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American Statistical Association



The American Statistical Association is the world's largest community of statisticians. The ASA supports excellence in the development, application, and dissemination of statistical science through meetings, publications, membership services, education, accreditation, and advocacy. Our members serve in industry, government, and academia in more than 90 countries, advancing research and promoting sound statistical practice to inform public policy and improve human welfare.

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This column highlights research activities that may be of interest to ASA members. This article includes information about new research solicitations and the federal budget for statistics. Comments or suggestions for future articles may be sent to the *Amstat News* managing editor at *megan@amstat.org*.



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Herring

23 MASTER'S NOTEBOOK Being a Hybrid Statistician

This column is written for statisticians with master's degrees and highlights areas of employment that will benefit statisticians at the master's level. Comments and suggestions should be sent to Megan Murphy, *Amstat News* managing editor, at *megan@ amstat.org.*



Contributing Editors Melissa Danielson earned her BA at the University of Virginia and her MS in public health in biostatistics at Emory University's Rollins School of Public Health. Her work focuses on the epidemiology of ADHD and other mental, emotional, and behavioral conditions among children; the epidemiology of health outcomes among children with disabilities; and the evaluation of the Legacy for Children group-based parenting intervention.

Danielson



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Olsen

Online Articles

The following articles in this issue can be found online at *http://magazine.amstat.org*.

During the 2013 annual meeting of the American Association for the Advancement of Science, Karen Kafadar and colleagues from the National Institute of Justice and the National Academies asked, "Will there be real change in forensic science?" In the symposium presentation, titled "Critical Role of Statistics in Development and Validation of Forensic Methods," Kafadar identified the continuing needs and challenges facing forensic science, but she also outlined a research agenda—one that includes the involvement of statisticians—that addresses the ways studies can be designed to better quantify the capabilities of forensic methodologies. For more information about this project, visit the Indiana University website at http://newsinfo.iu.edu/news/page/ normal/23815.html?emailID=23815.

The 2013 Nonclinical Biostatistics Conference,

dedicated to nonclinical biostatistics, will take place October 15–17 at the Joseph Connelly Conference Center at Villanova University. Members of the nonclinical/pre-clinical statistics community are invited to submit proposals for presentations and posters discussing significant scientific and regulatory issues. Attendees will have ample opportunity to network, share experiences, and discuss current scientific issues with leaders in the field. Registration and a call for abstracts are open at *www.ncb2013.org*.

The Society of Actuaries International **Living to 100 Symposium** is scheduled for January 8–10, 2014, at the Walt Disney World Swan Resort in Orlando, Florida. Thought leaders from around the world will once again gather to discuss the latest scientific information about how and why we age, methodologies for estimating future rates of survival, potential benefits and risks associated with the increasing numbers of retirees, and potential answers to other challenging issues that arise. Questions may be directed to Ronora Stryker, SOA research actuary, at *rstryker@soa.org.*

Sadly, both **Damaraju Raghavarao**, from Temple University, and **Shayle Robert Searle**, from Ithaca, New York, passed away in February. To view their obituaries, visit http://magazine.amstat.org/blog/ category/membernews/amstatpeople/obits.

columns

175 Boston: The Association's Home City

The ASA will celebrate its 175th anniversary in 2014. In preparation, column "175" written by members of the ASA's 175th Anniversary Steering Committee and other ASA members—will chronicle the theme chosen for the celebration, status of preparations, activities to take place, and, best yet, how you can get involved in propelling the ASA toward its bicentennial.



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Contributing Editor

John McKenzie is professor emeritus of statistics at Babson College. He earned an AB from Amherst and two master's degrees and a PhD in statistics from the University of Michigan. He has held a number of positions with the American Statistical Association, among them Council of Chapters Representative to the ASA Board of Directors. He is an ASA Fellow and winner of the Founders Award.

McKenzie

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STATtr@k is a column in Amstat News and a website geared toward people who are in a statistics program, recently graduated from a statistics program, or recently entered the job world. To read more articles like this one, visit the website at http://stattrak.amstat.org. If you have suggestions for future articles, or would like to submit an article, please email Megan Murphy, Amstat News managing editor, at megan@amstat.org.



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Gabrosek



Del Scott recently completed six years as chair of the department of statistics at Brigham Young University (BYU). He previously served as assistant academic vice president responsible for computing at BYU, and has also served as associate chair and on various departmental and college rank and status committees.

Scott

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Statistics and Scientists: Raising Awareness Through AAAS



ASA members who recently became AAAS Fellows include (from left): Katherine Ensor, Arlene Ash, Marc Genton, Karen Kafadar, Allan Sampson, Haikady Nagaraja, Nell Sedransk, Ron Wasserstein, Weng Kee Wong, and Nitis Mukhopadhyay.

A little over two years ago, I walked down the hall to find the February 11, 2011, issue of *Science (www.sciencemag.org/content/331/6018.toc)* in my mailbox. I was excited to see the word "data" in an enormous font on the cover, overlaying a word cloud that also included "research," "analysis," "model," and "knowledge," highlighting the issue's special section on dealing with data. An introduction by the *Science* staff indicated the goal was "to provide a broad look at the issues surrounding the increasingly huge influx of research data." They spoke of the tremendous opportunities presented by the "data deluge" and reported that responders to a recent *Science* poll noted they "seek or would like additional help in analyzing" data.

But examination of the special section led to dismay. Mentions of statistics or statisticians were scant. It wasn't long before I heard from equally disheartened friends. And this wasn't the first time; an issue of *Nature (www.nature.com/nature/journal/v455/ n7209/index.html)* featuring Big Data a few years earlier had a similar dearth of references to statistics.

Lack of visibility is nothing new to our field; in fact, one of the themes of the ASA Strategic Plan is Increasing Visibility of the Profession. The *Science* issue highlighted starkly the magnitude of this challenge. *Science* is published by the American Association for the Advancement of Science (AAAS), the world's largest general scientific society, with members from all walks of science (including statistics). Thus, the notable absence of



Marie Davidian



statistics from the "data" issue might reflect broad lack of recognition across the spectrum of sciences and scientists.

Indeed, it might. Shortly thereafter, ASA representatives met with AAAS Executive Director Alan Leshner. He was candid, telling them his impression was that scientists view statistics not so much as a science but as a "bag of tools." He went on to remark that "you have a visibility problem in *Science* and AAAS."

We could simply get angry (really angry) at this mischaracterization of our field and reject the messenger. But statistics has too much to offer science, particularly in this era of massive and complex data—our unique skills in statistical modeling and design, understanding of uncertainty, and knowledge of the potential for bias and false discovery.

Which led me to one of my presidential initiatives. Elevating the visibility of our discipline across all of science is a formidable challenge. But a concrete first step could, and must, be taken. With nearly 120,000 individual and institutional members, 261 affiliated scientific societies (including the ASA), and 24 sections corresponding to fields of science—including Section U (statistics) —AAAS is a focal point for science. Increasing awareness within AAAS would be a key advance that could translate more broadly.

I asked Section U officers (*www.aaas.org/ aboutaaas/organization/sections/stats.shtml*) and ASA representatives (*www.amstat.org/committees/ commdetails.cfm?txtComm=CCNPRO04*) to other sections of AAAS to form a workgroup and undertake activities to raise our profile. An immediate success was the selection of six invited session proposals sponsored by Section U in a highly competitive process across all areas of science to appear on the program of the annual AAAS meeting held in Boston in February (more in a moment).

The workgroup argued that increased participation by statisticians, commensurate to that of other scientists, would elevate the stature of statistical science within AAAS. They launched an effort to encourage students to enter the very competitive student poster competition. At the AAAS meeting, at least 10 of the winning 142 posters from all areas of science were from statistics students, an impressive first showing given the diversity of competition. In fact, students Kristin Linn of North Carolina State University and Stefa Etchegaray of Carnegie Mellon were two of only four winners of the prestigious Joshua Neimark Travel Award (*www.aaas. org/meetings/Annual_Meeting/2008_boston/program/ posters/posters_neimark.shtml*)!

Noting that 2012 was the 50th anniversary of the founding of Section U, led by Section U secretary Jane Pendergast working with AAAS member services director Ian King, the group spearheaded an awareness campaign for JSM 2012. AAAS contributed 1,000 buttons displaying the logo shown here, which were distributed in San Diego along with fliers describing the benefits of AAAS membership. Many of you sported buttons during JSM, and we continue to distribute them at other events. The group followed with a December 2012 *Amstat News* article (*http://magazine.amstat.org/blog/2012/12/01/ aaas-statistics-u*) encouraging statisticians to emphasize the importance of statistics to fellow scientists through joining AAAS.

These efforts appear to have been effective. From February 2012 to February 2013, overall membership in Section U increased from 1,713 to 1,961 (14%), with members declaring it their primary section going from 365 to 435.

Initiatives continue, including exploring an ASA-AAAS joint symposium, proposing articles on statistical science for the AAAS MemberCentral website (*http://membercentral.aaas.org/cutting-edge/articles*), and developing invited session proposals for future AAAS meetings. And Section U continues to nominate accomplished statisticians as AAAS Fellows in recognition of their contributions to science; 18 were honored at the February AAAS meeting, some of whom are pictured here. The increase in Section U membership brought an increase in the number of Fellow nominations (*www.aaas.org/aboutaaas/fellows*) the section may support this year.

So, why should you join AAAS?

The altruistic reason is to join fellow statisticians in promoting the contributions of statistics to outstanding fellow scientists. With increased numbers will come the visibility that will allow us to advocate more forcefully for sound statistical design and analysis and appreciation for the value of statisticians.

But the personal benefits are equally significant. Membership brings access to an array of AAAS resources: webinars, blogs, science news, and, of course, *Science*. And, as I experienced firsthand in February, the AAAS meeting (*www.aaas.org/ meetings*/2013).

The annual AAAS meeting is similar in size to JSM, but serves a much broader audience. All sessions (symposia) are invited, and the concurrent number is small. Symposia must be accessible to a general scientific audience, and speakers must be outstanding presenters. Numerous general interest workshops and events are held, and there are scores of special lectures by eminent researchers. Opportunities to learn about new areas of science and identify challenges in which statistical science could contribute are substantial.

I attended several Section U–sponsored symposia, all with standing-room-only crowds, and left in awe of how much I learned. "The Science of Uncertainty in Genomic Medicine" featured point-counterpoint talks by two clinicians, one citing evidence for his contention that the genomic revolution has, as yet, led to only "feeble" ability to predict disease risk and may be encouraging overreactions and unnecessary interventions, and the other describing novel clinical trials to assess whether patient anxiety is unduly raised by knowledge of genetic predisposition carrying uncertain risk (the evidence suggests not).

"Understanding and Communicating Uncertainty in Climate Change Science" presenters described superbly how statistical modeling is used to combine data with climate models and quantify risk and the challenges of communicating the uncertainty in this complex enterprise to the public and policymakers. One speaker urged replacing assertions of causality by simple probabilistic comparisons to circumvent seeming inconsistencies in climate science analogous to the apparent contradiction that smoking "causes" cancer, but a politician's two-pack-a-day grandfather could live to 97. Another encouraged climate scientists to develop relationships with decisionmakers and to not oversell science, but to translate its limitations and notions of risk and uncertainty into terms they can understand. A discussion about communicating

Together, we can dispel the notion of statistics as "a bag of tools."

science to policymakers with *New York Times* Dot Earth blogger Andrew Revkin (*http://dotearth.blogs. nytimes.com/author/andrew-c-revkin*) followed.

One talk in "The Benefits of Randomized Experiments for Science and Society" session reported a study design used in political science to assess racial bias among white southerners. Subjects are randomized to two groups. One is presented a list of three innocuous events and asked, "How many of these upset you?" The other receives a list of four—the same three plus "A black family has moved in next door." Subjects are asked to report only the number (but not nature) of upsetting items, and a larger average number in the second group is assumed to reflect the true proportion of subjects upset by the racially related event. I'll leave it to my fellow statisticians to critique the design.

"A Decade After 'Forensic Science: Oxymoron?': Will There Be Real Change?" reviewed a 2009 National Research Council report (*www.nap.edu/ catalog.php?record_id=12589*) that found a lack of statistical foundation for many U.S. forensic science practices and called for increased use of statistics to strengthen them. This session was held as the Department of Justice and National Institute of Standards and Technology announced formation of a National Commission on Forensic Science (*www. nist.gov/oles/doj-nist-forensic-science021513.cfm*) to address these issues.

I could write pages about the diverse scientific challenges discussed in these and other symposia and the critical role statistics has to play in all of them. The AAAS meeting offers a remarkable forum for statisticians to highlight that critical role.

I encourage you to join AAAS (*https://pubs. aaas.org/Promo/promo_setup_rd.asp?dmc=P2XGN*), choose Section U as your primary section, and become a partner in this effort to enhance awareness of our discipline. Together, we can dispel the notion of statistics as "a bag of tools."

Marie Dovidian_

Recognizing the ASA's Longtime Members

he American Statistical Association would like to thank its longtime members by continuing its tradition of honoring those who joined the association 35 or more years ago. This year, we recognize the following members for their distinguished and faithful membership.

If you are a longtime member and will be attending JSM 2013 in Montréal, Quebec, Canada, please join us for a reception in your honor. If your name is not below and you believe it should be included, contact Amy Farris at amy@amstat.org to correct your record.

50+ Years

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0–44 Years

Judith Abrams Lee R. Abramson C. J. Adcock Frances J. Adox Robert A. Agnew Alan Agresti Per A. T. Akersten Arthur E. Albert Mir Masoom Ali Mukhtar M. Ali J. Richard Alldredge Francis B. Alt Stan Altan Alfred Jerry Anderson Dallas W. Anderson Robert L. Andrews W. Tad Archambault Jesse C. Arnold Ersen Arseven James N. Arvesen Taka Ashikaga Corwin L. Atwood Abdolrahman Azari Robert S. Barcikowski William A. Barnett John L. Barone Charles K. Bayne Richard A. Becker Laurel A. Beckett Richard J. Beckman James C. Beebe Mary S. Beersman Jacqueline Benedetti Timothy M. Bergquist Kenneth N. Berk William R. Best Wayne F. Bialas Lynne Billard David S. Birkes John A. Blessing Brent A. Blumenstein Lennart Bodin Aroona S. Borpujari Gordon J. Brackstone Edwin L. Bradley William M. Brelsford Robert L. Brennan Ellen F. Brewer

Dwight B. Brock Maurice E. Bubb Richard K. Burdick John A. Burkart Patricia L. Busk William L. Carlson Steven T. Carrier Margaret D. Carroll Raymond J. Carroll Walter H. Carter Samprit Chatterjee Raj S. Chhikara Joseph J. Chmiel Lee-Jay Cho Adam Chu William S. Cleveland Guy M. Cohen Robert J. Condon Kimon J.E. Constas Peter A. Cook Lewis Coopersmith Robert J. Costello Louis J. Cote Giles L. Crane John R. Crigler David S. Crosby Larry H. Crow John J. Crowley Gary R. Cutter Gerard E. Dallal Kenneth W. Davis Robert L. Davis William W. Davis Enrique de Alba Jose R. Deliz David L. DeMets Susan J. Devlin Thomas F. Devlin Jay L. Devore Paula H. Diehr W. Erwin Diewert Darryl J. Downing Michele Dramaix-Wilmet Dennis A. DuBose Joseph W. Duncan Donald H. Ebbeler Brenda Kay Edwards Janet D. Elashoff David Elesh Eugene P. Ericksen James W. Evans Milton C. Fan Thomas B. Farver Gerald M. Fava Robert E. Fay Walter Feibes Alan H. Feiveson Martin Feuerman

Alan C. Fisher Andrew J. Flatt Nancy Flournoy Sandra Forman Mary A. Foulkes James W. Frane Martin D. Fraser Daniel H. Freeman Carol L. French David Frontz Mark C. Fulcomer Howard N. Fullerton Mitchell H. Gail Edward J. Gainer **Richard Gaines** Daniel J. Gans Fernando L. Garagorry Turkan K. Gardenier Alan E. Gelfand Stephen L. George Gauri L. Ghai P. D. Ghangurde Glenn H. Gilbreath Edward J. Gilroy Phyllis A. Gimotty Howard Seth Gitlow John R. Gleason James H. Godbold Prem K. Goel Robert N. Goldman Matthew Goldstein J. Douglas Gordon Louis Gordon Bernard S. Gorman David M. Grether William E. Griffiths Joseph A. Guarnieri **Richard F. Gunst** Shelby J. Haberman Hermann Habermann Timothy O. Haifley Robert E. Hale Robert E. Hall R. Choudary Hanumara Lynne B. Hare Galen F. Hart

Larry D. Haugh Robert M. Hauser Douglas M. Hawkins **Richard M. Heiberger** William F. Heiland Karl W. Heiner Robert W. Hertz Agnes M. Herzberg Eugene R. Heyman James J. Higgins Klaus Hinkelmann David C. Hoaglin Theodore R. Holford Stephen C. Hora David W. Hosmer David C. Howell Lawrence J. Hubert Mark L. Hudes Huynh Huynh **Dar-Shong Hwang** Ronald L. Iman Peter B. Imrey Allen E. Izu William G. Jackson Joan R. Jacobs F. E. James Sreenivasa Rao Jammalamadaka J. D. Jobson Clifford L. Johnson Dallas E. Johnson Paul K. Jones Peter R. Jones Henry D. Kahn John D. Kalbfleisch John H. Kalbfleisch William D. Kalsbeek Howard S. Kaplon Joseph D. Kasile Robert M. Katz Myron J. Katzoff Roswitha E. Kelly James L. Kenkel Ralph L. Kent David L. Kimble **Robert Kinnison** Roger E. Kirk

Ralph L. Kodell David C. Korts Neal Koss Mary Grace Kovar Helena C. Kraemer S. David Kriska Joseph B. Kruskal Arabinda Kundu **Robert Kushler** John M. Lachin Lynn Roy LaMotte James M. Landwehr Per Lange Chang S. Lao William D. Lawing Anthony James Lawrance Kenneth D. Lawrence Clifford J. Lee Russell V. Lenth **Donald Lewin** David L. Libby Samuel Litwin Robert G. Lovell Lars Lyberg George W. Lynch James R. Maar Bruce E. Mackey Edward R. Mansfield Dennis R. Mar Robert L. Mason Frances J. Mather Takashi Matsui Clement J. Maurath George P. McCabe John D. McKenzie Glen D. Meeden Jeff B. Meeker James I. Mellon Gayle T. Meltesen Mary-Jane Mietlowski William L. Mietlowski George A. Milliken Satish Chandra Misra **Robert Mondschein** Douglas C. Montgomery

Roderick Montgomery David S. Moore John K. Moore David R. Morganstein Effat A. Moussa Michael L. Mout Robb J. Muirhead Henry D. Muse Wayne L. Myers Krishnan Namboodiri Subhash C. Narula Elliott Nebenzahl Glenn L. Nelson S. Edward Nevius David S. Newman H. Joseph Newton James A. Nickel Earl Nordbrock Julia A. Norton Marija J. Norusis Janet L. Norwood Peter C. O'Brien l eonard Oppenheimer Albert C. Ovedovitz Maurice E. B. Owens William J. Padgett Leonard J. Parsons Jon K. Peck Raymond C. Peck Arthur V. Peterson Robert A. Peterson A. John Petkau Charles G. Pfeifer Louis A. Pingel Mike Pore Stephen L. Portnoy Frank J. Potter Ross L. Prentice Philip J. Press **Kevin Price** Philip C. Prorok Thomas W. Pullum David A. Pyne Alfred W. Rademaker J. G. Ramage Calyampudi R. Rao

Carol K. Redmond George F. Reed **Thomas Reiland Benjamin Reiser** Louise C. Remer Kenneth J. Resser Hans Riedwyl Richard D. Rippe Jeffrey A. Robinson James L. Rosenberger **Bernard Rosner** Dwight N. Rousu Donald B. Rubin Barbara J. Rutledge Thomas P. Ryan Julia Sabella Susan T. Sacks John J. Salera Francisco J. Samaniego Douglas A. Samuelson Thomas J. Santner James J. Schlesselman

Joyce A. Schlieter Josef Schmee James Schmeidler Mildred E. Schmidt Eugene F. Schuster Neil C. Schwertman Alastair J. Scott Stuart Scott Nell Sedransk Subrata K. Sen Jolayne W. Service Jayaram Sethuraman Glenn R. Shafer Charles E. Shaffer Juliet Popper Shaffer Paul Shaman Ronald E. Shiffler Iris M. Shimizu James G. Shook Albert P. Shulte Robert H. Shumway Robert L. Sielken

Jagbir Singh Nozer D. Singpurwalla Walter Sloboda Robert D. Small Stephen C. Smeach Dennis E. Smith William A. Sollecito Randall K. Spoeri M. K. Srirama Muni S. Srivastava Bert Steece Allan Stewart-Oaten Robert L. Stout William E. Strawderman Nariaki Sugiura Moon W. Suh **Richard A. Sundheim** Michael Sutherland Ajit C. Tamhane **Richard D. Terrell** Ronald A. Thisted Hoben Thomas

John M. Thomas Carol B. Thompson Steven F. Thomson Robert D. Tortora Ram C. Tripathi Bruce W. Turnbull Neil R. Ullman Gerald van Belle Joseph Van Den Reysen Lonnie C. Vance Kerstin Vannman Niels H. Veldhuijzen Wayne F. Velicer Hrishikesh D. Vinod R. Lakshmi Vishnuvajjala Frederic A. Vogel Kenneth W. Wachter Hajime Wago Joseph J. Walker Sylvan Wallenstein Chao Wang

George H. Wang James F. Ward James H. Ware John Warren Christine M. Waternaux Tommy D. Waters Larry S. Webber William E. Wecker Edward J. Wegman William W. S. Wei Lynn Weidman Sanford Weisberg K. Laurence Weldon James P. Whipple Owen Whitby David G. Whitmore Howard L. Wiener William J. Wilson Robert F. Woolson Rita Zemach Eric R. Ziegel Stuart O. Zimmerman

35–39 Years

Dennis Aaron Julian Abbott Robert D. Abbott Sandra C. Abbott John M. Abowd Bovas Abraham Donald R. Akin James H. Albert Robert W. Aldred **Rich Allen** Wendy L. Alvey Keaven M. Anderson Robert J. Anderson Sharon Anderson Bengtung Ben Ang Clifford W. Angstman Lawrence Annable

Susanne Aref Vincent C. Arena Steve Ascher Arlene S. Ash Anthony C. Atkinson Agustin F. Ayuso Leroy Bailey Steven P. Bailey Stephen P. Baker Saad T. Bakir James A. Baldwin Vincent P. Barabba Michael P. Battaglia Eileen J. Beachell Robert J. Beaver Patricia C. Becker Jay H. Beder

Steven Belle David R. Bellhouse Robert B. Bendel George Benson James O. Berger Roger L. Berger James S. Bergum Catherine S. Berkey Jose Miguel Bernardo Ernst R. Berndt David J. Bernklau Al M. Best Bibhuti B. Bhattacharyya William T. Bielby Paul P. Biemer Robert H. Bigelow

Thomas E. Billings **Richard A. Bilonick** David A. Binder Stephen F. Bingham **Giselle Binstok** Jeffrey B. Birch Herbert L. Bishop Thomas A. Bishop Richard M. Bittman Jan F. Bjornstad Ernest A. Blaisdell Mark M. Blanchard Peter Bloomfield Harvey Blumberg Dan C. Boger Robert J. Boik James A. Bolognese

James T. Bonnen Dennis Boos Marie V. Bousfield John E. Boyer Norman M. Bradburn Ann Cohen Brandwein James M. Branscome Mary-Lynn Brecht Kenneth R. W. Brewer J. Michael Brick Ron Brookmeyer Dean S. Bross Rocco L. Brunelle Edward C. Bryant Shirrell Buhler John M. Bushery Thomas J. Bzik

Lawrence S. Cahoon Alan Cantor Patrick J. Cantwell Thomas P. Capizzi Grant D. Capps Arthur Carpenter Daniel B. Carr George Casella Frank C. Castronova Aki N. Caszatt Amrut M. Champaneri John P. Chandler Judith-Anne W. Chapman Yogendra P. Chaubey **Richard A. Chechile Bee-Lian Chen** Gina G. Chen James J. Chen William W.S. Chen Michael R. Chernick Robert D. Chew Nanjamma Chinnappa Joan Sander Chmiel Jai Won Choi Peter D. Christenson **B.** Christine Clark Cvnthia Z.F. Clark David A. Clawson William P. Cleveland George W. Cobb Timothy C. Coburn Michael L. Cohen Michael P. Cohen Steven B. Cohen James J. Colaianne John R. Collins Salvatore V. Colucci Loveday L. Conquest Bruce K. Cooil Kennon R. Copeland Margaret D. Copenhaver Thomas W. Copenhaver Charles D. Cowan Brenda G. Cox Lawrence H. Cox

John R. Crammer Keith N. Crank Anne P. Cross Suzanne L. Cross Kenny S. Crump Andrew Joseph Cucchiara William G. Cumberland L. Adrienne Cupples Robert D. Curley Lester R. Curtin Andrew I. Dale Prithwis Dasgupta Charles S. Davis Thomas M. Davis Ree Dawson Roberta W. Day Virginia A. de Wolf Forest C. Deal R. B. Deal Michael L. Deaton Pierre C. Delfiner Lorraine Denby Wayne S. Desarbo Terry E. Dielman E. Jacquelin Dietz **Ralph Digaetano** Lynn P. Dix David P. Doane Allan P. Donner Joseph R. Donovan Janice L. Dubien **Bonnie P. Dumas** William D. Dupont Ann Durand Timothy R. Eaton L. Marlin Eby William F. Eddy Marlene J. Egger John D. Emerson Kathleen Louise Emery Wil B. Emmert Curtis S. Engelhard **Richard M. Engeman** Kurt Enslein Thomas W. Epps

Samuel M. Epstein William H. Epstein Lawrence R. Ernst Sylvia R. Esterby Michael J. Evans Ray E. Faith Raymond W. Falk David L. Farnsworth Alan Fask John P. Fazio Ronald S. Fecso Michael L. Feldstein Christopher A. Field David F. Findley Naomi S. Fineberg **Carl Thomas** Finkbeiner Nicholas I. Fisher Allen I. Fleishman James W. Flewelling Hans-Theo Forst Peter E. Fortini Janet F. Fowler John D. Fox Leroy A. Franklin Larry D. Freese Stephen A. Freitas Barbara A. Gabianelli Paul Gallo Stephen J. Ganocy Roan A. Garcia-Quintana Edward E. Gbur Robin T. Geiger Fredric C. Genter Cynthia D. Gentillon Dhirendra N. Ghosh Malay Ghosh Ned M. Gibbons David E. Giles **Brenda Wilson** Gillespie John A. Gillespie Dennis R. Givens Beth C. Gladen Marcia A. Glauberman Joseph Glaz Frederick P. Glick

Huseyin A. Goksel **Richard F. Goldstein** Joe Fred Gonzalez James H. Goodnight Robert D. Gordon Jerren Gould Barry I. Graubard Stephanie J. Green Timothy A. Green William H. Greene Joel B. Greenhouse John Vic Grice Susan Groshen Cynthia R. Gross Marvin H. J. Gruber Leslie S. Grunes Victor M. Guerrero Berton H. Gunter Perry D. Haaland David B. Hall James L. Hall Nancy R. Hall William A. Halteman Robert M. Hamer David C. Hamilton Thomas S. Hammerstrom Janet M. Hanley Robert C. Hannum C. David Hardison William V. Harper Frank E. Harrell Stephen P. Harris Diane S. Harry Kenneth R. Hartmann Gary D. Hatfield Robert E. Hausman Maurine A. Haver Ronald W. Hawkinson Joan G. Haworth Takesi Hayakawa Lance K. Heilbrun Harold V. Henderson Ellen Hertzmark **Thomas Herzog** James L. Hess **Richard P. Heydorn**

Steven C. Hillmer Susan M. Hinkins Jerry L. Hintze Chihiro Hirotsu Raymond G. Hoffmann Thomas P. Hogan Larry R. Holden Robert M. Holmes Ernest B. Hook Alan Hopkins Berne Martin Howard Ina P. Howell Louis Hsu Elizabeth T. Huang Lee Huang Marla L. Huddleston Mohammad F. Hugue Emilio A. Icaza David N. Ikle Duane M. Ilstrup John M. Irvine Alan J. Izenman Kirk A. Jackson William E. Jackson Eva E. Jacobs Peter J. Jacobs Raj K. Jain David Jaspen Jean G. Jenkins Linda W. Jennings Robert W. Jernigan Bruce E. Johnson Paulette M. Johnson Gerald A. Joireman Ian T. Jolliffe David C. Jordan Harmon S. Jordan David R. Judkins Karen Kafadar Lee D. Kaiser Jill A. Kammermeyer Paul B. Kantor Bruce A. Kaplan Theodore G. Karrison Daniel Kasprzyk Masatoshi Katsuhara

Richard W. Katz Jerome P. Keating Sheryl F. Kelsey James R. Kenyon James L. Kepner Wendell W. Kerr Andre I. Khuri Byung-Soo Kim Ignatius A. Kinsella Nancy J. Kirkendall Syed N.U.A. Kirmani Rudolf G. Kittlitz **Beat Kleiner Richard E. Kleinknecht** Stuart A. Klugman Kenneth J. Koehler Roger W. Koenker Kenneth J. Kopecky Edward L. Korn Kenneth J. Koury Ioannis A. Koutrouvelis Andrew Kramar Abba M. Krieger Alok Krishen Pieter M. Kroonenberg Naoto Kunitomo Alan H. Kvanli James R. Lackritz Nan Laird **Edward Lakatos** Mansum A. Lam Miu Lam Kuang-Kuo G. Lan Carol J. Lancaster J. Richard Landis Patricia Langenberg Stephen S. Langley Wallace E. Larimore Nicolaas F. Laubscher Philip T. Lavin Sheila M. Lawrence Johannes Ledolter Kelvin K. Lee Kerry L. Lee Martin L. Lee

James D. Leeper Stanley A. Lemeshow Ramon V. Leon Heryee H. Leong James M. Lepkowski Trudy J. Lerer Martin L. Lesser Marcia J. Levenstein **Bruce Levin Charles Lewis Richard A. Lewis** Frederick W. Leysieffer Shou-Hua Li Walter S. Liggett Lawrence I-Kuei Lin Carol L. Link Robert E. Little George A. Livingston Greta M. Ljung **Roger Longbotham** Michael T. Longnecker Thomas A. Louis Milton W. Loyer Jay H. Lubin Dennis W. Luckey Donald M. Luery James Lynch Michael F. Macaluso John MacIntyre Michael E. Mack Kathleen S. Madsen Jay Magidson Bette S. Mahoney James D. Malley Linda C. Malone Eric J. Mandel Charles F. Manski Agustin Maravall Kanti V. Mardia Michael J. Margreta Mary A. Marion Ray L. Marr Melanie Martindale Donald L. Marx Gretchen Wolfe Mason

Paula E. Mason Victor M. Matthews LeRoy T. Mattson Timothy A. Max Margaret W. Maxfield Scott F. Maxwell Fred M. Mayes Michael J. Mazu Paul R. McAllister Donna K. McClish Joseph P. McCloskev Janet Elizabeth McDougall Daniel L. McGee Philip G. McGuire Stephen A. McGuire Joseph W. McKean Geoffrey J. McLachlan Christine E. McLaren Don L. McLeish **Ronald E. McRoberts** Thomas P. McWilliams William Q. Meeker Cyrus R. Mehta Robert J. Meier Kathleen A. Mellars Roy Mendelssohn Ulrich Menzefricke W. David Menzie Michael P. Meredith Samuel Merrill Marianne E. Messina Michael M. Meyer Terry G. Meyer Joel E. Michalek **Richard O. Michaud** William E. Mihalo John A. Miller Katherine L. Monti Thomas F. Moore George E. Morgan June Morita Max D. Morris Norman Morse Tetsuro Motoyama Barbara G. Mroczkowski

Lawrence H. Muhlbaier Leigh W. Murray John C. Nash Reinhard Neck John T. Neely Gary L. Neidert James W. Neill Paul I. Nelson Margaret A. Nemeth Robert L. Newcomb Kai Wang Ng Thomas W. Nolan David Butcher Nolle Robert M. Norton El-Sayed E. Nour Thomas S. Nunnikhoven Barry D. Nussbaum David Oakes Kevin F. O'Brien Ralph G. O'Brien Michael W. O'Donnell Judith Rich O'Fallon Walter W. Offen Francis G. Ogrinc Douglas M. Okamoto Patrick D. O'Meara John A. Ondrasik Bernard V. O'Neill Terence John O'Neill J. Burdeane Orris Joyce Orsini Melvin L. Ott William J. Owen Willis L. Owen David J. Pack Mari Palta William S. Pan Deborah L. Panebianco Arthur C. Papacostas Swamy A.V.B. Paravastu Sung H. Park Won J. Park Rudolph S. Parrish

Robert E. Parson Van L. Parsons Sharon M. Passe Jeffrey S. Passel Kenneth W. Patterson Charles L. Paule Karl E. Peace N. Shirlene Pearson Peter H. Peskun David W. Peterson John J. Peterson **Maurice Pfannestiel** Daniel Pfeffermann Charles B. Pheatt Ceib L. Phillips Philip J. Pichotta Linda Williams Pickle Joseph G. Pigeon Brian D. Plikaytis Dale J. Poirier William E. Pollard Jessica Pollner Darwin H. Poritz Randall W. Potter Manfred Precht Dale L. Preston Howard M. Proskin Lloyd P. Provost Peter Purdue Clifford R. Qualls John N. Quiring Tony K. S. Quon Damaraju Raghavarao Volker W. Rahlfs Philip H. Ramsey Gopa Ray Rose M. Ray William J. Raynor Domenic J. Reda Susan L. Reiland Mark R. Reiser Mark William Riggs Paula K. Roberson **Rosemary A. Roberts** Edwin L. Robison Frank W. Rockhold

Mark H. Rodeffer Robert N. Rodriguez Russell H. Roegner Paul W. Rogers John E. Rolph Anthony M. Roman Paul R. Rosenbaum N. Phillip Ross Arthur J. Roth **Roch Roy** Lawrence V. Rubinstein Andrew L. Rukhin **David Ruppert** Estelle Russek-Cohen Carl T. Russell Michael S. Saccucci Thomas W. Sager Shiva K. Saksena John P. Sall William M. Sallas Allan R. Sampson Ester Samuel-Cahn Gilles F. M. Santini Robert L. Santos Nathan E. Savin John W. Sawyer **Richard L. Sawyer** William G. Saylor Patricia A. Scanlan Stephen Schacht David J. Schaeffer Nancy K. Schatz Kenneth Schechtman Perry A. Scheinok

Harry M. Schey John D. Schmitz David A. Schoenfeld Timothy L. Schofield Friedrich W. Scholz Charles B. Schriver John H. Schuenemeyer Donald J. Schuirmann Steven J. Schwager Thomas A. Scripps William L. Seaver Jeanne L. Sebaugh Joseph Sedransk Teddy I. Seidenfeld Thomas R. Sexton Arvind K. Shah Mohammed A. Shayib Shingo Shirahata Patrick E. Shrout Stanley A. Shulman Andrew F. Siegel **Richard S. Sigman** Jeffrey S. Simonoff Terry L. Sincich Judith D. Singer Robert K. Smidt Murray H. Smith Patricia L. Smith Francisco P. Soler Dan J. Sommers Frank C. Sonsini Keith A. Soper **Terence P. Speed** Bruce D. Spencer

Clifford H. Spiegelman Nancy L. Spruill Donald M. Stablein Edward J. Stanek William M. Stanish **Richard M. Stanley Robert R. Starbuck** Lynda K. Steele David W. Stewart Gerald R. Stewart John A. Stewart Robert A. Stine Sandra S. Stinnett Anne M. Stoddard S. Lynne Stokes Kenneth O. Story Michael A. Stoto Miron L. Straf Robert F. Strahan Donna F. Stroup Walter W. Stroup Perla Subbaiah Stephen R. Sulpor James P. Summe **Robert Sutherland** David A. Swanson Gerald R. Swope Prem P. Talwar Robert M. Tardiff Erica S. Taucher Robert L. Taylor Marcia A. Testa A. Cole Thies John H. Thompson

Mary E. Thompson Theodore J. Thompson Anthony D. Thrall **Richard B. Tiller Ronald R. Titus** Jerome D. Toporek Lynn D. Torbeck David C. Trindade Ishwari D. Tripathi David L. Tritchler Pravin K. Trivedi J.R. Roger Trudel L. Claire Tsao Kam-Wah Tsui Alan R. Tupek David L. Turner Gregory W. Ulferts Dale E. Umbach Jessica M. Utts

Esa Ilkka Uusipaikka

Pamela M. Vacek

Hernando Valencia

Richard L. Valliant

Richard Craig Van

Stephen B. Vardeman

Denton R. Vaughan

Joseph S. Verducci

Joseph G. Voelkel

Joachim Vollmar

Grace Wahba

Steve P. Verrill

George H. Van

Amburg

Nostrand

Howard Wainer Joel A. Waksman Esteban Walker Katherine K. Wallman Lars Walloe Chai-Ho C. Wang Sophronia W. Ward Herbert W. Ware Stanley Wasserman William L. Weber Thomas E. Wehrly Daniel L. Weiner Jon August Wellner Roy E. Welsch Fredrick S. Whaley Robert M. Wharton Andrew A. White David C. Whitford Roy W. Whitmore Rand R. Wilcox Christopher John Wild Leland Wilkinson Andrew R. Willan Jean F. Williams Stephen R. Williams Michael A. Wincek Dennis A. Wolf Lawrence C. Wolfe Kirk M. Wolter Farroll T. Wright Michael G. Yochmowitz Sarah T. Young James R. zumBrunnen



Journal Articles: Who's Going to Pay for Them?

In this third and final article in a series on the future of the ASA's electronic publications, we look at a highly visible way in which electronic publications are changing models of delivering information. This sea change is often referred to as "open access."

or hundreds of years, scientific learning has been communicated through printed journals, which were made available to researchers through libraries and, later, individual subscriptions. In recent years, many factors-the high cost of journal subscriptions, the movement from print to electronic as the primary means of delivery, the exponential increases in the speed of new knowledge development, and the demand from researchers and funding agencies that this knowledge be made freely and quickly available-are leading to changes in thinking about how journal

content should be made available. New delivery approaches, however, must result in changes in the cost/revenue structure of journals.

Types of Open Access

Commonly, open access publication is divided into two categories: gold and green. Gold open access means the articles are available to all at no charge on the publisher's website immediately upon publication ("post-print"). Green open access means that authors may post their original pre-peer review manuscripts ("pre-prints") in a free public repository (such as PubMed



Central or arXiv) upon acceptance, and their post-print manuscripts in the same places (often after a specified period of time following publication in the journal). Hybrids of these categories exist.

The Current Situation for ASA Journals

Electronic access to wholly owned ASA journals is open to ASA members at no charge. The ASA's journal partner, Taylor & Francis, sells subscriptions to libraries and others. Prices for these subscriptions are set jointly by the ASA and Taylor & Francis and are relatively inexpensive. Revenue from these subscriptions has historically been an important source of revenue for the association.

Authors of articles in ASA journals have the right to post their pre-print manuscripts on their personal or employer web pages and in public repositories. Authors can post their versions (i.e., not the publisher-produced version) of revised manuscripts on their personal or employer websites, and in public repositories such as arXiv, 12 months following publication. All versions should be posted with notice of the ASA's copyright, the full citation for the published paper, and a link to the journal's official online version. Authors may post the publisher-produced PDF of an article in e-reserves, provided the article is made available only in the author's institution. All authors, whether or not they are ASA members, receive free online access to the final, publisher-produced version of their article.

Finally, ASA authors may choose to make their own articles

open access by paying a fee to the publisher. This fee is similar to that charged by other open access journals, such as the *PloS* series.

Thus, in the current situation, articles are available to all free of charge if authors post them or if authors pay the open access fee. They are available free of charge to ASA members, and are available to others via subscription (usually for libraries) or purchase of individual articles. This barrier to open access is sometimes referred to as a "pay wall."

Requirements of Funders

Since 2008, the policy of the National Institutes of Health (NIH) has been to require NIH-supported authors to submit their post-print manuscripts to the digital archive PubMed Central upon acceptance for publication. Further, the policy requires that these papers are accessible to the public on PubMed Central no later than 12 months after publication. In other words, the maximum period during which a journal can keep an article behind a pay wall is one year.

A February 22 memo from John Holdren, director of the White House Office of Science and Technology Policy (OSTP), stakes out the administration's interest in ensuring the availability of the results of federally funded research "to the greatest extent and with the fewest constraints possible." The memo addresses aspects of both access and revenue, and directs all federal agencies with more than \$100 million in research and development expenditures to develop plans to make the results of federally funded research publicly available free of charge within 12 months after original publication.

Of course, the ASA follows the NIH policy with its journals. Taylor & Francis deposits postprint manuscripts with PubMed Central on behalf of authors. Soon, this will be happening with the National Science Foundation and other funders as well, as they comply with the OSTP guidance.

The 12-month embargo period is a compromise, attempting to balance the needs of science with the needs of publishers, including professional societies. This leads to a discussion of the future of publications revenue.

Revenue Models

Publications revenue is a significant source of funding for the ASA, and for many other professional societies. Revenue from subscriptions has historically been expected to cover the cost of the publications and a little more, providing resources for the association to fulfill other aspects of its mission. To provide a sense of the importance of this revenue, the ASA would have to raise the dues of all regular members by about \$110 per year to make up the difference if all ASA journals were made available free to all. (This is a conservative figure; the actual figure could be much higher.)

If subscriptions are not to be the funding method of the future, what will be?

The most common substitute at this point for subscriptions revenue is an author-funded model in which a fee is charged to the author for the privilege of publishing the article. In many instances, "author-funded" is not quite accurate, as the fees can come from the research grants that supported the research. Researchers without such support, however, have to pay the fees themselves.

Of course, this changes the problem from one of being able to afford subscription fees to being able to afford author fees.

Other models are being considered. For example, some have suggested an "iTunes-like" approach that would make articles available at a minimal price, like buying an individual song on iTunes. Yet another model would make access to all articles free, but require a subscription to get supplemental content (such as software code, interactive graphs, or data).

So, What Is the Future for Our Journals?

To some extent, our future will be determined by what funding institutions require and what major publishers do. But we have the opportunity to take our own steps forward in this environment. We are eager for your feedback; that is the entire purpose of this series of articles. Please send comments to ASA Executive Director Ron Wasserstein at *ron@amstat.org*. All comments will be read by a panel appointed by the ASA Board to review and summarize feedback. ■



Meet Commissioner of Labor Statistics, Erica Groshen

mstat News invited new Commissioner of Labor Statistics Erica Groshen to respond to the following questions so readers could learn more about her and the agency she leads. Look for other statistical agency head interviews in past and forthcoming issues.

What about this position appealed to you?

This job combines my three professional loves: labor economics, data, and public service. I'm deeply honored to serve as the head of such a highly regarded institution with a mission so vital to our nation.

I know firsthand the important role that Bureau of Labor Statistics (BLS) data play in research on important topics and informing economic policy and decisionmaking. While writing my PhD thesis on wage differences among firms, I used BLS microdata, and I've used BLS products for research and policy analysis over my entire career. BLS data are particularly relevant to the nation's economy at a time when we are emerging from the deepest recession since the Great Depression.

I'm looking forward to building on the strengths of BLS to help make this organization even stronger and more dynamic.

Describe the top 2–3 priorities you have for the Bureau of Labor Statistics.

My top priority is to get the best we can for the nation's data dollar. Data are a pure public good, like roads and clean air. We all benefit when policy, personal, and business decisions are based on good evidence. Therefore, we must provide the best data possible, so people can make better-informed decisions. At BLS, our data should always meet the following criteria: accurate, objective, relevant, timely, and accessible. To fulfill this mission, we have to continually adapt our programs to meet the challenges of a rapidly changing economy. We must also continue to improve the dissemination and accessibility of our data so we can reach the greatest number of people.

What do you see as your biggest challenge for BLS?

The following three main challenges come to mind:

Maintaining quality of data and operations in a challenging budgetary environment.

Despite the budgetary challenges we face, there is no disputing that the country needs BLS and values the data we produce here. The leadership of BLS has done an admirable job of absorbing the stresses in the past, and I will work with them to continue that tradition.

Adapting to changes in economy and technology with proper care for continuity, confidentiality, and accessibility.

At BLS, we are always striving to provide our users with more data that reflect the economy as it is today, while still ensuring the confidentiality of our respondents and comparability with past series. This requires innovation in survey instruments, sampling frames, classifications, and statistical processing and analysis, as well as in our website's query and search tools.

Recruiting and retaining the best talent.

An agency is its people. BLS is a world-class statistical agency because of its talented, dedicated staff. We need the brightest minds working on ways to maintain and improve our essential functions—instrument design, sample selection, data collection, processing, analysis, outreach, and more.

What kind of support from the statistical community do you look for?

Seeking outside ideas and contributions is critical to statistical agencies. Statistical advisory committees such as the Federal Economic Statistics Advisory Committee, BLS Data Users Advisory Committee, BLS Technical Advisory Committee, and review panels from the Committee on National Statistics are invaluable in helping us to continually improve our products and ensure we produce data that are useful to our customers. The statistical community also helps BLS maintain relevance and efficiency. Through collaboration and sharing data on projects of interest, we can answer questions together better than we can separately and stay up to date on industry standards and best practices, including the latest approaches in training, technology, and human resources management.

Prior to your tenure, what do you see as the biggest recent accomplishment of the agency?

The bureau is, as a senior Department of Labor official recently termed it, a "remarkable production machine." In 2012, BLS published 175 national news releases and more than 700 regional news releases. Each was released on time with no major errors, which is a significant accomplishment. Even as it strived to implement crucial innovations, the bureau did not skip a beat in its production activities. ■



Erica L. Groshen became the 14th Commissioner of Labor Statistics in January. She earned a bachelor's degree in economics and mathematics from the University of Wisconsin-Madison and a PhD in economics from Harvard University.

STAFF SPOTLIGHT Jeffrey A. Myers

loha nui loa! My name is Jeffrey A. Myers (only mom calls me Jeffrey, so please call me Jeff), and I am the ASA's new public relations coordinator. I joined the staff in late July. In fact, my first four days on the job were at the Joint Statistical Meetings in San Diego. Now that was baptism by fire! While I was in a constant state of bewilderment at that meeting, I have since started to get my head around the field of statistical sciences thanks to the tutelage of Executive Director Ron Wasserstein, Science Policy Director Steve Pierson, ASA Past President Bob Rodriguez, and current President Marie Davidian. Thanks, all!

I grew up in Mount Union, Pennsylvania, a small town of 2,500 people nestled in the south central part of the state. I attended Robert Morris University in Coraopolis, Pennsylvania, a suburb of Pittsburgh, where I earned a bachelor's degree in marketing. Following graduation, I followed my father's boot prints and joined the U.S. Army, where I was assigned as a senior public affairs specialist with the 3rd U.S. Infantry, "The Old Guard," at Fort Myer, Virginia. The Army's official ceremonial unit, The Old Guard conducts arrival ceremonies for foreign dignitaries at the White House and Pentagon, funerals in Arlington National Cemetery, and other ceremonial duties.

After leaving the Army, I joined the Independent Insurance Agents & Brokers of America (IIABA) as an entry-level communications staffer. During my 17 years with the organization, I rose to become vice president of communications and was promoted to executive director of its consumer branding program. My next career stop was a three-year stint at a small communications consultancy in McLean, Virginia. My role at ASA is to raise the profile of statistics, statisticians, and the ASA with the public and the media. A major undertaking in this area is the International Year of Statistics, which you likely view as a celebration of statistics. I see it as a public relations campaign that will help educate people around the world about how statistics improves their lives.

When I'm not checking my ASA email or working on my office "to do" list, I enjoy reading books about history, walking my three dogs, biking (only in warm weather!), watching Pittsburgh Steelers and Penn State football games, and traveling. My wife, Mary, and I very much enjoy visiting Hawaii—where we will live someday—and our many friends on Maui. That explains



Myers

the opening greeting, which, if you're wondering, means "much love or fondest regards."

I have been blessed to work for some tremendous organizations throughout my career, and I am excited about being part of another great association and working with you—its passionate and dedicated members. If ever you need my assistance, please contact me at *jeffrey@amstat.org* or (703) 684-1221, Ext. 1865. Aloha! ■



Mathematics of Sustainability Chosen as Theme of **MAM 2013**



Mathematics Awareness Month Poster

Awareness Month (MAM), and members of the Joint Policy Board for Mathematics selected mathematics of sustainability as the theme. Being human means continually balancing our needs with the world's resources while operating within the laws of nature. Mathematics helps us better understand these complex issues and is used by mathematicians and practitioners in a wide range of fields to seek creative solutions for a sustainable way of life. Society and individuals will need to make challenging choices; mathematics provides us with tools to make informed decisions.

Activities for MAM are organized on local, state, and regional levels by college and university departments, institutional public information offices, student groups, and related associations and interest groups. Visit the Mathematics Awareness Month website at *www.mathaware.org* to submit an activity or view this year's events and celebrations.

You also can order full-size copies of the poster by mail or online. The cost is \$1 for each poster. Mail orders may be sent to ASA Marketplace, American Statistical Association, 732 N. Washington St., Alexandria, VA 22314. Order online at *www. amstat.org/asastore.*

Mathematics Awareness Month is sponsored each year by the Joint Policy Board for Mathematics to recognize the importance of mathematics through written materials and an accompanying poster that highlight mathematical developments and applications in a particular area.



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Climate Science Day Successful, Educational

The third annual Climate Science Day (CSD) took place February 27, with the ASA providing eight of the 50 participating scientists of many disciplines. The 23 teams combined for a total of more than 140 meetings on Capitol Hill in personal offices and with committee staff.

The ASA participants were Brooke Anderson of The Johns Hopkins University, Peter Guttorp of the University of Washington, Robert Lund of Clemson University, Richard Katz of the National Center for Atmospheric Research, Roger Peng of The Johns Hopkins University, Leonard Smith of the London School of Economics and Pembroke College, Oxford, Richard L. Smith of The University of North Carolina and SAMSI, and Michael Stein of The University of Chicago). This was Leonard Smith's third CSD and Guttorp's and Richard Smith's second. Five of this year's participants were from the ASA Advisory Committee for Climate Change Policy (ACCCP).

The ASA participants all found the experience to be worthwhile for various reasons. Richard Smith said, "Several of the people we met reinforced the importance of scientists doing this sort of thing. Even if we may disagree on aspects of climate change, it is still helpful to make them aware that we are interested in working with them and serving as a source of information when it is needed."

Referring to the challenge of discussing climaterelated issues in some offices, ACCCP Chair Katz said there was always a way to initiate a conversation. "A time series plot of the annual frequency of (and aggregate losses from) U.S. billion-dollar weather and climate disasters sparked interesting discussions about the economic impact of climate change."

Peng said he enjoyed his CSD experience, adding, "It was a great experience to be able to talk to the staffers in the various congressional offices and committees and to see how genuinely interested they were in our research and its potential impacts on policy. I think building these kinds of connections is important for all scientists, and I believe developing these relationships will be important for the future." Because of Peng's research expertise on the health impacts of climate change, he met with majority and minority staff for the Senate Health, Education, Labor, and Pension committee. Peng also had the opportunity to summarize his research to Rep. Andy Harris (R-MD), chair of the House Science, Space, and Technology Subcommittee on the Environment.

Anderson commented on what she learned from the experience: "A main goal of this day was to inform congressmen and senators about climate science, but I feel I learned at least as much as I relayed. One of the most interesting parts of the day was hearing



Steve Pierson, ASA Director of Science Policy

Photo courtesy of Liz Landau

From left: Jenny Dissen, DeWayne Cecil, Rep. David Price, Susan Hassol, and Richard Smith

what these congressmen and senators consider to be the most important climate-related concerns in their districts."

Guttorp noted another aspect of participating in Climate Science Day: the interactions with other scientists. "Being paired with another Washington State scientist I didn't previously know was very useful. We turned out to have lots of interests in common and are likely to keep in touch."

In addition to experiencing a day of Hill meetings, the participants took part in an afternoon of training on communicating climate science and interacting with Congress. This year's climate science communications expert was Susan Joy Hassol, who wrote the oft-read piece in *Physics Today*, "Communicating the Science of Climate Change."

A panel of four congressional committee staffers one Republican and one Democrat staffer from both the House and Senate—also shared their advice to the participants for how to communicate with congressional staff. Asked about the partisan divide on climate science issues, one of the panelists noted it is helpful to think of it as differences based on whether the district or state they represent is coastal or non-coastal, urban or rural, energy producing or energy importing, etc.

Climate Science Day is supported by the ASA's section on Statistics and the Environment, and organized by the Climate Science Working Group (CSWG), co-chaired by ASA Director of Science Policy Steve Pierson. CSWG is made up of representatives from various science societies or institutions who meet monthly to share information and coordinate activities. The group worked together on a 2009 letter to U.S. senators signed by the heads of 18 sciences societies and organizations (*http://amstat.org/policy/pdfs/climateletterfinal.pdf*) that climate change is happening and that human activity is a primary driver.

FUNDING OPPORTUNITIES Tips for Writing a Statistical Analysis Plan

Amy Herring, The University of North Carolina at Chapel Hill

In the first of a series of articles commissioned by the ASA Committee on Funded Research, Jeremy Taylor provided an overview of the review process for statistical methodology grants in last month's issue. This month, we consider important facets of writing statistical sections for NIH grants not primarily focused on development of new statistical methods. We assume readers are familiar with last month's overview (available at *http:// magazine.amstat.org/blog/2013/03/01/researchgrants*), particularly the description of the NIH, its review process, scoring of proposals, and other important issues.

In particular, we present tips for writing an excellent statistical analysis plan or biostatistical core for a biomedical or public health research grant with a primary focus outside of biostatistics. We will focus our attention on R01 research project grants and multiproject awards (e.g., P01, P30, P50, U19).

Multi-project awards support a multidisciplinary research team or group of investigators that focuses on a common research topic. They generally fund shared resources and facilities across multiple smaller research projects, and a biostatistics, data management, and/or bioinformatics core facility is often part of these proposals.

In an R01 proposal that does not involve statistics as a primary focus, the statistical portions of the grant usually contribute to the scores under the categories "Investigators," "Approach," and "Overall." In the investigator category, reviewers are looking for evidence that the statistician or statistical analysis team has the skill and experience to evaluate the hypotheses in the specific aims. Your relevant skills and experience are judged based primarily on the information you provide in your biosketch(es) and the quality of the study design and analysis plan in the grant.

If you are a new researcher with relatively few publications, you should consider engaging a more senior biostatistician as a consultant or investigator on the grant to ensure the reviewers are comfortable with the level of statistical support. Reviewers will express their comfort with the planned study design and statistical analysis in the approach section of the grant, and both your credentials and statistical analysis plan/ study design may affect the grant's overall score.

For multi-project awards, a biostatistics, data management, and/or bioinformatics core facility is often scored as either acceptable or unacceptable, rather than using the typical 1–9 scale described in last month's article. Unacceptable scores are not rare, so this scoring scheme does not mean the statistical section is less important than in other proposals.

Tips for Meeting Scientific Goals

Match the specific aims of the grant to your statistical analysis plan. Every hypothesis laid out in the specific aims should have a corresponding section in the analysis plan clearly describing how the hypothesis will be tested or otherwise evaluated. It is critical that the analysis plan is specific about how the investigator's aims will be translated into hypotheses that you will then evaluate. It will be helpful if you use the same numbering system in the analysis plan that is used for the specific aims.

Know your audience. It is important to learn about the NIH review group that will score your application. Expectations for a statistical analysis section or biostatistics core may vary greatly across fields. Suppose the grant examines interactions between individuals' genetic profiles and their diet in predicting cancer. Your grant may be reviewed by epidemiologists, bench scientists, or clinicians, and each type of reviewer would have different expectations of an excellent analysis plan. Current and previous review group rosters can be found at http://era.nih. gov/roster and can provide valuable information about the expertise (and expectations) of the review group. Previous grant reviews from the same review group can help you learn more about the review group's expectations, even if they are from different proposals.

Provide something for everyone, explaining statistical concepts in clear, concise language that is accessible to nonstatisticians as well as to statisticians. As Taylor mentioned in last month's issue, it is critical to "keep in mind the goal of making the application as easy as possible for reviewers to understand and appreciate." Maybe you do really need that complex structural equations model or new methodology for dynamic treatment regimes to evaluate the specific aims; if so, it needs to be in the grant. However, in a nonstatistical review group, you may get three grant reviewers who have relatively little statistical knowledge. The reviewers may criticize an analysis plan if it comes across as overly involved or too ambitious. Be sure to take a little space or add a figure to explain the basic ideas

of any complicated methods so a reviewer with a minimal background in statistics will get the big picture and understand why something more than a *t*-test is required.

Be specific. Don't use boilerplate or a standard template for every grant you write. Reviewers will be looking to see how your analysis plan addresses the *specific* aims of the proposal. Have you addressed pertinent issues in the study at hand (e.g., a particular missing data problem, measurement error, or potential biases)? In a multi-project grant, reviewers will look to see whether the biostatistics core has the specific expertise to achieve all aims in the component grants. In some multi-project grants, you will need to show broad statistical expertise across biostatistics core members, as many multi-project grants devote considerable resources to helping new researchers get new projects off the ground.

Trust your collaborators. If they have a concern about the analysis plan, it is likely to be shared by the reviewers. Incorporating their feedback to improve the analysis plan will generally lead to a superior final product. But not always. Stick to your guns if you really think your collaborators are going in the wrong direction (e.g., using medical students for data cleaning is not acceptable, even if this has worked well for them in the past).

A second pair of eyes is often helpful. Offer to look over a colleague's grants in exchange for having your colleague review yours.

Data cleaning and reproducibility are two critical concerns. Be sure you have addressed these issues in your proposal and have budgeted appropriately.

Keep your eyes open for methodological opportunities. Many statisticians are successful at getting their own grants (as PI) based on interesting methodological issues that arise in collaboration.

Operational Aspects Critical to Meeting Scientific Goals

Set expectations early so there are no unpleasant surprises at the time of submission. Will you be a co-investigator (this is standard) or dual PI (uncommon but appropriate if there is a large statistical component)? Often, the roles "biostatistician" or "statistician" are used, and these generally indicate more basic support, rather than doctoral-level scientific leadership, with a few notable exceptions (one that comes to mind is the biostatistics core of a multiproject grant, in which multiple researchers may be listed with minimal support just in case their expertise is needed). What percent effort will be required of the statistical team? Do you need graduate student support and computing resources? Who will be responsible for data entry, data management, and archiving code? What is the time frame for grant writing?

Be realistic. Don't promise too much work for too little time. Nobody is happy if you cannot meet the goals you set. When the analysis is extensive or involves some new methodological territory, be sure your percent effort is substantial. For many projects, 1.5 months of effort plus a graduate student research assistant will be appropriate in analysis years, with adjustment of the effort required if early years of the grant do not involve any data analysis (however, you would generally still want around 0.6–1.0 months of funding yourself if you expect to provide input on the study design and other important issues that may arise early in the study).

Along these lines, be aware that sometimes grants will face cuts, either by the PI right before submission (to get the budget within pre-specified limits) or by NIH at the time of funding, and the PI generally has wide latitude in how to apply the cuts. You should not be afraid to put your foot down if your 10% effort plus a graduate student is cut to only 4% of your own time with no graduate student. In this case, you would explain how much of your time is available on that limited basis (e.g., 4% may be only enough to support your participation in a single 1.5 hour meeting per week, with no statistical analysis included, and, in that case, you may prefer to spend your time on projects that will provide you with more interesting work) and negotiate to obtain enough effort to support the work needed. Your department chair (or a senior faculty member, if you are a junior faculty member) can be helpful in such negotiations. Don't be afraid to refuse to work on a project if the % effort is truly inadequate (though you should check with colleagues to be sure your version of inadequate is not out of line).

Read the review criteria before writing your sections of the grant. For some grants, the review criteria specifically address statistical analysis plans. Responsiveness to these criteria can greatly enhance your chances of success in the peer review process.

Cores in multi-project awards can be tricky to write. Sometimes, a reviewer may be assigned to review only your core, and sometimes a reviewer may review the entire grant. Thus, the core should be responsive to the research projects in the grant while also standing alone for review. Biostatistics cores have special requirements beyond statistical analysis plans of R01s. A core needs a specific leader who will be responsible for all core activities. The application must explain the organization of the core and clearly describe how it operates, including how researcher requests to use the core will If you do not look fully engaged with the grant, the grant may get less favorable scores for the investigators, approach, and overall components.

> be prioritized. Core services will vary based on the goals of the multi-project award but typically provide expertise for the planning, conduct, analysis, and reporting of studies; scientific computing; data management; manuscript preparation; and training of core users (reviewers often look favorably on cores that incorporate a training component by providing relevant workshops and seminars). Often, a strong case can be made to include time for methodological research by core biostatisticians when the multiproject aims would benefit from enhanced statistical methodology. It is always a good idea to provide specific names for all personnel (including programmers and graduate students), rather than budgeting for unnamed individuals in these applications.

> **Be committed**. Carefully tailor the personal statement on your biosketch and the accompanying list of publications to the grant application at hand. For

example, you will want to include papers that are co-authored with your collaborators on the current application and other publications that show you have already worked in areas relevant to the grant. If the grant requires statistical assistance in an area in which you have no expertise, you may want to bring another statistician onto the team as co-investigator or a consultant to the grant. If you do not show you have the skills to carry out the proposed analysis, or if you do not look fully engaged with the grant, the grant may get less favorable scores for the investigators, approach, and overall components.

Block off time for last-minute changes well in advance. Your colleagues may have others inside the university review the grant before submission, and an aim may be replaced at the last minute. This could require a new analysis plan, new power calculations, etc. While major last-minute changes should not be a regular occurrence, this happens periodically, even with outstanding collaborators, and you should not be surprised to have requests for 11th-hour edits.

Meetings such as ENAR and JSM often offer roundtable discussions on writing statistical components of non-statistical grants. These discussions are a great way to share good (and bad!) experiences with colleagues to increase the probability of success in the future. Good luck!

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MASTER'S NOTEBOOK Being a Hybrid Statistician

Emily Olsen and Melissa Danielson

ne type of job available to applied statistics graduates is that of "hybrid statistician," in which statistical expertise is tied into a more general research-based role. Two master's-level biostatisticians discuss their hybrid statistician jobs with the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. Both Emily Olsen and Melissa Danielson have positions at CDC that allow them to serve as the statistical voice for their projects and also initiate and/or lead their own public health research. Below, they describe their jobs, what they like about being a hybrid statistician, and courses they completed to prepare them for this career.

Emily Olsen, Division of Adolescent and School Health

Around 50% of my time is devoted to what my supervisor and I have termed "office hours." This includes reviewing sampling and weighting methods for our surveillance systems, writing and documenting statistical and data processes for our scientific publications and surveillance systems, and answering statistical questions from the public and my colleagues. Many of the inquiries from my colleagues evolve into authorship contributions to their manuscripts, and I really enjoy these opportunities.

The other 50% of my time is dedicated to publishing research articles using surveillance data. Since I work with large, established surveillance systems that cover a variety of risk behaviors among adolescents, I am able



to focus on health topics that most interest me. I can be the first author and work with a subject matter expert (SME) who knows the health topic extensively. For example, I recently co-wrote an article about texting while driving with an expert on teen driving and transportation injury. Alternatively, I can run the analysis and take second or third authorship in collaboration with other SMEs.

This job is a great fit for me. I like the balance of consulting on a few projects here and there. I also really enjoy the freedom to explore new content areas that the surveillance systems cover such as bullying, nutrition, or pregnancy prevention and working with a variety of SMEs and colleagues. Finally, I like that I can keep coming back to one content area and develop my own knowledge, so that one day I also can be a SME on that topic and on statistics.

I earned my master's in biostatistics through a school of public health. The required basic public health courses, in addition to my statistics courses, were helpful in preparing me for my career. I took introductory courses in epidemiology, health policy, environmental health, and behavioral science. I use what I've learned from these courses often in my statistics career. I also use methods I learned in every single statistical modeling class I took, and wish I had taken more! Fortunately, my employer often offers courses that advance the breadth of my statistical knowledge and skills. Finally, for those looking for a statistics position in public health, one course that really helped me was a course in complex survey data and methods.

Melissa Danielson, Division of Human Development and Disability

My job can generally be described as providing statistical support for a team of scientists working on issues related to child development. Our main sources of data are several longitudinal cohort studies and national health surveys, both of which provide an interesting variety of opportunities to apply different statistical techniques. For our work with health surveys, I usually team up with at least one subject matter expert to define the research question and devise an analytic plan to answer the question. I am responsible for identifying the best statistical approach to answer our question of interest, developing and running analytic programs, and producing output that can be used to disseminate our answer, whether it is in tabular or graphical form.

We often spend a lot of effort deciding the best way to display our results, because those choices significantly affect how our audience receives our message. While this component of statistical analysis isn't always emphasized,

Editor's Note:

The findings and conclusions in this paper are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention. a well thought-out analysis is enhanced by having the appropriate graphs and figures to highlight the key results.

The other area I spend the majority of my work time on is managing and analyzing data from two longitudinal data sets. These cohorts have been recruited and maintained under my team's supervision, and, as a result, my responsibilities include data management and quality control tasks in addition to analysis of our primary outcomes of interest.

While data management may not be the most exciting part of my job, I really appreciate the time I spend immersed in the data. This allows me to be confident in the quality of the data and also to begin to understand the quirks and characteristics of the data that will improve my ability to analyze them appropriately.

One thing I particularly like about my job is that, since I am

working in a specifically defined field, I have the opportunity to develop my knowledge base about the subject area, which can be an important way to improve my analytic capabilities. While I don't have as much knowledge as the SMEs on my team (at least not yet), I do have a good general sense of the relevant literature and the field in general, and this allows me to be thoughtful and consistent about the hypotheses we test and the use of appropriate analytic techniques. Also, the more I know about the subject matter, the more of a leadership role I can take in the development of our research questions, particularly with consideration for the strengths and limitations of the data we have at hand. Plus, I enjoy learning new things, and I really like being able to expand my knowledge base in specific content areas as well as within the statistical field.

Like Emily, I earned my master's degree in biostatistics from a school of public health and took a number of public healthrelated courses in addition to statistics courses. I've been able to use a great number of statistical techniques that I initially learned during my course of study, from linear and logistic regression, survival analysis, and mixed modeling of longitudinal data to analysis of complex survey data.

One skill I think was important to hone while in school was the ability to independently learn specific statistical techniques, because when using real world data, you find that sometimes the basics you learned in school are not going to be sufficient to address the questions you would like to answer. It helps to practice figuring things out on your own while you still have professors and other students around to help you confirm you are on the right track. ■



Boston: The Association's Home City

John McKenzie, Professor Emeritus, Babson College

This column will present a brief history of the interface between the American Statistical Association and its birthplace: Boston, Massachusetts.

1839: On November 27, five men organize the American Statistical Society in the fourth-largest U.S. city. The organization's name is quickly changed to the American Statistical Association. It is now the second-oldest, continuously operating professional association in the country. Its purpose is to collect, preserve, and diffuse statistical knowledge. The founders are trained in the law, medicine, theology, literature, and education.

1864: There is no 25th anniversary celebration for the local statistical society centered in Boston. Its first and second presidents each served six years, and its third president is in the 12th year of his 30-year presidency.

1889: Again, no celebration occurs, but the ASA's fourth president—Francis Walker, who is also president of Boston-located MIT—asks a new faculty member to solicit members from the entire country. Within six years, the membership triples to 600. The year before saw the first edition of the *Publications of the American Statistical Association*, renamed *Journal of the American Statistical Association* four years later. For the next 40 years, the journal primarily contained articles that used simple arithmetic and quantitative explanations of phenomena to describe society and access related patterns.

1896: President Walker makes a presentation at the ASA's first non-Boston meeting, after which he dies shortly after returning from Washington, DC. Two years after the meeting, the ASA library collection of more than 2,500 volumes and pamphlets is moved from MIT to the Boston Public Library.

1908: This is the next-to-last year of the ASA's multiterm presidents and the first year of moving its annual meetings throughout the United States and Canada. The Atlantic City, New Jersey, meeting is with the American Economic Association and American Historical Association.

1914: The annual meeting is again back in Boston, due to World War I, as it was two years before. It takes the form of a 75th anniversary celebration, with a banquet and three sessions devoted to the progress of statistical science.

1917: The association's headquarters begins its departure from Boston to New York City, where its secretary—that is its executive director—is a professor of economics at Columbia University. Two years later, documents are no longer sent to the Boston Public Library. About the same time, the association began to acknowledge the importance of mathematical statistics.

1928: The Boston District Organization, a regional group affiliated with the ASA, is organized. Forty-six percent of its membership is made up of economists, bankers, and census employees. A year later, its charter is approved. It is now known as the Boston Chapter of the ASA (BCASA).

1939: The first centennial event is a subscription dinner in MIT's Walker Memorial Building. After greetings, there are three presentations. The second event is the 100th annual meeting in Philadelphia.

1951: The annual meeting returns to Boston, the third time since the association decided to meet outside its home city.

1964: On November 27, the 125th anniversary is held in New England's largest city. Members meet to hear the delivery of six papers and attend an anniversary dinner.

1976: The Joint Statistical Meetings (and the association's annual meeting) return to the ASA's home city at the bicentennial anniversary of the United States.

1989: The first sesquicentennial anniversary event is the annual meeting at the Joint Statistical Meetings in Washington, DC. The second is in Boston, with a meeting of the association's Board of Directors, a one-day symposium on the future of statistical education at MIT, and a gala banquet. The Boston Chapter presents Fred Mosteller with its inaugural Statistician of the Year Award (renamed the Mosteller Statistician of the Year Award in 1997 at a celebration of his 80th birthday). Mosteller is the last of at least nine ASA presidents who have come from Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont—the states served by the BCASA.

1992: JSM is in Boston for the fifth time since the decision to move the annual meeting to different locations each year.

2014: The Joint Statistical Meetings come back to New England's largest city, but the nation's 21st largest. There, the ASA will celebrate its dodransbicentennial anniversary. The Boston Chapter, the ASA chapter with the second-most members, plans to conclude the celebratory year with a one-day symposium and banquet. BCASA is an active chapter with a quarterly newsletter and a schedule of events that occur approximately once a month, except in the summer.



STAT tr@k Surviving and Thriving as a New Professor

John Gabrosek, Grand Valley State University, and Del Scott, Brigham Young University



Before taking an academic position, it is important to have an understanding of the culture and expectations of the department, college, and university. Unless otherwise specified in the offer letter, a new faculty member is a candidate for a tenured position. In the third year (usually), a candidate submits a portfolio for review at the department, college, and university levels. After a successful third-year review, a candidate can look forward to the tenure and promotion review (usually in the sixth year) at the department, college, and university levels.

Different institutions and colleges or departments within an institution can have diverse expectations of faculty. Sometimes, the written expectations and the read-between-the-lines expectations differ. The best way to understand an institution's expectations is a frank and open discussion with the department chair during the recruiting process.

Questions you might ask during the interview process include the following:

• What role do the faculty play in making major decisions on curriculum, research, teaching schedules, etc.?

- How does the institution value teaching, research, and service in tenure and promotion decisions? What is expected in the annual review?
- How are effective teaching, research, and service measured?
- What department, college, and university support systems and processes are in place to help with new faculty mentoring (e.g., grant writing, teaching improvement, etc.)?
- What is the success rate of faculty within the department and college on attaining tenure and promotion?
- Is the student body diverse in background, race, geography, etc.?
- What do graduates of the department and college do after graduation? What types of jobs do they receive or graduate schools do they attend?

The answers to these questions provide you with valuable knowledge about the prospective job. They also demonstrate to those doing the interviewing that you aren't looking for just any job, but that you have thought about the type of position that interests you.

All academic job seekers are justifiably keen on salary negotiations. In addition, it is perfectly legitimate to negotiate items such as teaching assignments, lab space, TA/RA help (or undergraduate student help), computing equipment and software, books, and alternate assignment or release time. Many departments have flexibility in areas in which the school retains ownership and that do not imply a long-term commitment. Salary and benefit commitments are often less flexible because of the potential impact to the existing faculty salary/benefit structure.

General Expectations for New Faculty

At Grand Valley State University (GVSU), new faculty are expected to teach three three-credit courses each semester (a one class reduced load per semester) of the first year without service obligations. The "extra" time afforded the new faculty member is meant to help them acclimate to the institution. There is an expectation that faculty will engage in some scholarly activity (often working on papers arising from dissertation work).

At Brigham Young University (BYU), new faculty teach one class the first two or three semesters (a one class reduced load per semester) and engage in scholarly activities that complete or continue dissertation research. Prior to an assistant professor's third-year review, they are expected to demonstrate that they can teach a full load (two classes per semester) and carry out a quality research program.

Successful candidates at either institution must demonstrate the ability to teach service, major, and graduate (at BYU) courses. There is a department, college, and university expectation that a candidate for continuing faculty status (tenure) and the rank of associate professor has created a portfolio that documents the candidate's path toward being an independent researcher and an excellent teacher.

New faculty members at PhD-granting or research institutions are expected to demonstrate the ability to receive external grants that directly fund their research. This is especially true for biostatistics programs. Teaching is usually one class per year or semester, but primarily in direct support of the graduate program. This type of teaching load provides sufficient blocks of time for the new hire to devote to scholarly activities. The expected products from this research time are manuscripts and grants that are submitted to the appropriate publication venues and funding agencies.

During the ASA's department chair meetings, academic representatives from research institutions often make statements such as, "It is important that a candidate for tenure be a good teacher, but they must demonstrate the ability to publish and receive adequate external funding to support their research or they will not be granted tenure!" What is important to realize about academic scholarship is that it is a continual process of research, writing, and review. If the major expectation is scholarly productivity, then external recognition of your research is a primary goal. This is usually accomplished through publication in top-tier journals and receipt of external funding that directly supports research. Teaching is an important task that you should learn how to do well, but you must demonstrate your ability to do first-class scholarship.

Surviving the First Semester

The first semester for any new faculty member can be challenging, especially if the person is coming straight from a PhD program. Having spent the past several years focused almost exclusively on theory and applications of thesis work, a new PhD is suddenly asked to take that intense focus and diffuse it over multiple activities. If the new PhD successfully defends in July, this gives her about one month to Grand Valley State University is a medium-sized (25,000 students of which about 21,500 are undergraduates) comprehensive university located in southwestern Michigan. The department of statistics employs nearly 30 faculty members, including 15 tenure-line. The typical teaching load for tenure-line faculty is three or four three-credit classes per semester. The department of statistics offers an undergraduate major in statistics (86 students), minors in applied statistics (77 students) and mathematical statistics (33 students), and a professional science master's degree in biostatistics (37 students). The department offers a number of undergraduate courses, including introductory applied statistics (about 55 sections per semester), statistical computing, probability and statistics, regression analysis, survey sampling, design of experiments, biostatistics, quality methods, nonparametrics, statistical consulting, and multivariate statistics, as well as roughly 10 courses at the graduate level. There is an emphasis on innovative, effective teaching.

move, get her office set up (there are always computer and software issues), attend new faculty training, become familiar with a new work environment, and continue to work on research. That is enough to exhaust anyone. And we haven't even mentioned the most important new aspect: preparing to teach!

Following are a few suggestions for surviving the first semester:

Set realistic expectations for yourself. In the first year, many institutions provide release time for acclimation. Use that time wisely. A reduced teaching load is meant to permit completion of thesis research and help you prepare for new teaching responsibilities. You need to get some of those almost-done manuscripts submitted. At the end of the semester, it is wise to report to your chair how you used this release time.

Minimize service. The most difficult thing for many new faculty members to do is to say "No." If you find yourself unable to say no and are being asked to do too many service initiatives, talk to your department chair about what you should focus on. If permitted, use the chair as an excuse as to why you must say no.

Lean on your colleagues for research. Share your research with colleagues. You can use their comments to avoid mistakes that lengthen the manuscript review process and make external funding unlikely. Ask to visit some of your colleague's research meetings. This will help you learn about the department research culture. It also will give you an opportunity to observe and learn from experienced faculty members. Brigham Young University was established in 1875 and is primarily an undergraduate institution (30,000 undergraduates). Degrees are awarded in 187 undergraduate academic programs and a select number of high-quality graduate programs. The department of statistics was established in 1960 and currently has 18 full-time faculty positions. The typical teaching load for tenured faculty is two three-credit classes per semester with graduate and undergraduate mentoring. The department of statistics offers BS degrees in actuarial science (115 majors) and statistics (with emphases in applied statistics and analytics, 46 majors), biostatistics (15 majors), and statistical science (41 majors); minors in actuarial science (5) and statistics (23); and an MS degree in statistics (3 integrated MS/BS and 20 MS students). The department teaches 20 classes of introductory statistics to about 4,300 students per year. An additional 700 students per year take calculus-based introductory statistics courses. Thirty-five undergraduate major courses are taught to 1,000 students. Thirteen graduate-only courses are taught per year. The department offers design of experiments, discrete probability, and SAS computing as gateway classes into the major after an AP statistics or introductory statistics class. Intermediate courses cover an introduction to Bayesian methods, survey sampling, statistical writing, regression, inference, and actuarial probability (P exam). Advance courses cover statistical computing, reliability, experimental design, nonparametrics, quality methods, biostatistics, and actuarial topics over the FM and MLC exam. There are five required graduate courses and six other courses offered exclusively to graduate students. The university expects all faculty members to demonstrate productivity in teaching, research, and service. An emphasis is placed on demonstrating guality research and teaching.

Colleagues can help you find quality students, funding opportunities, etc.

Lean on your colleagues for teaching. Most new PhDs enter situations in which existing faculty members have taught the courses they will be teaching. Faculty members are often happy to allow you to use and adapt their teaching materials. Ask the last person who taught the course if he would be willing to share teaching materials. There is no need to reinvent the wheel every time you teach a class. What you should do is add value to the materials you receive by creating new examples, test questions, assignments and homework, lecture notes, etc. Some departments have multi-section courses with common tests, labs, and other materials. These courses have you share the workload with seasoned veterans. **Set realistic expectations for students.** A new PhD is coming out of an intensive, highly focused experience in which they were surrounded by extremely bright people who find statistics exhilarating. Guess what? Not all undergraduates share that focus or passion. As a new teacher, you can't expect graduate-level work from a first-semester sophomore taking your class to fulfill a general education requirement. That doesn't mean you shouldn't have high expectations; you should. However, your expectations need to be tempered by reality.

Make sure you create a dialog with faculty members who have taught the class. They can help you avoid pitfalls and deal with problems that do arise. In setting expectations for students, a good syllabus that defines the rules as regards attendance, missed assignments, grading, when you answer email, office hours, and so on will minimize problems. Pay particular attention to setting a reasonable and enforceable policy on the use of new technologies such as mobile phones, tablets, and social media in the classroom.

Solicit feedback. In *Scholarship Reconsidered: Priorities of the Professoriate*, author Ernest Boyer recommends the use of the word scholarship in all we do in the academy. He suggests attributes that all scholarship shares, including a clearly defined goal and peer review. These components are satisfied through the natural consequence of the journal review and grant application process.

However, peer review of teaching does not have a natural process, but must be explicitly coordinated through the department. Even though it is your first semester, evaluation of your teaching will occur. It is not wise to make end-of-semester student evaluations the only word on your teaching. It is good practice to seek preliminary student feedback at about the fiveweek point in the semester. This feedback serves the following three purposes:

- It conveys to the students that you care about their learning
- It conveys the message to students that you care about your teaching and you value their opinions
- It allows you to make small adjustments that might lead to a better experience for both you and the students (e.g., students might point out that you are using too many abbreviations or acronyms that are confusing them)

In addition, you should actively seek peer visitation of your classroom. The key to this evaluation is that it provides formative feedback. Often, the university's faculty teaching center will offer to have someone from outside your department visit your classroom. This helps divorce the evaluation process for tenure from this early feedback on teaching.

Thriving in Semester Two and Onward

Toward the end of the first semester, take some time to reflect on all aspects of your career (scholarship, teaching, and service.) Some questions to ask yourself include the following:

What went well?

Where can I improve?

How can I use my time more effectively?

What would I change?

It is wise to schedule a meeting with your chair prior to the second semester. Report on the first semester and your goals and expectations for the next semester. Ask your chair to provide good formative feedback that you can incorporate into your improvement plans.

You will need to prepare for your second semester teaching assignment. Incorporate changes based on feedback from your mentors, students, and others that can be made realistically in the short time between semesters. Do not try to change everything at once! Incremental change is much more likely to be successful.

At year's end, you should have a more extensive meeting with the chair to discuss the first year and to plan for the second. Build on the skills you brought to your position, new skills developed during the first year, and reflection on your experiences. The goal is to make the upcoming year an even better experience. Develop a plan to implement changes that will help you evolve into the scholar, researcher, teacher, professor, and colleague you wish to become.

We cannot make recommendations about the second year without a statement about summer activities. Take time to reflect, modify, adapt, and plan so your third semester on the job is your best yet. Your first summer on the job provides big blocks of time to develop teaching materials, engage in research, and participate in conferences and meetings. Engage in these activities, but be sure to take time to recharge yourself.

An important aspect of the third semester is that one year after the completion of the semester, you will submit an academic portfolio for your third-year review. The portfolio contains not only examples of your scholarship and teaching materials to date, but also demonstrates your potential to improve your teaching and publish quality manuscripts and receive external funding.

Words of Encouragement

The three main areas of an academic's life are teaching, research, and service. We close with a few words of wisdom about each.

Teaching

Great teachers can be developed. It simply isn't good enough to say, "Well, that's how I was taught." Sorry, you are a professional teacher as well as researcher. You have to do better than that. Fortunately, there are numerous resources available through the ASA and other organizations to assist the teacher of statistics. Just a few are the *Guidelines for Assessment* and Instruction in Statistics Education (www. amstat.org/education/gaise), the Journal of Statistics Education (www.amstat.org/publications/jse), and the Consortium for the Advancement of Undergraduate Statistics Education (www.causeweb.org).

There are additional helpful commercial resources. One that provides solutions to a variety of teaching questions is the Magna 20 Minute Mentor (*www.magnapubs.com/online/mentor*). The short 20-minute presentations cover topics such as learning student names, learning from student ratings, and practical strategies to help new faculty thrive. In addition, many universities have a faculty teaching center with helpful resources.

When you teach a new course, it will not go perfectly every class session. Guess what? Even after you have taught for 20 plus years, it still won't go perfectly. You don't have to be the perfect teacher/faculty member. You have the freedom to try, reflect, modify, and grow. That's the beauty of the academic life: We get to experiment, collect data, and modify hypotheses.

Instead of making wholesale changes in your teaching approach, try incremental change. Maybe you want to include more active learning in your classes. You might begin with adding a couple group activities to one course. Reflect on how well those activities worked. Make changes as needed. Over time, you might find your entire approach to teaching changing.

Students have a role to play in evaluating teaching. After all, their tuition dollars help us to stay in business. But many student comments are not helpful. Read the evaluations, but don't become prisoner to them. You may be a tough grader; that's okay. As long as you reflect and have a reason for what you do that is based on sound teaching principles, continue the practice.

But, let's be honest. Students do provide useful feedback. When students voice a common concern over a couple of semesters, it is your duty as a professional to reflect on what is being said. Maybe they have a good suggestion that will make the classroom a better experience for them and you. Just like research, scholarly writing, and consulting involve skills at which we become better with practice, so too does teaching. You owe it to yourself and your students to become the best teacher you can be.

Research

No matter where you take that academic position, there will be an expectation of scholarly activity that may include publishing papers, obtaining grants, presenting at conferences, etc. As mentioned previously, it is important for you to know the expectations for your institution before you take the job. Is there a paper number expectation? Does the institution require publications in top-tier statistics journals like *JASA*, *Biometrics*, etc.? Are papers published in non-statistics journals (perhaps from consulting projects) valued? Are papers about teaching and curriculum valued? It is not wise to invest time in scholarly work that will not be valued at tenure early in your career (even if you feel the work should be valued).

The first place to go for scholarly work is your thesis. You are a recognized expert in that area of statistics (at least expert enough to have obtained a PhD). Leverage that for publications, grants, and new directions in research. This should become part of your

Biopharmaceutical Symposium to Offer Tutorials, Short Courses

The 20th anniversary meeting of the Biopharmaceutical Applied Statistics Symposium (BASS XX) will be held November 4–7 at the Double Tree (by Hilton) Hotel in downtown Orlando, Florida.

At least 16 one-hour tutorials on diverse topics pertinent to the research, clinical development, and regulation of pharmaceuticals will be presented by speakers from academia, the pharmaceutical industry, and the U.S. Food and Drug Administration (FDA).

Two parallel one-day short courses will be presented November 6–7, and the keynote address will take place on November 5, with a reception following. The FDA biometrics session will be the morning of November 6.

BASS is a nonprofit entity, sponsored by the department of biostatistics at Virginia Commonwealth University and the Jiann-Ping Hsu College of Public Health at Georgia Southern University. Its purpose is to raise funds for graduate fellowships in biostatistics.

To date, 50 graduate students have been supported by funds raised by BASS.

For more information, visit *www.bassconference.org*, contact the BASS registrar at *rewhitworth@georgiasouthern.edu*, or contact Karl E. Peace at (912) 478-7905 or *peacekarl@frontier.com*.

research agenda—a plan for your scholarly activity. It is wise to develop such a plan in conjunction with a mentor who has been successful in attaining tenure/ promotion. Develop a plan with realistic goals and measurable benchmarks. Realize that you can branch out to new areas of research or applications. Clearly, if you are at an institution that grants a PhD in statistics or a related field, graduate students will help to spur your research agenda.

Service

Most academics want to please and try new things. We are curious people with a healthy dose of ego. We think we can add value to most causes. However, agreeing to do 20 things when you only have time for five means 20 things will be done poorly, including the five you really wanted to do. New faculty may feel pressured to say "yes" to all opportunities. Resist that pressure.

Find someone within the department (maybe the chair, maybe not) who you can speak with about time pressure issues. Certainly there are tasks that any department, college, and university needs done that aren't particularly fun to do. You should contribute to these. But, you don't have to do them all. When you feel that time pressure, have a conversation that is open and honest with your chair. Your department chair probably does not even know all the service activities you are doing. Educating that person is your responsibility.

One neat trick (if you can pull it off) is to find activities that touch on at least two of teaching, research, and service. Perhaps you can serve your university by being part of a sustainability committee. You might also teach an environmental statistics course. And, you may be doing research in the analysis of remote sensing data for the study of pollution problems and climate change. When these opportunities arise that allow you to combine multiple facets of a professor's life, jump on them.

Summary

Don't expect perfection from yourself in teaching, research, or anything else. The academic life can be a wonderful life. You get the opportunity to work with colleagues on exciting, cutting-edge research. You also have the opportunity to enrich the lives of your students. It is extremely satisfying to hear a student say, "I thought I was gonna' hate this class, but I actually enjoyed it." When that student decides to become a statistics major or minor, it brings you a justifiable sense of pride. While there can be times of stress, there are also times of great joy and satisfaction. Hopefully, this article has provided some useful tips on making the most of the early years of your academic career.

United States Conference on Teaching Statistics Almost Here



SCOTS '13 will be held May 16–18 at the Embassy Suites Hotel & Conference Center in Raleigh-Durham (Research Triangle), North Carolina. The theme of the conference is "Making Change Happen."

Change can be difficult, but also exhilarating; scary, but also liberating. Previous USCOTS sessions have advocated various types of changes in teaching statistics likely to produce enhanced student learning. Conference participants often become excited about visionary ideas presented, but struggle to follow through and affect sustained changes at their home institutions. In reaction to these concerns, USCOTS '13 will address the goal of making change happen.

Speaking of change, two changes in the conference program for this year are the following:

An opening session will be held at 7 p.m. on Thursday, May 16. This session will feature fiveminute talks about how presenters have personally implemented changes in their own teaching.

Following the conference banquet held on the nearby SAS campus on Friday evening, musical/ statistical entertainment will be provided by The Fifth Moment, a group of graduate students at North Carolina State University, and Larry Lesser, a professor and statistics education researcher from The University of Texas at El Paso.

The conference will feature plenary presentations by the following:

Nicholas Horton (Smith College) and Danny Kaplan (Macalester College), *All Statistics Are Wrong, but Some Statistics Are Useful*

Hollylynne Stohl Lee (North Carolina State University), *Envisioning a Future Teacher of Statistics in K–12 Classrooms*

Xiao-Li Meng (Harvard University), *Energizing* Higher Education for Statistics and Beyond: $T = (IE)^2$

Chris Wild (University of Auckland), *The Need* for Speed in the Path of the Deluge

The conference also will include 24 breakout sessions on various topics related to teaching statistics. These sessions actively engage participants and stimulate thought about making changes to one's teaching. Common themes among these breakout sessions include the following:

Preparing teachers of statistics

Flipping classrooms

Teaching online courses

Evaluating the impact of change

Integrating software tools

Teaching at two-year colleges

Another highlight of the conference is "Posters and Beyond" sessions that facilitate exchange of novel ideas for teaching statistics. Conference exhibitors also will lead sessions that demonstrate their products. Finally, a full slate of nine pre-conference workshops is being offered that allows participants to delve deeply into innovations in statistics education supported by the National Science Foundation.

The full program and registration information for USCOTS '13 can be found at *www.causeweb. org/uscots.*

Editor Sought for CHANCE Magazine

Nominations and applications are being sought for the next editor of *CHANCE* magazine. Working with the editorial board and the ASA's magazine staff, the editor will provide direction and vision for the magazine, which has been published by the ASA for more than 20 years. The editor's term will be from 2014 to 2016.

Along with a curriculum vitae and the names of two references, the applicants should provide a state-

ment of vision for *CHANCE*. Nominations and applications should be submitted by June 24 to Megan Murphy, ASA communications manager, at *megan@amstat.org*.

http://chance.amstat.org





Reviewing Results of the JSM Presenter Satisfaction Surveys, 2010–2012

Jean Opsomer, 2014 JSM Program Chair, and Melissa Francis, Colorado State University

The ASA has conducted a "satisfaction survey" of presenters after each JSM for several years. The survey includes questions adapted for the various roles and focuses on the satisfaction of the speaker behind the podium or the presenter in front of the poster. This survey has been conducted unchanged over the last three years, covering the JSMs in Vancouver (2010), Miami Beach (2011), and San Diego (2012). This gives us a unique opportunity to evaluate results over a longer period and, in particular, look for changes over time.

The analysis discussed below can be considered a follow-up analysis to that performed by Dave Judkins on the 2009 JSM presenter survey (see May 2010 issue of *Amstat News*, pp. 47–52). One important difference with the analysis by Judkins is that we did not have access to microdata, so it was not possible to look for determinants of satisfaction level beyond the type of presentation and the year. As was the case for 2009, this survey was conducted rather informally, with an email sent out to all the presenters with valid email addresses and no attempt to correct for nonresponse effects. So when interpreting the results, caveat emptor ...

Results

With those disclaimers out of the way, let us take a look at the results. The total sample size across years and presenter roles was 3,187, ranging from 1,021 in 2010 to 1,095 in 2012. On the whole, corroborating the findings of Judkins for 2009, respondents were generally satisfied with their presentation experience. Figure 1 shows the breakdown of responses to the question, "Please relate your satisfaction with the presentation experience to the likelihood of [participating in the same role in the future] at JSM." Only a small number of respondents, 80 out of 3,187, expressed serious dissatisfaction. While we would prefer that number to be lower, or even 0, the overall conclusion appears to be that the large majority of presenters are satisfied or very satisfied with their experience.

When we consider the answers to the satisfaction question broken down by year, as shown in Table 1, a similar picture emerges. The percentages are remarkably consistent across the years, and despite the large sample sizes, a chi-squared test of independence between years and answer categories cannot reject the independence assumption. While it might be somewhat surprising to observe no differences in satisfaction between what were arguably different locales, it should be remembered that this concerns the presentation experience, not the overall JSM.

Things become a little more interesting when we consider the answers to the satisfaction question broken down by presenter role, with the results shown in Table 2. The distributions of respondents in the three invited and topic-contributed categories (presenters, panelists, and discussants) are similar, with a small percentage reporting serious dissatisfaction. The poster presenters and contributed paper presenters are markedly different, however, and a chi-squared test of independence between the presenter categories and the satisfaction levels strongly rejects the hypothesis of independence (glossing over the issues with the chi-square approximation due to small sample sizes in some of the cells).

As was the case in 2009, a much higher proportion of poster presenters expressed some level of dissatisfaction, with more than 7% reporting serious dissatisfaction and almost 60% reporting only moderate satisfaction. Among the contributed paper presenters, the percentage of seriously dissatisfied respondents was low, roughly in line with those in the invited and topic-contributed categories, but the percentage reporting only moderate satisfaction was substantially higher than in those categories.

The above satisfaction results by presenter type results are what one might expect. Invited and topiccontributed session participants appear most satisfied with their presentation experience, regardless of their specific roles (presenter, panelist, or discussant). Contributed paper presenters are somewhat less satisfied, but not dramatically so. Poster presenters are



Figure 1: Breakdown of responses to the question, "Please relate your satisfaction with the presentation experience to the likelihood of [participating in the same role in the future] at JSM."

Table 1—Satisfaction by Year

	2010	2011	2012
I was very dissatisfied with it and will not do it again	2.6%	2.6%	2.3%
l was satisfied enough that l might try it again	50.5%	49.2%	52.3%
I was so satisfied that I am very likely to give future pre- sentations in this format	46.8%	48.2%	45.4%
Sample Size	1,021	1,071	1,095

Table 2—Satisfaction by Presenter Role

	Invited and topic- contributed discus- sants	Invited and topic-contributed panelists	Invited and topic-contribut- ed presenters	Poster presenters	Contributed paper presenters
l was very dissatisfied with it and will not do it again	1.7%	2.2%	1.1%	7.2%	2.7%
l was satisfied enough that l might try it again	46.2%	46.7%	41.7%	59.6%	56.5%
I was so satisfied that I am very likely to give future presentations in this format	52.1%	51.1%	57.2%	33.2%	40.8%
Sample Size	119	90	1,177	334	1,467

2010					
	Invited and topic-con- tributed discussants	Invited and topic- contributed panelists	Invited and topic-con- tributed presenters	Poster presenters	Contributed pa- per presenters
l was very dissatisfied with it and will not do it again	2.9%	3.3%	1.0%	11.9%	2.2%
l was satisfied enough that l might try it again	51.4%	53.3%	44.6%	60.7%	53.2%
I was so satisfied that I am very likely to give future presentations in this format	45.7%	43.3%	54.3%	27.4%	44.7%
Sample Size	35	60	383	84	459
2011					
l was very dissatisfied with it and will not do it again	0.0%	0.0%	0.8%	8.9%	2.9%
l was satisfied enough that l might try it again	44.4%	38.5%	40.7%	58.0%	54.2%
I was so satisfied that I am very likely to give future presentations in this format	55.6%	61.5%	58.5%	33.0%	42.9%
Sample Size	36	13	388	112	522
2012					
l was very dissatisfied with it and will not do it again	2.1%	0.0%	1.5%	2.9%	2.9%
l was satisfied enough that l might try it again	43.8%	29.4%	39.9%	60.1%	62.1%
I was so satisfied that I am very likely to give future presentations in this format	54.2%	70.6%	58.6%	37.0%	35.0%
Sample Size	48	17	406	138	486

Table 3—Satisfaction by Year and Presenter Role

the least satisfied, with two-thirds expressing some level of dissatisfaction.

The results for the poster presenters are somewhat disheartening, because the ASA and other sponsoring societies have been viewing poster sessions as a possible solution to handling the increasing size of JSM and corresponding growth in the number of participants interested in presenting their work during the meetings. However, there is actually a silver lining, which we see once we look at the responses broken down by year and presenter role. Table 3 shows the results.

While the sample sizes are becoming quite small in many of the cells, the results for most presenter roles are fairly consistent over time. But unlike respondents in the other categories, the poster presenters exhibit a clear improving trend over these three years, going from almost 1 in 8 strongly dissatisfied in 2010 to a satisfaction profile in 2012 that is essentially the same as that of the contributed paper presenters. It may be that JSM participants are becoming more comfortable with the poster format, both as presenters and as session attendees. Or, we cannot exclude the possibility that these observed results are caused by selection bias and are, in fact, masking a consistent level of dissatisfaction each year. Whatever the reason for this apparent improvement, it certainly shows it is too early to write off posters as one of the mechanisms to rein in the number of parallel sessions at JSM.

Personally, I am cautiously optimistic that the poster format can be made to work for JSM, despite statisticians, as a profession, not having a long history of doing poster sessions. The JSM Program Committee, through the introduction of new initiatives such as "speed sessions" for poster presenters in Montréal, intends to continue exploring ways to make the poster format more attractive. ■

Nate Silver Is JSM 2013 Featured Speaker

elebrated statistician Nate Silver, founder of the award-winning FiveThirtyEight.com political website, will be the President's Invited Address speaker August 5 at the 2013 Joint Statistical Meetings (JSM) in Montréal, Québec, Canada.

Called a "number-crunching prodigy" by *New York Magazine*, Silver first gained national prominence during the 2008 presidential election, when he correctly predicted the results of the presidential primaries and the winner of the general election in 49 states. Silver's prediction of the 2012 presidential election in all 50 states—silencing traditional political pundits in the process—has made him the public face of statistical analysis, data-driven journalism, and political forecasting.

"I am thrilled to announce Nate Silver as the President's Invited Address speaker for the Joint Statistical Meetings," says ASA President Marie Davidian. "JSM 2013 attendees will be interested in Silver's insight on statistical analysis, the forecasting models he has developed, his data-based predictions, and his book on the role of probability and uncertainty in prediction."

On FiveThirtyEight.com, which is now published by *The New York Times*, Silver authors a running forecast of current events, including elections in the United States and United Kingdom and a wide variety of hot-button and timely public policy issues, including reform of both health care and immigration.

Following his rise to fame, Silver has appeared on numerous national television programs, ranging from MSNBC's "Morning Joe" to Comedy Central's "The Daily Show." His *New York Times* bestseller—*The Signal and the Noise: Why Most Predictions Fail – But Some Don't*—takes the reader on a tour of predictive statistical modeling and analysis across a host of fields, making it essential reading for anyone interested in the power of data-driven forecasting.

Before turning his attention to politics, Silver established his credentials as an analyst of baseball statistics. He developed the widely acclaimed Player Empirical Comparison and Optimization Test Algorithm (PECOTA) system, which predicts player performance, career development, and seasonal winners and losers. He also authored a series of books on baseball statistics, including *Mind Game*, *Baseball Between the Numbers*, and *It Ain't Over 'til It's Over*, and he has written for ESPN.com, *Sports Illustrated*, and *The New York Times*.

If you plan to attend the Joint Statistical Meetings and would like more information, visit the JSM website at *www.amstat.org/meetings/jsm/2013*. ■



B. Thomas Carr, principal of Carr Consulting in Illinois, has received the David R. Peryam Award from ASTM International Committee E18 on Sensory Evaluation of Materials and Products. The Peryam award recognizes outstanding professionals in the applied sensory science field.

A member of ASTM International since 1989, Carr works on several E18 subcommittees and is vice chair of subcommittees E18.01 and E18.02. Committee E18 has recognized his contributions with two awards of appreciation and presented him with the Award of Merit in 1997. Carr also serves on Committee E11 on Quality and Statistics and on the ASTM Standing Committee on Publications.

Carr specializes in the optimization of the formula, process, and packaging of consumer products and ingredients with special emphasis on how the sensory properties of the products affect consumer acceptance. Prior to beginning his consulting business in 1995, he held research and statistician positions at The NutraSweet Co., G.D. Searle & Co., and Best Foods/CPC International Inc. He is also an adjunct professor at Charles Sturt University, one of Australia's national universities that offers around 400 courses to approximately 38,000 students worldwide.

A graduate of Colorado State University at Fort Collins, where he earned a master's in statistics, Carr also holds a bachelor's degree in mathematics from the University of Dayton. He is a regular lecturer at the Center for Professional Advancement, Sensory Spectrum Inc., and the Siebel Institute of Technology and serves on the editorial review board of the *Journal of Sensory Studies*. In addition to ASTM International, Carr is a member of the American Statistical Association, Institute of Food Technologists, International Organization for Standardization, and Sensometric Society.

For more information, visit *www.astmnewsroom.org.* ■



Mason

The American Society for Quality (ASQ) will present this year's Shewhart Medal to **Robert L. Mason**, an institute analyst in the Fuels and Lubricants Research Division of Southwest Research Institute (SwRI). Mason, a Fellow of ASQ, is being recognized for his outstanding work in quality control for the automotive and petroleum industries.

The Shewhart Medal is named in honor of Walter A. Shewhart, who was often referred to as the "father of statistical quality control." The medal is awarded for outstanding technical leadership in the field of modern quality control. Mason will receive the award at the ASQ annual business meeting held May 5 prior to the ASQ World Conference on Quality and Improvement.

"Mason's research work in the area of multivariate quality control, namely his contributions in the application of the T2 statistic in monitoring variation, has been beneficial to industry," said Steve Marty, vice president of SwRI's Fuels and Lubricants Research Division. "He shares his knowledge of quality control and statistical experimental design by authoring books and teaching at the university level, as well as being an advocate of statistical practice here at SwRI in all areas of technical research."

Mason holds a doctorate in statistics from Southern Methodist University and a bachelor's of science in mathematics from St. Mary's University. Mason joined the institute in 1975 as a research statistician and was promoted to institute analyst in 2002. The position of institute engineer, scientist, or analyst is the highest technical rank an SwRI staff member can attain.

Mason is a member of the ASQ, ASA, and Sigma Xi. He is also a Fellow of the ASA and an elected member of the International Statistical Institute. He has served as past president and past vice president for the ASA. Mason was awarded the ASA Founders Award in 1992, the ASQ Youden Award in 1985 and 1974, the Society of Automotive Engineers McFarland Award in 2003, and the American Society of Mechanical Engineers Jacobson Award in 1985.

He has published more than 125 papers in statistical and engineering journals and has given more than 90 invited and contributed presentations at national and regional professional meetings and conferences. He is the co-author of five statistical books, including Statistical Design and Analysis of Experiments: With Applications to Science and Engineering (2003, 1989), Multivariate Statistical Process Control with Industrial Applications (2002), How to Construct Fractional Factorial Experiments (1991), and Regression Analysis and Its Application: A Data-Oriented *Approach* (1980). ■

Read about your colleagues and friends in the news. Go to *www.amstat. org* and click on "Statisticians in the News."

Janet Norwood Award



Norwood

The section on statistical genetics and the department of biostatistics in the school of public health at the University of Alabama at Birmingham (UAB) request nominations for the 10th annual Janet L. Norwood Award for Outstanding Achievement by a Woman in the Statistical Sciences.

The award recipient will deliver a lecture on September 11 at the UAB award ceremony and receive travel expenses and a \$5,000 prize.

Eligible individuals are women who have completed their terminal degree and made extraordinary contributions to the statistical sciences. They also should have an outstanding record of service to the statistical sciences, with an emphasis on both their own scholarship and teaching and leadership of the field in general and of women in particular. If selected, the winner should be willing to deliver a lecture at the award ceremony.

Nominations should include a full curriculum vitae accompanied by a letter of no more than two pages describing the nature of the candidate's contributions. Contributions may be in development and evaluation of statistical methods, teaching of statistics, application of statistics, or any other activity that can arguably be said to have advanced the field of statistical science. Self-nominations are acceptable. Send nominations by June 28 to David B. Allison, distinguished professor and director of the Nutrition Obesity Research Center, at *dallison@uab.edu*. The winner will be announced on July 8.

For details about the award, visit the UAB website at *www.* soph.uab.edu/ssg/norwoodaward/ aboutaward.

For details about the ASA's awards and deadlines, visit www.amstat. org/awards/index.cfm.



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New and Forthcoming Books in Statistics from Chapman & Hall/CRC

Understanding Advanced Statistical Methods

Peter Westfall & Kevin S.S. Henning

Designed for students in all disciplines---whether social science, biological science, or physical sciencethis text introduces mathematical statistics, including calculus and probability, in intuitive, self-contained, and accessible ways. Simulations and computing are used throughout to introduce and illustrate topics. Many exercises and examples span various scientific disciplines. The book discusses Bayesian statistics and frequentist statistics, thoroughly covers populations versus processes, integrates design and measurement with analysis, and emphasizes the understanding and use of statistical models as recipes for producing data.

Catalog no. K14873 - April 2013, 570 pp. ISBN: 978-1-4665-1210-8, \$79.95 / £49.99

Statistical Methods for Financial Engineering

Bruno Rémillard

While many financial engineering books are available, the statistical aspects behind the implementation of stochastic models used in the field are often overlooked or restricted to a few well-known cases. This self-contained book guides current and future practitioners on implementing the most useful stochastic models used in financial engineering. Each chapter introduces powerful and practical statistical tools necessary to implement the models. Throughout the text, examples using MATLAB® illustrate the application of the techniques to solve real-world financial problems. MATLAB and R programs are available on the author's website.

Catalog no K12677, April 2013, 496 pp. ISBN: 978-1-4398-5694-9, \$89.95 / £59.99

Age-Period-Cohort Analysis New Models, Methods, and Empirical Applications

Yang Yang & Kenneth C. Land

This book explores the ways in which statistical models, methods, and research designs can be used to open new possibilities for APC analysis. Within a single, consistent HAPC-GLMM statistical modeling framework, the authors synthesize APC models and methods for three research designs: age-by-time period tables of population rates or proportions, repeated cross-section sample surveys, and accelerated longitudinal panel studies.

Catalog no. K14675, March 2013, 352 pp. ISBN: 978-1-4665-0752-4, \$79.95 / £49.99



Statistical Theory A Concise Introduction

Felix Abramovich & Ya'acov Ritov

This text presents a clear introduction to statistical theory for advanced undergraduate students taking a standard course in statistics. It details the main elements and basic concepts of statistical theory, including parameter estimation, confidence intervals, hypothesis testing, Bayesian interference, and decision theory. The book takes an examples-based approach with clear exposition of key topics and just the right amount of mathematical formality. It also includes numerous exercises to enhance the students' understanding of the topics discussed.

Catalog no. K12383, May 2013, 239 pp. ISBN: 978-1-4398-5184-5, \$69.95 / £44.99





Survival Analysis in Medicine and Genetics

Jialiang Li & Shuangge Ma

This text introduces up-to-date statistical methods for survival data analysis in medicine and genetics. Along with classical results, it presents new developments in interval censoring, statistical diagnostics with time-dependent outcomes, analysis of ultra-high dimensional data sets, cure rate models, and repeated measure data. Suitable for both graduate students and biomedical researchers, the text covers applications in cancer studies, medical diagnosis, genetics, and genomics. It provides R code and example data sets online.

Catalog no. K14175, June 2013, 384 pp. ISBN: 978-1-4398-9311-1, 599.95 / £63.99





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Age-Period-Cohort

Analysis

New Models, Methods

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and Empirical Apple

Randomized Phase II Cancer Clinical Trials

Sin-Ho Jung

There has been a dramatic increase in the use of randomized phase II cancer clinical trials in recent years because of lower sample size requirements when multiple treatments are being evaluated. This accessible book covers both the latest developments in methodology as well as traditional single-arm phase II trial methods. It keeps the statistical level at a minimum so that both statisticians and clinicians conducting phase II clinical trials understand the material. The book includes many diverse statistical designs and analysis methods relevant to oncology

Catalog no. K13295, May 2013, 230 pp. ISBN: 978-1-4398-7185-0, \$89.95 / £59.99



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section news

Biometrics

Edited by Feifei Wei, Biometrics Section Publications Officer

The Biometrics Section is sponsoring the following six Continuing Education (CE) courses and six invited sessions at the 2013 Joint Statistical Meetings in Montréal, Québec, Canada.

CE Courses

Statistical Methods in Genetic Association Studies, taught by Danyu Lin

Personalized Medicine and Dynamic Treatment Regimes, taught by Michael Kosorok and Eric Labler Analysis of Interval-Censored Survival Data, taught by Philip Hougaard

Statistical Methods for Medical Imaging Analysis, taught by Hongtu Zhu and Haipeng Shen

Statistical Evaluation of Prognostic Biomarkers, taught by Patrick J. Heagerty and Paramita Saha-Chaudhuri

Practical Software Engineering for Statisticians (cosponsored with Section on Statistical Computing), taught by Murray Stokely of Google

Invited Sessions

Current Statistical Issues in Comparative Effectiveness Research, organized by Haibo Zhou

Dynamic Treatment Regimes and Adaptive Designs Toward Personalized Health Care, organized by Lu Wang

Emerging Statistical Methods for Big Data, organized by Ping Ma

Frontiers in Longitudinal and Survival Data Analysis, organized by Gang Li

Big Data, Big Impact When Statistics Matter, organized by Ching-Ti Liu

Questions in Cancer Research: What Are the Most Pressing Statistical Problems?, organized by Michelle Dunn

For information about JSM, visit *www.amstat.* org/meetings/jsm/2013.

Awards Competitions

The section also sponsored the 2013 David P. Byar Young Investigator Award and travel awards competitions. Through a comprehensive review process, the committee chose five travel award winners in addition to the Byar Award winner, **Kyu Ha Lee** of the Harvard School of Public Health, for "Bayesian Semiparametric Analysis of Semi-Competing Risks Data: Estimating Readmission Rates Among Pancreatic Cancer Patients."

Travel awards went to the following:

Noorie Hyun of The University of North Carolina at Chapel Hill for "Threshold-Dependent Proportional Hazards Model for Current Status Data with Biomarker Subject to Measurement Error"

Denis Agniel of the Harvard School of Public Health for "Identifying Multiple Regulation in Semiparametric Regression Models"

Xinyi Lin of the Harvard School of Public Health for "Tests for Interactions Between a Genetic Marker Set and Environment on Generalized Linear Models"

Jesse Yenchih Hsu of the University of Pennsylvania for "Calibrating Sensitivity Analysis to Observed Covariates in Observational Studies"

Arend Voorman of the University of Washington for "Graph Estimation with Joint Additive Models"

Lee will receive a \$1,500 award, while the travel award winners will each receive \$800 toward costs to present their papers at JSM 2013.

Visit the Biometrics Section website at *www.bio. ri.ccf.org/Biometrics* for the latest news.

Physical and Engineering Sciences

James G. Wendelberger, Urban Science Applications

The ASA Section on Physical and Engineering Sciences will sponsor the following four roundtables at this year's Joint Statistical Meetings in Montréal, Québec, Canada:

Boost Your Spatiotemporal Data Analysis with Physical Knowledge, led by Alexander Kolovos

Solving High-Impact Problems in the 21st Century, led by Ronald Snee

Case Studies in Graphics: The Best Plot I Ever Made, led by Elizabeth Schiferl

Reconciling Simulator and Observational Data, led by Thomas Santner

SPES has scholarships available for students to attend one of these SPES-sponsored roundtables. To apply, contact James G. Wendelberger at JGWendelberger@UrbanScience.com by May 1.

For roundtable details, visit the section news online at *http://magazine.amstat.org/blog/category/ membernews/amstatsections*. For information about the Joint Statistical Meetings, visit *www.amstat.org/ meetings/jsm/2013*. ■

To view section news in its entirety, visit http://magazine. amstat.org.

May

23–24—3rd International Conference: Quantitative and Qualitative Methodologies in the Economic and Administrative Sciences (Q.M.E.A.S. 2013), Athens, Greece

For more information, visit users. teiath.gr/cfragos/index_files/ Page1327.htm or contact Christos Frangos, Agiou Spyridonos Street, Athens, International 122 10, Greece; +30 6944162376; cfragos@ teiath.gr.

26–29—41st Annual Meeting of the Statistical Society of Canada, Edmonton, Alberta

For details, visit *www.ssc.ca* or contact Rhonda Rosychuk, 3-524 Edmonton Clinic Health Academy, 11405 87 Ave. NW, Edmonton, AB T6G 1C9, Canada; (780) 492-0318; *ssc2013@ssc.ca*.

»31—An Arboretum of Graphics: 27th Annual Conference on Tools for Regaining the Competitive Edge, Cleveland, Ohio

For details, visit *www.bio.ri.ccf.org/ ASA/cspring.html* or contact Jerry Moreno, Dept. of Mathematics, John Carroll University, University Heights, OH 44118; (216) 397-4681; *moreno@jcu.edu*.

To view the entire list of statistics meetings and workshops, visit www.amstat. org/dateline.

June

2–4—7th International Total Survey Error Workshop (ITSEW 2013), Ames, Iowa

For more information, contact Sarah Nusser, Dept. of Statistics, 1212 Snedecor Hall, Ames, IA 50011; (515) 294-9773; *nusser@iastate.edu*.

*2–5—49th SRCoS Summer Research Conference, Burns, Tennessee

For details, visit *louisville.edu/ sphis/bb/srcos-2013* or contact Don Edwards, Dept. of Statistics, University of South Carolina, Columbia, TN 29205; (803) 479-4814; *edwards@stat.sc.edu*.

3–7—Workshop on Compositional Data Analysis (CoDaWork 2013), Vorau, Austria

For more information, visit *www. codawork2013.com* or contact Peter Filzmoser, Wiedner Hauptstr. 8-10, Vienna, International 1040, Austria; +43 1 58801 10733; *P.Filzmoser@ tuwien.ac.at.*

*4–7—Quality and Productivity Research Conference, Niskayuna, New York

For details, visit *www.qprc2013. com* or contact Martha Gardner, 1 Research Circle, K-1 5A15A, Niskayuna, NY 12304; (518) 387-6546; *martha.gardner@ge.com.*

4–14—SAMSI Summer Program: Neuroimaging Data Analysis, Research Triangle Park, North Carolina

For more information, visit www. samsi.info/programs/summer-2013-program-neuroimaging-dataanalysis-june-4-14-2013 or contact Jamie Nunnelly, P.O. Box 14006, RTP, NC 27709; (919) 685-9350; admin@ samsi.info.

5–7—WIPFOR13 - Workshop Industry & Practices for Forecasting, Paris, France

For more information, visit conferences-osiris.org/wip for or contact Xavier Brossat, 1 avenue du Général De Gaulle, Clamart, International 92 141, France; +33147653337; wipfor@edf.fr.

6–8—BISP8: 8th Workshop on Bayesian Inference in Stochastic Processes, Milano, Italy

For details, visit *www.mi.imati.cnr. it/conferences/BISP8* or contact Antonio Pievatolo, Via Bassini 15, Milano, International 20133, Italy; *bisp8@mi.imati.cnr.it.*

7–8—MedicReS International CME Conference, Istanbul, Turkey

For more information, visit *www. ic2013.medicres.org* or contact Burak Akicier, Mariahilferstrasse 123 3, Vienna, International 1060, Austria; +436769783898; *burak.akicier@ medicres.org.*

9–12—Joint Statistical Conference by the International Chinese Statistical Association (ICSA) and the International Society for Biopharmaceutical Statistics (ISBS), Bethesda, Maryland

For details, visit *www.icsa.org/2013* or contact Aiyi Liu, 6100 Executive Blvd., Rockville, MD 20852; (301) 435-6962; *liua@mail.nih.gov.*

*9–12—Graybill Conference on Modern Survey Statistics, Fort Collins, Colorado

For details, visit *www.stat.colostate. edu/graybillconference/index.html* or contact Jean Opsomer, Colorado State University, Department of Statistics, Fort Collins, CO 80523; (970) 491-3841; *jopsomer@stat. colostate.edu.*

10–12—4th Nordic-Baltic Biometric Conference, NBBC13, Stockholm, Sweden

For more information, visit *nbbc13. org* or contact Marie Jansson, Box 281, Stockholm, International SE-17177, Sweden; +46 8 52486150; *Marie.Jansson@ki.se.*

10–28—SAMSI: Modern Statistical and Computational Methods for Analysis of Kepler Data, Research Triangle Park, North Carolina

For more information, visit *http:// bit.ly/WNxKCy* or contact Karem Jackson, 19 T. W. Alexander Drive, RTP, NC 27709; (919) 685-9350; *admin@samsi.info*.

13–15—MedicReS World Congress on Good Medical Research, Vienna, Austria

Contact Jenny Knapp, Mariahilfer Strasse 123/3, Vienna, International 1060, Austria; +43 1 599 99 8070; *jenny.knapp@medicres.org.*

16–19—The 2013 Annual WNAR/IMS Meeting, Los Angeles, California

For more information, visit *www. wnar.org* or contact Kate Crespi, CHS 51-254, Box 951772, Los Angeles, CA 90095-1772; (310) 206-9364; *ccrespi@ucla.edu.*

calendar of events

19–21—R, Beyond the Basics, Provo, Utah

For more information, visit *statistics. byu.edu* or contact Amy Royer, 223 TMCB, Provo, UT 84602; (801) 422-4506; *aroyer@stat.byu.edu*.

20–22—International Workshop ARS'13 on Social Network Analysis, Rome, Italy

For details, visit *www.ars13.unisa.* it or contact Silvia Nenci, Via Silvio D'Amico 77, Rome, International 00145, Italy; +39 06 57335752; *ars13@uniroma3.it.*

20–22—The 20th Annual ASA/ IMS Spring Research Conference (SRC) on Statistics in Industry and Technology, Los Angeles, California

For more information, visit *www.* stat.ucla.edu/src2013 or contact Hongquan Xu, 8125 Math Sciences Bldg., Los Angeles, CA 90095-1554; (310) 206-0035; hqxu@stat.ucla.edu.

26–28—ITACOSM2013 - Third Italian Conference on Survey Methodology, Milan, Italy

For details, visit *www.statistica. unimib.it/itacosm13* or contact Caterina Pisani, Piazza S. Francesco 8, Siena, International 53100, Italy; +39 0577 232750; *caterina.pisani@ unisi.it.*

30–7/4—The 4th IMS China International Conference, Chengdu, China

For details, visit *imscn2013.swufe. edu.cn* or contact Runze Li, Dept. of Statistics, Penn State University, University Park, PA 16802-2111; (814) 865-1555; *rli@stat.psu.edu*.

July

1–4—7th International Conference on Sensitivity Analysis of Model Output, Nice, France

For more information, visit *www. gdr-mascotnum.fr/2013* or contact Bertrand looss, 6 quai Watier, Chatou, International 78300, France; *biooss@yahoo.fr.*

2–4—32nd Leeds Annual Statistical Research (LASR) Workshop, Leeds, United Kingdom

For information, visit www1.maths. leeds.ac.uk/Statistics/workshop/ lasr2013 or contact Jessica Brennan, School of Mathematics, University of Leeds, Leeds, International LS2 9JT, UK; +44 (0) 113 3435116; j.m.brennan@leeds.ac.uk.

3–5—The 2013 International Conference of Computational Statistics and Data Engineering, London, United Kingdom

For information, visit *www.iaeng. org/WCE2013/ICCSDE2013.html* or contact IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, International HK, Hong Kong; (852) 3169-3427; *wce@iaeng.org.*

8–12—The International Conference on Robust Statistics 2013 (ICORS 2013), St. Petersburg, Russia

For details, visit *onlinereg.ru/ icors2013* or contact Ekaterina Balashova, 2, Sestroretskaya str., The following events are the latest additions to the ASA's online calendar of events. Announcements are accepted from education and not-forprofit organizations only. To view the complete list of statistics meetings and workshops, visit *www. amstat.org/dateline.*

* Indicates events sponsored by the ASA or one of its sections, chapters, or committees

» Indicates events posted since the previous issue

St. Petersburg, 197183 Russia, St. Petersburg, International 197183, Russia; *ICORS-2013@onlinereg.ru*.

15–23—2013 Industrial and Mathematical Statistical Modeling Workshop, Research Triangle Park, North Carolina

For details, visit www.samsi.info/ workshop/2013-industrial-mathstatmodeling-workshop-graduate-students-july-15-23-2013 or contact Jamie Nunnelly, 19 T. W. Alexander Drive, Research Triangle Park, NC 27709; (919) 685-9350; nunnelly@ niss.org.



Health Policy Statistics Section (HPSS) Biennial Awards – Call for Nominations

The next set of HPSS awards will be presented at the Tenth International Conference on Health Policy Statistics (ICHPS) October 9-11 in Chicago, Illinois. These awards honor individuals who have made significant contributions to the development of statistical methods or have developed innovative statistical applications for health care policy or health services research, to encourage research in this area and to increase awareness of the HPSS in the statistical community. Candidates for awards should be recognized leaders in the field, with outstanding contributions through methodological or applied work in statistics. Candidates for the Long-Term Excellence Award should have contributed significantly through mentoring and/or service that advance the aims of the Section. Candidates for the Mid-Career Excellence Award should bring the promise of continued excellence at the frontier of statistical practice and research in health care policy, thus advancing the aims of the Section.

HPSS Mid-Career Award Recipient must be within 15 years of their terminal degree on January 1, 2013 and cannot be a previous HPSS Mid-Career Award winner. The 2011 winner was James O'Malley, Harvard.

HPSS Long-Term Excellence Award Recipient cannot be within 15 years of their terminal degree on January 1, 2013 and cannot be a previous HPSS Long-Term Excellence Award winner. The 2011 winners were Sharon-Lise Normand, Harvard and Paula Diehr, University of Washington.

> Nominations should be sent by midnight on May 10, 2013 to the HPSS Awards Committee, c/o Daisy Montfort at montfort@rand.org

Please include: [1] the nominee's curriculum vitae [2] a letter (not to exceed two pages) from the nominator (self-nominations are welcome) summarizing the nominee's credentials for the award [3] additional independent (other than the nominator or nominee) evaluation letters may be provided, but are not necessary [4] contact information for the nominee or nominator (if different)

2013 HPSS Awards Committee: Arlene Ash, James O'Malley, Sharon-Lise Normand, Alan Zaslavsky, Marc Elliott (Chair) Questions should be directed to <u>elliott@rand.org</u>

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WILEY

Arizona

■ TE Assistant Professor in Biostatistics, University of Arizona. The successful candidate will increase teaching and research capacity for the biostatistics education program particularly for the PhD degree in biostatistics. Review will begin on April 1, 2013, and continue until the position is filled. For a complete listing of position duties, qualifications and to apply, please visit: www.uacareertrack.com/applicants/ Central?quickFind=207110. EOE.

California

■ eBay seeks a skilled survey statistician and experienced consultant to guide internal investment strategy by designing sampling schemes and analyzing survey results of current and potential eBay users. This director-level position within the Marketplaces business is central to a new, top-level initiative to enhance business strategy to meet user needs. Please visit *www.eBayCareers.com* and search for job requisition number 71576BR. EOE.

■ San Francisco VA Medical Center and NCIRE have an immediate opening for a statistician. Qualified applicant will have master's degree in statistics, biostatistics, epidemiology, or equivalent, and 3+ years experience in statistical analysis, data modeling, and advanced programming skills. SAS experience and ability to work with large national administrative datasets, such as VA and CMS datasets, highly preferred. Apply at *www.ncire.org* referring to job 2012-1888. EOE.

New York

Assistant Professor of Quantitative Finance. Stony Brook University's Department of Applied Mathematics and Statistics seeks to fill a tenure-track position in quantitative finance. For a full position description, application procedures or to apply online, visit Professional Opportunity listings may not exceed 65 words, plus equal opportunity information. The deadline for their receipt is the 20th of the month two months prior to when the ad is to be published (e.g., May 20 for the July issue). Ads will be published in the next available issue following receipt.

Listings are shown alphabetically by state, followed by international listings. Vacancy listings may include the institutional name and address or be identified by number, as desired.

Professional Opportunities vacancies also will be published on the ASA's website (*www.amstat.org*). Vacancy listings will appear on the website for the entire calendar month. Ads may not be placed for publication in the magazine only; all ads will be published both electronically and in print.

Rates: \$320 for nonprofit organizations (with proof of nonprofit status), \$475 for all others. Member discounts are not given. For display and online advertising rates, go to *www.amstat.org/ads*.

Listings will be invoiced following publication. All payments should be made to the American Statistical Association. All material should be sent to *Amstat News*, 732 North Washington Street, Alexandria, VA 22314-1943; fax (703) 684-2036; email *advertise@amstat.org*.

Employers are expected to acknowledge all responses resulting from publication of their ads. Personnel advertising is accepted with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual orientation.

Also, look for job ads on the ASA website at www.amstat.org/jobweb.

Head, Department of Statistics Texas A&M University College Station, Texas

A national search is underway to identify outstanding candidates for Head of the Department of Statistics at Texas A&M University, the fourth largest university in the nation with an enrollment of over 50,000 students. Texas A&M was recently ranked 23rd amongst public universities by the U.S. News and World Report. The Department has a strong tradition of theoretical and interdisciplinary research. Faculty members have extensive research collaborations with faculty in all ten colleges on campus.

The Department has 70 graduate students on campus with an additional 250 distance-learning M.S. graduate students, 30 research faculty members, and 6 lecturers. The Department placed 12th (4th amongst public universities) in the most recent U.S. News and World Report ranking of graduate programs in statistics. Further information about the Department, its faculty, and its facilities can be found at our website: <u>http://www.stat.tamu.edu</u>.

The Department seeks an individual with a dynamic and internationally recognized research program, a sincere commitment to undergraduate and graduate education, and proven leadership skills. The Head reports to the Dean of the College of Science and is responsible for the Department's administrative, budgetary, and personnel matters. Candidates for Head must demonstrate a vision for supporting, directing, and enhancing the goals of the Department. The position requires a Ph. D. in Statistics or a related field and a record of scholarship and teaching consistent with the level of professor at a major research university. A proven record of extramural funding and administrative experience will strengthen the application.

Applicants should e-mail a letter of interest, a curriculum vitae, and the names of three references to headsearch@stat.tamu.edu.

The Search Advisory Committee will review applications as they are received, and the review will continue until the position is filled.

Texas A&M University is an Equal Opportunity and Affirmative Action Employer. We strongly encourage applications from women, under represented ethnic groups, and individuals with disabilities.

www.stonybrook.edu/jobs (Ref. #F-7746-13-02). Applications will be accepted until the position is filled. Stony Brook University/SUNY is an affirmative action, equal opportunity educator and employer.

Tenure-Track Assistant Professor. Stony Brook University's Department of Applied Mathematics and Statistics seeks to fill a tenure-track assistant professor position. For a full position description, application procedures or to apply online, visit *www.stonybrook.edu/jobs* (Ref. #F-7742-13-01). Stony Brook University/ SUNY is an affirmative action, equal opportunity educator and employer.

Ohio

■ The Cleveland Clinic Department of Quantitative Health Sciences is recruiting for faculty and master's-level positions. Many areas are being sought, including biostatistics, health economics, health status measures, analysis of population-based registries, diagnostic test assessment, ROC



THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

School of Science Head of the Department of Mathematics

The School of Science of the Hong Kong University of Science and Technology (HKUST) is seeking applications from outstanding academics to lead the Department of Mathematics. Opened in October 1991, HKUST is a researchintensive university dedicated to the advancement of learning and scholarship, with special emphasis on postgraduate education, and close collaboration with business and industry. The School of Science, in which the Department of Mathematics is located, is also home to world-class Departments of Physics, Chemistry and Life Science. Its faculty is international in background and the official language of both administration and instruction at HKUST is English.

Reporting to the Dean of Science, the Head of the Department of Mathematics is expected to provide leadership for the Department, oversee faculty recruitment activities, guide and monitor resource allocation, and be responsible for the Department's academic advancement in both teaching and research. He/She is also expected to devise strategies to promote and facilitate collaborative, interdisciplinary research with individuals in other Departments within the School of Science as well as in the Schools of Engineering, Business and Management, Humanities and Social Science.

Applicants should have an outstanding record of scholarship achievement, consistent with an appointment as Full Professor with tenure. They should have proven leadership abilities, experience in leading collaborative research programs and demonstrated managerial skills. Qualified candidates should also have a broad appreciation of the research and educational opportunities in modern mathematics and possess outstanding communication and interpersonal skills.

HKUST salaries are highly competitive and the level of compensation will be commensurate with qualifications and experience. Generous fringe benefits will also be provided.

Applications, including a curriculum vitae, a vision statement as well as the names, addresses, phone numbers and email addresses of at least three referees should be sent to: the Search Committee for MATH Headship c/o Office of the Dean of Science, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong (or by email: <u>dsci@ust.hk</u>). Review of applications will begin immediately and will continue until the position is filled.

For further information about HKUST, the School of Science and the Department of Mathematics, please visit the following websites:

HKUST - http://www.ust.hk School of Science - http://science.ust.hk Department of Mathematics - http://www.math.ust.hk (Information provided by applicants will be used for recruitment and other employment-related purposes.)



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The Office of Biostatistics in the Office of Translational Sciences, Center for Drug Evaluation and Research, FDA, invites applications from Mathematical Statisticians with a background in biomedical, biological, or pharmacological sciences and strong skills in statistical methodology and communication.

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As a mathematical statistician in the Office of Biostatistics, you will apply your skills to address unique and precedent setting problems while refining your consulting, communication, and presentation skills. You will evaluate and advise on protocols for clinical, non-clinical, and post-marketing studies and assess the evidence for safety and efficacy from studies submitted in drug and biologics applications. Our active regulatory research program will allow you to improve your skills and provide for professional development. In addition, you will have the opportunity to interact with national, international, public, and private organizations on statistical issues, and will help develop guidance for the pharmaceutical industry and clinical investigators.

QUALIFICATIONS: Candidates should possess professional experience and an advanced degree with specific coursework in an appropriate field of study. This should include 24 semester hours of mathematics and statistics, of which at least 12 semester hours are in mathematics and 6 semester hours are in statistics, or a combination of education and experience with at least 24 semester hours of mathematics and statistics, including at least 12 hours in mathematics and 6 hours in statistics, plus appropriate experience or additional education. Candidates with a Doctorate or Masters degree and associated experience are highly desirable. In addition to a background in statistics and analysis, applicants should have an interest in clinical trials, epidemiology, genomics, risk assessment, or experimental design. Candidates should also possess excellent communication skills, both oral and written. Since work is conducted in interdisciplinary groups, the ability to communicate statistical issues to non-statisticians is important. Candidates for Civil Service or USPHS Commissioned Corps must be U.S. citizens. Permanent U.S. residents may apply for staff fellowship appointments. Applications will be accepted from other Non-Citizens as allowed by appropriations and statute.

SALARY/BENEFITS: Civil Service Salary for GS-11 is \$67,385 to \$87,597; for GS-12 is \$74.872 to \$97,333; for GS-13 is \$89,033 to \$115,742. The FDA is a family friendly workplace offering excellent benefits with flexible work hours and location. CDER's Office of Biostatistics is located in Silver Spring, Maryland, just outside the Washington, D.C. beltway.

The FDA is an Equal Opportunity Employer and has a smoke-free environment. We particularly welcome applications from women and minority candidates.

HOW TO APPLY: If you are interested in considering employment with CDER's Office of Biostatistics, please submit your resume to:

Dr. S. Edward Nevius, Deputy Director, Office of Biostatistics Bldg. 21, Room 3550,10903 New Hampshire Ave., Silver Spring, MD 20993-0002 Telephone: (301) 796-1263 e-mail: SEdward.Nevius@fda.hhs.gov For more information, please visit the Office of Biostatistics website: http://www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/ucm166250.htm

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Pennsylvania

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Tennessee

■ The University of Tennessee Health Science Center Department of Preventive Medicine seeks a PhD biostatistician for a tenure-track position at assistant or associate professor level. Minimum qualifications for the position are a PhD in statistics, biostatistics, epidemiology (with dissertation in methodological research) or related area. Interested applicants should go to: *http://oracle.uthsc. edu/a206_job_desc.php?pin=22123*. The University of Tennessee Health Science Center is an equal opportunity/affirmative action employer.

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The Biostatistics Service at Memorial Sloan-Kettering Cancer Center seeks applicants for a position in our group. The Service consists currently of more than 30 biostatisticians at various levels of seniority. The responsibilities will involve collaborative work with investigators conducting clinical research on cancer. We seek a candidate who is committed to a career supporting inter-disciplinary research in a medical research environment. The successful candidate must possess strong technical skills in statistical analysis, excellent oral and written communication skills, the ability to present technical material effectively to colleagues in other disciplines, and a strong commitment to understand and contribute to the clinical issues motivating the research. Candidates must have a doctoral degree in biostatistics, statistics, or a related quantitative degree. Candidates with previous experience in a medical research or related setting are encouraged to apply. Send a cv and contact information for at least 3 references to Katherine Wong, Biostatistics Search, MSKCC, 307 East 63rd Street, New York, NY, 10065. MSKCC is an Equal Opportunity Employer.



Assistant Professor

The Division of Biostatistics and Bioinformatics at Penn State College of Medicine seeks applicants for a tenure-track Assistant Professor position in biostatistics. Qualifications include a PhD in biostatistics or statistics. Applicants with expertise and experience in the design and analysis of clinical, basic science, and translational research studies are encouraged to apply.

Send a statement of research interests, curriculum vitae, and three letters of references to Ms. Diane Pague dpague@phs.psu.edu.

Employment will require successful completion of background check(s) in accordance with University policies. Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

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Survey Sampling Statistician

EOE

Westat is an employee-owned corporation headquartered in the suburbs of Washington, DC (Rockville, Maryland). We provide statistical consulting and survey research to the agencies of the U.S. Government and to a broad range of business and institutional clients. With a strong technical and managerial staff and a long record of quality research, Westat has become one of the leading survey research and statistical consulting organizations in the United States.

Our company was founded in 1961 by three statisticians. The current staff of more than 2,000 includes over 60 statisticians, as well as research, technical, and administrative staff. In addition, our professional staff is supported by data collection and processing personnel situated locally and in field sites around the country. The work atmosphere is open, progressive, and highly conducive to professional growth.

Our statistical efforts continue to expand in areas such as the environment, energy, health, education, and human resources. Westat statisticians are actively involved in teaching graduate-level courses in statistical methods and survey methodology in collaborative arrangements with area colleges and universities.

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Survey Sampling Statistician

Responsibilities include: developing sample designs (determining stratification and allocation to strata; determine sample size based on differences and power; determine optimal clustering; and select sample); selecting and/or constructing appropriate sample frame; developing and documenting weighting plan which includes non-response adjustment and bench-marking; developing and conducting imputation for item nonresponse and estimating sampling errors using appropriate software; writing specifications for programmers; and preparing reports on sample design, weighting procedures and other methodological issues. Candidates would benefit from knowing SAS and other statistical software packages; although candidates are not required to do programming. A master's or doctoral degree in statistics is required with 3 or more years of relevant experience. Coursework in sample survey design is highly desirable.

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It is expected that the applicant will have the following qualifications:

1. A doctoral degree or publications and experience demonstrating necessary expertise in a social science, computer science, or mathematical statistics (as relevant to the position).

2. Demonstrated leadership, as evidenced by job history, letters of reference, and major professional organization activities.

3. Recognition as an expert researcher in the relevant field, as evidenced by a substantial number of publications in refereed journals that demonstrate the ability to conduct independent and influential research.

4. Experience in planning and conducting broad technical studies that are relevant to the activities of a government statistical agency.

All positions are senior-level (ST) positions, with a salary range of \$119,554 to \$179,700 per year. For more information, contact **Dr. Daniel Weinberg** (daniel.h.weinberg@census.gov). If you are interested in applying for any of these positions, please send a resume to **Dr. Thomas Louis,** Associate Director for Research and Methodology (thomas.arthur.louis@ census.gov), and **Dr. Ron Jarmin**, Assistant Director for Research and Methodology (ron.s.jarmin@census.gov). While there is no firm deadline, please submit your resume as soon as practicable.

While it is preferred that applicants will work as full-time Census Bureau employees, other avenues are available for collaborative work, including appointments (for up to two 2-year terms) under the Intergovernmental Personnel Act. Joint arrangements with universities in the Washington DC area are also possible.

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The Department of Preventive Medicine at the University of Tennessee Health Science Center (UTHSC) seeks Ph.D. Biostatistician for a Tenure Track position at Assistant or Associate Professor level. UTHSC is a major medical and research center located in Memphis, Tennessee, which is a medium size, ethnically diverse, culturally rich, family-friendly city with a low cost of living. Information about the Department of Preventive Medicine can be found at www.uthsc. edu/prevmed. Minimum qualifications for the position are a PhD in Statistics, Biostatistics, Epidemiology (with dissertation in methodological research) or related area, and experience and demonstrated ability in collaborative and methodological research, a relevant publication record in peer-reviewed journals, and evidence of successful teaching. Candidates with clinical and public health research experience are especially encouraged to apply. Rank will be commensurate with experience. Interested applicants should submit electronically a copy of their CV, a cover letter describing research interests and teaching experience, and at least three recommendation letters, one of which is preferred to be from the Ph.D. advisor, to Mehmet Kocak, Ph.D., the Chair of the Biostatistics Faculty Search Committee, Department of Preventive Medicine, the University of Tennessee Health Science Center, at <u>mkocak1@uthsc.</u> edu. The University of Tennessee Health Science Center is an equal opportunity/affirmative action employer.

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