second symposium is titled, [The Prevalence of Causal Conclusions in Nonexperimental Research Articles in Educational Psychology Journals in 1994 and 2004](#). Both symposiums address current and critical issues of importance to members of our SIG as well as to the wider AERA audience. Come early to be assured of a seat!

(continued on page 2...)

Ed Stats SIG

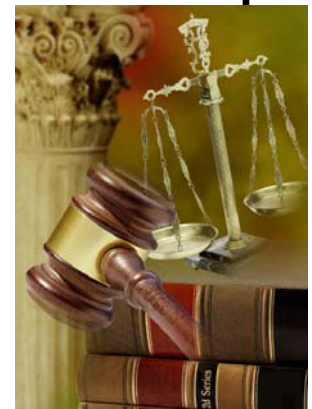
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President's Column (continued...)

Please don't miss these symposia, or our other wonderful sessions - and bring a friend! The quality of *all* of our sessions drives the attendance, which can translate not just to better discussions during our sessions, but also to greater membership within our SIG. We have a wonderful program this year, thanks to all of you; and of course I want to once again personally thank Sean, our program chair, for pulling it all together. Your reward, Sean, is being president of this fine SIG beginning in San Francisco on Sunday!

In addition, I would like to extend my thanks to Patricia Busk, our outgoing Secretary/Treasurer, and to our newsletter and website team: Debbi Hahs-Vaughn, Steve Sivo, and Lea Witta; as well as Richard Lomax, past president. I appreciate all the support you have personally provided to me in my roles as SIG program chair and president over the past two years.

We have some SIG housekeeping issues for the coming weeks before AERA. First, both of our SIG leadership positions are open for election: Program Chair, and Secretary/Treasurer. As you know, Joanne Peng has graciously agreed to serve as chair of the elections committee. Please consider running for one of these roles - I can assure you personally that our SIG membership is a fine bunch of people to work with! Joanne can be contacted at peng@indiana.edu for either self-nomination or for suggestions of those who may be interested in serving our SIG in either capacity.

See you all in San Francisco!

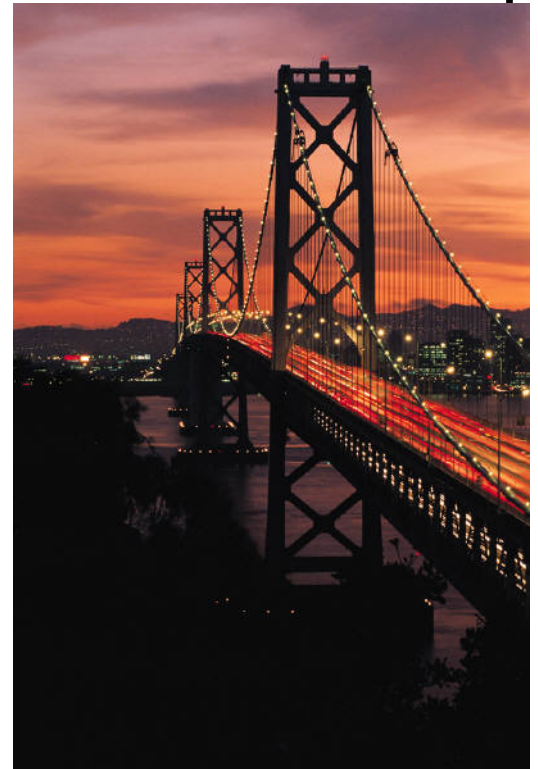
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Mark your
calendar...
Sunday,
April 9

Don't miss the
Ed Stats SIG
business
meeting and
guest speaker,
Dr. Will
Shadish!

Ed Stats SIG Program at AERA

Once again we have an outstanding selection of sessions at AERA! (See following pages...)

Approximately 33 proposals were submitted to the SIG with 25 accepted. The accepted proposals resulted in one roundtable session, one poster session, two symposia, and five paper sessions. I was able to schedule most sessions with only three papers to allow additional time for presenters and discussants. Some additional good news is the sessions appear to be evenly distributed among the days of the conference with no overlap, which is either a new scheduling skill for AERA or they made a mistake.... you make the call!

The sessions range from theoretical/mathematical developments to more applied procedures examining how to improve methodological practices in educational statistics. A session I am looking forward to attending is "Improving Pedagogical Practices in Statistics Education" on Sunday, April 9 at 10:35 a.m. Many of the papers that were not accepted were focused on teaching statisticians to teach. The collection of papers in this session is from expert teachers in statistics who are statisticians.

I would also encourage you to attend the symposia panel session on the philosophical discussions of the role of educational statisticians in NCLB, Saturday, April 8 at 10:35 a.m. NCLB is a "giant" measurement model and its success/failure may have significant implications to our field.

Additionally, we have the SIG Business meeting on Sunday, April 9 at 6:15 p.m. and the Joint Reception with the Multiple Linear Regression and SEM SIGs on Monday, April 10 at 7:00 p.m. Tentatively, I have been promised some gifts for the SIG to give to doctoral students and faculty (retail value of each gift is \$125.00). So you want to be sure and attend, pay \$7.00 a beer at the cash bar, and get your free gift.

I want to thank all of those who submitted papers, completed reviews, and who will be serving as session chairs and discussants for this year's conference. I look forward to seeing all of you at AERA.

Sean

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**Mark your
calendar...
Sunday,
April 9**

**Another great
session on
Sunday...
"Improving
Pedagogical
Practices in
Statistics
Education"**

Ed Stats SIG Program at AERA (Summary)

1. Analysis of Repeated Measures Designs
Unit: SIG-Educational Statisticians
Session type: Paper Session
Time: Tue, Apr 11 - 12:25pm - 1:55pm
Place: Moscone Center South, Esplanade Ballroom, Section 305
2. Application and Theoretical Discussions in Educational Statistics
Unit: SIG-Educational Statisticians
Session type: Paper Discussion (formerly known as Roundtables)
Time: Mon, Apr 10 - 8:15am - 8:55am
Place: Moscone Center West, 3rd Floor, Room 3005
3. Applications and Implications for Nonparametric Statistical Procedures in Educational Research
Unit: SIG-Educational Statisticians
Session type: Paper Session
Time: Mon, Apr 10 - 12:25pm - 1:55pm
Place: Moscone Center South, Esplanade Ballroom, Section 303
4. Best Practices for Utilizing Confidence Intervals in Educational Research
Unit: SIG-Educational Statisticians
Session type: Paper Session
Time: Mon, Apr 10 - 10:35am - 12:05pm
Place: Moscone Center South, Mezzanine Level West, Room 250
5. Educational Statisticians SIG Business Meeting
Unit: SIG-Educational Statisticians
Session type: Business Meeting
Time: Sun, Apr 9 - 6:15pm - 8:15pm
Place: Moscone Center South, Esplanade Ballroom, Section 301
6. Improving Educational Data, Statistical Models, and Assessment Designs for No Child Left Behind: The Role of Educational Statisticians
Unit: SIG-Educational Statisticians
Session type: Symposium
Time: Sat, Apr 8 - 10:35am - 12:05pm
Place: Moscone Center South, Esplanade Ballroom, Section 303

Ed Stats SIG Program at AERA (Summary continued...)

7. Improving Pedagogical Practices in Statistics Education

Unit: SIG-Educational Statisticians

Session type: Paper Session

Time: Sun, Apr 9 - 10:35am - 12:05pm

Place: Moscone Center South, Esplanade Ballroom, Section 305

8. Issues in Educational Statistics

Unit: SIG-Educational Statisticians

Session type: Poster Session

Time: Sun, Apr 9 - 2:15pm - 3:45pm

Place: Moscone Center West, 1st Floor, Exhibit Hall

9. Joint Reception: Educational Statisticians, Multiple Linear Regression: The General Linear Model and the Structural Equation Modeling SIGs

Unit: SIG-Educational Statisticians

Session type: Symposium

Time: Mon, Apr 10 - 7:00pm - 9:00pm

Place: Marriott San Francisco, Golden Gate Hall, Section B1

10. The Prevalence of Causal Conclusions in Nonexperimental Research Articles in Educational Psychology Journals in 1994 and 2004

Unit: SIG-Educational Statisticians

Session type: Symposium

Time: Sat, Apr 8 - 2:15pm - 3:45pm

Place: Moscone Center South, Esplanade Ballroom, Section 302

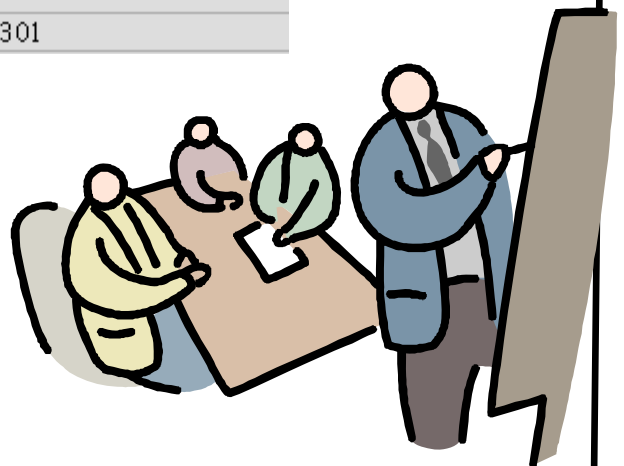
11. Topics in Educational Statistics: Improving Methodological Practices

Unit: SIG-Educational Statisticians

Session type: Paper Session

Time: Tue, Apr 11 - 2:15pm - 3:45pm

Place: Moscone Center South, Esplanade Ballroom, Section 301



Ed Stats SIG Program at AERA (Details)

1. Analysis of Repeated Measures Designs – Paper Session

Scheduled Time: Tue, Apr 11 - 12:25pm - 1:55pm **Building/Room:** Moscone Center South / Esplanade Ballroom, Section 305

Title Displayed in Event Calendar: Analysis of Repeated Measures Designs

Session Participants:

Chair: Bruce G. Rogers (University of Northern Iowa)

Discussant: Bruce Thompson (Texas A & M University)

Discussant: Robert W. Lissitz (University of Maryland)

A Comparison of Methods for the Analysis of Doubly Multivariate Data

*Lisa Lix (University of Manitoba)

Kenward-Roger Type I Error Rates in a Between-By-Within Subjects Split-Plot Design With Missing Values

*Miguel A. Padilla (The University of Alabama at Birmingham), James Algina (University of Florida)

Robust Means Modeling: An Alternative to Hypothesis Testing in Independent and Repeated Groups Design for Variance Heterogeneity and Non-Normality

*Weihua Fan (University of Maryland), Gregory R. Hancock (University of Maryland)

2. Application and Theoretical Discussions in Educational Statistics – Paper Discussion

Scheduled Time: Mon, Apr 10 - 8:15am - 8:55am **Building/Room:** Moscone Center West / 3rd Floor, Room 3005

Title Displayed in Event Calendar: Roundtable 61

Session Participants:

Development of the Inferential Reasoning Assessment

*Sharon Jacqueline Lane-Getaz (University of Minnesota)

Expanded Tables of the Kruskal-Wallis H Statistic

*Patrick Meyer (James Madison University), Michael Seaman (University of South Carolina)

How Well Do Socioemotional Assessments of Kindergarteners Predict Their Third-Grade Mathematics, Reading, and Science IRT Scores?

*Aaron Jason Scott (University of Arkansas-Fayetteville), Sean W. Mulvenon (University of Arkansas)

Type I Error Rate Control for Subset Tests Using OLS, LRA, and Nonparametric Regression

*Steven Dale LeMire

Ed Stats SIG Program at AERA (details continued...)

3. Applications and Implications for Nonparametric Statistical Procedures in Educational Research - Paper Session

Scheduled Time: Mon, Apr 10 - 12:25pm - 1:55pm **Building/Room:** Moscone Center South / Esplanade Ballroom, Section 303
Title Displayed in Event Calendar: Applications and Implications for Nonparametric Statistical Procedures in Educational Research

Session Participants:

Chair: Debbie L. Hahs-Vaughn (University of Central Florida)

Discussant: Michael Seaman (University of South Carolina)

Discussant: J. Jackson Barnette (The University of Alabama at Birmingham)

Effects of Variance Heterogeneity on Tests of Equivalence

*Robert A. Cribbie (York University), Jamie A. Gruman (University of Toronto), Chantal A. Arpin-Cribbie (York University)

Residual Analyses for Proportional and Partial Proportional Odds Models

*Ann A. O'Connell (The University of Connecticut), Xing Liu (University of Connecticut), Jiarong Zhao (University of Connecticut), Jessica A. Goldstein (University of Connecticut)

Stratified McNemar Tests

*C. Mitchell Dayton (University of Maryland)

4. Best Practices for Utilizing Confidence Intervals in Educational Research - Paper Session

Scheduled Time: Mon, Apr 10 - 10:35am - 12:05pm **Building/Room:** Moscone Center South / Mezzanine Level West, Room 250

Title Displayed in Event Calendar: Best Practices for Utilizing Confidence Intervals in Educational Research

Session Participants:

Chair: Marilyn S. Thompson (Arizona State University)

Discussant: E. Lea Witta (University of Central Florida)

Discussant: Daniel J. Mundfrom (University of Northern Colorado)

Confidence Intervals of Common Effect Sizes: What Are They Good For?

*J. Jackson Barnette (The University of Alabama at Birmingham), James E. McLean (The University of Alabama)

Inference by Eye: Overlapping Confidence Intervals to Evaluate Statistical Significance

*Flaviu A. Hodis (Southern Illinois University-Carbondale), Rhonda K. Kowalchuk (Southern Illinois University-Carbondale), Robert, A. Ricks (Southern Illinois University-Carbondale)

Interval Estimates of Fixed Effects in Multilevel Models: Effects of Small Sample Size

*Melinda R. Hess (University of South Florida), John M. Ferron (University of South Florida), Bethany Bell Ellison (University of South Florida), Robert F. Dedrick (University of South Florida)

Ed Stats SIG Program at AERA (details continued...)

5. Educational Statisticians SIG Business Meeting

Scheduled Time: Sun, Apr 9 - 6:15pm - 8:15pm **Building/Room:** Moscone Center South / Esplanade Ballroom, Section 301

Title Displayed in Event Calendar: Educational Statisticians SIG Business Meeting

Session Participants:

Chair: Ann A. O Connell (The University of Connecticut)

Invited Speaker: William R. Shadish (University of California, Merced), *The Good, The Bad, and The Ugly: My Experience on the What Works Clearinghouse Technical Advisory Group.*

6. Improving Educational Data, Statistical Models, and Assessment Designs for No Child Left Behind: The Role of Educational Statisticians - Symposium

Scheduled Time: Sat, Apr 8 - 10:35am - 12:05pm **Building/Room:** Moscone Center South / Esplanade Ballroom, Section 303

Title Displayed in Event Calendar: Improving Educational Data, Statistical Models, and Assessment Designs for No Child Left Behind: The Role of Educational Statisticians

Session Participants:

Chair: Charles E. Stegman (University of Arkansas)

Participant: Bruno D. Zumbo (The University of British Columbia)

Participant: Robert W. Lissitz (University of Maryland)

Participant: Sean W. Mulvenon (University of Arkansas)

Participant: Yeow Meng Thum (Michigan State University)

7. Improving Pedagogical Practices in Statistics Education - Paper Session

Scheduled Time: Sun, Apr 9 - 10:35am - 12:05pm **Building/Room:** Moscone Center South / Esplanade Ballroom, Section 305

Title Displayed in Event Calendar: Improving Pedagogical Practices in Statistics Education

Session Participants:

Chair: Patricia B. Elmore (Southern Illinois University)

Discussant: Louise Soares (University of New Haven)

Discussant: Teresa G. Laird (Northeastern State University)

Assessing Students' Conceptual Understanding After a First Course in Statistics

*Robert C. Delmas (University of Minnesota), Joan B. Garfield (University of Minnesota), Beth L. Chance (California Polytechnic Institute), Ann Ooms (University of Minnesota)

Incorporating Student Activity and Collaboration in an Online Statistics Course

*Michelle Gaddy Everson (University of Minnesota)

Learning Educational Statistics by Doing Educational Statistics

*Brandon K. Vaughn (Florida State University)

Ed Stats SIG Program at AERA (details continued...)

8. Issues in Educational Statistics - Poster Session

Scheduled Time: Sun, Apr 9 - 2:15pm - 3:45pm **Building/Room:** Moscone Center West / 1st Floor, Exhibit Hall

Title Displayed in Event Calendar: Poster 6

Session Participants:

Conducting Monte Carlo Simulations Using SPSS

*Jennifer E.V. Lloyd (The University of British Columbia), Bruno D. Zumbo (The University of British Columbia)

Assessing the Unidimensionality of Item Response Data: Using Individual and Integrative Criteria From Factor Analysis

*Suzanne L. Slocum (University of California-Los Angeles), Bruno D. Zumbo (The University of British Columbia)

Factor Analysis and Binary Data: Issues to Consider and a Comparison of Four Popular Statistical Software Packages

*Jennifer E.V. Lloyd (The University of British Columbia), Bruno D. Zumbo (The University of British Columbia)

Power and Type I Error Rate of Five Pairwise Multiple-Comparison Procedures in Analysis of Covariance

*Veena Dhankher (The University of Georgia), Stephen Olejnik (University of Georgia)

Variable and Factor Ordering in Factor Analyses: Using Pratt's Importance Measures to Help Interpret Exploratory Factor Analysis Solutions for Oblique Rotation

*Amery Dai Ling Wu (The University of British Columbia), Bruno D. Zumbo (The University of British Columbia), D. Roland Thomas (Carleton University)

9. Joint Reception: Educational Statisticians, Multiple Linear Regression: The General Linear Model and the Structural Equation Modeling SIGs

Scheduled Time: Mon, Apr 10 - 7:00pm - 9:00pm **Building/Room:** Marriott San Francisco / Golden Gate Hall, Section B1

Title Displayed in Event Calendar: Joint Reception: Educational Statisticians, Multiple Linear Regression: The General Linear Model and the Structural Equation Modeling SIGs

Ed Stats SIG Program at AERA (details continued...)

10. The Prevalence of Causal Conclusions in Nonexperimental Research Articles in Educational Psychology Journals in 1994 and 2004 - Symposium

Scheduled Time: Sat, Apr 8 - 2:15pm - 3:45pm **Building/Room:** Moscone Center South / Esplanade Ballroom, Section 302

Title Displayed in Event Calendar: The Prevalence of Causal Conclusions in Nonexperimental Research Articles in Educational Psychology Journals in 1994 and 2004

Session Participants:

Chair: <u>Dan Robinson (The University of Texas at Austin)</u>
Discussant: <u>Stephen W. Raudenbush (University of Chicago)</u>
Discussant: <u>Ralph O. Mueller (The George Washington University)</u>
Participant: <u>Greg D. Thomas (The University of Texas at Austin)</u>
Participant: <u>Keenan A. Pituch (The University of Texas at Austin)</u>

Abstract:

Empirical articles appearing in five journals (American Educational Research Journal, Cognition & Instruction, Contemporary Educational Psychology, Journal of Educational Psychology, and Journal of Experimental Education) in 1994 and 2004 were classified as experimental or non-experimental (correlational, qualitative, or descriptive). For the non-experimental articles, we also recorded whether authors made causal conclusions (e.g., if teachers/educators would use an intervention, then a student outcome would likely result). Consistent with the findings of Hsieh et al. (2005), the percentage of articles that reported experimental research declined from 44 in 1994 to 33 in 2004. The percentage of non-experimental articles that included causal conclusions increased from 34 in 1994 to 48 in 2004. Thus, as experimental research becomes less popular, researchers are becoming more likely to make causal conclusions in non-experimental studies.

11. Topics in Educational Statistics: Improving Methodological Practices - Paper Session

Scheduled Time: Tue, Apr 11 - 2:15pm - 3:45pm **Building/Room:** Moscone Center South / Esplanade Ballroom, Section 301

Title Displayed in Event Calendar: Topics in Educational Statistics: Improving Methodological Practices

Session Participants:

Chair: <u>Gordon P. Brooks (Ohio University)</u>
Discussant: <u>Patrick Meyer (James Madison University)</u>
Discussant: <u>C. Mitchell Dayton (University of Maryland)</u>
<u>Implications of Centering and Time-Varying Covariate Analysis Decisions on Interpretation of Language Development</u>
* <u>Janet K. Holt (Northern Illinois University), Pamela Hadley (Northern Illinois University)</u>
<u>Parameter Estimation and Influence Diagnostics for the Error-in-Variables Linear Mixed-Effects Model</u>
* <u>Cam-Loi Huynh (University of Manitoba)</u>
<u>Weighting Omissions and Best Practices When Using National Datasets in Educational Research</u>
<u>Debbie L. Hahs-Vaughn (University of Central Florida)</u>

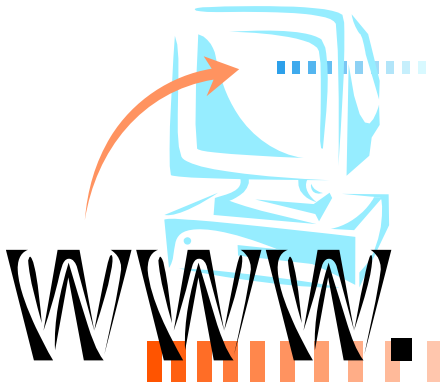
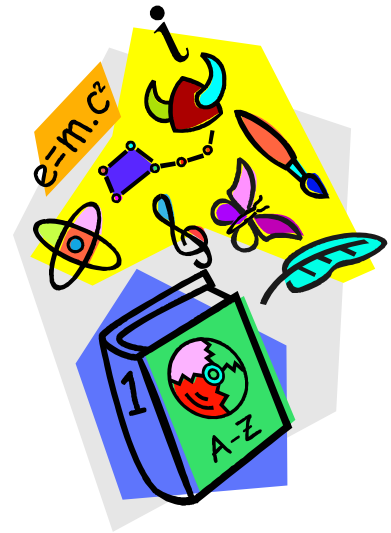
First Volume in Ed Stats SIG Book Now Available; Extended Course on Book Offered at AERA

The first volume in the SIG's book series is now out: more info can be found at the publisher's website:

<http://www.infoagepub.com/www/products/product1/serlin.htm>

Greg Hancock and Ralph Mueller have organized an extended course during the AERA meeting in April that centers on the content of the book. The vast majority of chapter authors will be able to present their work and participants will receive a copy of the book. More info on this two day pre-session can be found at: <http://aera.net/annualmeeting/?id=294>

Ed Stats SIG members are encouraged to show their support of the book and the pre-session workshop!



Looking for Great Teaching Websites...

The Ed Stats SIG newsletter co-editors are in search of **great websites** that are used in teaching all levels of and all courses in statistics. The websites may contain great resource material (e.g., reference lists for reading), applets for learning concepts, explanatory material, and more. We are in the process of compiling a list for the next newsletter and will appreciate you passing on those sites that you use for teaching statistics. If you have some websites, please pass them on. Including a note about what type of class you currently use the site will be extra helpful.

Have information to share?

Do you have information that you would like to share with your colleagues in the Educational Statisticians SIG via the newsletter? We are looking for the following types of news:

- Upcoming conferences and calls for proposals
- Calls for authors and other contributions (e.g., Sky Huck's website)

- Book reviews and other resources of interest to statisticians as well as graduate students enrolled in statistics
- Other worthy contributions that are of value to your colleagues

Contributions should be sent in a **Word** document to the newsletter co-editors:

Lwitta@mail.ucf.edu
ssivo@mail.ucf.edu
dhahs@mail.ucf.edu

Items to share...

- Conference announcements
- Calls for authors
- Book reviews
- Statistics resources
- Many more!

Instructional Tools in Educational Measurement and Statistics (ITEMS) for School Personnel

Project Director:

Rebecca Zwick, Professor of Education
University of California, Santa Barbara
rzwick@education.ucsb.edu

In the current No Child Left Behind era, teachers and principals are expected to have a sophisticated understanding of test results, use them to improve instruction, and communicate them to others. Many school personnel, however, have not had the opportunity to acquire the "assessment literacy" that is required for these roles. The goal of this project, funded by the National Science Foundation, is to develop and evaluate three Web-based instructional modules to help prepare teachers and administrators to use test results effectively and explain them to students, parents, the school board, and the press.

The first 25-minute module, "What's the Score?" which is freely available on our Website, <http://education.ucsb.edu/items/>, explains test score distributions and their properties (mean, median, mode, range, standard deviation), types of test scores (raw scores, percentiles, grade-equivalents), and norm-referenced and criterion-referenced score interpretation. Its effectiveness in conveying these concepts was evaluated in 2005 through administration to 68 teacher education students and 45 teachers and administrators, all of whom also took an assessment literacy quiz. Participants were randomly assigned to one of two conditions: In one condition, the module was viewed before the quiz was administered; in the other, the quiz was administered first. Results for the 113 participants showed a small but statistically significant effect: Those in the "module-first" group performed better on the quiz than the "survey-first" group. The module was modified based on feedback from project participants and distributed in CD or DVD form to schools who requested it.

We are now completing the second module, "What Test Scores Do and Don't Tell Us," which explains why test scores are not perfectly precise measures of student achievement. Specifically, the module focuses on the effect of measurement error on individual student test scores and on the effect of sample size on the precision of average scores for groups of students.

We are recruiting teachers and school administrators to participate in the evaluation of the new module in March and April,

Participating teachers and administrators will view a Web-based presentation and take an anonymous Web-based assessment literacy survey—about 45 minutes in all.

Individual participants can choose their own time and place to view the presentation and complete the survey.

Participants will receive \$15 Borders gift certificates.

If you would like more information, or want to sign up to participate, please contact Liz Alix, Project Administrator, at items@education.ucsb.edu or 805-893-2502. Information about participation will also be posted soon at our Website, <http://education.ucsb.edu/items/>

DATIC 2006: Data Analysis Training Institute of Connecticut

~ DATIC 2006 ~

DATA ANALYSIS TRAINING INSTITUTE OF CONNECTICUT

There will be four one-week workshops to be held at the University of Connecticut in June of 2006. Three topics are offered. They are:

Hierarchical Linear Modeling

Session A: June 5-9, 2006

Session B: June 19-23, 2006

Instructors: Ann A. O'Connell & D. Betsy McCoach

Web address: [http://
davidakenny.net/datic/
datic.hlm.htm](http://davidakenny.net/datic/datic.hlm.htm)

The workshop on Hierarchical Linear Models covers basics and applications of multilevel modeling with extensions to more complex designs. Participants will learn how to analyze data via a multilevel model, and be able to interpret the results from their analyses. The software that we will be using includes HLMv6 and SPSS.

Structural Equation Modeling

June 12-16, 2006

Instructors: David A. Kenny & Stephanie Milan

Web address: [http://
davidakenny.net/datic/
datic.sem.htm](http://davidakenny.net/datic/datic.sem.htm)

The workshop on Structural Equation Modeling covers basics of path analysis, confirmatory factor analysis, and latent variable modeling. Using AMOS Graphics, participants will learn how to build, evaluate, and revise a structural equal modeling.

Dyadic Data Analysis

June 26-June 30, 2006

Instructors: David A. Kenny & William Cook

Web address: [http://
davidakenny.net/datic/
datic.dyad.htm](http://davidakenny.net/datic/datic.dyad.htm)

The workshop on Dyadic Data Analysis will focus on the design in which both members of a dyad are measured on the same variables. Major focus is given to the Actor-Partner Interdependence Model. The software packages used in the workshop are SPSS and AMOS.

Workshops are held at the Storrs campus of the University of Connecticut



**The Ed Stats SIG
newsletter is a
wonderful venue to
attract candidates for
faculty and other
positions.**

If you have a position to advertise, please forward the announcement to the Ed Stats SIG newsletter co-editors for future newsletters.

HLM Workshops

Two workshops on Hierarchical Linear Models will be held at the University of Connecticut (both workshops cover the same material). Dates are:

Session A: Monday, June 5, through Friday, June 9

Session B: Monday, June 19 to Friday June 23

Each workshop covers basics and applications of multilevel modeling with extensions to more complex designs. Participants will learn how to analyze data via a multilevel model, and be able to interpret the results from their analyses. Participants are expected to have a working knowledge of multiple regression as well as SPSS (or SAS). Analyses will be demonstrated using the software HLMv6. Alternative software packages, including SPSS, will be discussed, and examples provided. Instruction will consist of lecture, computer workshops, and individualized consultations. The emphasis will be practical with minimal emphasis on statistical theory, but those seeking more statistical information can arrange an individualized session during instructor office hours.

Because the number of spaces is limited, please apply soon to reserve a space. To register, see the DATIC website, <http://davidakenny.net/datic/datic.hlm.htm>

Participants are encouraged to bring their own data. They should contact the instructors beforehand to ensure that data are appropriately formatted for analysis using HLMv6 or SPSS.

The workshop covers the following topics:

- Random and fixed effects
- Intraclass correlation; proportion of variance explained
- Methods of centering
- Two-level general linear models
- Three-level general linear models
- Applications of two- and three-level models to organizational data
- Applications of two- and three-level models to longitudinal data
- The flexible treatment of time within multilevel models
- Piecewise Growth Curves using HLM
- Two-level generalized (logistic) linear models
- Residual Analyses

Registration Details

Dates and Times:

HLM Workshop Session A: Monday June 5 to Friday June 9, 2006

Opening Reception planned for Sunday June 4, at 6:00PM

HLM Workshop Session B: Monday June 19 to Friday June 23, 2006

Opening Reception planned for Sunday, June 18, at 6:00PM

Schedule: 9AM to 5PM Mon.-Thurs.:
9AM to 12PM Friday with complimentary luncheon

Location:

University of Connecticut, Storrs, Connecticut USA (nearest Airport: Hartford/Springfield (Bradley International Airport))

Cost:

- Workshop \$850 (before April 1)
- Workshop \$950 (after April 1)

For Housing information and Cancellation policy - please see main DATIC website: <http://davidakenny.net/datic/datic.htm>

Benefits

The following materials and events are included in the cost of the workshop:

- CD-ROM containing workshop instructional materials & sample data sets
- Binder with workshop outline, computer outputs, and reprints
- Sunday pre-workshop reception
- Continental breakfast each morning
- Friday luncheon

HLM workshops (continued)

Curriculum (to be adapted somewhat to the specific needs of participants)

Day 1

- * Introduction
- * Basics of multilevel modeling
- * Fixed and random effects, ICC
- * Examples of two-level models for clustered data
- * Using the HLMv6 software
- * Applications (HLMv6)
- * Lab time

Day 2

- * Model building, model testing, effect sizes
- * Centering
- * Additional applications for the 2-level model for organizational data
- * Three-level models for organizational data
- * Applications using SPSS (D. Kenny)
- * Applications of 2 and 3 level organizational models
- * Lab time

Day 3

- * Reconceptualizing longitudinal data for multilevel models
- * Two-level longitudinal analyses
- * Three-level longitudinal analyses
- * The flexible treatment of time
- * Polynomial models for non-linear growth
- * Developing the piecewise growth curve
- * Applications
- * Lab time

Day 4

- * Additional applications for longitudinal data
- * Residual analyses and aptness of the model
- * Missing data and missing levels
- * Review of Generalized Linear Models
- * Generalized multilevel Linear Models (logistic HLM)
- * Lab Time

Day 5

- * Additional applications
- * Advanced topics (by request)
- * Questions and answers
- * Wrap-up
- * LUNCHEON



First in the ES-SIG Book Series Book Announcement: *Structural Equation Modeling: A Second Course*

Quantitative Methods in
Education and the Behavioral
Sciences: Issues, Research, and
Teaching

Series Editor: *Ronald C. Serlin,
University of Wisconsin-Madison*

Structural Equation Modeling: A Second Course

Edited by *Gregory R. Hancock,
University of Maryland* and *Ralph
O. Mueller, The George
Washington University*

"I believe that this volume
represents a vital contribution to
the field of SEM beyond the
introductory level."

From the Preface by *Richard G.
Lomax, The University of Alabama*

This volume is intended to serve as
a didactically-oriented resource
covering a broad range of advanced
topics often not discussed in
introductory courses on structural
equation modeling (SEM). Such
topics are important in furthering
the understanding of foundations
and assumptions underlying SEM as
well as in exploring SEM as a
potential tool to address new types
of research questions that might
not have arisen during a first
course. Chapters focus on the
clear explanation and application of
topics, rather than on analytical
derivations, and contain syntax and
partial output files from popular
SEM software.

CONTENTS:

Introduction to Series, *Ronald C.
Serlin.*

Preface, *Richard G. Lomax.*

Dedication. Acknowledgements.

Introduction, *Gregory R. Hancock
& Ralph O. Mueller.*

Part I: Foundations.

The Problem of Equivalent
Structural Models, *Scott
L.Hershberger.*

Formative Measurement and
Feedback Loops, *Rex B. Kline.*

Power Analysis in Covariance
Structure Modeling, *Gregory R.
Hancock.*

Part II: Extensions.

Evaluating Between-Group
Differences in Latent Variable
Means, *Marilyn S. Thompson &
Samuel B. Green.*

Using Latent Growth Models to
Evaluate Longitudinal Change,
*Gregory R. Hancock & Frank R.
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Structural Equation Models of
Latent Interaction and Quadratic
Effects, *Herbert W. Marsh,
Zhonglin Wen, & Kit-Tai Hau.*

Part III: Assumptions.

Nonnormal and Categorical Data
in Structural Equation Modeling,
*Sara J. Finney & Christine
DiStefano.*

Analyzing Structural Equation
Models with Missing Data, *Craig
K. Enders.*

Using Multilevel Structural
Equation Modeling Techniques
with Complex Sample Data, *Laura
M. Stapleton.*

The Use of Monte Carlo Studies
in Structural Equation Modeling
Research, *Deborah L. Bandalos.*
About the Authors.

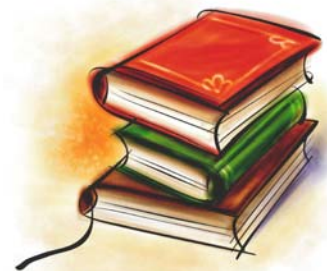
Paperback ISBN: 1-59311-
014-6 \$39.95

Hardcover ISBN: 1-59311-
015-4 \$73.95

Published by: **Information Age
Publishing Inc.**

PO Box 4967 Greenwich, CT
06831

Tel: 203-661-7602 Fax: 203-
661-7952 URL:
www.infoagepub.com



Nominations Sought for President-Elect/Program Chair & Secretary/Treasurer



Nominations (self-nominations or nominations of others) are being solicited for (1) President-Elect/Program Chair and (2) Secretary/Treasurer of the Educational Statistician's SIG. The elected Program Chair will be responsible for organizing the 2007 AERA conference and then will serve as President for the 2008 conference. The elected Secretary/Treasurer will assume this post immediately following the 2006 Annual Meeting.

Please send your nominations to: peng@indiana.edu by February 28th, 2006. Voting will be online again this year through the ES SIG website. The link and information will be sent through the listserve once the slate is finalized.

Thanks for your interest in supporting the Ed Stat SIG!
Joanne Peng

Nominations Chair serving with W. Holmes Finch at whfinch@bsu.edu
And Marilyn Thompson at M.Thompson@asu.edu

Ed Stats SIG AERA Business Meeting: Guest Presenter, Dr. Will Shadish

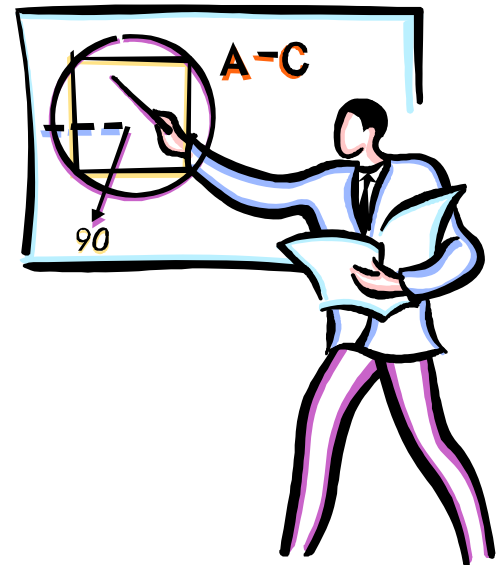
As you plan your schedule for the AERA conference in San Francisco, please remember to attend our business meeting and hear the wonderful presentation by our invited guest, Dr. Will Shadish. We are very pleased that Will has agreed to speak to our Educational Statisticians' SIG and look forward to seeing all of you there!

Guest Presenter: Dr. Will Shadish, Professor and Founding Faculty at the University of California, Merced

Professor Shadish's will speak on "The Good, The Bad, and The Ugly: My Experience on the What Works Clearinghouse Technical Advisory Group."

Business meeting: Sunday April 9, 6:15 - 8:15

Location: Moscone Center South, Esplanade Ballroom, Section 30



ICOTS: 7th Annual International Conference on the Teaching of Statistics

ICOTS - 7 Seventh International Conference on the Teaching of Statistics

"Working Cooperatively in Statistics Education"

Salvador, Bahia, Brazil

July 2 - 7, 2006

Many members of our SIG are organizing sessions and/or presenting papers and posters at ICOTS - 7. Early registration is open until February 28, 2006.

Check for the program and conference news at the website:

<http://www.maths.otago.ac.nz/icots7/icots7.php>



Conference on Closing the Achievement Gap

Dr. Betsy McCoach and Dr. Robert Colbert have organized the Closing the Achievement Gap Conference, sponsored by the Neag School of Education, University of Connecticut. The conference highlights an issue of critical importance to educators, policymakers, and researchers. Presentations by locally and nationally renowned speakers will share research results and discuss best practices for narrowing achievement gaps among students. School personnel from around the state and region are invited to attend and take advantage of this excellent professional development opportunity. Dr. James Comer, founder of the Comer School Development Program, is the featured keynote speaker. For conference information and materials, please visit <http://www.achievementgap.uconn.edu/index.htm>.

Sea Fever (in preparation for San Francisco!)

By: John Masfield

I must down to the seas again, to the lonely sea and the sky,
And all I ask is a tall ship and a star to steer her by,
And the wheel's kick and the wind's song and the white sail's shaking,
And a gray mist on the sea's face, and a gray dawn breaking.

I must down to the seas again, for the call of the running tide
Is a wild call and a clear call that may not be denied;
And all I ask is a windy day with the white clouds flying,
And the flung spray and the blown spume, and the sea-gulls crying.

I must down to the seas again, to the vagrant gypsy life,
To the gull's way and the whale's way where the wind's like a whetted
knife;
And all I ask is a merry yarn from a laughing fellow-rover,
And quiet sleep and a sweet dream when the long trick's over.

Additional Ideas for Submissions to *The Stats Source*

As you read on page two of this edition of the newsletter, we are requesting submissions of newsworthy items to share with colleagues in the Ed Stats newsletter. The following list expands on ideas for worthy contributions to the newsletter.

1. stat computing (software updates, publications, reviews, etc.);
2. articles in off-the-mainstream journals or new publications of special interest
3. appeals to the members for info on a specific topic or assistance with a project
4. annotated bibliography on a topic
5. teaching tips
6. non-offensive humor

7. professional development suggestions for grad students

For article briefs, annotated bibliographies, reviews, and other similar extended pieces, articles of approximately 500 words or less are appropriate to submit.

Contributions should be sent in a **Word** document to the newsletter co-editors:

dhahs@mail.ucf.edu

lwitta@mail.ucf.edu

ssivo@mail.ucf.edu

Thank you for helping to make *The Stats Source* your one-stop publication for news of value to educational statisticians.



FOG

The fog comes
on little cat feet.
It sits looking
over harbor and
city
on silent haunches
and then moves on.

—Carl Sandburg

Torture numbers,
and they'll confess to
anything.

— Gregg Easterbrook



Ed Stats SIG

American Educational
Research Association
Educational Statisticians
Special Interest Group

See you in San Fran!

We will soon be hosted from the AERA website! Until then, our temporary address is:

<http://homes.education.ucf.edu:16080/~ssivo/EDSTATS/Ed%20Stat%20Homepage.htm>

Upcoming Conferences

American Educational Research Association

April 7-11, 2006 San Francisco, CA

The International Conference on Teaching Statistics

July 2 to 7, 2006, Salvador, Bahia, Brazil



**See you
in San
Fran!**