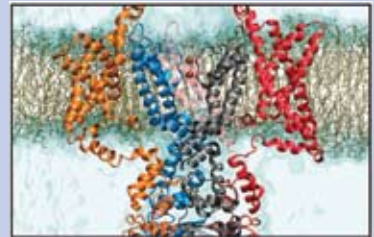


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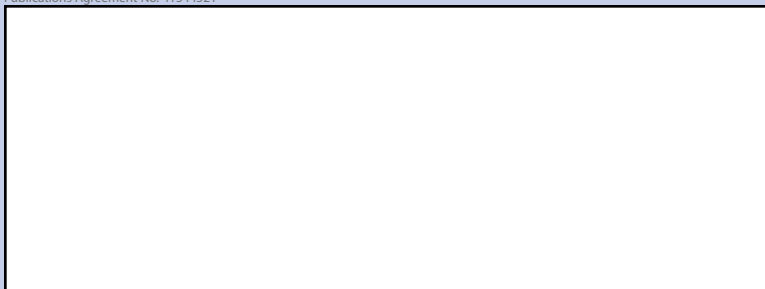
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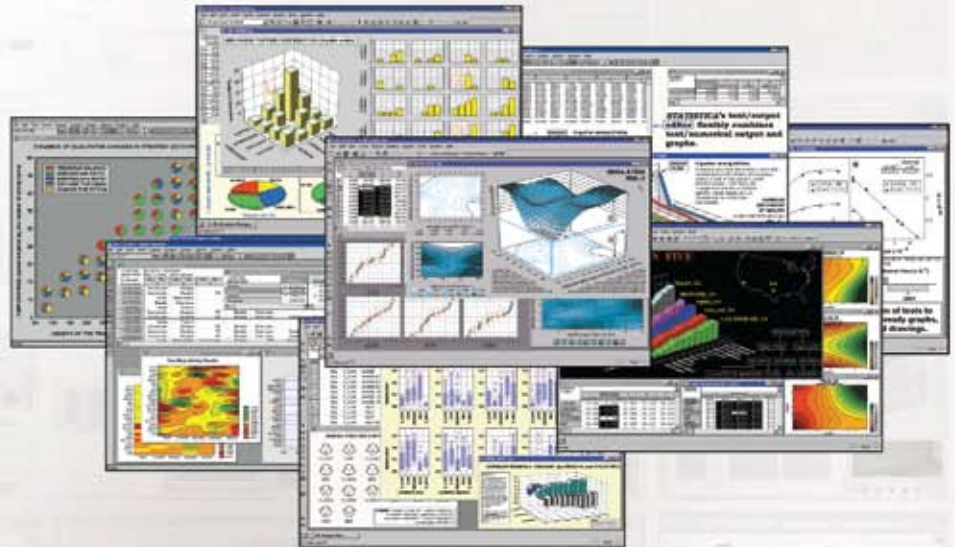
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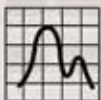
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25 FUNDING OPPORTUNITIES FY 2012 Federal Budget Request

This column highlights research activities that may be of interest to ASA members. These brief articles include information about new research solicitations and the federal budget for statistics. Comments or suggestions for future articles may be sent to ASA Research and Graduate Education Manager Keith Crank at keith@amstat.org.



Crank

Contributing Editor

Keith Crank earned a BS in mathematics education and an MS in mathematics from Michigan State University and a PhD in statistics from Purdue University. Prior to joining the ASA as research and graduate education manager, he was a program officer at the National Science Foundation, primarily in the probability program.

27 SCIENCE POLICY Measuring Innovation: Better Data to Help Design Policies to Revive Economic Growth

This column is written to inform ASA members about what the ASA is doing to promote the inclusion of statistics in policymaking and the funding of statistics research. To suggest science policy topics for the ASA to address, contact ASA Director of Science Policy Steve Pierson at pierson@amstat.org.



Jorgenson

Contributing Editor

Dale Jorgenson is the Samuel W. Morris University Professor at Harvard University. A Fellow of the ASA since 1965, he is the recipient of the 2010 Julius Shiskin Memorial Award for Economic Statistics for his leadership in the integration of the U.S. National Accounts and contributions to the measurement of productivity, innovation, capital, human capital, and poverty.

Online Articles

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

The Third International Workshop in Sequential Methodologies (IWSM) will be held at Stanford University from June 14–16. The three main themes are sequential and adaptive design of clinical trials and other sequential methods in biostatistics; sequential change-point detection, quality control and surveillance, sequential methods in signal processing, and sensor networks; and sequential estimation, testing, ranking and selection, optimal stopping and stochastic control, applications to finance and economics, and related topics in statistics and probability. The 70th birthdays of both Gary Lorden and David Siegmund also will be celebrated. Visit <http://magazine.amstat.org> to read more.

Judges Sought for ASA Project Competition

The ASA/NCTM Joint Committee on Curriculum in Statistics and Probability is seeking judges for the ASA Project Competition. Judging takes place via email during the summer and requires about four hours of your time. If interested, email Jamis Perrett at jamis@stat.tamu.edu.

Project Competition Deadline Extended to June 9

Introduce K–12 students to statistics through the annual project competition directed by the ASA/NCTM Joint Committee on Curriculum in Statistics and Probability. The competition offers opportunities for students to formulate questions and collect, analyze, and draw conclusions from data. Winners will be recognized with plaques, cash prizes, certificates, and Texas Instruments calculators. Also, their names will be published in *Amstat News*.

Projects, for all grades, are now due on June 9 to accommodate AP Statistics students who will be taking the exam in early May. For more information, including two instructional webinars, visit www.amstat.org/education/posterprojects.

columns

- 29 **STATtr@k**
From Computer Scientist to Statistician
Stumbling backward and landing well

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.



Beamer

Contributing Editor

Andrew Beamer is a second-year master's student at North Carolina State University. As an undergraduate, he majored in computer science, computer engineering, and electrical engineering, also at NC State.



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Statistics without Borders

Gary Shapiro, Statistics without Borders Chair

You probably know the ASA has chapters (www.amstat.org/chapters) and sections (www.amstat.org/sections). However, you may not know there is a third type of ASA group—the outreach group. There are four, including the Caucus of Academic Representatives, Friends of Australasia, Isolated Statisticians, and Statistics without Borders (SWB). For the April president's column, I invited Gary Shapiro, SWB chair, to describe this group and tell you about its activities.

~ Nancy L. Geller, ASA President

Statistics without Borders is an apolitical group that was formed in late 2008 to provide pro bono statistical support to organizations involved in not-for-profit international health (broadly defined) efforts. The goal of the group is to achieve better statistical practice, including statistical analysis and design of experiments and surveys. To that end, there are about 250 members from many countries, far exceeding expectations.

While SWB members have a wide range of expertise, most projects so far have involved survey planning and/or analysis of survey data. Most work has been done through email, but there have been occasional trips to developing countries. Following are a few examples of SWB projects:

- SWB assisted the company SciMetrika with a cell phone survey to assess the economic impact of the January 2010 earthquake in Haiti. The specific goals were to estimate the employment and housing status of the Haitian population. SWB volunteers visited Haiti to begin the planning and are now analyzing the survey results. This work was

featured on National Public Radio (<http://media.theworld.org/audio/060120109.mp3>).

- Each year, the Food and Nutritional Technical Assistance II (FANTA-2) project at the Academy for Educational Development reviews and provides comments about baseline survey plans for newly awarded food security programs in developing countries funded by USAID's Office of Food for Peace. For the last two years, SWB volunteers have served as statistical reviewers of these plans.
- SWB helped prepare a proposal for the Inter-American Development Bank to survey households in Mexico about their use of bottled water. SWB was extensively involved in the early planning and assisted with the general sample design and questionnaire.
- SWB is working on a long-term project with UNICEF to evaluate health interventions in Sierra Leone. SWB assisted with the design of the baseline survey, data cleaning, and survey

Serving as a volunteer on an international health project can be a personally rewarding and satisfying experience.

weighting. Ongoing work will include data analysis and planning for a post-intervention survey. An unsolicited comment from our main UNICEF contact follows: "... [your SWB volunteer] did an outstanding job. I could not have done it without her. She was so patient with cleaning the data and dealing with unexpected problems related to revisits. ..."

- KOMAZA (www.komaza.org) works with farmers in Kenya to promote the planting of Eucalyptus trees. They sought SWB assistance to assess the social and economic impact of their program over time. SWB volunteers helped KOMAZA plan a baseline survey. They proposed a stratified sample design, recommended a sample size to achieve the desired reliability, advised on training sessions for nonresponse follow up (enumerator training sessions), and advised on the conduct of the survey.

It is clear from these examples that many organizations in the United States and other countries would benefit greatly from statistical consulting and support, but cannot afford to pay for it. SWB is particularly eager to spread the word of its services to organizations that can use statistical help. Please email me at g.shapiro4@verizon.net if you know of any such organization.

Serving as a volunteer on an international health project can be a personally rewarding and satisfying experience. SWB volunteer Sowmya Rao said, "The most gratifying part ... was teaching the statisticians from Sierra Leone techniques to analyze data since they were very enthusiastic, eager to learn, and appreciative of the opportunity to be part of the project beyond data collection." The dedication of so many SWB volunteers who have worked on projects is quite astounding. ASA can be proud of its far reach.

To learn more about SWB, visit <http://community.amstat.org/amstat/StatisticsWithoutBorders>. ■

CORRECTION:

In the February issue of *Amstat News*, Juanita Lott was unintentionally left off the Annual Fund drive 500+ list. We regret the error.



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Recognizing the ASA's Longtime Members

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

If you are a longtime member and will be attending the 2011 Joint Statistical Meetings in Miami, Florida, please join us for a reception in your honor. If your name is not listed below and you believe it should be, please contact Alessandra Boniface at alessandra@amstat.org to correct your record.

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Ersen Arseven	Lennart Bodin	R. Dennis Cook	R. Dennis Cook	R. Dennis Cook	Alan C. Fisher
James N. Arvesen	Christine C. Boesz	Lewis Coopersmith	Lewis Coopersmith	Lewis Coopersmith	Andrew J. Flatt
Orley Ashenfelter	Aroona S. Borpujari	Margaret D. Carroll	Margaret D. Carroll	Margaret D. Carroll	W. Erwin Diewert
Corwin L. Atwood		Robert J. Costello	Robert J. Costello	Robert J. Costello	Darryl J. Downing
		Raymond J. Carroll	Raymond J. Carroll	Raymond J. Carroll	Jairus D. Flora
		Louis J. Cote	Louis J. Cote	Louis J. Cote	Sandra Forman
		Walter H. Carter	Bradford R. Crain	Bradford R. Crain	James W. Frane
		Giles L. Crane	Giles L. Crane	Giles L. Crane	Dennis A. DuBose

40-44 Years

Daniel H. Freeman	William E. Griffiths	Frank L. Hurley	David C. Korts	Ronald G. Marks	Subhash C. Narula
Mark C. Fulcomer	Joseph A. Guarnieri	Huynh Huynh	Neal Koss	Robert L. Mason	Charles R. Nelson
Howard N. Fullerton	Richard F. Gunst	Dar-Shong Hwang	Mary Grace Kovar	Takashi Matsui	Glenn L. Nelson
Mitchell H. Gail	Shelby J. Haberman	Ronald L. Iman	Helena C. Kraemer	Clement J. Maurath	Anna B. Nevius
Edward J. Gainer	Hermann Habermann	William G. Jackson	Joseph B. Kruskal	George P. McCabe	S. Edward Nevius
Richard Gaines	Robert E. Hale	Joan R. Jacobs	Richard J. Kryscio	Lyman L. McDonald	David S. Newman
Daniel J. Gans	Robert E. Hall	David Jacobson	Arabinda Kundu	J. Thomas McEwen	James A. Nickel
Fernando L. Garagorry	Silas Halperin	F. E. James	Lynn Roy LaMotte	John D. McKenzie	Earl Nordbrock
John A. Gaudiosi	Chien-Pai Han	Sreenivasa Rao Jammalamadaka	Kenneth C. Land	Glen D. Meeden	Julia A. Norton
Gauri L. Ghai	R. Choudary Hanumara	J. D. Jobson	James M. Landwehr	Jeff B. Meeker	Marija J. Noruis
P. D. Ghangurde	Lynne B. Hare	Clifford L. Johnson	Per Lange	James I. Mellon	Janet L. Norwood
Glenn H. Gilbreath	Galen F. Hart	Dallas E. Johnson	Chang S. Lao	Gayle T. Meltesen	Paula K. Norwood
Edward J. Gilroy	Larry D. Haugh	Richard A. Johnson	Kinley Larntz	William L. Mietlowski	Robert L. Obenchain
Howard Seth Gitlow	Robert M. Hauser	Paul K. Jones	William D. Lawing	Satish Chandra Misra	Peter C. O'Brien
John R. Gleason	Douglas M. Hawkins	Peter R. Jones	Jerald F. Lawless	Melvin L. Moeschberger	Jerry L. Oglesby
T. F. Glover	William F. Heiland	John H. Kalbfleisch	Anthony James Lawrance	Robert Mondschein	Morris Olitsky
James H. Godbold	Karl W. Heiner	John D. Kalbfleisch	Kenneth D. Lawrence	Douglas C. Montgomery	Leonard Oppenheimer
Prem K. Goel	Robert W. Hertz	Balvant K. Kale	Russell V. Lenth	Roderick Montgomery	J. Keith Ord
Judith D. Goldberg	Agnes M. Herzberg	William D. Kalsbeek	Yves Lepage	Billy J. Moore	Albert C. Ovedovitz
Robert N. Goldman	Klaus Hinkelmann	Howard S. Kaplon	Donald Lewin	David S. Moore	Maurice E. B. Owens
Matthew Goldstein	David V. Hinkley	Joseph D. Kasile	David L. Libby	John K. Moore	William J. Padgett
J. Douglas Gordon	David C. Hoaglin	Myron J. Katzoff	Robert F. Ling	George W. Lynch	Connie F. Page
Louis Gordon	Theodore R. Holford	Thomas Keefe	Robert G. Lovell	Effat A. Moussa	Darrel W. Parke
Bernard S. Gorman	Stephen C. Hora	Ralph L. Kent	George W. Lynch	Robb J. Muirhead	Leonard J. Parsons
Jack W. Green	David W. Hosmer	David L. Kimble	James R. Maar	Bruce E. Mackey	Harold C. Pasini
Jeffrey J. Green	David C. Howell	Robert Kinnison	Bruce E. Mackey	Edward R. Mansfield	Henry D. Muse
David M. Grether	Lawrence J. Hubert	Roger E. Kirk	Edward R. Mansfield	Dennis R. Mar	Wayne L. Myers
	William F. Hunt	Robert C. Kohberger	Dennis R. Mar	Helen Marcus-Roberts	Jun-mo Nam
			Helen Marcus-Roberts	Krishnan Namboodiri	Arthur V. Peterson
					Charles G. Pfeifer
					Eswar G. Phadia

40-44 Years

Louis A. Pingel	Donald C. Ross	Neil C. Schwertman	Jon J. Shuster	Moon W. Suh	George H. Wang
Forrest H. Pollard	Dwight N. Rousu	Stuart Scott	Moshe Sicron	Michael Sutherland	James F. Ward
Mike Pore	Donald B. Rubin	Nell Sedransk	Robert L. Sielken	Richard D. Terrell	James H. Ware
Stephen L. Portnoy	Barbara J. Rutledge	Subrata K. Sen	Jagbir Singh	Ronald A. Thisted	Larry S. Webber
Ross L. Prentice	Julia Sabella	Jolayne W. Service	Nozer D. Singpurwalla	Carol B. Thompson	Edward J. Wegman
Philip J. Press	Susan T. Sacks	Jayaram Sethuraman	Walter Sloboda	Steven F. Thomson	Lynn Weidman
Bertram Price	John J. Salera	Charles E. Shaffer	Stephen C. Smeach	Bruce W. Turnbull	Sanford Weisberg
Philip C. Prorok	Francisco J. Samaniego	Juliet Popper Shaffer	Dennis E. Smith	Neil R. Ullman	K. Laurence Weldon
David A. Pyne	Douglas A. Samuelson	Nagambal D. Shah	Mitchell Snyder	Gerald van Belle	James P. Whipple
J. G. Ramage	Patricia D. Saunders	Paul Shaman	F. Michael Speed	Joseph Van Den Reysen	Owen Whitby
Calyampudi R. Rao	James J. Schlesselman	Gary M. Shapiro	Randall K. Spoeri	Lonnie C. Vance	David A. Wise
Carol K. Redmond	Joyce A. Schlieter	Michael W. Sherrill	M. K. Srirama	Wayne F. Velicer	Douglas A. Wolfe
George F. Reed	Josef Schmee	Ronald E. Shiffler	Muni S. Srivastava	Hrishikesh D. Vinod	Robert F. Woolson
Benjamin Reiser	James Schmeidler	Iris M. Shimizu	Michael R. Stoline	R. Lakshmi Vishnuvajjala	Gooloo S. Wunderlich
Louise C. Remer	William R. Schucany	James G. Shook	Robert L. Stout	Frederic A. Vogel	Morty Yalovsky
John A. Rice	Albert P. Shulte	Robert H. Shumway	Jerrell T. Stracener	Kenneth W. Wachter	Mark C. Yang
Hans Riedwyl	Eugene F. Schuster	William E. Strawderman	William E. Strawderman	Nariaki Sugiura	Rita Zernach
Richard D. Rippe	Bernard Rosner	Sylvan Wallenstein			Eric R. Ziegel
					Stuart O. Zimmerman

35-39 Years

Dennis Aaron	Frances J. Adox	Bengtung Ben Ang	Saad T. Bakir	Richard A. Becker	Roger L. Berger
Julian Abbott	Donald R. Akin	Lawrence Annable	Vincent P. Barabba	Jay H. Beder	Timothy M. Bergquist
Robert D. Abbott	Francis B. Alt	Taka Ashikaga	William A. Barnett	Steven Belle	James S. Bergum
Sandra C. Abbott	Dallas W. Anderson	Anthony C. Atkinson	John L. Barone	David R. Bellhouse	Catherine S. Berkey
John M. Abowd	Keaven M. Anderson	Agustin F. Ayuso	Michael P. Battaglia	Kerry G. Bemis	Jose Miguel Bernardo
Bovas Abraham	Robert J. Anderson	Leroy Bailey	Eileen J. Beachell	Robert B. Bendel	Ernst R. Berndt
Lee R. Abramson	Sharon Anderson	Stephen P. Baker	Robert J. Beaver	Jacqueline Benedetti	David J. Bernklau
C. J. Adcock			Patricia C. Becker	George Benson	

35-39 Years

Bibhuti B. Bhattacharyya	Kenneth R. W. Brewer	William P. Cleveland	R. B. Deal	Michael J. Evans	Turkan K. Gardenier
Wayne F. Bialas	J. Michael Brick	George W. Cobb	Michael L. Deaton	Ray E. Faith	Edward E. Gbur
William T. Bielby	Ron Brookmeyer	Timothy C. Coburn	Pierre C. Delfiner	David L. Farnsworth	Robin T. Geiger
Paul P. Biemer	Dean S. Bross	Steven B. Cohen	David L. DeMets	Thomas B. Farver	Alan E. Gelfand
Robert H. Bigelow	Rocco L. Brunelle	James J. Colaianne	Lorraine Denby	Alan Fask	John F. Geweke
Richard A. Bilonick	Edward C. Bryant	John R. Collins	Wayne S. Desarbo	Gerald M. Fava	Dhirendra N. Ghosh
David A. Binder	Shirrell Buhler	Salvatore V. Colucci	Thomas F. Devlin	John P. Fazio	Malay Ghosh
Stephen F. Bingham	Richard K. Burdick	Loveday L. Conquest	Terry E. Dielman	Ronald S. Fecso	David E. A. Giles
Giselle Binstok	John M. Bushery	Kennon R. Copeland	E. Jacquelin Dietz	Michael L. Feldstein	Brenda Wilson Gillespie
Jeffrey B. Birch	Thomas J. Bzik	Margaret D. Copenhaver	David P. Doane	Martin Feuerman	Phyllis A. Gimotty
Herbert L. Bishop	Lawrence S. Cahoon	Thomas W. Copenhaver	Allan P. Donner	David F. Findley	Dennis R. Givens
Thomas A. Bishop	Patrick J. Cantwell	Charles D. Cowan	Joseph R. Donovan	Carl Thomas Finkbeiner	Beth C. Gladen
Richard M. Bittman	Thomas P. Capizzi	Brenda G. Cox	Janice L. Dubien	Nicholas I. Fisher	Marcia A. Glauber
Jan F. Bjornstad	Grant D. Capps	Anne P. Cross	Joseph W. Duncan	Allen I. Fleishman	Marcia A. Glauber
Ernest A. Blaisdell	Arthur Carpenter	Suzanne L. Cross	William D. Dupont	James W. Flewelling	Joseph Glaz
Mark M. Blanchard	George Casella	John J. Crowley	Ann Durand	Nancy Flournoy	Frederick P. Glick
Peter Bloomfield	Frank C. Castronova	Kenny S. Crump	L. Marlin Eby	Hans T. Forst	Fred Goettler
Harvey Blumberg	Amrut M. Champaneri	Andrew Joseph Cucchiara	William F. Eddy	Peter E. Fortini	Shirly A. Goetz
Dan C. Boger	John P. Chandler	William G. Cumberland	Marlene J. Egger	Mary A. Foulkes	Huseyin A. Goksel
Robert J. Boik	Judith-Anne W. Chapman	L. Adrienne Cupples	Kathleen Louise Emery	Janet F. Fowler	Richard F. Goldstein
James A. Bolognese	Yogendra P. Chaubey	Robert D. Curley	Wil B. Emmert	John D. Fox	Joe Fred Gonzalez
James T. Bonnen	Gina G. Chen	Lester R. Curtin	Curtis S. Engelhard	Leroy A. Franklin	James H. Goodnight
Dennis Boos	Michael R. Chernick	Andrew I. Dale	Richard M. Engeman	Martin D. Fraser	Robert D. Gordon
Marie V. Bousfield	Robert D. Chew	Prithwis Dasgupta	Kurt Enslein	Carol L. French	Jerren Gould
John E. Boyer	Nanjamma Chinnappa	William W. Davis	Thomas W. Epps	David Frontz	Stephanie J. Green
Norman M. Bradburn	Joan Sander Chmiel	Roberta W. Day	Samuel M. Epstein	David S. Fryd	Timothy A. Green
Ann Cohen Brandwein	Jai Won Choi	Forest C. Deal	William H. Epstein	Barbara A. Gabianelli	William H. Greene
Ellen F. Brewer	Adam Chu	James W. Evans	Eugene P. Ericksen	Stephen J. Ganocy	Joel B. Greenhouse
				Roan A. Garcia-Quintana	John Vic Grice

35-39 Years

Susan Groshen	James L. Hess	David Jaspen	Albert Kingman	Nicolaas F. Laubscher	Roger Longbotham
Cynthia R. Gross	Eugene R. Heyman	Jean G. Jenkins	Ignatius A. Kinsella	Philip T. Lavin	Michael T. Longnecker
Marvin H. J. Gruber	James J. Higgins	Linda W. Jennings	Nancy J. Kirkendall	Sheila M. Lawrence	Thomas A. Louis
Leslie S. Grunes	Robert Hill	Robert W. Jernigan	Syed N.U.A. Kirmani	Johannes Ledolter	Milton W. Loyer
Victor M. Guerrero	Steven C. Hillmer	Bruce E. Johnson	Rudolf G. Kittlitz	Clifford J. Lee	Jay H. Lubin
Farrokh Guiahi	Susan M. Hinkins	Paulette M. Johnson	Beat Kleiner	Kelvin K. Lee	Dennis W. Luckey
Perry D. Haaland	Jerry L. Hintze	Gerald A. Joireman	Richard E. Kleinknecht	Kerry L. Lee	Donald M. Luery
Timothy O. Haifley	Raymond G. Hoffmann	Ian T. Jolliffe	Stuart A. Klugman	Martin L. Lee	James Lynch
David B. Hall	Thomas P. Hogan	David C. Jordan	Ralph L. Kodell	James D. Leeper	John MacIntyre
James L. Hall	Robert M. Holmes	Harmon S. Jordan	Kenneth J. Koehler	Stanley A. Lemeshow	Michael E. Mack
Nancy R. Hall	Alan Hopkins	Henry D. Kahn	Kenneth J. Kopecky	Ramon V. Leon	Kathleen S. Madsen
David C. Hamilton	Berne Martin Howard	Lee D. Kaiser	Kenneth J. Koury	Heryee H. Leong	Jay Magidson
Janet M. Hanley	Ina P. Howell	Paul B. Kantor	Edward L. Korn	James M. Lepkowski	Linda C. Malone
Robert C. Hannum	Louis Hsu	Theodore G. Karrison	Kenneth J. Koury	Trudy J. Lerer	Eric J. Mandel
James N. Hansen	Elizabeth T. Huang	Daniel Kasprzyk	Ioannis A. Koutrouvelis	Martin L. Lesser	Charles F. Manski
C. David Hardison	Lee Huang	Masatoshi Katsuhara	Andrew Kramar	Marcia J. Levenstein	Agustin Maravall
William V. Harper	Marla L. Huddleston	Richard W. Katz	Abba M. Krieger	Bruce Levin	Kanti V. Mardia
Frank E. Harrell	Mark L. Hudes	Robert M. Katz	S. David Kriska	Charles Lewis	Michael J. Margreta
Stephen P. Harris	Mohammad F. Huque	Roswitha E. Kelly	Pieter M. Kroonenberg	Frederick W. Leysieffer	Mary A. Marion
Diane S. Harry	David N. Ikle	Sheryl F. Kelsey	Robert Kushler	Shou-Hua Li	Ray L. Marr
Kenneth R. Hartmann	Duane M. Ilstrup	James L. Kenkel	Alan H. Kvanli	Walter S. Liggett	Donald L. Marx
Robert E. Hausman	John M. Irvine	James R. Kenyon	John M. Lachin	Lawrence I-Kuei Lin	Paula E. Mason
Maurine A. Haver	Alan J. Izenman	James L. Kepner	James R. Lackritz	Carol L. Link	Frances J. Mather
Ronald W. Hawkinson	Kirk A. Jackson	Andre I. Khuri	Nan Laird	Robert E. Little	Victor M. Matthews
Richard M. Heiberger	William E. Jackson	Ruth Ann Killion	Mansum A. Lam	George A. Livingston	LeRoy T. Mattson
Lance K. Heilbrun	Eva E. Jacobs	Charles L. Kincannon	Carol J. Lancaster	Greta M. Ljung	Timothy A. Max
Harold V. Henderson	Peter J. Jacobs	Donald W. King	Patricia Langenberg	Nancy C. Lo	Margaret W. Maxfield
Ellen Hertzmark	Michael A. Jacroux	Roland E. King	Wallace E. Larimore	Scott E. Maxwell	Michael J. Mazu
Thomas Herzog	Raj K. Jain	Terry L. King			

35-39 Years

Janet E. McDougall	Lawrence H. Muhlbaier	J. Burdeane Orris	Dale J. Poirier	John E. Rolph	David A. Schoenfeld
Stephen A. McGuire	Leigh W. Murray	Joyce Orsini	William E. Pollard	Paul R. Rosenbaum	Timothy L. Schofield
Joseph W. McKean	John C. Nash	Melvin L. Ott	Jessica Pollner	James L. Rosenberger	Friedrich W. Scholz
Geoffrey J. McLachlan	Elliott Nebenzahl	Willis L. Owen	Darwin H. Poritz	N. Phillip Ross	John H. Schuenemeyer
Christine E. McLaren	Reinhard Neck	David J. Pack	Frank J. Potter	Roch Roy	Donald J. Schuirmann
Don L. McLeish	John T. Neely	Mari Palta	Randall W. Potter	Lawrence V. Rubinstein	Alastair J. Scott
Ronald E. McRoberts	Gary L. Neidert	William S. Pan	Manfred Precht	Estelle Russek-Cohen	Thomas A. Scripps
William Q. Meeker	James W. Neill	Arthur C. Papacostas	Dale L. Preston	Kevin Price	William L. Seaver
Robert J. Meier	Paul I. Nelson	Swamy A.V.B. Paravastu	Lloyd P. Provost	Carl T. Russell	Jeanne L. Sebaugh
Kathleen A. Mellars	Margaret A. Nemeth	Sung H. Park	Peter Purdue	Thomas P. Ryan	Joseph Sedransk
Roy Mendelssohn	Robert L. Newcomb	Won J. Park	John N. Quiring	Michael S. Saccucci	Teddy I. Seidenfeld
Ulrich Menzefricke	H. Joseph Newton	William C. Parr	Tony K. S. Quon	Thomas W. Sager	Thomas R. Sexton
Michael M. Meyer	Kai Wang Ng	Rudolph S. Parrish	Alfred W. Rademaker	John P. Sall	Glenn R. Shafer
Terry G. Meyer	Thomas W. Nolan	Van L. Parsons	Damaraju Raghavarao	William M. Sallas	Arvind K. Shah
Joel E. Michalek	El-Sayed E. Nour	Jeffrey S. Passel	Volker W. Rahlfs	Allan R. Sampson	Mohammed A. Shayib
Richard O. Michaud	Thomas S. Nunnikhoven	Jagdish K. Patel	Volker W. Rahlfs	Ester Samuel-Cahn	Shingo Shirahata
Mary-Jane Mietlowski	Barry D. Nussbaum	Charles L. Paule	Philip H. Ramsey	Gilles F. M. Santini	Patrick E. Shrout
John A. Miller	David Oakes	Karl E. Peace	Rose M. Ray	Thomas J. Santner	Andrew F. Siegel
Katherine L. Monti	Kevin F. O'Brien	N. Shirlene Pearson	William J. Raynor	Robert L. Santos	Richard S. Sigman
Thomas F. Moore	Ralph G. O'Brien	Raymond C. Peck	Susan L. Reiland	Nathan E. Savin	Judith D. Singer
George E. Morgan	Michael W. O'Donnell	Peter H. Peskun	Mark R. Reiser	Richard L. Sawyer	Robert D. Small
David R. Morganstein	Judith Rich O'Fallon	A. John Petkau	Kenneth J. Resser	William G. Saylor	Robert K. Smidt
Max D. Morris	Walter W. Offen	Maurice Pfannestiel	Mark William Riggs	Patricia A. Scanlan	Murray H. Smith
Norman Morse	Douglas M. Okamoto	Daniel Pfeffermann	William C. Rinaman	Stephen Schacht	Patricia L. Smith
Michael L. Mout	Charles B. Pheatt	Philip J. Pichotta	Paula K. Roberson	Nancy K. Schatz	William A. Sollecito
Barbara G. Mroczkowski	Philip J. Pichotta	Linda Williams Pickle	Rosemary A. Roberts	Kenneth Schechtman	Dan J. Sommers
	Patrick D. O'Meara	Joseph G. Pigeon	Frank W. Rockhold	Perry A. Scheinok	Frank C. Sonsini
	Bernard V. O'Neill	Brian D. Plikaytis	Robert N. Rodriguez	Mildred E. Schmidt	
	Terence John O'Neill	Russell H. Roegner		John D. Schmitz	

35–39 Years

Keith A. Soper	Michael M. Strand	Richard B. Tiller	Kerstin Vannman	Daniel L. Weiner
John David Sparkes	Donna F. Stroup	Ronald R. Titus	Stephen B. Vardeman	Jon August Wellner
Terence P. Speed	Walter W. Stroup	Jerome D. Toporek	Denton R. Vaughan	Roy E. Welsch
Bruce D. Spencer	Perla Subbaiah	Lynn D. Torbeck	Niels H. Veldhuijzen	Fredrick S. Whaley
Clifford H. Spiegelman	James P. Summe	Robert D. Tortora	Joseph S. Verducci	Robert M. Wharton
Nancy L. Spruill	Richard A. Sundheim	David C. Trindade	Hajime Wago	Andrew A. White
Donald M. Stablein	Robert Sutherland	Ishwari D. Tripathi	Joel A. Waksman	Roy W. Whitmore
William M. Stanish	David A. Swanson	J.R. Roger Trudel	Esteban Walker	Howard L. Wiener
Richard M. Stanley	Gerald R. Swope	L. Claire Tsao	Joseph J. Walker	Rand R. Wilcox
Bert Steece	Richard J. Sylvester	Kam-Wah Tsui	Katherine K. Wallman	Leland Wilkinson
J. Michael Steele	Prem P. Talwar	James P. Tuck	Chao Wang	Andrew R. Willan
Lynda K. Steele	Ajit C. Tamhane	Alan R. Tupek	Chao Wang	Jean F. Williams
David W. Stewart	Ajit C. Tamhane	David L. Turner	Sophonria W. Ward	Stephen R. Williams
Gerald R. Stewart	Robert M. Tardiff	Gregory W. Ulferts	Herbert W. Ware	William J. Wilson
John A. Stewart	Erica S. Taucher	Richard F. Ulrich	John Warren	Michael A. Wincek
Robert A. Stine	Marcia A. Testa	Jessica M. Utts	Stanley Wasserman	Lawrence C. Wolfe
Sandra S. Stinnett	A. Cole Thies	Pamela M. Vacek	William L. Weber	Kirk M. Wolter
Anne M. Stoddard	John M. Thomas	Hernando Valencia	William E. Wecker	Michael G. Yochmowitz
Michael A. Stoto	John H. Thompson	Richard L. Valliant	Thomas E. Wehrly	Sarah T. Young
Miron L. Straf	Mary E. Thompson	George H. Van Amburg	William W. S. Wei	James R. zumBrunnen
Robert F. Strahan	Theodore J. Thompson	Richard Craig Van Nostrand		

Applying for Accreditation: It All Starts with Intent

Now that the ASA's accreditation program is up and running, perhaps you are giving some thought to applying. Applications for accreditation are handled entirely online. First, go to www.amstat.org/accreditation and review the guidelines to be sure of your eligibility. You'll find a button leading to the guidelines on the left side of the screen.

Second, click on the "intent to apply" button (www.amstat.org/accreditation/intenttoapply.cfm) to fill out a short form. The purpose of this form is to notify the ASA of your interest. Filling out the form creates no obligation on your part, but it does trigger a process that leads to an email from the ASA inviting you to apply.

When you receive this email, log in to ASA Members Only at www.amstat.org/membersonly. On the left side of the screen, you'll see the PStat button. When you click on it, your online application will open.

Your application should be a thoughtfully assembled document that makes clear to the accreditation committee that you meet the requirements for accreditation. To guide you, your online application consists of the following components:

- Contact information. This is filled in for you based on your record in the ASA database, but you may update the information for your application. It will be updated in your ASA record, as well.
- A cover letter (uploaded as a PDF file). This letter summarizes and clarifies the materials submitted in the application and helps make clear to the accreditation committee why you meet the criteria for accreditation.
- A résumé or CV (uploaded as a PDF file)
- A list of degrees earned and statistics courses taken
- A detailed list of relevant experience as a practicing statistician
- Up to five examples of work product (uploaded as a PDF file)



- A list of your professional development activities in the last three years
- Contact information for two referees. These are two people who will provide references for you.

The online application form provides detailed information about what is expected for each of these components.

Once your application is submitted, your referees will be notified and pointed to an online reference form. When the ASA receives these references, your application will be sent to three members of the accreditation committee for review.

Approval is by the committee's "rule of three"; it takes three affirmative votes to grant accreditation and three negative votes to deny it. If the initial review team has a split vote, then your application will be reviewed by two additional committee members who are unaware of the initial vote. At that point, there will be at least three votes to either approve or deny. Votes of 3-2 will be, in certain cases, subject to further discussion by the accreditation committee.

In most cases, applicants will receive notification of the committee's decision within two to four weeks. In the case of a negative decision, applicants will receive guidance for improving their application and qualifications prior to reapplying.

Again, filling out the intent-to-apply form and starting an application does not obligate you to ultimately submit an application; however, getting started on an application opens up a wealth of information to help you apply.

If you have questions about the accreditation process, drop a note to Ron Wasserstein, ASA executive director, at ron@amstat.org or Iain Johnstone, accreditation committee chair, at imj@stanford.edu. ■

Statisticians Participate in Climate Science Day on Capitol Hill

Five members of the ASA's Advisory Committee on Climate Change Policy joined 30 scientists from other disciplines to participate in the first Climate Science Day (CSD) on February 17. Sponsored by the ASA, American Association for the Advancement of Science, American Geophysical Union, and others, the scientists formed multidisciplinary teams to meet with members of Congress or their staffs about climate science and offer their help in answering questions relating to climate science.

Targeting freshman offices, the teams visited nearly 100 and emphasized potential regional effects of climate change. They also shared the executive summaries of the 2009 U.S. Global Change Research Program report, *Global Climate Change Impacts in the United States*, and the 2010 National Academies' report *Advancing the Science*, as well as a 2009 letter signed by



Murali Haran with Representative Glenn Thompson (R-PA) and Penn State colleague Patrick Drohan, a professor of pedology

18 science organization heads—including 2009 ASA President Sally Morton—stating a shared common view that climate change is occurring and greenhouse gases emitted by human activities are the primary driver.

To help prepare for the day of visits, participants attended “Congress 101,” a day of sessions teaching CSD objectives and how to have a successful Hill visit and communicate on climate change. There was also a panel with four Congressional Committee staffers and a Republican and Democrat from both the House and Senate.

Three of the ASA's participants, who were teamed with crop/soils scientists and geoscientists, had positive comments about CSD and their reception. Murali Haran of Penn State said, “By having our focus be on local concerns at the start, we helped make the staffers much more receptive to what we had to say about climate science later on. It also really helped to have someone with me who could

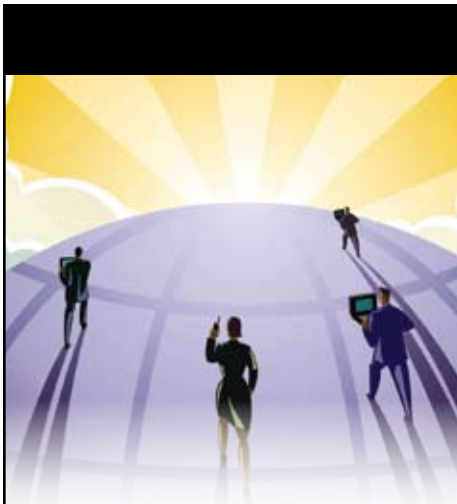
speak directly to agronomy and soil science issues.”

Peter Craigmile commented, “It was interesting to learn about the interactions between policy and science, but I think the bigger message that I brought home was that new member offices were receptive to us as sources of climate science information.”

Based on feedback from the offices visited, the scientists involved, and the society staff, the groups have agreed to start planning for 2012 Climate Science Day. The society staffs also are discussing how to support the goals of Climate Science Day through other activities.

Other ASA participants were Mark Berliner of The Ohio State University, Leonard Smith of the London School of Economics, and Richard Smith of The University of North Carolina/SAMSI. Additionally, the ASA Section on Statistics and the Environment helped support the ASA's involvement. ■

It was interesting to learn about the interactions between policy and science, but I think the bigger message that I brought home was that new member offices were receptive to us as sources of climate science information.



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Engage your fellow statisticians and enhance your mind, education, and career at www.amstat.org.

Davidian to Give Keynote at Women's Symposium

Kim Weems, North Carolina State University

Marie Davidian, William Neal Reynolds Professor of Statistics and director of the Center for Quantitative Sciences in Biomedicine at North Carolina State University, will deliver the keynote address at the North Carolina Symposium for Women in Mathematics and Statistics, to be held at NC State on April 16. Her talk will focus on a variety of applications that require combining mathematical and statistical modeling.

In addition to the keynote, there will be 20-minute contributed talks and small group discussions. Graduate students are especially encouraged to present their work, and expository talks describing a problem of interest also are welcome.

The goals of the symposium are to build a network of female mathematicians and statisticians in North Carolina to foster mentoring and collaborative relationships and to provide an



Davidian

opportunity for graduate students to present their research in a relaxed, friendly, and supportive environment.

The symposium is being organized by the North Carolina Enhancing Diversity in Graduate Education (EDGE) Mentoring Network in collaboration with NC State. For more information, contact Kim Weems at kim_weems@ncsu.edu. ■

Papers Sought for FCSM Research Conference

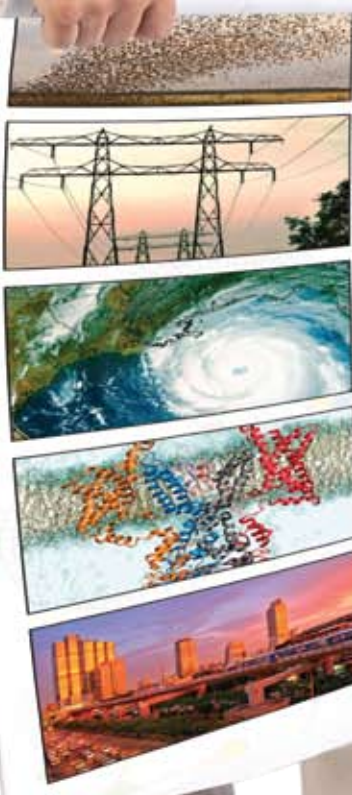
The Federal Committee on Statistical Methodology is planning a research conference—to be held at the Washington Convention Center, Washington, DC, from January 10–12, 2012—and abstracts are being accepted.

The conference will feature mostly contributed papers with formal discussion and software demonstrations on topics related to a variety of statistical research issues. Papers and demonstrations should address methodology, empirical studies, relevant issues, or needs for statistical research. Papers must be original and not previously published or disseminated.

The deadline for abstract submission (300 or fewer words) is May 6. Visit www.fcsm.gov/events for a list of possible topics and abstract template, and then submit your abstract via email to fcsm@census.gov. ■

April 2011

Mathematics Awareness Month



Complex Systems

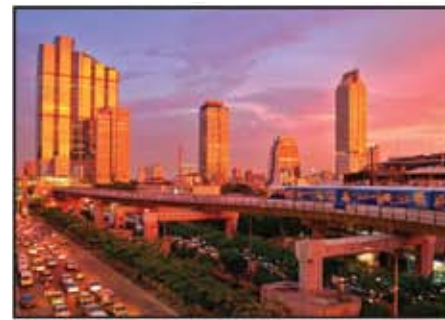
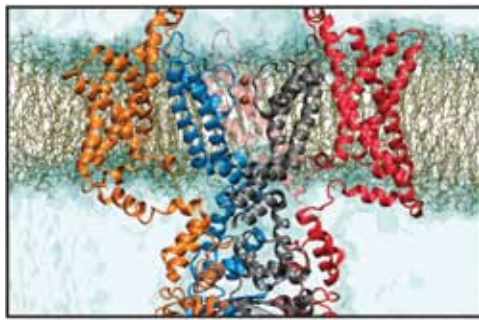
We are surrounded by complex systems. Familiar examples include power grids, transportation systems, financial markets, the Internet, and structures underlying everyday life. From the environment to the cells in our bodies, mathematics and statistics can guide us in understanding these systems, enhancing their reliability, and improving their performance. Mathematical models can help uncover common principles that underlie the spontaneous organization, called emergent behavior, of flocks of birds, schools of fish, self-organizing materials, social networks, and other systems made up of interacting agents.

MATHEMATICS AWARENESS MONTH
April 2011
www.mathaware.org

Organized by the Joint Board for the Mathematics American Mathematical Society, Mathematical Association of America, Society for Industrial and Applied Mathematics

Supporting Organizations:
 American Mathematical Society
 American Statistical Association
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 Society for Industrial and Applied Mathematics

Supporting Organizations:
 American Mathematical Society
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Celebrate Mathematics by Unraveling Complex Systems



2011 Mathematics Awareness Month poster; download at www.mathaware.org

How do epidemics spread, birds flock, and stock markets operate? Answers to these and many other such questions fall within the realm of mathematics.

From natural entities such as living cells, insect colonies, and whole ecosystems to man-made inventions like power grids, transportation networks, and the World Wide Web, one sees complex systems everywhere. Deciphering the mathematics behind such systems can unravel well-structured networks and discernible patterns in natural and artificial structures. That is the idea behind Mathematics Awareness Month this April.

In an effort to improve the understanding of such systems, the Joint Policy Board of Mathematics chose

the theme “Unraveling Complex Systems” to highlight the role mathematics plays in them.

Understanding complex systems can help people manage and improve the reliability of such critical infrastructures of everyday life, as well as allow them to interpret, enhance, and better interact with natural systems. Mathematical models can delineate interactions among components of these systems, analyze their spontaneous and emergent behaviors, and help prevent undesirable developments while enhancing desirable traits during their adaptation and evolution.

To download a free poster and view activities and resources, visit www.mathaware.org. ■

Statisticians Evaluate Program-Ranking Methods

Ron Wasserstein, ASA Executive Director

Assessing the quality of academic programs has become an increasingly important issue. Such assessments can have major impact on choice of graduate program, careers of individual researchers, funding opportunities, and strategic decisions. University administrators, politicians, and thought leaders are looking for ways to assess the quality of programs out of concern for cost and societal return on investment for higher education.

However, as Nick Fisher, a statistician who specializes in performance measurement for enterprises and programs, noted, "None of the existing methodologies developed to carry out these

assessments seems to be satisfactory." According to Fisher, some of the limitations derived from failure to be specific about the diverse quality requirements of different target audiences, which meant there was no sound basis for identifying suitable indicators of the quality of graduate programs. He thinks bringing statistical ideas and methods to bear on these issues could lead to greatly improved assessments.

With this in mind, the ASA conducted a two-day workshop, funded through the ASA's Member Initiative Program, during which Fisher and 16 others evaluated methodologies and developed an agenda for further research. They

determined that at least the following five elements are worthy of note:

Creativity in discovery. An effective academic institution fosters an environment in which the creative component of discovery is enhanced.

Quality versus productivity. Quantitative approaches for ranking departments or programs rely largely on measures of productivity because they are readily available and less susceptible to the criticism of subjectivity. But the quality of departments and programs is more inherently qualitative.

Impact of measurement on behavior. Setting productivity targets, rather than continually improving the workplace, may well be counterproductive. There is evidence that this also may be true for graduate programs.

University goals sharply differ from corporate goals. There is a tendency for many to view universities as corporations and to assess a university's quality and effectiveness as they would that of a corporation. However, insisting on the narrow corporate model risks diminishing the intellectual environment that nurtures creativity and discovery.

Transparency is better than rankings. The "inputs" and "outputs" of academic institutions and programs should be publicly available. However, transparency should be moderate, lest it stifle frank discussion.

Workshop participants evaluated a number of methodologies for ranking graduate programs and developed an agenda for further research. To read the entire workshop report, visit www.amstat.org/misc/AQGPworkshop.pdf. ■

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Meet James Lynch, Director of BJS

Amstat News invited new Bureau of Justice Statistics Director James Lynch to respond to the following questions so readers could learn more about him and the agency he directs. Look for more interviews with new statistical agency heads in forthcoming issues.

BJS Fast Facts

BJS is part of the Department of Justice Programs

Website: <http://bjs.ojp.usdoj.gov>

Fiscal year 2010 budget: \$69 million

Staff size: 60

What about this position appeals to you?

I have worked with crime statistics for more than 30 years. The Bureau of Justice Statistics (BJS) is the principal source of statistical data on crime and criminal justice matters in the United States, so being the director gives me a chance to implement many of the changes and improvements in these statistics that I (and others) have advocated for many years. It also gives me the opportunity to work with some very committed and talented colleagues within the agency.

Describe the top two or three priorities you have for the Bureau of Justice Statistics.

The biggest challenges for BJS involve building statistical infrastructure, including systems to describe those parts of the criminal justice system not well covered and improving the quality of existing data series. More specifically, I am committed to restoring the National Crime Victimization Survey (NCVS) to its former levels of precision and quality and to getting more useful information out of it on a routine basis. I also am committed to exploring ways to change the design and organization of the survey to produce more useful estimates for subnational areas such as states and large cities, improving the quality of estimates of sexual violence, and getting better estimates of crime for juveniles. These goals all involve research and development work that is under way.

Beyond the NCVS, I am eager to take advantage of the increase in the quality of operational and administrative records in the criminal justice system to give us better data on offenses known to the police, arrest information, and recidivism. Line agencies in every

corner of the justice system are using automated data and the exchange of these data to improve service. The federal government has spent a great deal of money improving these operational systems and we should explore their ability to be used for statistical purposes. Exploiting these data poses a number of logistical, statistical, policy, and legal challenges that we are working through with pilot programs.

How can the statistical community help you?

The statistical community includes a number of groups with different interests and abilities. It is easier for me to respond to this question if I can focus on specific entities in this broader community, such as the Inter-Agency Council on Statistical Policy (ICSP) and the American Statistical Association (ASA), represented by the Committee on Law and Justice Statistics.

The ICSP brings together the family of federal statistical agencies that have a unique perspective on the federal statistical system, while the Committee on Law and Justice Statistics includes a much broader group sharing a general set of skills and knowledge. The ICSP has become, for me, a helpful group in sharing approaches to common problems, including strategies for preserving independence, recruiting staff, vetting statistical products, and routinely communicating with constituencies and consumers. This kind of cooperation could blossom into more ambitious commonwealth efforts such as pooling resources to get the assistance of world-class statisticians that no single agency could sustain in terms of worth problems and money.

The Committee on Law and Justice Statistics can provide advice to the agency on a number of statistical issues, including the following:

Disclosure policies for micro data

Assessing the relative merits of general variance formula estimates of standard errors versus those from direct estimates using empirical variance estimation procedures

Balancing the reporting obligations of a federal statistical agencies with the confidentiality rights of agencies supplying administrative record data

Approaches to imputation: when is imputation appropriate, inappropriate, and essential



James P. Lynch was confirmed as the director of the Bureau of Justice Statistics by the Senate in June 2010. Lynch is on leave from John Jay College in New York, where he is a distinguished professor. He earned his PhD in sociology from The University of Chicago and has published three books, 25 refereed articles, and more than 40 book chapters and other publications. Lynch also has chaired the American Statistical Association's Committee on Law and Justice Statistics.

Advantages and disadvantages of different approaches to subnational estimation with the NCVS

Estimating standard errors for multi-year aggregations of the NCVS for both rate estimation and multivariate modeling

Methods for assessing data quality, scope of coverage, and record linkage in using administrative records and addressing the consent and disclosure issues resulting from the linkage of administrative records with survey data

The budget for BJS was increased by nearly a third in fiscal year 2010 to improve the National Crime Victimization Survey (NCVS). Please describe the progress to improve NCVS and what remains to be done.

The increased budget for the NCVS was divided into two components—funds for restoring the core survey and funds for redesigning the survey to enhance its utility. The CNSTAT panel was not critical of the basic design of the NCVS, but they focused on ways to accommodate the flat funding of BJS and the survey. Some of these accommodations had large negative consequences for the quality of the survey data. With additional funding for the core, exploration of these accommodations was given less priority and efforts were directed at restoring the sample size and quality controls that were gradually, but substantially, eroded over the last two decades.

The first increment in sample was introduced this past October, and the first interviewer training will be conducted in April. Another increment in sample will be introduced in January.

Restoring the survey is complicated by the need to avoid another break in series for the victimization statistics as occurred in 2007, when changes to the survey were introduced without a plan for understanding their effects on victimization rates. All the actions taken to restore the NCVS must be done in a manner that lets us understand and take account of effects on the statistical series.

Efforts to redesign the survey to enhance its utility are focused on three major areas—improving subnational estimates of victimization, measurement of sexual violence, and the victimization of juveniles, including those under 12. In 2010, we began to assess alternative strategies for providing routine estimates for states and large cities. These alternatives include direct estimation with the current sample and with enhanced and reallocated samples; indirect estimates, including blended estimates from low-cost boosts to the current sample; and using low-cost options for free-standing local surveys. The initial results from

the direct estimates work will be available in the next month or two.

The NCVS has long been criticized for its measurement of rape and sexual assault. Substantial improvements were made in this area in 1992, but alternative methodologies have been used since that time that provide very different estimates of the level and change in level of these crimes. These conflicting estimates raise damaging doubts about self-report surveys of victimization. We must confront these difficult measurement issues and determine the optimum set of procedures for measuring sexual violence and whether the NCVS can be altered to accommodate those procedures or a different vehicle is required. We are negotiating an agreement with CNSTAT to begin this process.

The measurement of juvenile victimization is complicated by a parallel set of methodological issues, and we must decide if the NCVS is the appropriate vehicle for addressing this population and, if so, what changes to the design are required.

Describe your interactions with other components of the U.S. Department of Justice and the role of BJS within the department.

Part of BJS' role in DOJ is the same as its role with respect to the public: to provide routinely high-quality statistics on crime and the criminal justice at the federal, state, and local levels. Increasingly, however, various components of the department have come to rely on BJS for all things statistical and ask for statistical analysis in support of their mission. While we try to service these requests with existing reports, they often result in special analyses of available statistical series. This kind of responsiveness is important for establishing the relevance of statistics, but it also can detract from the maintenance of statistical infrastructure and the production of routine reports.

With John Laub as director of the National Institute of Justice (NIJ) (the research arm of the DOJ), we are looking for ways that BJS and NIJ can work together more closely. We are considering ways of sharing information at an early point in the planning and budget process to determine how our programs can inform each other. In planning its research agenda, for example, NIJ may be able to use routinely collected data from BJS to determine if a specific solicitation is necessary or whether the assumptions on which the research program is based are accurate. In turn, many of the measurement issues of concern to BJS can be informed by some of the research funded by NIJ. Both John and I look forward to making these and other exchanges more formal and systematic. ■

Editor's Note: The entire interview can be viewed online at <http://magazine.amstat.org>.

Administration Affirms Role of Data-Driven Decisionmaking with FY12 Budget Requests

Steve Pierson, ASA Director of Science Policy

In President Obama's fiscal year 2012 (FY12) budget request, released on February 14, the federal statistical agencies' budgets generally see the increases requested for FY11 request postponed a year. Acknowledging the atmosphere of fiscal restraint and the uncertainty around the still unresolved FY11 budget, the administration largely affirms its belief in the value of the federal statistical system through the FY12 request.

As the table to the right illustrates, the National Center for Health Statistics, Energy Information Administration (EIA), and Bureau of Economic Analysis still see the large increases requested for FY11 (over FY10) in the FY12 request, although EIA's requested increase is more modest. The small increases requested in FY11 for the Bureau of Labor Statistics, Economic Research Service, and National Center for Education Statistics also are mostly left intact in the FY12 request.

The Bureau of Transportation Statistics (BTS) and Social Security Administration's Office of Research, Evaluation, and Statistics (ORES) both see larger requested increases in the FY12 request.

With its 30% requested increase, BTS would establish a safety data analysis program to "centralize, standardize, and address gaps in safety data" across all transportation modes. It also would expand the sample for the Commodity Flow Survey and conduct the Vehicle Inventory and Use Survey—last conducted in 2002—on the physical and operating characteristics of trucks on the nation's roads.

With its 25% requested increase, ORES would "expand disability research by creating a disability research consortium and commissioning expert studies on critical program design issues."

The main exceptions to the trends above are the U.S. Census Bureau and Bureau of Justice Statistics (BJS). The Census Bureau's FY12 request is \$1.025 billion, down from the \$1.267 billion request for FY11, largely because of the continued wrap-up of the 2010 decennial census. The FY12 request continues the FY11 request plans to increase the sample size of the American Community Survey and continue developing the supplemental statistical poverty measure. Other major programs seeing increases

Agency (amounts in millions of \$)	FY10	FY11 Request	FY12 Request
Bureau of Economic Analysis	97.3	113	113
Bureau of Justice Statistics	69	70	66
Bureau of Labor Statistics	611	645	647
Bureau of Transportation Statistics	27	30	35
Economic Research Service	82	87	86
Energy Information Administration	111	129	124
National Agricultural Statistics Service	162	165	165
National Center for Education Statistics	264	279	279
National Center for Health Statistics	139	162	162
Office of Research, Evaluation, and Statistics, SSA	28	32	35
Statistics of Income Division, IRS	43	44	44
U.S. Census Bureau	7225	1267	1025

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The Bureau of Transportation Statistics (BTS) and Social Security Administration's Office of Research, Evaluation, and Statistics (ORES) both see larger requested increases in the FY12 request.

in the FY12 request include the 2012 Economic Census, planning for the 2020 decennial census, and enhancing the statistical agencies' ability to use administrative records.

The BJS budget request is \$3 million below the FY10 level and \$4 million below the FY11 request, but still substantially above the FY09 level in order to continue revitalizing the National Crime Victimization Survey.

It's essential for the statistical community to communicate the importance of the statistical agencies to Congress. The following excerpt from the opening paragraph of the Strengthening Federal Statistics chapter of the FY12 Analytical Perspectives says it well:

The ability of governments, businesses, and the general public to make appropriate decisions about budgets, employment, investments, taxes, and a host of other important matters depends critically on the ready availability of relevant, accurate, and timely federal statistics.

For sources of request levels and further information, see the blog post "FY12 Statistical Agency Budget Requests" at <http://community.amstat.org/amstat/amstat/blogs>. ■

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FUNDING OPPORTUNITIES

FY 2012 Federal Budget Request

Keith Crank, ASA Research and Graduate Education Manager

President Obama submitted his fiscal year (FY) 2012 budget to Congress on February 14, outlining his priorities and beginning the public debate about how much money the government should spend and on what it should be spent.

When you read this, the FY 2012 budget should be the only one under consideration, though, as I write this, the FY 2011 budget has not been completed. The federal government is operating under a continuing resolution (CR) at the level of the FY 2010 appropriations. That CR is set to expire on March 4, at which time Congress will probably pass another two-week CR before completing the 2011 appropriations. This makes it impossible to identify the year-to-year change being requested

Currently, there are (at least) three levels for FY 2011 that could be used for comparison: the FY 2011 request to Congress, the FY 2010 appropriations (the current CR level), and the current proposal being debated by the House of Representatives.

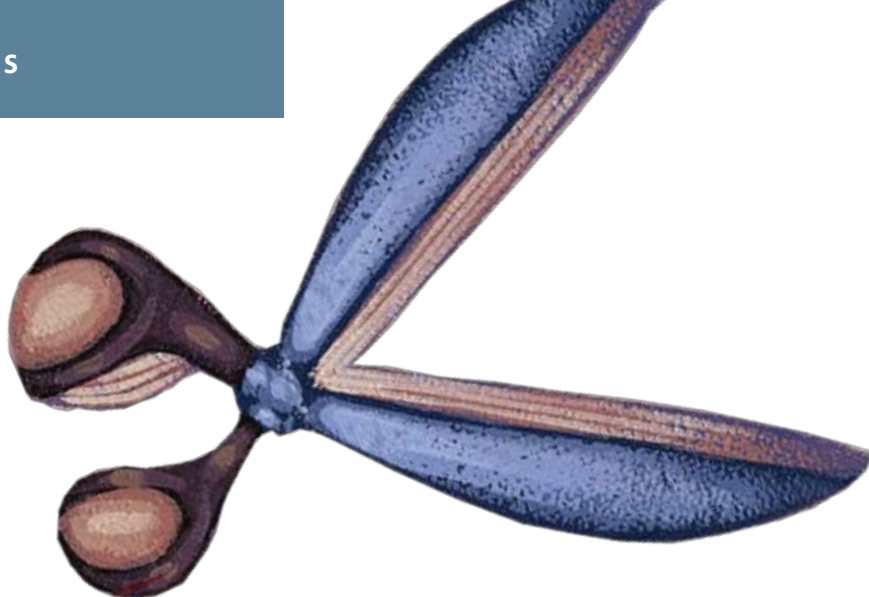
The total request for FY 2012 is \$3.7 trillion, compared to an estimated \$3.8 trillion for FY 2011. Of this \$3.7 trillion, \$0.5 trillion is nondefense, discretionary spending. The FY 2012 request for this category reflects



essentially no change from FY 2011. (Defense-related discretionary spending is \$0.7 trillion, which is a 5.0% decrease over the FY 2011 request.)

While these overall numbers may be of interest to a few of you, I would like to focus on the budgets for the National Science Foundation (NSF), its Division of Mathematical Sciences (DMS), and the National Institutes of Health (NIH), since these are the places from which most of the federal money for academic statisticians and biostatisticians comes.

For NSF, the FY 2012 request is \$7.8 billion, which is a 13% increase over the FY 2010 appropriations of \$6.9 billion. When compared to the FY 2011 request of \$7.4 billion, it represents a 4.6% increase,



and when compared to the \$6.6 billion currently being considered by the House, it represents an 18.3% increase. This increase is not spread evenly over the various directorates; the Mathematical and Physical Sciences Directorate (MPS) would only see a 6.0% increase

over the FY 2010 appropriations (a 1.6% increase over the FY 2011 request). This is also not spread evenly, and DMS would receive a 7.9% increase over FY 2010 (a 2.9% increase over the FY 2011 request).

DMS is continuing to scale back its educational activities.

In FY 2011, DMS planned to reduce its education funding by about \$2 million. For FY 2012, an additional \$5.5 million will be moved to the research and related activities side of the budget. DMS will no longer provide funding for IGERT, interdisciplinary training for undergraduates in biological and mathematical sciences, or the graduate research fellowships. Overall, the budget for the core research activities in the division is expected to increase by more than \$26.5 million, or about 12.4%, when compared to FY 2010.

Details about the NSF budget request can be found at www.nsf.gov/about/budget/fy2012/index.jsp.

As with NSF, the president's budget includes an increase for NIH, albeit a more modest 2.4% increase over the FY 2010 appropriations (and a 1.0% decrease from the FY 2011 request). It's impossible to tell how much is spent on statistics and biostatistics, but we've been making a strong effort to emphasize the importance of our discipline to the NIH research activities over the past 18 months.

The NIH budget request is at <http://officeofbudget.od.nih.gov/br.html>.

It's a long way from the president's budget request to the congressional appropriations, and it will be many months before we see what happens this year. Hopefully, it will not take as long as the FY 2011 has taken, but with different parties controlling the House of Representatives and the Senate, it is difficult to predict.

To contact me, send an email to keith@amstat.org. Questions or comments about this article, as well as suggestions for future articles, are always welcome. ■

2011 ASA Quality and Productivity Research Conference

The conference will be held at the Hotel Roanoke and Conference Center, in Roanoke, VA from June 8-10, 2011.

At the conference, Dr. A. Blanton Godfrey, Dean of the College of Textiles at North Carolina State University, will be honored for his many contributions in the fields of quality management and business statistics, and for service to the statistical community.

Short Course on June 7, 2011: The conference will also feature a short course on **Statistical Engineering** taught by Dr. Ronald D. Snee and Dr. Roger W. Hoerl.

Check the conference web site at <http://www.qprc2011.org/> for additional information on the conference program, student scholarships, registration, and accommodations.

SCIENCE POLICY

Measuring Innovation: Better Data to Help Design Policies to Revive Economic Growth

Dale Jorgenson, Harvard University

I'm honored to have Dale Jorgenson as this month's guest columnist. A Fellow of the ASA since 1965 and the recipient of the 2010 Julius Shiskin Memorial Award for Economic Statistics, Jorgenson discusses the components of economic growth in the context of furthering the U.S. economic recovery.

- Steve Pierson, ASA Director of Science Policy

The great preponderance of economic growth in the United States involves the replication of existing technologies through investment in equipment and software and expansion of the skilled labor force. Replication generates economic growth with no increase in productivity. Productivity growth is the key economic indicator of innovation and accounts for less than 12% of U.S. economic growth, despite its importance in industries such as computers and software. Although innovation contributes only a modest portion of growth, this is vital to long-term gains in the American standard of living.

The predominant role of replication of existing technologies in U.S. economic growth is critical to the formulation of economic policies. As the U.S. economy recovers from the Great Recession of 2007–2009, economic policy must focus on reviving the growth of employment and stimulating investment. Policies that concentrate on enhancing the rate of innovation will have a modest impact over the intermediate run. However, the long-run growth of the economy depends on the performance of a relatively



small number of sectors in which innovation takes place.

The U.S. statistical system has begun to incorporate inputs of capital, labor, energy, materials, and services (KLEMS), as well as outputs and productivity for individual industries. The

KLEMS framework was endorsed by the Advisory Committee on Measuring Innovation in the 21st Century Economy to Secretary of Commerce Carlos Gutierrez. The Bureau for Economic Analysis and the Bureau of Labor Statistics are now implementing this

The trade industries head the list of innovators

approach to measuring productivity. The U.S. Census Bureau is providing important new data on inputs and outputs of services.

The U.S. statistical system has shifted gradually to the North American Industry Classification System (NAICS), beginning with the Business Census of 1997. The national accounts converted to NAICS in the 2003 Comprehensive Revision of the National Income and Product Accounts. An important advantage of NAICS is the greater detail available on the service industries that make up a growing proportion of the U.S. economy. NAICS also provides more

detail on industries that produce information technology hardware, software, and services.

An examination of economic growth by industrial sector for the period 1960–2007 reveals that more than half was due to trade and services industries that are particularly intensive users of information technology equipment and software. The information-producing industries—computer hardware, software, services, and the related industries—accounted for slightly less than 10%. The rest of economic growth is accounted for by the remaining industries in manufacturing and mining, as well as service industries that do not use information technology equipment and software intensively.

The industries that lead in innovation are, surprisingly, headed by wholesale and retail trade, which comprise a large swath of the U.S. economy and have rapidly adopted information technology

equipment and software. The trade industries head the list of innovators because of leading firms such as Walmart and Cisco that have used information technology to integrate supply chains around the world. These supply chains link electronic cash registers at retail outlets and business-to-business ordering systems with order dispatch and transportation scheduling at remote factories.

Semiconductors and computers have sustained high rates of innovation through new products and processes pioneered by firms such as Apple, IBM, and Intel. The rapid pace of innovation in information technology and software has continued through successive generations of technology, beginning with mainframe computers and continuing with minicomputers and then personal computers. Recently, this has shifted to services accessed through the Internet such as cloud computing. Voice, data, and video communications moved onto the Internet as broadband services became available to households, along with mobile and landline communications services.

Successful applications of information technology require new organizational structures to manage the steady procession of new generations of equipment and software. These organizational structures rapidly become antiquated so that executive-level management of information technology-based businesses must direct a continuous process of restructuring. Business systems have become imbedded in software that requires incessant updating as business needs evolve.

For details, download “New Data on U.S. Productivity Growth by Industry,” by Dale W. Jorgenson, Mun Ho, and Jon Samuels at www.worldklems.net/conferences/worldklems2010_jorgenson.pdf. ■

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From Computer Scientist to Statistician

Stumbling backward and landing well

Andrew Beamer, NC State University

Unlike most students entering a graduate statistics program, my background is not in statistics or mathematics. As an undergraduate, I majored in computer science and engineering. I took courses on topics such as ANOVA and basic random variables, but, as I later found out, I knew very little statistical theory (just ask my first-year professors).

After graduating, I found myself working for a biotech company on projects that bordered on both computer science and statistics. I mainly wrote R scripts for data analysis, but increasingly became involved with projects that were statistical in nature and found that my statistical ability was wanting.

Through a fortuitous series of events, I became engaged with the EPA's computational toxicology research program, in which there are many talented scientists working on a vast array of problems, nearly all of which have a large statistical component. I was working on a nonlinear regression problem and found the standard approach of Gauss-Newton often failed, even with a concerted and meticulous search for initial values. I distinctly remember the supervising statistician telling my coworker and me that what we were embarking on would be difficult for most graduate students in statistics. I naïvely thought it would be no sweat, since I "was so good at programming." Statistics was easy, right? After struggling for a month or



two and getting nowhere, I finally abandoned hubris.

Doing what any good computer scientist would do when at an impasse, I threw more computation at the problem using a parallel search technique. My idea was to view the regression as a searching and optimization problem, something I knew a great deal more about. In this context, I could use methods I was familiar with to solve the problem, such as evolutionary algorithms.

It was at this point that I was put in contact with Alison Motsinger-Reif of the NC State statistics department. She helped refine my original idea, taking time out of her busy schedule to help me, despite my not being a student. The approach worked well, and we put together a paper outlining the technique.

After a year of work, I was offered the chance to pursue a master's of science in statistics while working on problems with

... what we were embarking on would be difficult for most graduate students in statistics. I naively thought it would be no sweat, since I “was so good at programming.” Statistics was easy, right?

the EPA computational toxicology group. Given the interesting problems I would be working on and how badly I wanted the statistical training, I eagerly agreed and submitted my application to NC State.

I’m not sure what my expectations were as I entered my first year. I knew my reasons for being there, but I didn’t have a clear picture of what statistics really was as a discipline. Andrew Gelman once remarked in an *Amstat News* article that he “... was worried that statistics was

just too easy to be interesting.” I didn’t expect my classes to be easy (which, of course, they were not), but I think his comment reflects the general lack of understanding of what “real” statisticians do. I certainly had no idea as an engineering student what my statistics professors worked on when they weren’t teaching. Was there more to it?

As my first year progressed and I delved deeper into the world of statistics, I occasionally asked, “What are the ‘big’ questions in statistics?” or “If you

could solve just one problem in statistics, what would it be?” Surely I was missing something, but I was unable to find a satisfactory answer.

I was aware of the work being done in other fields—physicists were searching for the Higgs-Boson (also called the “God” particle) while trying to formulate the theory of everything; mathematicians were hard at work on famous problems such as Goldbach’s, the Hodge, and the Twin Prime conjectures; computer scientists wanted to know if $P = NP$; and biologists were untangling the foundations of life. David Hilbert once said, “If I were to awaken after having slept for a thousand years, my first question would be, ‘Has the Riemann hypothesis been proven?’” Was there an equivalent question for the slumbering statistician?

I eventually discovered what “real” statisticians do, and the answer was simpler than I imagined. Everything. Statisticians are involved in a formative role in nearly all science disciplines, in addition to laying new statistical theory. John Tukey once said, “The best thing about being a statistician is that you get to play in everyone’s backyard.”

We are now being told about the coming “data deluge” and how statistics is the new “sexy” profession. Statistical savoir-faire beyond $p < 0.05$ is quickly becoming a necessity for most research scientists. When fellow graduate students in other fields learn I am studying statistics, most of them express a longing to know more about it. I know the feeling of statistical confusion and am glad it is receding.

So, if you are like me and stumbled somewhat backward into statistics, be glad for it; you have landed well. ■

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Workshops Lined Up Ahead of USCOTS

The 2011 United States Conference on Teaching Statistics (USCOTS) will be held May 19–21 at the Embassy Suites in Raleigh/Cary, North Carolina. This biennial meeting is the largest gathering dedicated to statistics education in North America and features provocative plenary talks and active breakout sessions.

The Consortium for the Advancement of Undergraduate Statistics Education is pleased to join four other National Science Foundation–funded projects to offer United States Conference on Teaching Statistics (USCOTS) pre-conference workshops in Raleigh/Cary, North Carolina, from May 17–19. The workshops will be held on the SAS campus.

There is no registration fee and lunch will be provided; however, advance registration is required for all workshops. Space is limited, so participation will be based on a first-registered, first-admitted basis. Acceptance into the workshops will be confirmed via email. Workshop offerings include the following:

Teaching the Big Ideas in Introductory Statistics, taught by Deborah Rumsey of The Ohio State University and Marjorie Bond of Monmouth College

Facilitating Student Projects in Elementary Statistics, taught by Brad Bailey of North Georgia College & State University

Teaching Statistics with R, taught by Danny Kaplan of Macalester College, Nick Horton of Smith College, and Randy Pruim of Calvin College

Computationally Intensive Methods in Teaching Introductory Statistics, taught by Webster West of Texas A&M University and Roger Woodard of North Carolina State University

Workshop registration is part of USCOTS registration at www.causeweb.org/uscots/register. Participants may apply for an USCOTS registration grant if they do not have their own funds. For details, visit www.causeweb.org/uscots/workshop.

The special conference lodging rate of \$109 is guaranteed until April 16. For details, visit www.CAUSEweb.org/uscots. ■



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Targeted Marketing task

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Upselling task, telecom dataset

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CDC Symposium to Focus on Massive, Complex Data in Public Health

Lester R. Curtin and Myron Katzoff, Centers for Disease Control and Prevention, National Center for Health Statistics

The Centers for Disease Control and Prevention's (CDC) 13th Biennial Symposium on Statistical Methods will be held at the Holiday Inn Conference Center in Decatur, Georgia (Atlanta metropolitan area), May 24–25. The theme of this year's conference is "Statistical Applications Using Massive and Emerging Data in Public Health."

As health information technology continues to advance, larger and more complex data sets will be available to researchers for both primary and secondary data analysis. These data sets could be based on standardized administrative records collected through federal entitlement programs, private health insurance or health provider companies, large or combined clinical trials, or state-based health record systems. With the emergence of such large and complex data sets come new statistical, logistical, and legal problems.

The focus of this year's CDC symposium will be on statistical applications for complex networks, administrative and legal (privacy) issues in data linkage, and the confidentiality issues that may arise in primary and secondary analysis of large linked data sets for the confidentiality for new and emerging data sets. Special emphasis will be placed on the use of data from the Centers for Medicare and Medicaid Services (CMS) for epidemiological studies and public health research and surveillance.



A short course on complex networks and statistics will be offered on May 23 in conjunction with the symposium. The course will be taught by Eric Kolaczyk from Boston University and be based on his book *Statistical Analysis of Network Data*. The course will run from 8:30 a.m. to 5:00 p.m. and focus on network mapping (creating a network representation), network sampling (in particular, respondent driven sampling), network modeling, and the dynamics of networks with respect to contact processes and epidemics.

There will be invited and contributed oral presentations and contributed poster sessions. Provision has been made for session topics to include statistical and epidemiological applications of the large CMS data set; design issues based on adaptive sampling and related methodology; analytic innovations in public health surveillance and medical screening applications using multiple data sources; analysis of text, image, or qualitative data; secondary analysis of nonpublic released data sets; and simulation models for predicting disease outcomes.

This venue provides statisticians, social and behavioral scientists, epidemiologists, economists, policy analysts, and other health researchers a unique opportunity to gain knowledge and stimulate further methods development in the area of massive data sets and complex networks and to exchange ideas with symposium contributors through formal and informal discussions. Presenters represent academia, private industry, and federal and local government agencies.

The CDC Statistical Advisory Group, Agency for Toxic Substances and Disease Registry, and the ASA are sponsoring the symposium to promote the development and application of statistical methods. This symposium is designed to draw from statistical and related quantitative and information sciences across a variety of public health applications, disciplines, and information technology concepts that relate to emerging data sets and the ability to synthesize such information for use in public health practice. For more information, visit www.cdc.gov/sag. ■

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

C. R. Rao was recently awarded an honorary doctor of science degree at the first convocation of the Jawaharlal Nehru Technical University, Kakinada, India. He delivered the convocation address with a talk titled "The Role of Statistics as the Key Technology of the Future."

Rao has received 33 honorary degrees from universities in 18 countries spanning six continents. ■

The department of biostatistics at the Harvard School of Public Health recently named **Richard Landis** the recipient of the 2011 Marvin Zelen Leadership Award in Statistical Science. Landis is a professor in the department of biostatistics and epidemiology at the University of Pennsylvania School of Medicine and professor of statistics at the Wharton School at the University of Pennsylvania.

This annual award was established to honor Marvin Zelen's long and distinguished career as a statistician and his major role in shaping the field of biostatistics. It recognizes an individual in government, industry, or academia who, by virtue of his/her outstanding leadership, has greatly affected the theory and practice of statistical science. While individual accomplishments are considered, the most distinguishing criterion is the awardee's contribution to the creation of an environment in which statistical science and its applications have flourished.

Landis will deliver a public lecture on statistical science on May 20 at the Harvard School of Public Health and be presented with a citation and honorarium. ■

The Department of Biostatistics at the Harvard School of Public Health recently named

Manning Feinleib, professor emeritus of the Johns Hopkins Bloomberg School of Public Health in the department of epidemiology, the recipient of the 2011 Distinguished Alum Award.

Each year, the Distinguished Alum Award is given to an individual in government, industry, or academia who—by virtue of applications to support research, methodology and theory, significant organizational responsibility, and teaching—has affected the theory and practice of statistical science. The overall career of the individual is considered, with an emphasis on how the nominee has used their experience to bring out the best in life with research and academics.

Feinleib, who graduated from Harvard School of Public Health's department of biostatistics in 1966 with his PhD, will be presented with a plaque and deliver a lecture during the fall of the 2011–2012 academic year at the Harvard School of Public Health. ■

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Early Bird Deadline: May 26
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Register online at www.amstat.org/jsmregistration.

Obituaries

Bernard Harris

Bernard Harris passed away peacefully on January 28, 2011, at Tulane University Medical Center in New Orleans, Louisiana, following complications from heart surgery.

Harris was born on June 20, 1926, in New York City. An academically precocious youngster, he graduated at an early age from Townsend-Harris High School, and entered City College of New York. During the midst of his college education, he was drafted into the Army, assigned to the Counter Intelligence Corps, and sent to Germany near the end of World War II. Upon completion of military service, he finished his bachelor's degree in business administration at City College in 1946. He changed his academic focus to mathematics and statistics, earned a master's degree from The George Washington University in 1953, and, in one year, completed his doctorate at Stanford University in 1958.

During the years between his master's and doctorate degrees, Harris worked as a statistician at the U.S. Census Bureau and as a mathematician for the National Security Agency. He became an associate professor in the department of mathematics at the University of Nebraska-Lincoln after completing his doctorate and moved to the University of Wisconsin-Madison to work as a professor in the Mathematics Research Center from 1964 to 1985 and as a professor in the statistics department from 1966 to 2002. After Harris retired from UW-Madison, he rejoined the faculty of the statistics department at the University of Nebraska-Lincoln as an adjunct faculty member until his death.

He enjoyed visiting professorships at the Technical Institute in Munich, Germany; Technical University of Eindhoven, Netherlands; University of Lund, Sweden; the Mathematics Institute Steklova, Moscow, Russia; University of Muenster, Germany; Heinrich Heine University in

Duesseldorf, Germany; and the Kungliga Techniska Hogskolan. He also was a member of many commissions and advisory boards for the government, including a review board of the U.S. Nuclear Regulatory Commission and the Statistics Task Force for the FAA/DOD Committee on Material Properties.

Harris was an elected Fellow of the Institute of Mathematical Statistics and the American Statistical Association. He was proud to be a founding member of the ASA Section on Risk Analysis and served as its first chair. He was a member of the Classification Society of North America, serving on its board of directors. He was also a member of the International Classification Society and the American Mathematical Association.

Harris received the Pioneers of Science Award. He was a perennial advocate of and contributor to statistical science for the Department of the Army. He participated as part of the Mathematics Research Center at Wisconsin that supported the Army in addressing research questions and presented his work at countless annual statistical conferences.

Harris's contributions to risk analysis, reliability, probability, and statistical inferences with application to open Department of Defense questions was recognized in 1982 with the Wilks Award for Contributions to Statistical Methodologies in Army Research, Development, and Testing. His work continued to address current problems in his later years, with recent work concerning mathematical methods in combating terrorism and his 2010 paper, titled "Random Contamination of Semiconductor Materials."

Harris was the author of the book *Theory of Probability* and the editor of *Spectral Analysis of Time Series* and *Graph Theory and Its Applications*. He published hundreds of articles and reviews over the course of his career, but was most proud of his work in random mappings, combinatorics,

reliability, and risk analysis.

In addition to his academic interests, Harris enjoyed a variety of music (classical, opera, and jazz), reading, gourmet cooking, films, and doing the *New York Times* crossword puzzles in ink. He also loved to create puns.

In lieu of flowers, memorials may be directed to the American Statistical Association to support the education of young statisticians.

James Richard Murphy

James Richard Murphy died peacefully during his sleep on December 21, 2010.

He earned a bachelor's in chemistry from The University of Chicago and a master's in mathematics from the University of Denver. In 1977, he earned his PhD in biostatistics from The Johns Hopkins University.

Murphy served as director of the biostatistics core of the University of Colorado Cancer Center and was head of the division of biostatistics at the National Jewish Medical and Research Center.

To read more about Murphy's life, see <http://attheforefront.ucdenver.edu/?p=1236>.

Patrick W. Crockett

Patrick W. Crockett, 58, passed away on December 29, 2010, in his home in Chapel Hill, North Carolina.

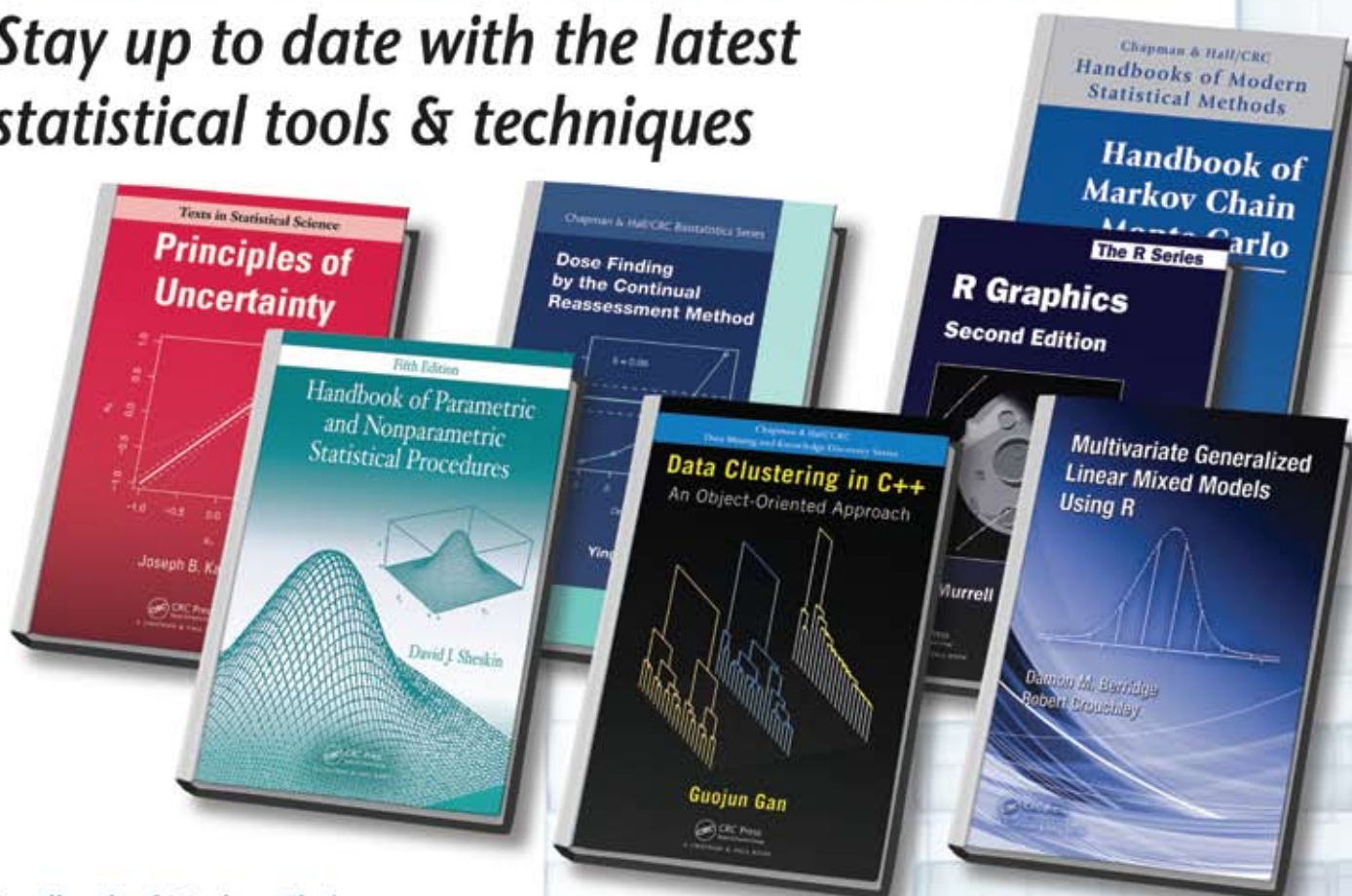
Born in Houston, Texas, Crockett attended The University of North Carolina at Chapel Hill, where he earned his PhD in 1983. He was director of statistical sciences for 14 years at SRA International in Research Triangle Park.

Crockett was an avid sailor and loved the ocean. He was also a talented painter and boat builder, whose hand-painted wooden kayaks were admired by many. He enjoyed camping and cycling with family and friends and will be remembered for his special sense of humor, spirituality, warmth, and child-like wonder.

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ISBN: 978-1-4398-3176-2, \$79.95 / £49.99

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Robert Crouchley

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ISBN: 978-1-4398-1326-3, \$89.95 / £57.99

Handbook of Parametric and Nonparametric Statistical Procedure Fifth Edition

David J. Sheskin

Catalog no. K12706, May 2011, c. 1880 pp.
ISBN: 978-1-4398-5801-1, \$169.95 / £108.00

Introduction to Statistical Limit Theory

Alan M. Polansky

Catalog no. C6604, January 2011, 645 pp.
ISBN: 978-1-4200-7660-8, \$89.95 / £57.99

Data Clustering in C++ An Object-Oriented Approach

Guojun Gan
Catalog no. K12884, March 2011, c. 520 pp.
ISBN: 978-1-4398-6223-0, \$89.95 / £57.99

Principles of Uncertainty

Joseph B. Kadane

Catalog no. K12848, May 2011, c. 661 pp.
ISBN: 978-1-4398-6161-5, \$89.95 / £57.99

sectionnews

Business and Economic Statistics

The Business and Economic Statistics Section (B&E) is offering up to two travel awards—roughly \$350—for students in doctoral programs in business, economics, econometrics, statistics, or allied disciplines. The awards will help students attend the 2011 Joint Statistical Meetings, to be held in Miami Beach, Florida, from July 30 to August 4. Applicants should be either presenting a paper or participating in a poster session.

Applications will be accepted until May 6 and should be sent to (email preferred) Stuart Scott, Chair, B&E Student Travel Award Committee, 5611 Lee Hwy., Arlington, VA 22207; stuscott@comcast.net.

To download an application form or for more information, visit <http://magazine.amstat.org/?cat=17>. To fill out an application form online, visit www.amstat.org/sections/bus_econ/index.html. Questions may be sent to Scott.

Government Statistics

John Dixon, outgoing section chair, recognizes the accomplishments of the 2010 executive committee, which produced last year's program at JSM and a successful poster competition.

The section sponsors the Pat Doyle, Roger Herriot, and Jeanne E. Griffith Mentoring awards, as well as the Wray Jackson Smith Scholarship. Details about the awards and how to apply for them can be found at www.amstat.org/sections/govt.

GSS also is a permanent sponsor for the International Conference on Establishment Surveys, which takes place every three or four years and explores the current state of the art in survey methodology for business, institutional, and agricultural surveys. The next conference will be held in Montréal, Québec, Canada, from June 11–14, 2012. Additionally, GSS cosponsors the

International Conference on Methods for Surveying and Enumerating Hard-to-Reach Populations, which will take place in New Orleans, Louisiana, from October 31 to November 3, 2012. For more information about these meetings, visit www.amstat.org/meetings.

More information about the section can be found online at www.amstat.org/sections/govt or <http://magazine.amstat.org/?cat=17>.

Quality and Productivity

This year's Quality and Productivity Research Conference will center on quality and productivity in a global economy from June 8–10 in Roanoke, Virginia. The conference will feature a range of technical sessions covering topics in reliability, the design and analysis of experiments (including computer experiments), statistical process control, and measurement systems analysis. On June 7, Ronald Snee and Roger Hoerl will lead a short course called "Using Statistical Engineering to Solve Large, Unstructured Problems." Registration is open for both the short course and conference at www.cpe.vt.edu/qprc/index.html.

Also, the section will sponsor an invited session and five roundtable discussions during the 2011 Joint Statistical Meetings in Miami Beach, Florida. The invited session is titled "Quality Issues in Health Care" and will feature speakers Benjamin Kemper, Jason Gillikin, Victoria Jordan, and James Benneyan. The roundtables include "Effective Statistical Training in Industry" with Willis Jensen, "Bayesian Reliability" with Alyson Wilson, "Measurement System Assessment" with Stefan Steiner, "Quality Excellence in Design and Manufacturing: A Roadmap to Customer Delight" with Daksha Chokshi, and "What Is a Statistical Engineer, and Do I Want to Be One?" with Jennifer Van Mullekom.

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

Finally, the 55th Annual Fall Technical Conference will be held in Kansas City, Missouri, from October 13–14. The theme is “Quality and Statistics: Getting up to Date.” Short courses are offered the day before and after the conference. For additional information, visit www.asqstatdiv.org/ffc.htm.

The section is always interested in receiving proposals for short courses. Contact Reid Landes at rllandes@uams.edu for details.

For more information about the section, visit *Amstat News* online at <http://magazine.amstat.org?cat=17>.

Statistics and the Environment

Margaret Short, ENVR Publications Chair

The International Environmetrics Society (TIES) North American Regional meeting will be held in LaCrosse, Wisconsin, from July 18–20. The theme is “Quantitative Methods for the Analysis of Long-Term Monitoring Data.” Special sessions will be devoted to natural resource monitoring problems

ranging from climate change to wildlife management. TIES aims to foster the development and use of statistical and other quantitative methods in the environmental sciences, environmental engineering, and environmental monitoring and protection by promoting the participation of statisticians, mathematicians, scientists, and engineers in solving environmental problems. Abstract submission runs through May 30. For details, visit www.uwlax.edu/conted/ties2011.

Survey Research Methods

The Survey Research Methods Section is offering up to three travel awards for students in doctoral programs in statistics, survey methodology, or allied disciplines. The awards of up to \$500 will offset the cost of attending the 2011 Joint Statistical Meetings in Miami Beach, Florida, from July 30 to August 4. Preference will be given to students presenting a paper or poster at the conference. The application deadline is April 15, and questions may be directed to Jill A. Dever at jdever@rti.org.

The section also is sponsoring the webinar “Reconsidering Mail Survey Methods in an Internet World,” by Don Dillman of Washington State University. Information about the webinar can be found at www.amstat.org/sections/srms/webinar.cfm.

For more information about the travel awards and webinar, visit <http://magazine.amstat.org?cat=17>.

committeeneews

Scientific and Public Affairs

Finishing his six years as chair of the ASA Scientific and Public Affairs Committee (SPA), David Marker reflects on the committee’s accomplishments, including organizing a climate change workshop, working with fair-election activists to improve the accuracy of elections, and helping the ASA organize a dozen professional organizations to support action in Congress.

Now chaired by Clyde Tucker, SPA is holding an invited panel discussion at JSM 2011 to focus on the measurement issues involved in Race to the Top, financial reform legislation, economic statistics, and measuring greenhouse gases. This will be followed by an invited session on statistics and climate change.

For details and to read more about SPA’s accomplishments, visit <http://magazine.amstat.org?cat=17>. ■

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2011

May

***16—Pictures at an Exhibition: The Visual Display of Quantitative Phenomena, Cleveland, Ohio**

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

18–20—Conference of Applied Statistics in Ireland (CASI), Galway, Ireland

For details, visit www.maths.nui-galway.ie/~jnmaths/CASI2011 or contact John Hinde, NUI Galway, Galway, International GA1, Ireland; +353 91 492043; john.hinde@nui-galway.ie.

***24–25—13th Biennial CDC Symposium on Statistical Methods, Decatur, Georgia**

In conjunction with the symposium, a short course will be offered on May 23. For more information, visit www.cdc.gov/sag or contact Lisette Werbowetzki, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; lisette@amstat.org.

June

14–16—Third International Workshop in Sequential Methodologies (IWSM 2011), Stanford, California

For details, visit <http://iws2011.stanford.edu> or contact Tze Lai, Department of Statistics, Stanford University, Sequoia Hall, Stanford, CA 94305-4065; (650) 723-2622; lait@stat.stanford.edu.

17–18—GPS11: Conference in Genetics, Probability, and Statistics in Honor of David Siegmund, Stanford, California

For more information, visit stat.stanford.edu/gps11 or contact Cindy Kirby, Department of Statistics,

Stanford University, Stanford, CA 94305-4065; (650) 725-2229; siegmund-fest@googlegroups.com.

***22–24—Graybill 2011 Conference on Modern Nonparametric Methods, Fort Collins, Colorado**

For details, visit www.stat.colostate.edu/graybillconference or contact Jean Opsomer, Colorado State University, Fort Collins, CO 80523; jopsomer@stat.colostate.edu.

July

18–20—Third North American Regional Meeting of the International Environmetrics Society, La Crosse, Wisconsin

For more information, visit www.uwlax.edu/conted/ties2011 or contact Brian Gray, ties.na2011@environmetrics.org.

27–29—Fordham Psychometrics Conference, New York, New York

For more information, visit www.fordham.edu/fcap/conference or contact Stephen Cubbellotti, 441 E. Fordham Road, Bronx, NY 10458; (718) 817-0654; fcap@fordham.edu.

August

16–18—useR! Conference, University of Warwick, Coventry, United Kingdom

For details, visit www.R-project.org/useR-2011 or contact Jennifer Rogers, Department of Statistics, University of Warwick, Coventry, International CV4 7AL, UK; J.K.Rogers@warwick.ac.uk.

September

8–10—Society for Research on Educational Effectiveness Fall 2011 Conference, Washington, DC

For more information, visit www.sree.org/conferences/2011f or contact Evelyn Asch, 2040 Sheridan Road, Evanston, IL 60208-4100; (847) 467-7093; evelyn@sree.org.

The following events are the latest additions to the ASA's online calendar of events. Announcements are accepted from education and not-for-profit 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

25–29—International Chemometrics Research Meeting (ICRM 2011), Bergen Dal (Nijmegen), The Netherlands

For details, visit www.icrm2011.org or contact Renger Jellema, P.O. Box 1, Delft, International 2600 MA, The Netherlands; info@icrm2011.org.

October

19–21—International Conference on Machine Learning and Data Analysis 2011, San Francisco, California

For more information, visit www.iaeng.org/WCECS2011/ICMLDA2011.html or contact the IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, International HK; (852) 3169-3427; wcecs@iaeng.org.

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

2012

February

***16–18—2012 American Statistical Association Conference on Statistical Practice, Orlando, Florida**

For more information, visit www.amstat.org/meetings/csp/2012/index.cfm or contact the ASA Meetings Department, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; meetings@amstat.org.

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.

Indiana

■ Eli Lilly is seeking a data mining leader, advanced analytics, to lead a small group focused on the broad use of data mining in R&D and business applications. Qualified candidates will be responsible for developing new methods/tools, building models from data mining efforts, and understanding variability and spurious/biased findings that may come from data mining projects. Apply directly online www.lilly.com and reference number 50406727. Lilly is an equal opportunity employer.

Louisiana

■ Tulane University School of Public Health and Tropical Medicine is seeking applications for three tenure-track faculty positions (associate/assistant professor level). Two positions focusing on genomics/bioinformatics/statistical genetics. One position focusing on survival analyses and clinical trials methodology. A letter summarizing experience and research interests and curriculum vitae including contact information for three references to: Susan Gautier, sgautie@tulane.edu. Assistant professor-level applicants should provide graduate-level transcripts. Tulane University is an EEO/AA employer.

Massachusetts

■ MS Biostatistician-Brigham and Women's Hospital, Boston, Massachusetts. The division of sleep medicine invites applications for an MS-level biostatistician position. The biostatistician will work with other team members, including physicians, biostatisticians, epidemiologists, project coordinators, and research assistants on study design, data management/analysis, and manuscript/grant proposal preparation. The position has excellent work conditions and opportunities to advance. If interested, apply to requisition 2205723 online at careers.brighamandwomens.org.



**Department of Health and Human Services
National Institutes of Health
National Institute of Allergy and Infectious Diseases**

Postdoctoral Fellow

The National Institute of Allergy and Infectious Diseases (NIAID) conducts and supports a global program of research aimed at improving diagnosis, treatment, and prevention of immunologic, allergic, and emerging infectious diseases. NIAID's mission is driven by a strong commitment to basic research, which incorporates the complementary fields of vaccine research, immunology, microbiology, and infectious diseases.

Statisticians at NIAID are involved in the design, monitoring, and analysis of clinical studies and laboratory experiments, as well as conducting independent research in statistical methodology. NIAID offers a broad range of opportunities for collaboration, including large cooperative AIDS research groups, vaccine development, immunology, transplantation research, and biodefense. The ability to conduct research on statistical methodology are required, as is a doctorate in statistics, biostatistics, bioinformatics, or related field.

To apply for this vacancy, send your resume to Michael Fay, mfay@niaid.nih.gov, and formally apply through the NIH Office of Intramural Training & Education (OITE) system at <http://www2.training.nih.gov/apps/publicForms/postdoctoral/forms/adIndex.aspx?strSearch=NIAID>. The selected candidate will have an anticipated start date of September 2011, but the vacancy will remain open until it is filled.



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University of Connecticut
Health Center

Assistant Director of the Biostatistics Center

The Connecticut Institute for Clinical and Translational Science (CICATS) at the University of Connecticut Health Center (UCHC) invites nominations and applications for a full-time position as Assistant Director of the Biostatistics Center.

The Assistant Director will be a full-time faculty member at the School of Medicine in Farmington, CT with the potential for an appointment in the Department of Statistics at the UCONN Storrs Campus. The Assistant Director will assist the Director to develop the CICATS Biostatistics Center that will facilitate and support the proposed growth of Clinical and Translational Science across CICATS, which includes the university's Schools of Medicine and Dentistry, the Storrs campus, and local area hospitals. In addition to original research and research collaborations, the Assistant Director will be responsible for assisting with the operations of the CICATS Research Design, Epidemiology and Biostatistics cores. CICATS investigators will include trainees and both junior and senior faculty members from multiple disciplines. The Biostatistics faculty, in collaboration with a team of epidemiologists and master's level staff, will provide guidance to transdisciplinary teams for the development of clinical and translational research studies. He/she will also be responsible for biostatistics teaching in the new Master of Science in Clinical and Translational Research, with teaching opportunities available in other university health-related degree programs.

The successful candidate must hold a doctorate in biostatistics or a closely related discipline and have demonstrated success with self-initiated research, extramural funding and published scholarship and have the ability to work in collaboration with clinical, translational and/or basic scientists, and to lead a biostatistics academic unit including students, postdoctoral fellows, master-level staff, and other faculty.

Applicants should apply using the Health Center's applicant tracking system at <https://jobs.uchc.edu>, Search No. 2010-1076. A curriculum vitae and a cover letter should be uploaded through this site. Questions regarding this search should be addressed to James Grady DrPH, Director, CICATS Biostatistics Center, at jgrady@uchc.edu.

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■ Proud to be recognized as one of *Fortune* magazine's "100 Best Companies to work for" in 2011, Millennium: The Takeda Oncology Company has two FTEs (both clinical and nonclinical statistics) and one summer internship positions in biostatistics department. For more information, please visit www.joinmillennium.com/AMSTAT. AA/EOE.

New York

■ Research Statistics Analyst. Provide statistical support on assigned research projects and assist end-user community with report requests and data analysis. You will also prepare reports, develop executive summaries and computer programs for data management and statistical analysis. Requires a master's in statistics, biostatistics, or related field and at least two years of experience. To apply, visit www.nsljcareers.com and enter Job Number NSH0001AB. EOE.

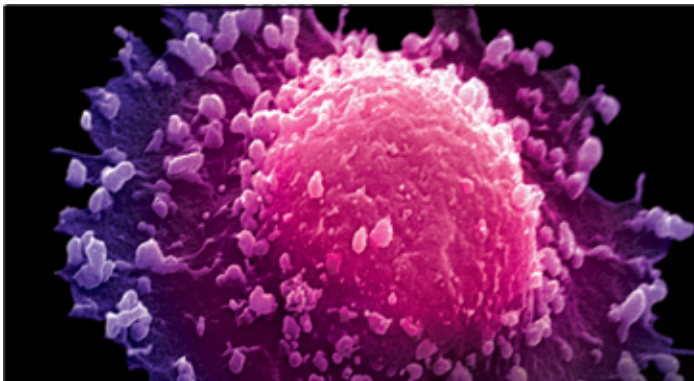


Image: colored scanning electron micrograph (SEM) of a lung cancer cell.

oncology focus

A career at **Millennium: The Takeda Oncology Company** comes with something no other company can offer: a community of people with diverse talents and backgrounds, all dedicated to the discovery and development of therapies that can change the world – one patient at a time. Our casual but focused environment fosters the free exchange of ideas, encourages collaborative research, and sparks discovery of innovative solutions in science and business. At Millennium, we're big on results, not formality.

Biostatisticians play a critical role in advancing pipeline through works in areas including Clinical Development, Health Economics, Translational Medicine, Safety, Toxicity, and Discovery. The Department of Biostatistics currently has the following opportunities available:

Principal Biostatistician/Associate Director, Clinical Biostatistics

Partner with clinicians to design efficient trials. Contribute to the development of clinical and regulatory strategies and overall development planning. Conduct clinical, PK/PD, and biomarker data analyses independently. Ph.D. in Biostatistics or Statistics with 3+ years of pharmaceutical or biotechnology experience. Filing experience is preferred.

Principal Biostatistician, Nonclinical Biostatistics

Partner with translational medicine scientists to conduct biomarker data analyses and proactively contribute to biomarker strategies in clinical oncology drug development. Implement biomarker information to advance clinical trial designs. Collaborate with lab scientists from Cancer Pharmacology and Molecular Oncology to develop and validate assays. Ph.D. in Biostatistics or Statistics with 3+ years of relevant experience. Knowledge of cancer biology a plus.

Summer Internship (May-August)

Available for students enrolled in a Statistics or Biostatistics doctoral program. Successful candidates will gain hands-on experience in the pharmaceutical industry by researching advanced oncology clinical trial designs. Methodology research, simulation, and literature review are among key responsibilities. Candidates should have experience with Bayesian methodologies and using SAS, R, and WinBUGS.

For the summer internship position please send CV to michael.pickard@mpi.com

To apply online, visit joinmillennium.com/AMSTAT

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Pennsylvania

■ Postdoctoral fellow in statistical genetics within biostatistics division at University of Pennsylvania. The candidate will develop and implement statistical and computational methods for genetic studies. PhD degree in statistics, biostatistics, bioinformatics, computer sciences, or other quantitative fields and programming skills in C/C++/Perl and at least one statistical package are required. To apply, send CV, publication reprints, 3 references to ruifeng@upenn.edu. www.med.upenn.edu/apps/my/bpp_postings/index.php?pid=13411. University of Pennsylvania is an AA/EOE.

Texas

■ The department of preventive medicine and community health at The University of Texas Medical Branch at Galveston is recruiting a tenure-track associate professor of biostatistics to play an active role in teaching, conducting

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Amstat News—The ASA's monthly membership magazine, which features notices of employment opportunities in each issue



Promoting the Practice and Profession of Statistics



Statistician, Tenure-Eligible or Tenure-Track Investigator Position, National Cancer Institute (NCI), National Institutes of Health (NIH), Department of Health and Human Services (DHHS)

The Radiation Epidemiology Branch (REB, <http://dceg.cancer.gov/reb>, Chief, Dr. Martha Linet), a component of NCI's intramural Division of Cancer Epidemiology and Genetics (DCEG), is recruiting a statistician to develop an independent research program focusing on development of statistical models that incorporate dose uncertainties, that provide cancer risk projections for low-dose exposures, that can be used to estimate radiation-induced lifetime risks, that quantify the effect of key modifiers on radiation-related cancer risks, or that provide mathematical formulations of biological models for radiation carcinogenesis.

Current REB research includes studies of late effects of radiological diagnostic examinations, radiotherapy, occupational exposures, or nuclear fallout from above-ground tests, military sources (Japanese atomic bomb survivors) or radiation accidents (Chernobyl). REB is also evaluating late health effects of new radiation technologies in medicine including the estimation of doses, extremely low-frequency and radio-frequency electromagnetic field exposures, and ultraviolet radiation. In addition, REB studies are examining gene-radiation interaction in studies of breast and thyroid cancer, etiologic and genetic studies (including genome-wide association studies) of brain tumors and thyroid cancer, and the development of various strategies for reconstructing historical radiation doses of medical radiation workers and populations exposed to environmental, military, and accidental sources of radiation exposure. Challenges for the statistician include modeling the excess relative and absolute risk as a function of dose, evaluating the modifying effects of dose-rate and type of radiation, addressing effects on risk estimates of uncertainties from complex dosimetry systems, developing appropriate analytic approaches for special study designs, identifying and describing gene-environment interaction, and developing strategies to identify true associations in genome-wide scans for disease-producing genetic variants. REB investigators are encouraged to collaborate with scientists in other parts of the DCEG, including members of the Biostatistics Branch and the Human Genetics Program.

Candidates must have a doctorate in biostatistics, statistics, mathematics or a related discipline (with additional post-doctoral experience in statistics). They must have at least two years of post-doctoral research experience and an established record of publications that demonstrates their ability to apply cutting edge, appropriate statistical models and analyze and interpret data from radiation epidemiology studies. They should also have knowledge of and demonstrated capacity to apply state-of-the-art statistical and epidemiologic methods in at least one of the following areas of research: risk assessment, measurement (dosimetry) errors, genetic susceptibility in relation to radiation carcinogenesis, or mechanisms of radiation carcinogenesis. Collaboration with epidemiologists, dosimetrists, health or medical physicists, radiologists, and laboratory investigators is central to the success of our research. Candidates must document the strong verbal and written communication skills that will be required to write effective research papers, present work at scientific meetings, and convey information clearly to staff, collaborators, consultants and contractors. Candidates must also be sufficiently experienced to function independently, both in the development of their own research efforts and in the mentoring and supervision of less experienced investigators. Appropriate office space and resources will be provided.

Salary is competitive and commensurate with research experience and accomplishments, and a full Civil Service package of benefits (including retirement, health insurance, life insurance, and a thrift savings plan) is available. Candidates may be eligible for the NIH Loan Repayment Program (<http://www.LRP.NIH.gov>). This position is not restricted to U.S. citizens. Interested individuals should send a cover letter, curriculum vitae, brief summary of research interests, experience and future plans, copies of no more than 5 selected publications and three letters of reference to:

Ms. Judy Schwadron
Division of Cancer Epidemiology and Genetics
National Cancer Institute
6120 Executive Blvd., Room EPS 8073
Rockville, MD 20852-7242
Email: schwadrj@mail.nih.gov

The closing date of the advertisement is April 15, 2011. A completed package of your application is required in order to be considered for this position.

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translation and population health science research, and obtaining external funding. Applicants must have a PhD or DrPH in biostatistics, statistics, or the equivalent. Submit letter of interest and CV to dfreeman@utmb.edu. UTMB is an equal opportunity, affirmative action institution that proudly values diversity. Candidates of all backgrounds are encouraged to apply.

Utah

■ The Study Design and Biostatistics Center at the University of Utah School of Medicine seeks an applied PhD or MS statistician to play a leadership role in an interdisciplinary research environment. Proficiencies in data analysis, writing statistical sections of grant applications and manuscripts, and ability to communicate with biomedical researchers are essential. Please send CV, 3 references, and cover letter to Camie Derricott at camie.derricott@hsc.utah.edu. The University of Utah is an Affirmative Action/Equal Opportunity

BIostatistical Analyst II

Geisinger Health System is currently recruiting a biostatistician for the Geisinger Center of Health Research at Geisinger Medical Center (GMC) in Danville, PA. The candidate qualifications include M.S. in Biostatistics or Statistics, a minimum of three to five years experience with major statistical software packages and a record of independent or collaborative publications preferred.

The candidate will work in collaboration with investigators and physician-scientists on internal and external funded research projects focused on patient care and outcomes. The primary duties of the biostatistician will be to support these studies by developing appropriate study design, determining the type of analysis, preparing publication quality graphics and assisting in manuscript preparation. The position requires outstanding oral and written communication, and ability to work independently. Knowledge of statistical software (e.g., SAS, R) is required and previous experience in consulting is desirable.

Geisinger Health System Geisinger Health System serves nearly 3 million people in Northeastern and Central Pennsylvania and has been nationally recognized for innovation practices and quality care. A mature electronic health record connects a comprehensive network of 2 hospitals, 38 community practice sites and nearly 800 Geisinger primary and specialty care physicians.

Potential candidates with experience are encouraged to apply.

Please contact H. Lester Kirchner, PhD, at hkirchner@geisinger.edu or biostatistics@geisinger.edu

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PENNSTATE



Associate or Full Professor

The Biostatistics Division in the Department of Public Health Sciences (DPHS) at The Pennsylvania State University College of Medicine seeks applicants for two tenure track faculty positions at the Associate or Full Professor level. DPHS invites applications from outstanding researchers desiring to engage in collaborative research in a biomedical setting, teaching and methodological research. DPHS currently has 39 doctoral faculty and 5 masters level faculty in three divisions: Biostatistics, Epidemiology and Health Services Research. www.pennstatehershey.org/phs

The successful candidate will have a strong record of publications in biostatistics, of teaching, and of biomedical collaboration. We are especially interested in individuals with experience in multi-center clinical trials or health services research, but outstanding applicants with interests in any area of biostatistics will receive full consideration. In the area of clinical trials, DPHS is currently home to the statistics and data coordinating centers for five NIH-funded multi-center clinical research networks. We seek investigators who will contribute to the expansion of our work in this area. In the area of health services research, DPHS faculty has particular interest in health economics, design of health surveys and analysis of large datasets. In addition to research, a successful candidate will teach and advise graduate students. The DPHS graduate program offers MS and MPH degrees.

Review of applications will begin immediately and continue until the positions are filled. Rank and salary will be commensurate with the candidate's experience and credentials. Candidates should submit a letter of application including statement of current and future research interests, curriculum vitae, and names and contact information for three references. Electronic applications are preferred and should be sent to dpague@hes.hmc.psu.edu. Applications also may be submitted via mail to: Biostatistics Search Committee c/o Diane Pague, Department of Public Health Sciences, 600 Centerview Drive, Hershey, PA 17033. Women and minority candidates are especially encouraged to apply. For your health, we are a non-smoking campus.

Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

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employer. Upon request, reasonable accommodations in the application process will be provided to individuals with disabilities. The University of Utah is committed to diversity in its workforce. Women and minorities are encouraged to apply.

Nationwide

■ PRA International is a leading global clinical research organization. Due to our continued growth, we have several openings for biostatisticians at varying levels, from biostatistician II through senior and principal levels. Possible locations include Raleigh, NC; Charlottesville, VA; Lenexa, KS; or Victoria, BC, Canada. Senior-level candidates who reside in other areas may be considered for regional positions. If interested, please email CVs to SiferdJenny@praintl.com. PRA is an equal opportunity employer.

FACULTY/STAFF POSITIONS

Department of Biostatistics Vanderbilt University School of Medicine

The Department of Biostatistics at Vanderbilt University, School of Medicine invites applications for the positions of assistant, associate and full professor. The Department is also seeking applicants for staff biostatisticians. We are particularly interested in experienced candidates with expertise in the following:

- Cancer Research
- Data coordinating center leadership
- Leading and managing a center for statistical collaboration

Vanderbilt University is located in beautiful Nashville, Tennessee and has been a leader among academic medical centers in its growth of NIH funding. We seek faculty and staff biostatisticians with excellent communication skills, outstanding collaborative ability, and desire for developing innovative statistical methods.

Candidates who have skills in managing and leading collaborative centers and have experience in supervising and mentoring junior biomedical researchers, are urged to apply.

Interested Faculty applicants should email a cover letter & CV to biostat@vanderbilt.edu. More information is available for staff positions at biostat.mc.vanderbilt.edu/JobOpenings. Vanderbilt University is an affirmative action EEOC employer.

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Job opening

Are you a PUBLIC OPINION SURVEY METHODOLOGIST? Looking for a great career opportunity?

The Office of Opinion Research at the U.S. Department of State is looking for a well-qualified STATISTICIAN with a strong background in survey methodology and solid experience with public opinion polls

Where? Washington, DC

What level? GS-13 (\$89,033.00 - \$115,742.00 a year)

What we need:

We are an office of survey research and area specialists who design and conduct international public opinion research on political, economic, social, and security issues. We're looking for someone who can advise us on:

- Overall survey design (including innovative research designs for challenging environments or hard-to-reach populations)
- Sampling strategies for stringent probability-based sampling in face-to-face, telephone, online or mixed mode/multiple-frame surveys
- Questionnaire design (including measuring constructs such as political efficacy, social distance and nationalism)
- Advanced multivariate analysis of public opinion data with a wide range of strategies for identifying significant patterns, segmenting potential audiences and estimating sampling error in complex sample designs

A successful candidate will also have excellent communication skills to be able to train other members of the staff in research design, sampling and statistical analysis.

This job is open to all U.S. citizens.

For additional information, contact:

Anna Dean, Acting Director, Office of Opinion Research
(DeanAS@state.gov)

The formal job posting will be available in April or May 2011 at <http://jobview.usajobs.gov/>.

Keyword: Statistician

Where: Washington, DC

■ PPD, Inc. continues to grow! We are hiring experienced biostatisticians (all levels) and experienced SAS programmers (all levels) for our North America, EMEA, and China offices. Below is a list of the opportunities. North America - AD biostatistics, biostatisticians, and SAS programmers. EMEA - biostatisticians, SAS programmers. China - senior biostatisticians, biostatisticians, and SAS programmers (Shanghai and Beijing). All job descriptions can be found at www.ppd.com/careers or email Kacy.Fortson@ppdi.com. PPD is an EEOC.

International

■ PRA International is a leading global clinical research organization. Due to our continued growth, we have several openings for biostatisticians at varying levels, from biostatistician II through senior and principal levels. Possible locations include Raleigh, NC; Charlottesville, VA; Lenexa, KS;

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NORC conducts high quality social science research in the public interest from its headquarters at the University of Chicago and from its offices in Chicago, IL, Washington, DC, Bethesda, MD, and Berkeley, CA.

We conduct research in economics, demographics, education and child development, health, substance abuse, mental health, justice, and survey quality both in the U.S. and internationally. We offer full-service survey design and operations as well as strengths in analysis, information technology, and technical assistance. NORC supports the research needs of government in the U.S. and abroad, international donor agencies, foundations, academic researchers, and private organizations.

NORC is actively seeking statisticians, survey methodologists, statistical programmers, data managers, survey directors, and social scientists with advanced training or experience in survey research or survey operations. New staff will be based in our Chicago, IL or Washington, DC offices. To learn more about NORC and to apply for employment, visit our website at:

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Requirements

- U.S. citizenship
- Bachelor's, Master's or Ph.D with at least 24 semester hours in math and statistics (see website for more specifics on required coursework)

Apply at www.census.gov, click on Jobs@census, Headquarters and NPC Employment Opportunities, Mathematical Statistician

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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.

We are currently recruiting for the following statistical position:

Survey Sampling Statistician

Job Code DRM/3233BR

Position available for a survey sampling statistician with 3 or more years of relevant experience. Responsibilities include sample design and selection, power calculations, frames development, weighting including nonresponse adjustment and benchmarking, imputation, and variance estimation. Must have a master's or doctoral degree in statistics and have very good writing skills. Coursework in sample survey design is highly desirable.

Westat offers excellent growth opportunities and an outstanding benefits package including life and health insurance, an Employee Stock Ownership Plan (ESOP), a 401(k) plan, flexible spending accounts, professional development, and tuition assistance. To apply, go to www.westat.com/jobs and enter **3233BR** in the space provided.



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or Victoria, BC, Canada. Senior-level candidates who reside in other areas may be considered for regional positions. If interested, please email CVs to SiferdJenny@praintl.com. PRA is an equal opportunity employer.

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For more information contact Bill Kahn, VP of Analytics, at wkahn@travelers.com or go to our website: travelers.com/Careers.

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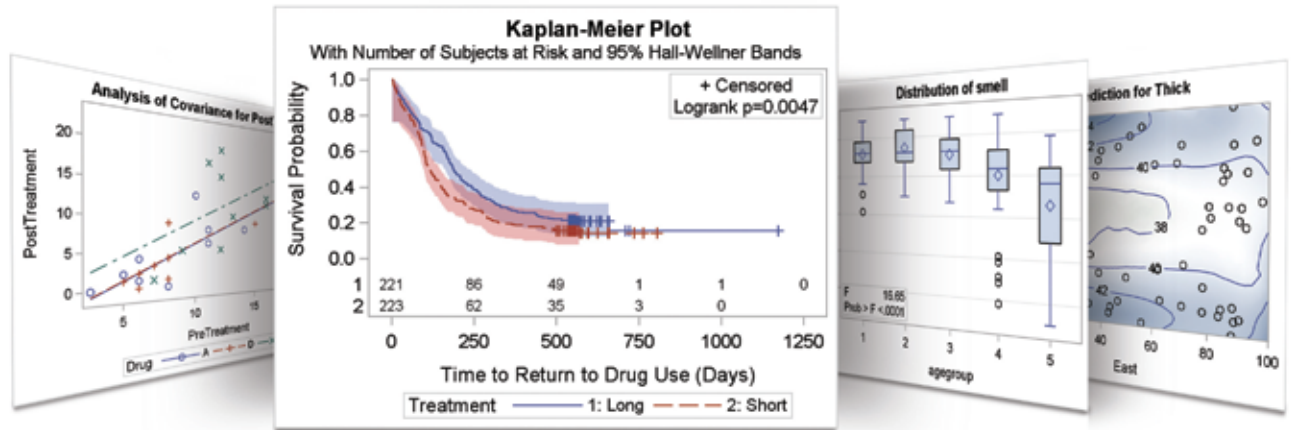
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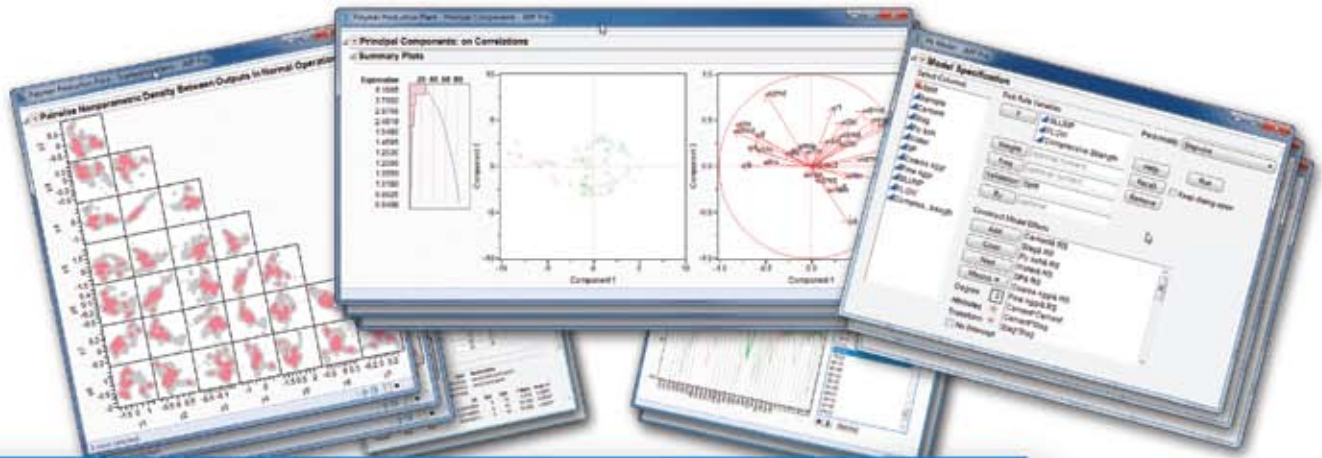
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