



The Y-Distribution

Brigham Young University

Department of Statistics

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See you in Minneapolis!

From the Chair

As you look through this edition of the Y-Distribution, I draw your attention to several highlights. We just concluded the 30th Annual Summer Institute of Applied Statistics with presentation by returning presenter David Draper along with his colleague, Thanasis Kottas. Dr. William Christensen and Dr. Shane Reese were awarded a substantial EPA grant to further the work that William has been pursuing. And Dr. Reese was awarded a prestigious Young Scholar Award by the University in our Annual University Meetings held last August. We concluded another successful exit poll which has been acknowledged in local and campus media. We continue to see progress in teaching and managing the increasing enrollment in Stat 221; Patti Collings recently revised the Independent Study version of Stat 221 and we have offered several online versions of the course the last two semesters. We also anticipate two retirements in the next year or so, opening positions to be filled by eligible applicants. All in all, the year has been good for the department. We look forward to the year ahead.



Attending LDS Services in Minneapolis

The Minneapolis Ward begins with Sacrament Meeting at 9:00 on Sunday morning. Bus transportation is available at the stop at Nicollet and Grant Street. Be at the bus stop at 8:15 a.m. with the exact change of \$1.50 (\$3.00 for both ways). There will be no change available. Board bus Route 18 southbound. The bus will depart from the Nicollet Ave S and Grant St. intersection at 8:23 a.m. The bus arrives at Nicollet Avenue S & 39th Street W at 8:38 a.m. To signal the driver, pull the cord above the window about a block before your stop. From there, walk south towards the meetinghouse (less than half a block) at 3921 Nicollet Ave. Return trip will depart from Nicollet Ave S & 39th Street W at 12:15 p.m. and arrive back at Nicollet Ave S & Grant St. at 12:30 p.m. For more information regarding bus and subway schedules, fares, directions, etc. visit Metro Transit's website: www.metrotransit.org. If you would prefer walking, the distance is approximately three miles.



from BYU. He received his Ph.D. in Applied Statistics from Penn State University. Paul came to us from St. George's University School of Medicine in Grenada, where he taught Biostatistics. He also taught at the Naval Postgraduate School in Monterey, California. Paul's areas of expertise lie in engineering statistics, time series analysis, quality improvement, and operations research, with a passion in statistical education. He is the editor of STATS Magazine, a publication of the American Statistical Association.



Paul and his wife Deborah live in Provo and have four children, Jessica, Jennifer, Jennell, and Jeffrey. His outside interests include scuba diving, travel, and learning foreign languages. He speaks fluent Spanish, Navajo, and Romanian.

Summer Institute of Applied Statistics

The 30th Annual Summer Institute of Applied Statistics was held June 15-17, 2005. Presenting were Dr. David Draper and Dr. Thanasis Kottas from the Department of Applied Mathematics and Statistics in the Baskin School of Engineering at the University of California, Santa Cruz. They presented "Practical Bayesian Non-Parametric and Semi-Parametric Modeling," which provided an introduction to Bayesian non-parametrics with an emphasis on modeling approaches, simulation-based model fitting, and applications. The attendees were drawn in equal



ASA/JSM Minneapolis Open House

We invite you to join us Wednesday, August 10th from 7:00 to 9:00 a.m. for a BYU Alumni and Friends Breakfast Social sponsored by the Department of Statistics. We will meet in the Minneapolis Convention Center, Room MCC-L100I. A light breakfast will be served. We look forward to seeing you!

New Faculty

Dr. Paul Fields has accepted a position as a full-time professional faculty member, effective Fall 2005. Paul joined the Statistics faculty in Fall of 2003 in a visiting position. He received his B.S. and M.S. in Mechanical Engineering and M.B.A.

parts from inside and outside the BYU community.

For Summer Institute in 2006, Dr. Todd Ogden, Associate Professor of Biostatistics at Columbia University, will present *Essential Wavelets for Statistical Applications and Data Analysis*. Make your plans now to join us. More details will follow.

EPA Grant

Dr. William F. Christensen (PI) and Dr. C. Shane Reese, (Co-PI), received



a grant from the EPA to investigate specific topics relating to source apportionment studies in air quality. This work will employ data from

the St. Louis Midwest Supersite, along with other sources. An iterative confirmatory factor analysis will be developed to accommodate partial source profile information and provide for element-specific constraints. They will develop a Bayesian hierarchical model to evaluate temporal changes in source contributions as well as changes in source profiles. This grant represents the largest single grant exclusively in statistics received by faculty in our department and can serve as a bridge to opportunities in the future.

Exit Poll is a Success

On November 2, 2004, the Department of Statistics, in collaboration with the Political Science Department, concluded another successful statewide exit poll. This project, conducted every general election year since 1982, involved about 1000 volunteers performing various tasks ranging from handing out the questionnaires at polling places, entering the voter responses into a database throughout Election Day, and analyzing data to present results on KBYU after the polls closed.

The success of the exit poll is measured not only by the accuracy achieved each year, but also by incorporating new features to improve on the process of previous exit polls.

The KBYU/Utah Colleges Exit Poll

received live air-time on Channel 2 News and Fox 13 for the first time. Results were also reported on Channel 4 and articles on the exit poll were featured in the Salt Lake Tribune.

Statistics in the Sports Spotlight

Andy Reid, former BYU Football player and current Philadelphia Eagles



football coach requested help from Dr. Shane Reese and Dr. Gilbert W. Fellingham to prepare a report that statistically analyzes every player and every coach's decision on the field in the 2003 season. This request came after Coach Reid heard of their successful work for the U.S. Olympic Volleyball team.

By taking data sets and creating Bayesian statistical models to blend them with data from actual events, Shane and Gil are able to analyze the team's performance.

Young Scholar Award

Dr. Shane Reese has received the Young Scholar Award. The award acknowledges and encourages outstanding contributions and future potential by faculty in the early stages of their academic careers. He



was one of five that were honored by the university in our Annual Meetings in August of 2004, and carries a three year stipend. We congratulate Shane for the receipt of this award recognizing his achievements.

Chair's Outstanding Paper Award

Upon recommendation of the Department of Statistics Scholarship and Award Committee the Chair's Outstanding Paper Award was presented to Shane Reese in May 2005 for his paper, "Integrated Analysis of Computer and Physical Experiments," by C. Shane Reese, Alyson G. Wilson, Michael Hamada, and Harry F. Martz, published in the May 2004 issue of *Technometrics*.

William Christensen received this award in August of 2004 for his paper, "Accounting for Dependence in a

Flexible Multivariate Receptor Model," published in the November 2002 issue of *Technometrics*. These papers were recognized for their outstanding contributions to statistical science.

H.O. Hartley Award

Dr. Scott Grimshaw has been chosen as the 2005 recipient of the H.O. Hartley award, which is given annually to a former student of Texas A&M



University's Department of Statistics for distinguished service to the discipline of Statistics. The award is in honor of Professor H. O. Hartley, who founded the Institute of Statistics at Texas A&M in 1962. Hartley was a pioneer and leader in the development of the theory and real world applications of statistics.

Dr. Grimshaw joins an impressive list of previous recipients of the award, including James Matis, Kathy Ensor, and Michael Kutner, among others. He will receive the award at the Joint Statistical Meeting in Minneapolis, Minnesota on August 8, 2005.

Special Recognition

Ruth Dauwalder, our Administrative Assistant, has been recognized by the College of Physical and Mathematical Sciences as the Administrative Employee of the Year.



This honor recognizes her devotion and loyalty to the department and was accompanied by a cash award. We congratulate Ruth for this recognition.

Faculty Appointment

Shane Reese has been appointed to the Scientific and Public Affairs Advisory Committee of the American Statistical Association. We congratulate him on this recognition.

National Recognition

Carly Pendleton has been awarded a prestigious Gertrude Cox Scholarship. The scholarship is awarded yearly to

encourage women to enter statistically oriented professions and is sponsored by the ASA Committee on Women in Statistics and the Caucus for Women in Statistics. Carly is the second student from BYU to receive a full scholarship. Kristen Piggott Shepherd received it in 2002, and Stacy Evers received honorable mention in 1999. We express our congratulations to Carly.

Internships

We continue to get positive feedback from many organizations that presently have our students working for them as interns. If you know of any internship opportunities in which our students can be involved, please

email the details to statsec@statmail.byu.edu.

Faculty Positions

Over the course of the next few years, we expect additional openings for faculty positions due to retirements and so forth. If you would like to receive word of positions as they open, please e-mail Ruth at ruth@stat.byu.edu, or check our website at <http://statistics.byu.edu/>.

E-mail Addresses

We would like to do more communicating by email. It would allow us to contact you on a more frequent basis concerning issues we hope you would be interested in. To join the list, send an email to

statsec@statmail.byu.edu with the subject line: Newsletter Email List and we will put you on our email list for future communications.

Important Web Pages

Student Resumes:

<http://statistics.byu.edu/resumes/>

Address update:

http://statweb.byu.edu/resources/address_change.html

Faculty Positions:

<http://yjobs.byu.edu>

Department Web page:

<http://statweb.byu.edu/>