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AMSTATNEWS

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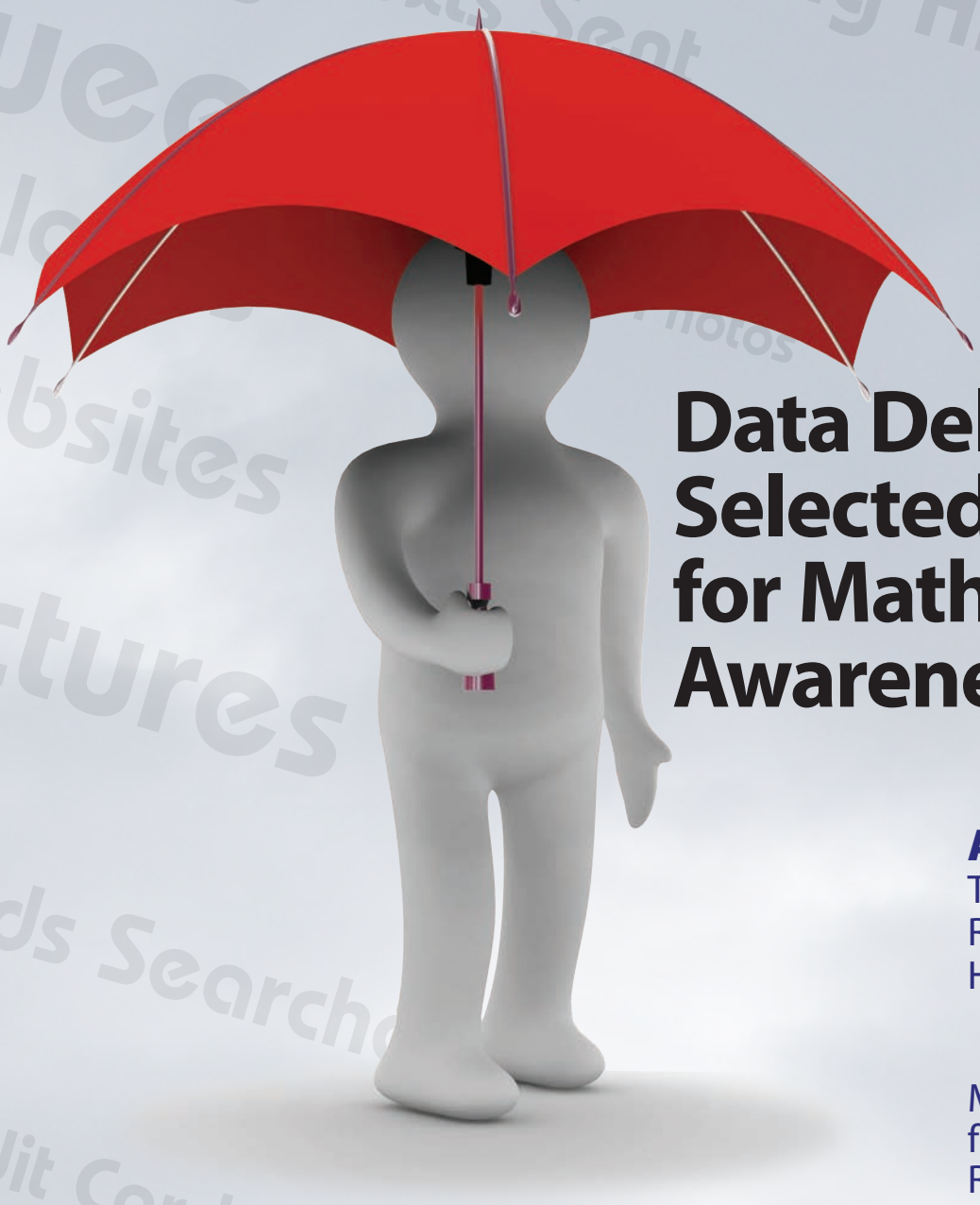

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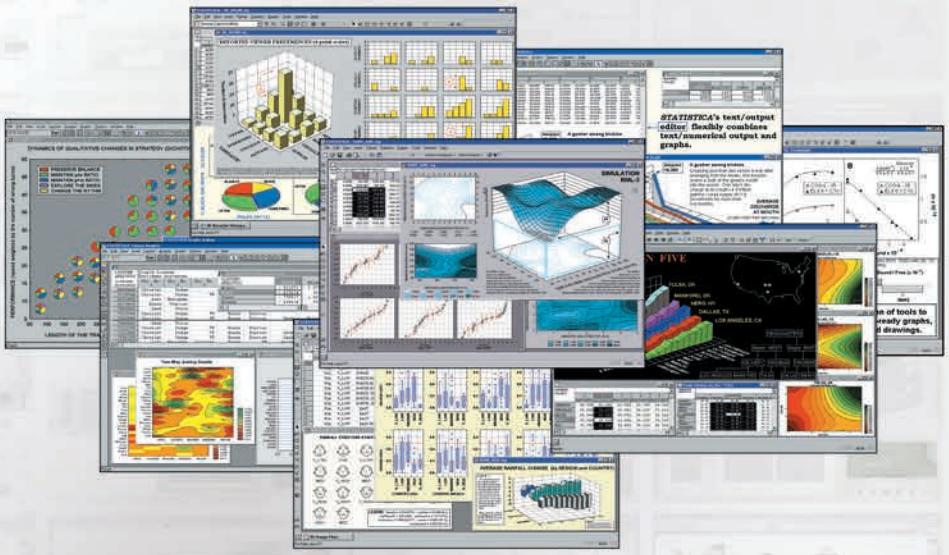

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Amstat News welcomes news items and letters from readers on matters of interest to the association and the profession. Address correspondence to Managing Editor, *Amstat News,* American Statistical Association, 732 North Washington Street, Alexandria VA 22314-1943 USA, or email *amstat@amstat.org*. Items must be received by the first day of the preceding month to ensure appearance in the next issue (for example, June 1 for the July issue). Material can be sent as a Microsoft Word document, PDF, or within an email. Articles will be edited for space. Accompanying artwork will be accepted in graphics file formats only (.jpg, etc.), minimum 300 dpi. No material in WordPerfect will be accepted.

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

features

columns

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.*

Pierson

Contributing Editor

Steve Pierson earned his PhD in physics from the University of Minnesota. He spent eight years in the physics department of Worcester Polytechnic Institute before becoming head of government relations at the American Physical Society.

STAT*tr@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.*

Baumann

Contributing Editors

Doug Baumann is a PhD student in the department of statistics at Purdue University. His research is under the direction of R. W. Doerge and focuses on the annotation-informed integration of 'omic' data in next-generation sequencing. Baumann is interested in curriculum design in undergraduate education and plans to have an academic career at a liberal arts college after graduating.

Nisen

Jeff Nisen is a fourth-year PhD student in the department of statistics at Purdue University. His research focuses on the development of novel estimation and calibration procedures for stochastic models used in the financial engineering, risk management, and econometrics fields. Upon graduation, Nisen plans to work as a quantitative analyst in the financial services industry.

Online Articles

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

The ASA will have an exhibit at the second USA Science & Engineering Festival at the Walter E. Washington Convention Center in Washington, DC, April 28–29. Check out the ASA booth, Discovery Through Statistics, located in Hall C, Booth 1006. Activities will draw from entries to the 2010 Hands-On Statistics Activity Competition, and ASA members will volunteer time in the booth to coordinate the activities. If interested in volunteering, contact Rebecca Nichols at *rebecca@amstat.org*.

More than 3,000 interactive exhibits and 150 stage shows will take place during the festival. Bring your whole family and give your future and current scientists the experience of a lifetime. Visit *www.usasciencefestival.org* to view all exhibit and stage shows, download a map of the expo grounds, and view the festival calendar.

Visit the **ASA Calendar of Events**, an online database of statistical happenings across the globe. Announcements are accepted from educational and not-for-profit organizations. To view the complete list of statistics meetings and workshops, visit *www.amstat.org/dateline*.

Many of the **sections and committees** sponsor events and host workshops and meetings. For details about these events and other news, make sure you visit our section, chapter, and committee pages online at *http://magazine.amstat.org*.

Lesson Plans Wanted for Statistics Education Web
The new editor of STatistics Education Web (STEW), Mary Richardson of Grand Valley State University, is accepting submissions of lesson plans for an online bank of peer-reviewed lesson plans for K–12 mathematics and science teachers. Lesson plans will showcase the use of statistical methods and ideas in science and mathematics based on the framework and levels in the *Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report: A Pre-K–12 Curriculum Framework* (*www.amstat.org/education/gaise*).

Consider submitting several of your favorite lesson plans according to the STEW template to *steweditor@amstat.org*. For more information, visit *www.amstat.org/education/STEW*.

columns

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

Photo Unavailable

Contributing Editors

Monica Johnston is chair of the ASA Committee on Membership Retention and Recruitment and cofounder of the Section for Statistical Programmers and Analysts. She is an independent consultant and serves as director at Mostly Math, an education services center in Walnut Creek, California.

Price

Dionne Price is a mathematical statistician and team leader at the U.S. Food and Drug Administration. She served as the 2010 program chair for the Biopharmaceutical Section and is the section's current secretary.

Williams

George Williams is vice president of global biomedical data sciences and head of the Center for Observational Research at Amgen. He also is a recipient of the ASA Founders Award and a Fellow of the ASA, Society for Clinical Trials, American College of Epidemiology, American Heart Association, and American Association for the Advancement of Science.

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Statistical Leadership: Perspectives of Past Presidents

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1956 ASA President Gertrude Cox (front, fourth from left) and Bernard Greenberg (back, second from left) at the 1963 ISI session in Ottawa. Greenberg family members are Ruth (back, left), Ray (front, second from left), and Frances (front, third from left). Others are A. Ross Eckler (second from right), who served as ASA president in 1969, and Tulio Hostilio Montenegro (fifth from right), secretary general of the InterAmerican Statistical Institute.

In February and March, I discussed the vital importance of statistical leadership and how we can prepare students and younger professionals for leadership. I conclude the series this month with insights on leadership from past ASA presidents and a little-known story about one of our best-known presidents.

Immediately following the names of presidents, I have indicated their presidential years. This will bring back memories for the longtime members who are recognized in this issue (see Page 5). I am grateful to the presidents who contributed to this column and to Ray Greenberg and Frances Greenberg Klein for the accompanying photograph.

Varieties of Leadership

Statistical leadership takes many forms, as observed by Ronald Iman (1994), who emphasizes our need for leaders "at multiple levels from small to large."

Jon Kettenring (1997) praises the leaders he describes as "unsung local heroes," explaining that "these are leaders we meet in all our chapters. They provide critical leadership in ways that are transparent to most of us, but their contributions add up and make the rest of us look good."

The Path to Leadership

Although the presidents' accomplishments are varied, their paths to leadership all began with a willingness to serve and work with others. Kettenring said he started small by helping to plan an ASA chapter in northern New Jersey. In the process, he met a wide range of statisticians from academia and industry. For Jon, "it then seemed that one opportunity led to another."

Volunteering was also the first step for Robert Mason (2003), who started his current job at a time when he was the only statistician in his organization. Bob realized he needed to network with other statisticians, so he helped form a local chapter and volunteered as its first president. This led to election as representative to the Council of Chapters. Eventually, Bob was elected to the board of directors, where further roles opened.

Qualities of Outstanding Leaders

The presidents had much to say about the personal qualities they value in the outstanding statistical leaders they have known. Kettenring admires leaders who have a broad perspective on our field. They see opportunities because they think of statistics in terms of its interfaces and intersections, and they understand that these connections strengthen the profession and its impact on society.

Mason adds, "The qualities I have most admired in ASA leaders are their willingness to work with others, regardless of personal differences; to be cordial and gracious, yet firm, in decisionmaking; to listen to colleagues and respect their opinions, yet lead when required; to have a good sense of humor and a positive outlook on life, regardless of the outcome of a meeting or event; and to possess a genuine concern for the welfare of others."

Robert Rodriguez

J. Stuart Hunter (1993) writes that the quality he has admired most in recognized leaders in our field is their empathy toward younger compatriots.

Leaders as Encouragers

Early in their careers, several presidents benefited from examples provided by established leaders. Kettenring acknowledges Ram Gnanadesikan at Bell Labs as "the perfect role model" because Ram was a statistical leader both domestically and internationally.

Words of encouragement from well-known leaders also made a difference. John Neter (1985) remembers the support he received from Donald Riley, ASA secretary from 1955 to 1968.

Tony Lachenbruch (2008) recalls that when he became an ASA Fellow in 1979, he unexpectedly received a congratulatory note from Frederick Mosteller (1967), who wrote knowledgeably about Tony's contributions. Since then, Tony has made it a practice to send similar notes to others.

Important Skills for Leaders

All the presidents listed communication as a valuable skill they worked hard to acquire. Kettenring recounts, "The importance of this was driven home to me early on at Bell Labs. We rehearsed talks before being let out the door, and all documents were critiqued by management before they were finalized."

Hunter believes statistical leaders should be communicators who enjoy being statisticians and show others that statistics is fun, interesting, and important.

Iman adds that successful leaders must be good listeners with the ability to interact with others, noting that ASA service provides opportunities to develop these skills. And Richard Scheaffer (2001) emphasizes the importance of organizational and planning skills.

The Multiplicative Effect of Great Leaders

According to John Maxwell, author of several books on leadership, leading others is a way to add growth to an organization, but developing and leading *leaders* is the way to multiply growth.

One of the finest examples of a "multiplicative" leader in our field is Gertrude Cox, who—among her many contributions—served as ASA president in 1956.

The legacy of Cox is prominent in the Research Triangle area of North Carolina, where she helped establish three academic departments. These eventually became the department of statistics at North Carolina State University, the department of statistics and operations research at The University of North Carolina (UNC) at Chapel Hill, and the department of biostatistics at UNC Chapel Hill. Gertrude also was instrumental in founding the Research Triangle Institute. Today, her legacy is shared by two major companies—Quintiles and SAS—which grew from university programs she established.

Cox's accomplishments are all the more remarkable because they came at a time when statistics was a mostly male field. She encouraged young women to enter the field, and the ASA's Cox Scholarship honors her memory by promoting that goal.

An example of how Cox influenced younger people to become leaders is the way in which she encouraged Bernard Greenberg to start a biostatistics department at UNC in 1949—while he was still a graduate student at North Carolina State College.

The story of Greenberg's appointment was never published, but his son, Ray, gives us a glimpse of how it came about. "Unlike the way things work today with search committees, things in 1949 were handled a lot less formally. The appointment of my father was like an arranged marriage, with the matchmakers being Professor Cox and Edward McGavran, dean of the school of public health. It was a bold move on both their parts to take a newly minted graduate, not yet 30 years old, with no real academic experience, and place him in a position of leadership and responsibility as a department chair (even if there was only one faculty member in the department at the time)."

"It is also worth noting that these were the days when there were few Jewish faculty members, much less department chairs, at the university. So barriers were broken with this appointment, but Professor Cox and Dean McGavran were both excellent judges of talent, and they saw in Bernie Greenberg the potential to grow the new department and to help build the research strength of the school."

Greenberg went on to become a nationally recognized leader in the field of public health and later dean of what is now the UNC Gillings School of Global Public Health. He is especially remembered by alumni for his gracious encouragement of students.

Conclusions

Among the lessons to be gained from these presidential perspectives, I conclude with three. First, the road to statistical leadership begins with volunteering. Second, successful leaders work on their communication skills and apply them as champions for our field. Third, great leaders encourage and develop younger leaders.

We need leaders at all levels of our association. And exceptional leaders should be the norm—not the exception!

Robert N. Rodriguez

Recognizing the ASA's Longtime Members

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

If you are a longtime member and will be attending JSM 2012 in San Diego, California, please join us for a reception in your honor. If your name is not below and you believe it should be included, contact Amy Farris at *amy@amstat.org* to correct your record.

Longtime members John Neter (left) and Victor Chew (middle) with ASA President Bob Rodriguez (right). Taken on January 30, 2012, at the Cedars of Chapel Hill, where both Neter and Chew reside.

50+ Years

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Joan S. Reisch

Gladys H. Reynolds

Bruce E. Rodda

Donald C. Ross

Richard S. Ross

Edward Rothman

C. Bradley Russell

Robert A. Rutledge

Harold B. Sackrowitz

David S. Salsburg

Charles B. Sampson

Innis G. Sande

Patricia D. Saunders

Eberhard G. Schaich

Richard L. Scheaffer

J. Richard Schmid

William R. Schucany

Robert J. Serfling

Babubhai V. Shah

Nagambal D. Shah

Gary M. Shapiro

Stanley H. Shapiro

Lawrence A. Sherr

Jon J. Shuster

Moshe Sicron

Betty J. Skipper

Armand V. Smith

William Boyce Smith

Ronald D. Snee

Mitchell Snyder

Daniel L. Solomon

Edward J. Spar

F. Michael Speed

Douglas E. Splitstone

Stephen M. Stigler

Jerrell T. Stracener

Bruce C. Straits

D. Derk Swain

Paul Switzer

David L. Sylwester

Douglas B. Tang

Judith M. Tanur

Aaron Tenenbein

James R. Thompson

William O. Thompson

George C. Tiao

Lowell H. Tomlinson

James Tonascia

Carlos E. Toro-Vizcarrondo

J. Richard Trout

Wen-Hung Tseng

Chris P. Tsokos

Willem R. Van Zwet

James R. Veale

Joel I. Verter

Ray A. Waller

Robert C. Walls

James A. Walsh

Bruce S. Weir

Herbert I. Weisberg

John Williams

Robert L. Winkler

John J. Wiorkowski

David A. Wise

John E. Witcher

Janet Wittes

Douglas A. Wolfe

Gooloo S. Wunderlich

Morty Yalovsky

Shelemyahu Zacks

40–44 Years

Judith Abrams

Lee R. Abramson

C. J. Adcock

Frances J. Adox

Robert A. Agnew

Alan Agresti

Per A. T. Akersten

Arthur E. Albert

Mir Masoom Ali

Mukhtar M. Ali

J. Richard Alldredge

Francis B. Alt

Stan Altan

Alfred Jerry Anderson

Dallas W. Anderson

Robert L. Andrews

W. Tad Archambault

Jesse C. Arnold

Ersen Arseven

James N. Arvesen

Taka Ashikaga

Corwin L. Atwood

Abdolrahman Azari

Robert S. Barcikowski

William A. Barnett

John L. Barone

Charles K. Bayne

Richard A. Becker

Laurel A. Beckett

Richard J. Beckman

James C. Beebe

Mary S. Beersman

Jacqueline Benedetti

Timothy M. Bergquist

Kenneth N. Berk

William R. Best

Wayne F. Bialas

Lynne Billard

David S. Birkes

John A. Blessing

Brent A. Blumenstein

Lennart Bodin

Aroona S. Borpujari

Gordon J. Brackstone

Edwin L. Bradley

William M. Brelsford

Robert L. Brennan

Ellen F. Brewer

Dwight B. Brock

Maurice E. Bubb

Richard K. Burdick

John A. Burkart

Patricia L. Busk

William L. Carlson

Steven T. Carrier

Margaret D. Carroll

Raymond J. Carroll

Walter H. Carter

Samprit Chatterjee

Raj S. Chhikara

Joseph J. Chmiel

Lee-Jay Cho

Adam Chu

William S. Cleveland

Guy M. Cohen

Robert J. Condon

Kimon J.E. Constas

Peter A. Cook

Lewis Coopersmith

Robert J. Costello

Louis J. Cote

Giles L. Crane

John R. Crigler

David S. Crosby

Larry H. Crow

John J. Crowley

Gary R. Cutter

Gerard E. Dallal

Kenneth W. Davis

Robert L. Davis

William W. Davis

Enrique de Alba

Jose R. Deliz

David L. DeMets

Susan J. Devlin

Thomas F. Devlin

Jay L. Devore

Paula H. Diehr

W. Erwin Diewert

Darryl J. Downing

Michele Dramaix-Wilmet

Dennis A. DuBose

Joseph W. Duncan

Donald H. Ebbeler

Brenda Kay Edwards

Janet D. Elashoff

David Elesh

Eugene P. Ericksen

James W. Evans

Milton C. Fan

Thomas B. Farver

Gerald M. Fava

Robert E. Fay

Walter Feibes

Alan H. Feiveson

Martin Feuerman

Alan C. Fisher

Andrew J. Flatt

Nancy Flournoy

Sandra Forman

Mary A. Foulkes

James W. Frane

Martin D. Fraser

Daniel H. Freeman

Carol L. French

David Frontz

Mark C. Fulcomer

Howard N. Fullerton

Mitchell H. Gail

Edward J. Gainer

Richard Gaines

Daniel J. Gans

Fernando L. Garagorry

Turkan K. Gardenier

Alan E. Gelfand

Stephen L. George

Gauri L. Ghai

P. D. Ghangurde

Glenn H. Gilbreath

Edward J. Gilroy

Phyllis A. Gimotty

Howard Seth Gitlow

John R. Gleason

James H. Godbold

Prem K. Goel

Robert N. Goldman

Matthew Goldstein

J. Douglas Gordon

Louis Gordon

Bernard S. Gorman

David M. Grether

William E. Griffiths

Joseph A. Guarnieri

Richard F. Gunst

Shelby J. Haberman

Hermann Habermann

Timothy O. Haifley

Robert E. Hale

Robert E. Hall

R. Choudary Hanumara

Lynne B. Hare

Galen F. Hart

Larry D. Haugh

Robert M. Hauser

Douglas M. Hawkins

Richard M. Heiberger

William F. Heiland

Karl W. Heiner

Robert W. Hertz

Agnes M. Herzberg

Eugene R. Heyman

James J. Higgins

Klaus Hinkelmann

David C. Hoaglin

Theodore R. Holford

Stephen C. Hora

David W. Hosmer

David C. Howell

Lawrence J. Hubert

Mark L. Hudes

Huynh Huynh

Dar-Shong Hwang

Ronald L. Iman

Peter B. Imrey

Allen E. Izu

William G. Jackson

Joan R. Jacobs

F. E. James

Sreenivasa Rao Jammalamadaka

J. D. Jobson

Clifford L. Johnson

Dallas E. Johnson

Paul K. Jones

Peter R. Jones

Henry D. Kahn

John D. Kalbfleisch

John H. Kalbfleisch

William D. Kalsbeek

Howard S. Kaplon

Joseph D. Kasile

Robert M. Katz

Myron J. Katzoff

Roswitha E. Kelly

James L. Kenkel

Ralph L. Kent

David L. Kimble

Robert Kinnison

Roger E. Kirk

Ralph L. Kodell

David C. Korts

Neal Koss

Mary Grace Kovar

Helena C. Kraemer

S. David Kriska

Joseph B. Kruskal

Arabinda Kundu

Robert Kushler

John M. Lachin

Lynn Roy LaMotte

James M. Landwehr

Per Lange

Chang S. Lao

William D. Lawing

Anthony James Lawrance

Kenneth D. Lawrence

Clifford J. Lee

Russell V. Lenth

Donald Lewin

David L. Libby

Samuel Litwin

Robert G. Lovell

Lars Lyberg

George W. Lynch

James R. Maar

Bruce E. Mackey

Edward R. Mansfield

Dennis R. Mar

Robert L. Mason

Frances J. Mather

Takashi Matsui

Clement J. Maurath

George P. McCabe

John D. McKenzie

Glen D. Meeden

Jeff B. Meeker

James I. Mellon

Gayle T. Meltesen

Mary-Jane Mietlowski

William L. Mietlowski

George A. Milliken

Satish Chandra Misra

Robert Mondschein

Douglas C. Montgomery

Roderick Montgomery

David S. Moore

John K. Moore

David R. Morganstein

Effat A. Moussa

Michael L. Mout

Robb J. Muirhead

Henry D. Muse

Wayne L. Myers

Krishnan Namboodiri

Subhash C. Narula

Elliott Nebenzahl

Glenn L. Nelson

S. Edward Nevius

David S. Newman

H. Joseph Newton

James A. Nickel

Earl Nordbrock

Julia A. Norton

Marija J. Norusis

Janet L. Norwood

Peter C. O'Brien

Leonard Oppenheimer

Albert C. Ovedovitz

Maurice E. B. Owens

William J. Padgett

Leonard J. Parsons

Jon K. Peck

Raymond C. Peck

Arthur V. Peterson

Robert A. Peterson

A. John Petkau

Charles G. Pfeifer

Louis A. Pingel

Mike Pore

Stephen L. Portnoy

Frank J. Potter

Ross L. Prentice

Philip J. Press

Kevin Price

Philip C. Prorok

Thomas W. Pullum

David A. Pyne

Alfred W. Rademaker

J. G. Ramage

Calyampudi R. Rao

Carol K. Redmond

George F. Reed

Thomas Reiland

Benjamin Reiser

Louise C. Remer

Kenneth J. Resser

Hans Riedwyl

Richard D. Rippe

Jeffrey A. Robinson

James L. Rosenberger

Bernard Rosner

Dwight N. Rousu

Donald B. Rubin

Barbara J. Rutledge

Thomas P. Ryan

Julia Sabella

Susan T. Sacks

John J. Salera

Francisco J. Samaniego

Douglas A. Samuelson

Thomas J. Santner

James J. Schlesselman

Joyce A. Schlieter

Josef Schmee

James Schmeidler

Mildred E. Schmidt

Eugene F. Schuster

Neil C. Schwertman

Alastair J. Scott

Stuart Scott

Nell Sedransk

Subrata K. Sen

Jolayne W. Service

Jayaram Sethuraman

Glenn R. Shafer

Charles E. Shaffer

Juliet Popper Shaffer

Paul Shaman

Ronald E. Shiffler

Iris M. Shimizu

James G. Shook

Albert P. Shulte

Robert H. Shumway

Robert L. Sielken

Jagbir Singh

Nozer D. Singpurwalla

Walter Sloboda

Robert D. Small

Stephen C. Smeach

Dennis E. Smith

William A. Sollecito

Randall K. Spoeri

M. K. Srirama

Muni S. Srivastava

Bert Steece

Allan Stewart-Oaten

Robert L. Stout

William E. Strawderman

Nariaki Sugiura

Moon W. Suh

Richard A. Sundheim

Michael Sutherland

Ajit C. Tamhane

Richard D. Terrell

Ronald A. Thisted

Hoben Thomas

John M. Thomas

Carol B. Thompson

Steven F. Thomson

Robert D. Tortora

Ram C. Tripathi

Bruce W. Turnbull

Neil R. Ullman

Gerald van Belle

Joseph Van Den Reysen

Lonnie C. Vance

Kerstin Vannman

Niels H. Veldhuijzen

Wayne F. Velicer

Hrishikesh D. Vinod

R. Lakshmi Vishnuvajjala

Frederic A. Vogel

Kenneth W. Wachter

Hajime Wago

Joseph J. Walker

Sylvan Wallenstein

Chao Wang

George H. Wang

James F. Ward

James H. Ware

John Warren

Christine M. Waternaux

Tommy D. Waters

Larry S. Webber

William E. Wecker

Edward J. Wegman

William W. S. Wei

Lynn Weidman

Sanford Weisberg

K. Laurence Weldon

James P. Whipple

Owen Whitby

David G. Whitmore

Howard L. Wiener

William J. Wilson

Robert F. Woolson

Rita Zemach

Eric R. Ziegel

Stuart O. Zimmerman

35–39 Years

Dennis Aaron

Julian Abbott

Robert D. Abbott

Sandra C. Abbott

John M. Abowd

Bovas Abraham

Donald R. Akin

James H. Albert

Robert W. Aldred

Rich Allen

Wendy L. Alvey

Keaven M. Anderson

Robert J. Anderson

Sharon Anderson

Bengtung Ben Ang

Clifford W. Angstman

Lawrence Annable

Susanne Aref

Vincent C. Arena

Steve Ascher

Arlene S. Ash

Anthony C. Atkinson

Agustin F. Ayuso

Leroy Bailey

Steven P. Bailey

Stephen P. Baker

Saad T. Bakir

James A. Baldwin

Vincent P. Barabba

Michael P. Battaglia

Eileen J. Beachell

Robert J. Beaver

Patricia C. Becker

Jay H. Beder

Steven Belle

David R. Bellhouse

Robert B. Bendel

George Benson

James O. Berger

Roger L. Berger

James S. Bergum

Catherine S. Berkey

Jose Miguel Bernardo

Ernst R. Berndt

David J. Bernklau

Al M. Best

Bibhuti B. Bhattacharyya

William T. Bielby

Paul P. Biemer

Robert H. Bigelow

Thomas E. Billings

Richard A. Bilonick

David A. Binder

Stephen F. Bingham

Giselle Binstok

Jeffrey B. Birch

Herbert L. Bishop

Thomas A. Bishop

Richard M. Bittman

Jan F. Bjornstad

Ernest A. Blaisdell

Mark M. Blanchard

Peter Bloomfield

Harvey Blumberg

Dan C. Boger

Robert J. Boik

James A. Bolognese

James T. Bonnen

Dennis Boos

Marie V. Bousfield

John E. Boyer

Norman M. Bradburn

Ann Cohen Brandwein

James M. Branscome

Mary-Lynn Brecht

Kenneth R. W. Brewer

J. Michael Brick

Ron Brookmeyer

Dean S. Bross

Rocco L. Brunelle

Edward C. Bryant

Shirrell Buhler

John M. Bushery

Thomas J. Bzik

Lawrence S. Cahoon

Alan Cantor

Patrick J. Cantwell

Thomas P. Capizzi

Grant D. Capps

Arthur Carpenter

Daniel B. Carr

George Casella

Frank C. Castronova

Aki N. Caszatt

Amrut M. Champaneri

John P. Chandler

Judith-Anne W. Chapman

Yogendra P. Chaubey

Richard A. Chechile

Bee-Lian Chen

Gina G. Chen

James J. Chen

William W.S. Chen

Michael R. Chernick

Robert D. Chew

Nanjamma Chinnappa

Joan Sander Chmiel

Jai Won Choi

Peter D. Christenson

B. Christine Clark

Cynthia Z.F. Clark

David A. Clawson

William P. Cleveland

George W. Cobb

Timothy C. Coburn

Michael L. Cohen

Michael P. Cohen

Steven B. Cohen

James J. Colaianne

John R. Collins

Salvatore V. Colucci

Loveday L. Conquest

Bruce K. Cooil

Kennon R. Copeland

Margaret D. Copenhaver

Thomas W. Copenhaver

Charles D. Cowan

Brenda G. Cox

Lawrence H. Cox

John R. Crammer

Keith N. Crank

Anne P. Cross

Suzanne L. Cross

Kenny S. Crump

Andrew Joseph Cucchiara

William G. Cumberland

L. Adrienne Cupples

Robert D. Curley

Lester R. Curtin

Andrew I. Dale

Prithwis Dasgupta

Charles S. Davis

Thomas M. Davis

Ree Dawson

Roberta W. Day

Virginia A. de Wolf

Forest C. Deal

R. B. Deal

Michael L. Deaton

Pierre C. Delfiner

Lorraine Denby

Wayne S. Desarbo

Terry E. Dielman

E. Jacquelin Dietz

Ralph Digaetano

Lynn P. Dix

David P. Doane

Allan P. Donner

Joseph R. Donovan

Janice L. Dubien

Bonnie P. Dumas

William D. Dupont

Ann Durand

Timothy R. Eaton

L. Marlin Eby

William F. Eddy

Marlene J. Egger

John D. Emerson

Kathleen Louise Emery

Wil B. Emmert

Curtis S. Engelhard

Richard M. Engeman

Kurt Enslein

Thomas W. Epps

Samuel M. Epstein

William H. Epstein

Lawrence R. Ernst

Sylvia R. Esterby

Michael J. Evans

Ray E. Faith

Raymond W. Falk

David L. Farnsworth

Alan Fask

John P. Fazio

Ronald S. Fecso

Michael L. Feldstein

Christopher A. Field

David F. Findley

Naomi S. Fineberg

Carl Thomas Finkbeiner

Nicholas I. Fisher

Allen I. Fleishman

James W. Flewelling

Hans-Theo Forst

Peter E. Fortini

Janet F. Fowler

John D. Fox

Leroy A. Franklin

Larry D. Freese

Stephen A. Freitas

Barbara A. Gabianelli

Paul Gallo

Stephen J. Ganocy

Roan A. Garcia-Quintana

Edward E. Gbur

Robin T. Geiger

Fredric C. Genter

Cynthia D. Gentillon

Dhirendra N. Ghosh

Malay Ghosh

Ned M. Gibbons

David E. Giles

Brenda Wilson Gillespie

John A. Gillespie

Dennis R. Givens

Beth C. Gladen

Marcia A. Glauberman

Joseph Glaz

Frederick P. Glick

Huseyin A. Goksel

Richard F. Goldstein

Joe Fred Gonzalez

James H. Goodnight

Robert D. Gordon

Jerren Gould

Barry I. Graubard

Stephanie J. Green

Timothy A. Green

William H. Greene

Joel B. Greenhouse

John Vic Grice

Susan Groshen

Cynthia R. Gross

Marvin H. J. Gruber

Leslie S. Grunes

Victor M. Guerrero

Berton H. Gunter

Perry D. Haaland

David B. Hall

James L. Hall

Nancy R. Hall

William A. Halteman

Robert M. Hamer

David C. Hamilton

Thomas S. Hammerstrom

Janet M. Hanley

Robert C. Hannum

C. David Hardison

William V. Harper

Frank E. Harrell

Stephen P. Harris

Diane S. Harry

Kenneth R. Hartmann

Gary D. Hatfield

Robert E. Hausman

Maurine A. Haver

Ronald W. Hawkinson

Joan G. Haworth

Takesi Hayakawa

Lance K. Heilbrun

Harold V. Henderson

Ellen Hertzmark

Thomas Herzog

James L. Hess

Richard P. Heydorn

Steven C. Hillmer

Susan M. Hinkins

Jerry L. Hintze

Chihiro Hirotsu

Raymond G. Hoffmann

Thomas P. Hogan

Larry R. Holden

Robert M. Holmes

Ernest B. Hook

Alan Hopkins

Berne Martin Howard

Ina P. Howell

Louis Hsu

Elizabeth T. Huang

Lee Huang

Marla L. Huddleston

Mohammad F. Huque

Emilio A. Icaza

David N. Ikle

Duane M. Ilstrup

John M. Irvine

Alan J. Izenman

Kirk A. Jackson

William E. Jackson

Eva E. Jacobs

Peter J. Jacobs

Raj K. Jain

David Jaspen

Jean G. Jenkins

Linda W. Jennings

Robert W. Jernigan

Bruce E. Johnson

Paulette M. Johnson

Gerald A. Joireman

Ian T. Jolliffe

David C. Jordan

Harmon S. Jordan

David R. Judkins

Karen Kafadar

Lee D. Kaiser

Jill A. Kammermeyer

Paul B. Kantor

Bruce A. Kaplan

Theodore G. Karrison

Daniel Kasprzyk

Masatoshi Katsuhara

Richard W. Katz

Jerome P. Keating

Sheryl F. Kelsey

James R. Kenyon

James L. Kepner

Wendell W. Kerr

Andre I. Khuri

Byung-Soo Kim

Ignatius A. Kinsella

Nancy J. Kirkendall

Syed N.U.A. Kirmani

Rudolf G. Kittlitz

Beat Kleiner

Richard E. Kleinknecht

Stuart A. Klugman

Kenneth J. Koehler

Roger W. Koenker

Kenneth J. Kopecky

Edward L. Korn

Kenneth J. Koury

Ioannis A. Koutrouvelis

Andrew Kramar

Abba M. Krieger

Alok Krishen

Pieter M. Kroonenberg

Naoto Kunitomo

Alan H. Kvanli

James R. Lackritz

Nan Laird

Edward Lakatos

Mansum A. Lam

Miu Lam

Kuang-Kuo G. Lan

Carol J. Lancaster

J. Richard Landis

Patricia Langenberg

Stephen S. Langley

Wallace E. Larimore

Nicolaas F. Laubscher

Philip T. Lavin

Sheila M. Lawrence

Johannes Ledolter

Kelvin K. Lee

Kerry L. Lee

Martin L. Lee

James D. Leeper

Stanley A. Lemeshow

Ramon V. Leon

Heryee H. Leong

James M. Lepkowski

Trudy J. Lerer

Martin L. Lesser

Marcia J. Levenstein

Bruce Levin

Charles Lewis

Richard A. Lewis

Frederick W. Leysieffer

Shou-Hua Li

Walter S. Liggett

Lawrence I-Kuei Lin

Carol L. Link

Robert E. Little

George A. Livingston

Greta M. Ljung

Roger Longbotham

Michael T. Longnecker

Thomas A. Louis

Milton W. Loyer

Jay H. Lubin

Dennis W. Luckey

Donald M. Luery

James Lynch

Michael F. Macaluso

John MacIntyre

Michael E. Mack

Kathleen S. Madsen

Jay Magidson

Bette S. Mahoney

James D. Malley

Linda C. Malone

Eric J. Mandel

Charles F. Manski

Agustin Maravall

Kanti V. Mardia

Michael J. Margreta

Mary A. Marion

Ray L. Marr

Melanie Martindale

Donald L. Marx

Gretchen Wolfe Mason

Paula E. Mason

Victor M. Matthews

LeRoy T. Mattson

Timothy A. Max

Margaret W. Maxfield

Scott E. Maxwell

Fred M. Mayes

Michael J. Mazu

Paul R. McAllister

Donna K. McClish

Joseph P. McCloskey

Janet Elizabeth McDougall

Daniel L. McGee

Philip G. McGuire

Stephen A. McGuire

Joseph W. McKean

Geoffrey J. McLachlan

Christine E. McLaren

Don L. McLeish

Ronald E. McRoberts

Thomas P. McWilliams

William Q. Meeker

Cyrus R. Mehta

Robert J. Meier

Kathleen A. Mellars

Roy Mendelssohn

Ulrich Menzefricke

W. David Menzie

Michael P. Meredith

Samuel Merrill

Marianne E. Messina

Michael M. Meyer

Terry G. Meyer

Joel E. Michalek

Richard O. Michaud

William E. Mihalo

John A. Miller

Katherine L. Monti

Thomas F. Moore

George E. Morgan

June Morita

Max D. Morris

Norman Morse

Tetsuro Motoyama

Barbara G. Mroczkowski

Lawrence H. Muhlbaier

Leigh W. Murray

John C. Nash

Reinhard Neck

John T. Neely

Gary L. Neidert

James W. Neill

Paul I. Nelson

Margaret A. Nemeth

Robert L. Newcomb

Kai Wang Ng

Thomas W. Nolan

David Butcher Nolle

Robert M. Norton

El-Sayed E. Nour

Thomas S. Nunnikhoven

Barry D. Nussbaum

David Oakes

Kevin F. O'Brien

Ralph G. O'Brien

Michael W. O'Donnell

Judith Rich O'Fallon

Walter W. Offen

Francis G. Ogrinc

Douglas M. Okamoto

Patrick D. O'Meara

John A. Ondrasik

Bernard V. O'Neill

Terence John O'Neill

J. Burdeane Orris

Joyce Orsini

Melvin L. Ott

William J. Owen

Willis L. Owen

David J. Pack

Mari Palta

William S. Pan

Deborah L. Panebianco

Arthur C. Papacostas

Swamy A.V.B. Paravastu

Sung H. Park

Won J. Park

Rudolph S. Parrish

Robert E. Parson

Van L. Parsons

Sharon M. Passe

Jeffrey S. Passel

Kenneth W. Patterson

Charles L. Paule

Karl E. Peace

N. Shirlene Pearson

Peter H. Peskun

David W. Peterson

John J. Peterson

Maurice Pfannestiel

Daniel Pfeffermann

Charles B. Pheatt

Ceib L. Phillips

Philip J. Pichotta

Linda Williams Pickle

Joseph G. Pigeon

Brian D. Plikaytis

Dale J. Poirier

William E. Pollard

Jessica Pollner

Darwin H. Poritz

Randall W. Potter

Manfred Precht

Dale L. Preston

Howard M. Proskin

Lloyd P. Provost

Peter Purdue

Clifford R. Qualls

John N. Quiring

Tony K. S. Quon

Damaraju Raghavarao

Volker W. Rahlfs

Philip H. Ramsey

Gopa Ray

Rose M. Ray

William J. Raynor

Domenic J. Reda

Susan L. Reiland

Mark R. Reiser

Mark William Riggs

Paula K. Roberson

Rosemary A. Roberts

Edwin L. Robison

Frank W. Rockhold

Mark H. Rodeffer

Robert N. Rodriguez

Russell H. Roegner

Paul W. Rogers

John E. Rolph

Anthony M. Roman

Paul R. Rosenbaum

N. Phillip Ross

Arthur J. Roth

Roch Roy

Lawrence V. Rubinstein

Andrew L. Rukhin

David Ruppert

Estelle Russek-Cohen

Carl T. Russell

Michael S. Saccucci

Thomas W. Sager

Shiva K. Saksena

John P. Sall

William M. Sallas

Allan R. Sampson

Ester Samuel-Cahn

Gilles F. M. Santini

Robert L. Santos

Nathan E. Savin

John W. Sawyer

Richard L. Sawyer

William G. Saylor

Patricia A. Scanlan

Stephen Schacht

David J. Schaeffer

Nancy K. Schatz

Kenneth Schechtman

Perry A. Scheinok

Harry M. Schey

John D. Schmitz

David A. Schoenfeld

Timothy L. Schofield

Friedrich W. Scholz

Charles B. Schriver

John H. Schuenemeyer

Donald J. Schuirmann

Steven J. Schwager

Thomas A. Scripps

William L. Seaver

Jeanne L. Sebaugh

Joseph Sedransk

Teddy I. Seidenfeld

Thomas R. Sexton

Arvind K. Shah

Mohammed A. Shayib

Shingo Shirahata

Patrick E. Shrout

Stanley A. Shulman

Andrew F. Siegel

Richard S. Sigman

Jeffrey S. Simonoff

Terry L. Sincich

Judith D. Singer

Robert K. Smidt

Murray H. Smith

Patricia L. Smith

Francisco P. Soler

Dan J. Sommers

Frank C. Sonsini

Keith A. Soper

Terence P. Speed

Bruce D. Spencer

Clifford H. Spiegelman

Nancy L. Spruill

Donald M. Stablein

Edward J. Stanek

William M. Stanish

Richard M. Stanley

Robert R. Starbuck

Lynda K. Steele

David W. Stewart

Gerald R. Stewart

John A. Stewart

Robert A. Stine

Sandra S. Stinnett

Anne M. Stoddard

S. Lynne Stokes

Kenneth O. Story

Michael A. Stoto

Miron L. Straf

Robert F. Strahan

Donna F. Stroup

Walter W. Stroup

Perla Subbaiah

Stephen R. Sulpor

James P. Summe

Robert Sutherland

David A. Swanson

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Statisticians Participate in 2nd Annual Climate Science Day

Five ASA members participated in the second annual Climate Science Day (CSD) on Capitol Hill February 1. Co-organized by the ASA and jointly sponsored by the ASA and other professional societies, the event's primary purpose is for scientists to develop relationships with congressional staff so they will consult the scientists on climate-related questions.

Speaking to the goal of these visits, Peter Craigmile of The Ohio State University and Leonard Smith of the London School of Economics and Pembroke College, Oxford, the two ASA members who participated in the first CSD, noted how much better meetings went with staffers with whom they'd met last year. "It was interesting how substantive our meetings were with the four staffers we met last year; everyone was more comfortable, more relaxed," said Smith. "I find real value in revisits and look forward to CSD 2013."

Craigmile added, "Visiting an office for the second time allowed us to build upon the themes that we discussed in the first Climate Science Day. The Members of Congress and staffers we met were receptive and interested in thinking about the local impacts of climate change."

Michelle Bell of Yale University commented, "CSD seemed a great approach to help provide scientific information, without prescribing a specific policy. I appreciated that this event focused just on the facts, and was not agenda-driven or political. Our goal was to relay science, not ask for certain policies or for funding. I also liked the range of scientific disciplines."

Peter Guttorp, chair of the ASA Advisory Committee for Climate Change Policy (ACCCP), commented on how the tenor of the meetings changed once staffers realized the scientists weren't coming in with a policy agenda. He added, "I was paired with a scientist specializing in livestock manure management, and with my work on estimating global temperature, we almost always could present an angle that interested the staffer."

Amy Braverman, participating as a member of ACCCP, said "It was an unusual opportunity to be in touch with the national decisionmaking process and to highlight the role that statistics can play."

From left: Peter Craigmile, Peter Guttorp, Sen. Maria Cantwell, Christopher Gambino, and Kasey White

Twenty-nine scientists from 12 science societies or organizations—including the American Association for the Advancement of Science, American Geophysical Union, American Meteorological Society, American Society of Agronomy, and National Ecological Observatory Network—participated. They were paired by geography into 14 teams accompanied by professional society staff for 100 meetings with members of Congress and/or their staff.

During the afternoon of preparatory briefings prior to the day of visits on the Hill, participants were told that the meetings were more about establishing a relationship than delivering messages. As part of the preparation, the participants heard from a bipartisan panel of House and Senate staffers and a climate science communications expert. Professional society staff—including Steve Pierson, the ASA's director of science policy—also spoke to the participants about messaging/objectives, tips for successful meetings, and the current Congress. ■

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Trip to Sri Lanka Warm, People Welcoming

Nancy L. Geller

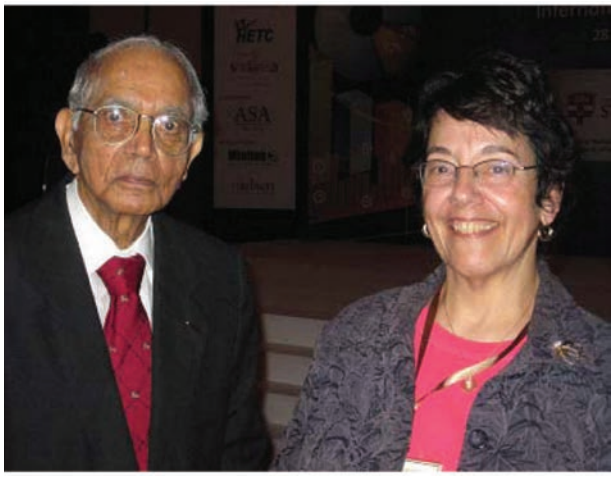
As 2011 ASA president, I was invited to be a plenary speaker at the International Statistics Conference last December in Columbo, Sri Lanka. The other plenary speaker was C.R. Rao, and I was quite honored to be in his presence.

The conference, themed, "Statistical Concepts and Methods for the Modern World," took place December 28–30 at a state-of-the-art conference center on the outskirts of Columbo. The ASA was a silver sponsor for the conference, which is why I was invited to present a plenary talk.

The conference began with a traditional opening ceremony. The vice chancellor of the University of Columbo and the Sri Lankan Senior Minister of Science and Technology were present. One by one, all special guests (including me) lit the opening torch. Then came the melodious national anthem and the presentation of an honorary degree—his 34th—to C. R. Rao. Rao's degrees are from 18 countries and include the Guy Medal (Britain), membership in the U.S. National Academy of Sciences, and the U.S. National Medal of Science. Rao also was awarded the first fellowship of the newly created Institute of Applied Statistics of Sri Lanka. Making the Sri Lankan Applied Statistical Association into an institute took an act of parliament, a recent achievement of its president, Palitha Sarrukali, who was one of my hosts.

Chief guest and Sri Lankan Senior Minister of Science and Technology Tissa Vitarana spoke about global warming through human intervention and its potentially disastrous effect on island nations. He urged making policymakers and the general population more aware of the magnitude of the problem and urged statisticians to contribute to this effort. He spoke about statisticians' contributions to modeling after the 2004 tsunami and expressed optimism that this meeting would strengthen applied statistics and its contributions to scientific research.

The first plenary talk by Rao was titled "Importance Sampling and Cross-Entropy with Applications to Problems of Large Deviations and Optimization Problems." Cross-entropy is a measure of loss of information when one uses a probability density g to make inference on a probability density f. One chooses g by minimizing cross-entropy and importance sampling, and then one can use Monte Carlo techniques to find probability of large deviations or the maximum of a function over a given subset.



Nancy Geller with plenary speaker C. R. Rao (left)

I gave the second plenary talk on the morning of the second day. The talk, on prognostic and predictive biomarkers, was well received with questions and a number of inquiries from students who want to study or do post-docs in the United States. Most of the talks were mathematical statistics, and mine was more applied.

Overall, the conference was interesting with a wide range of topics, such as robust statistics, Bayesian methods, cancer research, and sequential analysis.

I also gave a seminar at the department of statistics at the University of Columbo. Attendance was better than at most talks I've given in the United States, as many former students came 'home' for the end of the year break and to attend the conference the following week.

Sri Lanka is just north of the equator, and although December is winter, it was hotter during the day than in Miami in August! The Sri Lankan statisticians were warm and welcoming. The ASA has made many new friends. ■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Data Deluge Selected as Theme for Mathematics Awareness Month

April is Mathematics Awareness Month (MAM), and members of the Joint Policy Board for Mathematics (JPBM) selected "Mathematics, Statistics, and the Data Deluge" as the theme for this year.

Every day, a massive amount of data is collected, often from information we have provided to services we use regularly. Scientific data are generated daily from sensor networks, astronomical numbers of instruments, biometric devices, and other sources in amounts we almost cannot fathom—and all that data need to be sorted.

Resources for this year's MAM are designed to show how mathematics and statistics provide the tools for understanding these data and mitigating against their misuse. In addition to the themed poster, there are articles, essays, and activities—as well as a chance to win an iTunes gift card worth $100—on the MAM website (*www.mathaware.org*). The poster, "What Would You Do with All This Data?" is also available in the centerfold of this issue. It includes a quick response (QR) code, which takes you to the mobile version of the MAM website when scanned.

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

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

The JPBM is a collaborative effort of the American Mathematical Society, American Statistical Association, Mathematical Association of America, and Society for Industrial and Applied Mathematics. ■

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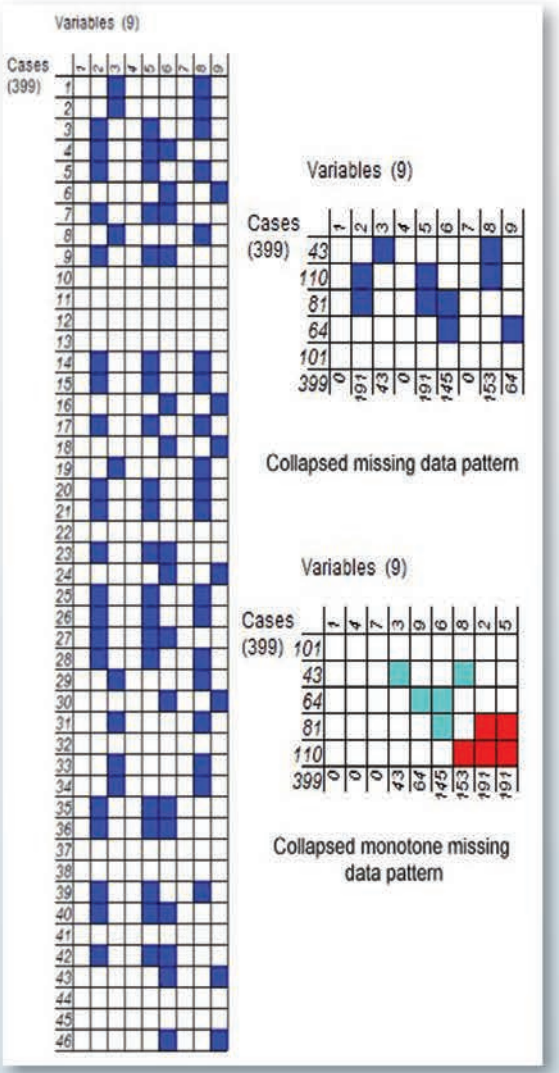
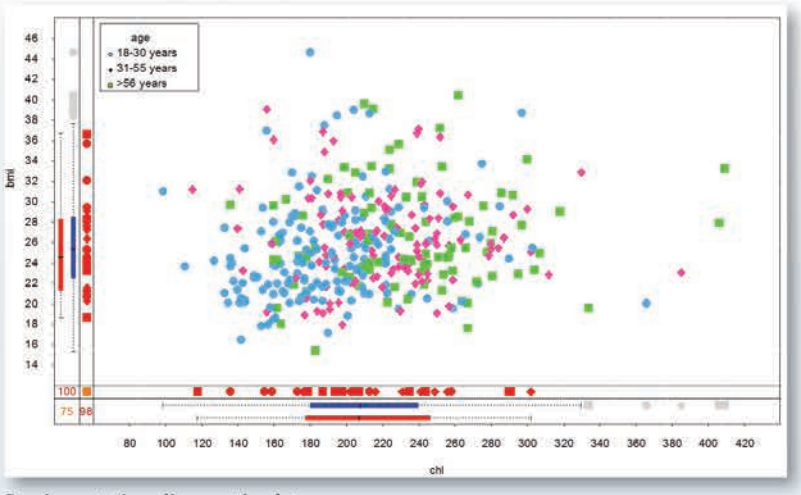
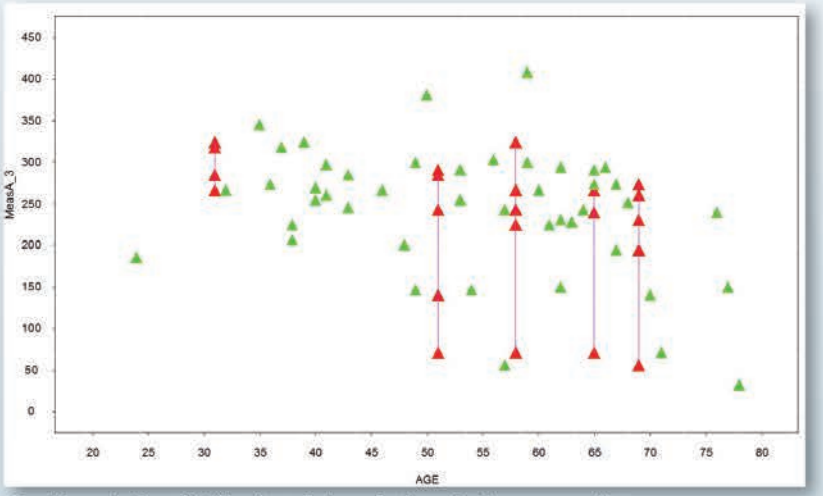


With the unique Missing Data Pattern and new "collapse" features, you can get immediate insights into the structure and form of your data



Pre-imputation diagnostic plot



Post-imputation distribution plots make it easier to compare the implications of different imputation choices

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ASA, SIAM Collaborate on Uncertainty Quantification Journal

Jim Berger, Don Estep, and Max Gunzburger

The ASA and Society for Industrial and Applied Mathematics (SIAM) recently recognized the needed synergy between mathematics and statistics to address major challenges at the interface of computer modeling of complex processes and data by embarking on a joint effort to create the *Journal on Uncertainty Quantification* (*JUQ*). The journal will be published by SIAM and initially led by the editorial team of Jim Berger, representing the ASA, and Don Estep and Max Gunzburger, representing SIAM.

In broad terms, uncertainty quantification (UQ) in computational science and engineering has to do with describing the effects of error and uncertainty on results based on simulation and prediction of the behavior of constructed models of phenomena in physics, biology, chemistry, ecology, engineered systems, politics, etc. That the subject is labeled uncertainty quantification outside of statistics leads to confusion because statisticians typically use the phrase for any aspect of statistics for which an accuracy assessment is attached; UQ herein is reserved for the more limited definition, reflecting the scope of the journal.

Results from mathematical modeling are subject to errors and uncertainty emanating from a variety of sources, including uncertainty in data obtained from experiment and observation; limitations of physical modeling, including uncertain coefficients, approximation, and the need for emulation; problems in computer codes; and the difficulty of combining models into integrated systems. Of course, many of the same issues arise in understanding the uncertainties associated with any simulation model (such as agent-based models) and complex statistical models. Quantifying the effects of these uncertainties is crucial to accurately modeling and predicting real complex processes through computational simulators.

In specific terms, UQ embraces a number of problems, including:

- Code verification
- Model validation and estimating structural model error
- Computational error estimation for numerical solutions (e.g., a posterior error analysis)
- Data assimilation and model calibration
- Detection and forecasting of high-impact, rare events
- Emulation of computer models and dimension reduction
- Inference with complex multiscale, multiphysics models
- Representation of uncertainty and error and integration of different types of uncertainty (e.g., parameter uncertainty, numerical error, and structural model error)
- Inverse problems, decisionmaking, and optimization under uncertainty
- Treatment of high-dimensional spaces

Addressing such problems requires tackling mathematical and statistical research of great technical difficulty. General mathematical components of UQ include probability, measure theory, functional analysis, differential equations, graph and network theory, approximation theory, and ergodic theory. At the same time, nearly all aspects of the statistical sciences are relevant to UQ. Moreover, much of this research is necessarily carried out in interdisciplinary settings.

JUQ will contain research articles presenting significant mathematical, statistical, algorithmic, and application advances in UQ in the context of simulation, prediction, control, and optimization in science and engineering and related fields such as sensitivity analysis, model validation, model calibration, data assimilation, and code verification. A key goal of *JUQ* will be nurturing synergistic interactions between the mathematical, statistical, computational, and applications communities involved in uncertainty quantification and related areas. To this end, *JUQ* solicits papers describing new ideas that could lead to significant progress in methodology, computational/algorithmic aspects, and fully conceived applications of uncertainty quantification, as well as review articles on particular aspects.

For more information about the journal and submitting articles, visit *www.siam.org/journals/juq.php*. ■

Preliminary Microdata File Available for Analysis

Jane F. Gentleman

A preliminary microdata file of January–September data from the 2011 National Health Interview Survey (NHIS) is available through the National Center for Health Statistics (NCHS) Research Data Center (RDC). NHIS data users can analyze these data without having to wait for the annual final NHIS microdata release (at about the end of June).

The NHIS is the principal source of information about the health of the U.S. civilian noninstitutionalized population and one of the major data-collection programs of NCHS. Among the many NHIS microdata and analytic products produced by NCHS are quarterly preliminary microdata files produced by the NHIS Early Release Program and containing selected NHIS variables for use in the RDC. For each data-collection year (January–December), these files are made available three times: in about September (with data from the first quarter), in about December (with data from the first two quarters), and in about March of the next year (with data from the first three quarters). Analysts wishing to use the files should follow standard procedures for using the RDC. Note that NCHS has RDCs in Hyattsville, Maryland, and Atlanta, Georgia. NCHS RDC data also can be accessed remotely and at U.S. Census Bureau RDCs.

Thus, every year, NHIS analysts can use the NCHS RDC to access selected preliminary data as early as nine months before the annual public use microdata release.

The January–September 2011 NHIS preliminary microdata file contains Family Core data for 77,635 persons of all ages, Sample Child Core data for 9,815 children, and Sample Adult Core data for 25,272 adults.

Visit *www.cdc.gov/nchs/nhis.htm* and *www.cdc.gov/rdc* for more information. ■

NSF, Census Bureau Announce Research Network

The National Science Foundation (NSF) and U.S. Census Bureau have awarded interdisciplinary research grants aimed at finding new ways to interpret social, behavioral, and economic data and new ways to use and disseminate the resulting statistics.

The following eight research awards were made to establish a set of research nodes that will conduct long-term, interdisciplinary, methodological research and educational activities.

Data Integration, Online Data Collection, and Privacy Protection for the 2020 Census

Principal Investigator: Stephen Fienberg, Carnegie Mellon University

This project will conduct research on three basic issues of interest related to collecting decennial census data: privacy, costs, and response rates. Researchers will address the practical problems of ensuring confidentiality and privacy while producing useful statistics for public and private purposes. They will investigate the use of administrative records to create the basic census frame, as well as other possible uses of administrative records as part of the census. This node also will conduct experiments that implement new ways of encouraging participation in an effort to reduce the decline in (or perhaps even increase) response rates and examine the unit used to collect census information (currently the household).

Improving the Connection Between the Spatial and the Survey Sciences

Principal Investigator: Seth Spielman, University of Colorado

This project will exploit new forms of geographic information and recent advances in spatial statistics, a type of statistics that focuses on the relationships between variables for areas in close proximity. In this case, the project is intended to make small-area estimates from the American Community Survey more accurate. The project also will foster an improved connection between the spatial and survey sciences, yielding both immediate and long-term benefits for the estimation, dissemination, and usability of the small-area statistics produced by the U.S. Census Bureau and others.

Integrated Research Support, Training, and Data Documentation

Principal Investigator: John Abowd, Cornell University

This project will develop a curation system designed and implemented in a manner that permits synchronization between the public and confidential metadata about the data sets available to researchers from the U.S. Census Bureau. The scholarly community will use the system as it would a conventional metadata repository, deprived only of the values of certain confidential information, but not their metadata. The researchers also will improve imputation methodology for the Longitudinal Employer-Household Dynamics Program.

Enhancing Federal Agencies' Data Dissemination Capabilities

Principal Investigator: Jerome Reiter, Duke University

This project will develop broadly applicable methodologies that will transform and improve how statistical information is shared with the public by the federal statistical system. In particular, researchers will advance methodologies and tools for disseminating public use data with high quality and low risk of confidentiality breaches by developing theory and methodology for releasing multiply imputed "synthetic" data sets based on flexible, nonparametric Bayesian models built specifically for complex data sets.

Linking Surveys to the World—Administrative Data, the Web, and Beyond

Principal Investigator: Matthew Shapiro, University of Michigan

This project aims to improve survey measurements of economic and demographic data and potentially supplement or replace surveys with statistics based on administrative, web-based, and geospatial data. Applications include using linked survey-administrative data to assess attrition, selective nonresponse, and measurement error

in surveys; using web-based social media to measure job loss, job creation, small business creation, and informal economic activity; using administrative geospatial data to enhance small-area estimates; and investigating the relationship between public use, synthetic, and internal versions of the same data sets.

Development of Innovative and Transformative Approaches to Data Collection

Principal Investigator: Allan McCutcheon, University of Nebraska

This project will focus on improving survey data collected from computer-assisted methods. Objectives include evaluating the use of four diagnostic tools for identifying measurement errors in computer-assisted, interviewer-administered data-collection instruments; evaluating the use of adaptive/responsive designs in which a dynamic modeling of collected data is used to modify the questionnaire as the data are being collected; and evaluating the application of calendar- and time diary-based data-collection methods to aid in the accuracy of behavioral self-reports by tailoring questions to the needs of individual respondents.

Census Bureau Data Programs as Statistical Decision Problems

Principal Investigator: Bruce Spencer, Northwestern University

This project will address fundamental problems for all government statistical agencies, such as how to understand the value of the statistics they produce, how to compare value to cost in order to guide rational setting of statistical priorities, and how to increase value for given cost. Researchers will extend and apply statistical decision theory, including cost-benefit analysis, to attack such basic questions.

In addition to generating new research methods and using advanced research practices and procedures, the researchers will address social and economic issues addressed by the federal statistical system. These issues include improving survey data collected from computer-assisted methods, exploiting new forms of geographic information, and ensuring confidentiality of the data collected and reported.

One more important result may be improved cost-efficiency and quality for the data collected in surveys. Improving censuses and surveys for the Census Bureau and other statistical agencies results in more accurate statistics for policymakers and officials to draw more precise conclusions and make better-informed decisions.

"This grant program gives the Census Bureau and the entire federal statistical system the opportunity to leverage the expertise of academia to solve problems we face every day in delivering cost-efficient statistics and information to the public," said Robert Groves, director of the Census Bureau. "This research is an investment that will lead to cost savings, and we are excited about the possibilities for learning from our colleagues and for collaboration over the next five years."

The projects also will foster the development of the next generation of researchers with skills relevant for the measurement of economic units, households, and people.

"These awards provide a unique opportunity for researchers to advance fundamental understanding of important issues related to the collection, analysis, and dissemination of data in the social, behavioral, and economic sciences within the context of salient problems for the federal statistical system," said Cheryl Eavey, program director for NSF's Methodology, Measurement, and Statistics Program.

More information can be found at *www.census.gov/NCRN* or the National Science Foundation's NCRN site, *www.nsf.gov/funding/pgm_summ.jsp?pims_=503587&org=SBE&from=home*.

Improving the Interpretability and Usability of the American Community Survey Through Hierarchical Multiscale Spatio-Temporal Statistical Models

Principal Investigator: Scott Holan, University of Missouri

The American Community Survey is an ongoing survey that releases statistics and estimates annually, providing communities with the timely information needed to plan the distribution of resources and services. This project will improve the interpretability and usability of the survey estimates, in particular the estimates for small areas and small population groups, through the development of statistical models that take account of both changes over time and differences over geographical space. In addition, researchers will provide a variety of methods that are of independent interest and can be used in many other surveys administered by the Census Bureau and other federal statistics agencies. ■

New Online Material Available for Book on Mathematica

Mathematica Laboratories for Mathematical Statistics: Emphasizing Simulation and Computer Intensive Methods, by Jenny A. Baglivo, provides a model for incorporating technology and modern statistical methods into mathematical statistics courses. Although the print book was originally published in 2005, the electronic material accompanying the text (previously provided on CD-ROM) were recently updated for use with current versions of Mathematica and are available online.

The book is a concise introduction to the concepts of probability theory and mathematical statistics and includes parametric, nonparametric, permutation, bootstrap, and diagnostic methods. The print book does not include Mathematica commands. Instead, step-by-step instructions for using Mathematica are given in examples in the online material, which includes a series of in-class and take-home computer laboratory problems designed to reinforce the concepts and apply the techniques in real or realistic settings. The labs are accessible to users with little or no experience with Mathematica.

In addition to the 230+ laboratory problems, the online material includes custom tools designed to enhance the capabilities of Mathematica for probability and statistics. Complete solutions to all labs, an instructor's guide, and hints for developing additional tools and labs are available to instructors who adopt the text for their courses.

The order of topics and level of presentation in the book are similar to those of other mathematical statistics texts. Chapters on permutation and bootstrap techniques were added after the formal inference chapters and before the intermediate-level topics. These two techniques are then discussed side-by-side with classical methods in later chapters. Thus, instructors will find it easy to incorporate the book's approach into their courses.

The book's contents are sufficient to support a problem-oriented mathematical statistics sequence in which the computer is used throughout the sequence. In fact, the first lab session can be scheduled after only three or four class meetings. The book and accompanying online material also can be used for self-study by statistical practitioners or consultants interested in a computer-based introduction to mathematical statistics, especially to computer-intensive methods.

Potential users interested in requesting an examination or desk copy, or current users who wish to obtain access to the updated material, should visit *www.ec-securehost.com/SIAM/SA14.html.* ■

March *JASA* Features Novel Methods for Handling Censored Data

The March 2012 issue of the *Journal of the American Statistical Association* is the first for new Theory and Methods section editors Xuming He of the University of Michigan and Jun Liu of Harvard University. Their first issue contains the usual broad assortment of theory and methods contributions, affecting both study design and data analysis. Two Theory and Methods articles that use imputation to improve statistical inference with censored data are described below. The Applications and Case Studies section of this issue includes applications in education, environmental science, medicine, and public health. Articles about improved methods for tissue classification in brain imaging and wind power forecasting are previewed here.

Theory and Methods

Censored data are a form of missing data; it is known only that the observed value lies in a particular interval. For example, censored patient survival times in a clinical study are often known only to exceed the amount of follow-up time for an individual.

In many settings, censored data can complicate analysis and/or lead to a loss of statistical efficiency. One such setting is in the development of survival trees for analyzing survival data. Survival trees are a popular nonparametric regression approach to understanding the relationship between the survival time of a subject and a set of predictors. The ability to obtain a good-fitting survival tree relies on having a sufficient number of observed outcomes to build up the tree; censored observations don't have observed failure times that can limit our ability to develop appropriate trees.

"Recursively Imputed Survival Trees," by **Ruoqing Zhu** and **Michael Kosorok**, proposes imputing the unobserved failure times based on an initial survival model, updating the model based on the imputed failure times, and then repeating the process several times. The proposed method can be viewed as a type of Monte Carlo expectation-maximization (EM) algorithm, which generates extra diversity in the tree-fitting process. Simulation studies and data analyses demonstrate that the new approach makes better use of the censored data than previous tree-based methods, yielding improved model fit and reduced prediction error.

Another case in which censored data can cause difficulties is when important predictors in a regression are subject to censoring. This can happen, for example, when an exposure variable is subject to detection limits so that values below the detection limit are not observed. A common approach is to use likelihood-based methods that assume the "missing" covariate values are missing at random, but this is not appropriate for censored covariates.

Huixia Wang and **Xingdong Feng** address this issue in the context of robust regression, specifically M-regression, in their article "Multiple Imputation for M-Regression with Censored Covariates." Instead of specifying parametric likelihoods for the imputation model in their approach, the authors' method imputes the censored covariates by assuming the conditional quantiles of the censored covariates are linear in the observed variables. This can be viewed as a semiparametric approach. The censored covariates are imputed multiple times and then standard regression methods are applied to the multiply imputed data sets and the results combined to produce an estimator with improved efficiency. The resulting estimator is shown to be consistent and asymptotically normal. The finite sample performance of the proposed method is assessed through a simulation study and the analysis of the c-reactive protein data set in the 2007–2008 National Health and Nutrition Examination Survey.

Applications and Case Studies

Magnetic resonance imaging (MRI) is a technology that allows scientists to study the human brain. It allows them to assess the anatomical structure of the brain. MRI produces measurements on a large three-dimensional array of volume elements known as voxels. One class of anatomical studies attempts to identify the different tissue types (gray matter, white

matter, and cerebrospinal fluid) in a subject's brain from a single MRI image.

This type of classification can be done manually, but it is labor intensive. Automatic methods have been developed that use a Markov random field (MRF) prior distribution to favor contiguity among voxels of the same tissue type. The MRF is combined with a model that assumes observed voxel image intensities (e.g., gray levels) are normally distributed with means and variances that depend on the tissue type. Typical methods assume that each voxel is homogeneous so that the entire voxel is characterized as belonging to a given tissue type.

Dai Feng, Luke Tierney, and **Vincent Magnotta**, in their article, "MRI Tissue Classification via Bayes Hierarchical Mixture Models," derive an improved classification approach by introducing subvoxels within each voxel and then building an MRF model at the subvoxel level. Markov chain Monte Carlo methods are used to simulate from the posterior distribution of the model parameters and the subvoxel labels. A thorough simulation study demonstrates the value of the new approach.

Alternative energy is a critical research topic at present. Wind power shows great promise as a potential source of energy, but effective use of wind power requires accurate forecasts of wind power generation to allow wind energy producers to make reasonable supply commitments for future time periods. Most currently, available forecast approaches obtain point estimates of wind speed and wind direction and then turn these into point estimates of wind power. **Jooyoung Jeon** and **James Taylor's** article, "Using Conditional Kernel Density Estimation for Wind Power Density Forecasting," develops a method for generating probability distributions of wind power forecasts. Probability distributions of wind power forecasts allow better decisions than point estimates.

Jeon and Taylor use standard time series approaches (a VARMA-GARCH model) to generate wind speed and wind direction estimates. They then use a stochastic model to relate wind power to wind speed and direction. Their approach uses conditional kernel density estimation, where the conditioning is on wind speed, to obtain separate probability distributions for the wind power produced at different wind speeds. A time decay factor is built into the conditional kernel density approach to allow evolution in the wind power/wind speed relationship over time. The methodology is applied to four Greek wind farms and provides better short-term (up to 72-hour) forecasts than simpler methods that rely on deterministic wind speed/wind power curves.

There are many other informative articles in both sections of the March issue, as well as a set of book reviews. The full list of articles and a list of the books reviewed can be found at *http://pubs.amstat.org/loi/jasa*. ■

SCIENCE POLICY

FY13 Budget Request: Flat Funding to Significant Increases for NIH, NSF, Statistical Agencies

Steve Pierson, ASA Director of Science Policy

Science Policy Actions

ASA signs onto letter opposing components of Grant Reform and New Transparency (GRANT) Act of 2011 (H.R. 3433)

ASA signs onto letter in support of FY13 budget for NCHS

The president's Fiscal Year 2013 (FY13) budget request included some bright spots for research funding agencies and the federal statistical agencies, as Table 1 illustrates. Realizing these requested increases and defending the other requested levels will be an uphill battle, with continued sharp disagreements on the federal budget within Congress and between Congress and the administration. Further, with 2012 being a presidential election year, agreement on the budget is unlikely until after the election. Throughout the process, it is important to communicate to Congress the importance of these agencies.

NIH and NSF

The administration demonstrated its commitment to increasing the budget for the National Science Foundation (NSF) by requesting a 5% increase for the agency in FY13. The National Institutes of Health (NIH) is flat funded for FY13 from FY12.

Despite the level of funding for NIH, the administration addresses the decreasing proposal funding success rate (especially for investigator-initiated grants and young, first-time researchers) by planning to increase the new or competing Research Project Grants (RPGs) by 672, which would result in a success rate of approximately 19%. According to NIH's deputy director for extramural research, Sally Rockey, this would be accomplished by reducing noncompeting RPGs by 1% from the FY12 level, negotiating the budgets of competing RPGs to avoid growth in the average award size from FY12, and abandoning inflationary increases in the out-years of competing and noncompeting awards.

The $340 million increase requested for NSF bolsters a number of research and education programs. The highlights of the FY13 request includes funding for cybersecurity research and education; the next generation of computer tools and resources; the Science, Engineering, and Education for Sustainability portfolio; multidisciplinary research targeted at new materials, wireless communications, "smart" infrastructure, and robotics technologies; a new partnership with the Department of Education to transform K–16 mathematics teaching and learning; and research on implementation of undergraduate instructional practices leading to improved student outcomes.

Details of NSF's FY12 budget also were recently finalized. (NSF's total FY12 budget was settled in November, but Congress left the details for how to allocate the funding within NSF to the administration.) While NSF's budget was increased by 2% from FY11 to FY12, the budget for the Mathematical and Physical Sciences (MPS) Directorate—the largest of NSF's seven directorates—was decreased by a quarter percent to $1.309 billion. The Directorate for Education & Human Resources (EHR) was cut 4%. The directorates with the largest increases from FY11 to FY12 were Computer and Information Science and Engineering-CISE (3% to $654 billion); Engineering (6% to $673 million); and Social, Behavioral, and Economic Sciences-SBE (3% to $254 million). For FY13, all directorates would get an increase, ranging from 2% for SBE and 3% for MPS to 6% for EHR and 9% for CISE.

The Division of Mathematical Sciences (DMS)—part of the MPS directorate—had its budget cut 1% in FY12, from $239.8 million in FY11 to $237.8 million in FY12. The proposed DMS level for FY13 is $245 million, an increase of 3% over FY12. For further information, see the ASA Community blog entry at *http://tinyurl.com/13ReqNIHNSF*.

Statistical Agencies

The administration's FY13 budget request shows a commitment to increasing or restoring the budgets of many statistical agencies, but it also demonstrates new priorities. Six federal statistical agencies receive requested increases of 5% or greater: the Bureau of Economic Analysis (BEA), Bureau of Justice Statistics (BJS), Bureau of Transportation

Statistics (BTS), Energy Information Administration (EIA), National Agricultural Statistics Service (NASS), and National Center for Health Statistics (NCHS).

Five other agencies, to within 1%, are flat funded: the Economic Research Service (ERS), Bureau of Labor Statistics (BLS), National Center for Education Statistics (NCES), Social Security Administration Office of Research, Evaluation, and Statistics (ORES), and the Internal Revenue Service Statistics of Income Division (SOI). The requested FY13 budget for the NSF National Center for Science and Engineering Statistics (NCSES) is 5% lower than that of its FY12 budget, and the U.S. Census Bureau would see a 3% increase.

Looking first at the agencies with significant requested increases, the 33% for BJS would restore the 25% cut it received in FY12. The 10% for EIA would restore the significant cut it received in FY11. The 13% for NASS would restore a cut to its budget in FY11 and provide for the 2012 Census of Agriculture.

The requested increases for BEA and NCHS repeat the requested increases of the past few years for these agencies that Congress didn't fund, showing the administration's sustained commitment to increasing these agencies' budgets. For BEA, the administration requests an increase of 5% to improve its measurement of the U.S. economy through more frequent GDP reports by industrial sector and better understanding of how the business cycle affects U.S. households' ability to consume.

The 17% for NCHS would be used for implementation of electronic death records for a first set of states, new questions about sexual orientation into the full National Health Interview Survey (NHIS), and development of new sample designs for population-based surveys.

Table 1. FY13 Requested Budgets for NIH, NSF, and 13 Statistical Agencies and How They Compare to FY11 and FY12 Levels

	FY11	FY12	FY13 Request	$ Change from FY12	Percentage Change
Research Agency (amounts in millions of dollars)					
NIH	30688	30623	30623	0	0%
NSF	6913	7033	7373	340	5%
Statistical Agency (amounts in millions of dollars)					
BEA	93	92	96	4	5%
BJS	60	45	60	15	33%
BLS	610	609	618	9	1%
BTS	24	25	38	13	51%
Census	1152	942	970	28	3%
EIA	96	105	116	11	10%
ERS	82	78	77	-1	-1%
NASS	156	159	179	20	13%
NCES	247	247	248	1	0%
NCHS	139	138	162	24	17%
NCSES	42	44	42	-2	-5%
ORES	29	29	29	0	0%
SOI	39	40	40	0	0%

The $38 million request for BTS is a 50% requested increase ($13 million) and is unique in that it more than offsets the $1.8 million cut seen in FY12 and surpasses the FY11 and FY12 requested budgets of $30 million and $35 million. The requested funds would go to the National Long Distance Travel Data Program, a Safety Data and Analysis Initiative, and the Freight Statistics Program. The FY13 proposes the umbrella organization for BTS, the Research and Innovative Technology Administration, be elevated to a new office within the Office of the Secretary.

As noted above, many of requested increases represent a commitment to previous attempts to increase a statistical agency's budget, albeit, in some cases, more modestly (e.g., the requested budget for BEA in FY11 and FY12 was $108 million.) For some agencies, however, the administration has backed off of previous requested increases that weren't funded by Congress. For FY11 and FY12, the administration requested $645 million and $647 million for BLS; for ORES, $32 million and $35 million. Similarly, the administration did not renew the $15 million increase for NCES it requested in FY12.

The requested budget for the U.S. Census Bureau includes increased funding to account for the execution of the 2012 Economic Census (a quinquennial survey) and the planning of the 2020 Decennial Census. The budget also accounts for the continued ramping down of the 2010 Decennial Census and decreases for the American Community Survey (4%) and Geographic Support (19%).

For details, see the ASA Community blog entry at *http://tinyurl.com/13StatPBR.* ■

STAT*tr@k*

Staying Motivated and Achieving Success in Graduate School: A Few Common and New Suggestions

Doug Baumann and Jeff Nisen, Purdue University Department of Statistics

Earning an advanced degree can sometimes feel like running a gauntlet full of tests, research reports, deadlines, and—at times—very little sleep. There is little doubt that even the most energetic and passionate students will at some time feel overwhelmed by how much work they must complete, become unmotivated to finish their tasks, or—in the most extreme case—contemplate giving up on graduate school altogether and start looking for a job.

A quick Google search for "graduate school tips" will yield an abundance of information from a variety of sources, most of which seem to more or less offer the same common set of suggestions about how to stay motivated. Rather than add another chapter to this same old story, we aim to take an alternative approach by examining five common suggestions and then investigating potential failed motivation antecedents. Additionally, we offer some less common advice accrued from our own experiences and those of graduate students in our program.

Get Organized

"A place for everything, and everything in its place." ~ Isabella Mary Beeton

Often, the first recommendation we receive when we've hit a motivation wall is to create a to-do list. For many of us, just listing each of the tasks we need to complete each day or week is enough to get working again. These lists not only serve to clearly lay out what we need to do, but also what we've accomplished.

Why is it effective?

Simply stated, classes can be overwhelming and research seemingly insurmountable. Large (or difficult) projects can have a paralyzing effect on our motivation, and breaking the project down into manageable tasks can help us make quick work of an otherwise unapproachable assignment or research endeavor. Creative organization, such as ranking each task based on deadlines or degree of difficulty, can elucidate connections between tasks that previously were unclear. The level of detail and structure included involve a bit of personal taste; the best system for you may take some trial and error, but in the end, your motivation will thank you.

Trust Yourself

"Whether you think you can or think you can't, you are right." ~ Henry Ford

It is common to hear words of encouragement throughout our graduate careers, and sometimes the kind assurances are difficult to believe. There are the times when your self-confidence will be challenged the most and you may start to doubt yourself and your abilities. We may often feel insufficiently intelligent to produce quality research, especially when we compare ourselves to our peers, our professors, and the greater scientific community. At this time, you must remind yourself that many smart people gave you the chance to succeed in their program because they believe in you and your abilities. Use this fact as an excuse to be proud of yourself and your accomplishments.

Why is it effective?

Confidence is often our greatest motivator. It is human nature to compare ourselves to those around us, and doing so can certainly have negative consequences. Rather than evaluating ourselves based on our peers, taking an introspective approach can be a great boon to our confidence. Take time to seriously consider the skills you have, and even those you

don't. You might find that while your peers have better research skills than you do, you may be a better communicator or teacher. Perhaps your skills lie more in the ability to understand a wide variety of topics and their interconnections rather than in your ability to prove complex theorems. Creating a list of your abilities can serve as a reminder that you are unique, intelligent, and deserve to be in graduate school. Such lists also can be great motivators; by clearly outlining your strengths and weaknesses, you can be proactive in honing your skills.

Trust the Process

"Doubt is the vestibule which all must pass before they can enter the temple of wisdom."
~ C. C. Colton

Part of what makes dissertations so difficult to create is that they typically do not come with instructions. In addition to trusting yourself, graduate life requires a substantial amount of trust in the experience and guidance of your major adviser. It is likely that many students have graduated from your program already, and if not, each of your professors has been through the graduate school process themselves. The system is designed to help you accomplish your goals, and it works.

Why is it effective?

Completing a graduate degree can be daunting, even more so when the measure of success is unknown. The standards for degree completion, both at the master's and doctorate levels, are often perceived as almost entirely ambiguous. By placing trust in the process, some of the onus feels lifted from our shoulders; the path forward may not be entirely clear, but each step can be made with a bit more confidence. Admittedly, trusting the process can be quite difficult. It can be hard to let go of the uncertainty, but there are ways to actively clear some of the fog. Reading the dissertations produced by former students, or even those written by your major adviser and committee members, can go a long way toward helping you understand exactly what is expected of you. Although it may be uncomfortable, communicating your feelings to your peers and your adviser can be cathartic, even if they are unable to offer advice beyond "trust the process."

Develop a Broad Set of Interests

"The whole secret of life is to be interested in one thing profoundly and in a thousand things well."
~ Horace Walpole

Although somewhat counterintuitive, one of the most effective ways to stay motivated in coursework and research is to take time to have fun. Having something enjoyable to look forward to at the end of the day, like watching the big game or working on a new artistic endeavor, can help keep you focused and motivated. These hobbies can even be related to statistics; side projects, national data analysis competitions, or coursework not directly related to your research can help you maintain a high level of excitement and enjoyment in your daily routine.

Why is it effective?

If excelling in coursework and research was always easy, staying motivated wouldn't be an issue. In reality, however, graduate studies can be a bit of a 'progress rollercoaster,' with peaks of high success and productivity and valleys of accomplishment doldrums. It is easy to become disillusioned when an extensive analysis doesn't run as expected (or worse, doesn't run at all), or when a homework problem gets the best of us. Hobbies can help us stay at least somewhat sane in the face of these challenges, perhaps because they help us stay positive. In lieu of hobbies, though, it is still possible to remain optimistic and energetic when the going gets rough. With a bit of practice, failures or roadblocks can be seen as small successes or even opportunities. After all, even a failed experiment can teach us quite a bit, especially what doesn't work.

Everyone Goes Through It

"The difference between stumbling blocks and stepping stones is how you use them." ~ Unknown

When all else fails, we might be advised that feeling insecure and unmotivated is entirely normal or that these feelings are just a fact of graduate student life. While, on the surface, this might not be the most comforting advice, there is a fair amount of truth in it. To quote a cliché, "Misery loves company." We often find solace in knowing that our experiences and emotions, especially the negative ones, are not unique.

Why is it effective?

It is easy to have a negative attitude toward side projects, collaborations, or even your own research. At the heart of our lack of motivation may be a sense that the work we are doing is something we do not want to do, either because we do not find it interesting or we do not fully understand its importance. It is useful to take a moment to remind yourself of the big picture. Why are you working on the project? The work you are doing is important to someone, whether that person is you, your adviser, or your collaborators, and you're working on the project because you have the skills needed to make a significant contribution. ■

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ASA: A 'Big Tent' Organization

Dionne Price, FDA; George W. Williams, Amgen, Inc.; and Monica Johnston, Mostly Math

The American Statistical Association is a strong, vibrant organization with approximately 18,000 members—the largest community of statisticians in the world. It is an organization with a diverse membership from academia, industry, and government who are doing research and promoting high-quality statistical practice. The ASA is an inclusive, "big tent" organization with members from a wide range of professional and personal backgrounds. Still, there are opportunities for growth allowing increased activity and engagement for both new and current members.

Indeed, there is more room in the tent. Wouldn't it be nice if when we celebrate the ASA's 175th anniversary in Boston in 2014, we had increased in number to 20,000? The ASA Committee on Membership Retention and Recruitment (CMRR) is working diligently toward the objective of membership growth. In this column, we want to highlight the value of ASA membership and involvement in an effort to continue to grow our tent.

The ASA provides opportunities for members to remain current on new methodologies and to continue to grow professionally. The ASA can serve as one's professional home. Key benefits of ASA membership include access to its journals and networking through innumerable workshops and conferences. In a recent membership survey, gaining knowledge via the ASA's publications was the most popular ASA benefit. New publications have been added recently, including *Statistics in Biopharmaceutical Research* and *Significance*.

In the same survey, ASA conferences were the second-most valued benefit identified by ASA members. With more than 6,000 statisticians attending the Joint Statistical Meetings (JSM), there are opportunities to increase one's professional network, connect with statisticians from around the world, and interact with role models through mixers, business meetings, roundtable discussions, the Career Placement Service, and personal outreach. In general, JSM provides a great opportunity to learn about new topics while meeting others with similar interests.

The ASA has a strong interest in meeting the needs of underserved groups such as early-career statisticians, applied statisticians, and consulting statisticians. In response to the needs of early-career statisticians, STAT*tr@k* was created (*http://statrak.amstat.org*). This year, the ASA held its first Conference on Statistical Practice. This conference was specifically targeted to applied statisticians, consultants, and students interested in applied statistics.

The ASA is organized into sections, chapters, and committees that recognize its diversity and provide avenues to participate in a variety of ways. Recently, two new sections were created: the Section for Statistical Programmers and Analysts and the Section on Statistical Learning and Data Mining. Through this organizational structure, the ASA provides continuing education, webinars, awards, advertising, mentoring, etc. Statisticians have an opportunity to further expand their horizons by participating in and volunteering in support of the ASA.

Given the benefits of ASA membership, what can we do to retain, recruit, and renew members? Many members initially joined the ASA at the recommendation of an adviser, colleague, or employer. Hence, we request faculty to continue to encourage participation in ASA activities among students, colleagues to recommend renewal of membership by lapsed members, and leaders in industry and statistical agencies to promote ASA membership and involvement. We should all strive to attract new members from other quantitative areas such as mathematics and computer science that have a strong tie to statistics. Please join us in the "Member Get a Member" campaign as a mechanism for growing the ASA's membership. See *www.amstat.org/membership/mgm* for details.

One of the challenges in the growth of ASA membership includes the lack of conversion to full membership as students transition to young professionals. Members of the CMRR have a 2012–2013 goal of achieving 90% retention for students after graduation. We are exploring mechanisms such as student focus groups to understand the factors that promote (or hinder) conversion from student to regular membership.

Additional opportunity lies in increasing ASA regular membership from the industry and government sectors. Colleague-to-colleague outreach and role modeling may be particularly valuable in these sectors. As some long-term ASA members have stated, membership in a professional organization is an investment they have made in their own careers.

The ASA's 175th Anniversary Committee and the ASA Committee on Membership Recruitment and Retention encourage you to personally participate in attracting and retaining ASA members so even more can benefit from being committed to and active and engaged in all that a big tent symbolizes and can offer. ■

Hans Rosling, Webster West Headline eCOTS 2012

The Electronic Conference on Teaching Statistics (eCOTS) will take place from May 14-18, 2012, with keynote presentations by technology innovators Hans Rosling of the Gapminder Foundation and Karolinska Institute and Webster West of Texas A&M taking place on May 18.

The conference themes are "Debating Some of the Big Ideas About Teaching Statistics," "Statistics for the Modern Student," and "Reaching Out and Building Relationships Beyond the College Statistics Classroom."

There will be approximately four 20–30 minute webinars by invited and peer-reviewed session leaders each day from May 14–16. Conference registrants are encouraged to attend the webinars as they are under way, asking questions and interacting with other conference attendees; however, the webinars will be recorded and available for registrants to view by May 17. Also on May 17, virtual workshops lasting up to two hours will take place. These will provide an overview of materials being produced as part of National Science Foundation–funded work in statistics education.

Along with the keynote presenters, session leaders from each webinar will be arranged into panels—each focusing on a conference theme—for question-and-answer sessions. Finally, there will be a peer-reviewed virtual 'poster' session. All posters will be recorded and posted at *www.CAUSEweb.org/ecots* so participants can view them and ask questions or make comments throughout the week. Poster presenters will be encouraged to check back often and respond to any questions or comments about their work.

Like the United States Conference on Teaching Statistics (USCOTS), eCOTS was designed to focus on undergraduate-level statistics education (including AP Statistics), with the target audience being statistics teachers. Whereas USCOTS is held in odd-numbered years, eCOTS will occur during even-numbered years. It is hoped that eCOTS will be a forum in which statistics educators from around the world can network as they learn how to incorporate new ideas, methods, and resources into their existing courses or programs. The registration fee for attending eCOTS is $15.

This virtual conference will be hosted by the Consortium for the Advancement of Undergraduate Statistics Education (CAUSE) at *www.CAUSEweb.org*. The conference program committee is chaired by Michelle Everson of the University of Minnesota (email questions about the program to *gaddy001@umn.edu*). Registration information and conference updates will be available at *www.CAUSEweb.org*. ■

First ASA Conference on Statistical Practice in the Books

Phil Scinto

I am happy to report that after nearly three years of planning and organizing, the first ASA Conference on Statistical Practice successfully took place from February 16–18 in Orlando, Florida, at the Renaissance Orlando at SeaWorld (*www.amstat.org/meetings/csp/2012*).

Nearly 300 participants were informed, and even entertained, by invited speakers through courses, tutorials, sessions, and the keynote address delivered by ASA President Bob Rodriquez.

Perhaps the most pleasant surprise was that nearly 100 conference attendees stayed for the feedback session late Saturday afternoon, revealing that the objectives of the conference were well met and the conference was thoroughly enjoyed. In addition, there were many good suggestions for improvement that will be highly considered for 2013. At the end of the feedback session, everyone had a good time during the end-of-conference prize drawing. In addition to several dozen coffee mugs, we raffled off admissions to the 2013 conference, a beach blanket and tote bag, and a two-night stay at the Renaissance Orlando at SeaWorld.

I would like to thank everyone who made this first conference a success, including the conference attendees, members of the ASA Board of Directors, ASA staff members, and members of our organizing and annual conference committee. We are all looking forward to the second annual conference and hope to see you all in New Orleans, Louisiana, from February 21–23, 2013. Check the ASA website for upcoming details.

The Conference on Statistical Practice aims to bring together hundreds of statistical practitioners—including data analysts, researchers, and scientists—who engage in the application of statistics to solve real-world problems on a daily basis. The conference provides an opportunity to learn about the latest statistical methodologies and best practices in statistical design, analysis, programming, and consulting and is designed to aid applied statisticians in improving their abilities in consulting with customers and organizations. Specific conference objectives for attendees include the following:

- Learn statistical techniques that apply to your job as an applied statistician
- Learn how to better communicate with customers
- Learn how to have a positive impact on your organization ■

Fred Faltin gives a talk titled, "Statistical Consulting: Working Collaboratively with Nonstatisticians."

Attendees line up to view posters during the ASA's first-ever electronic poster session.

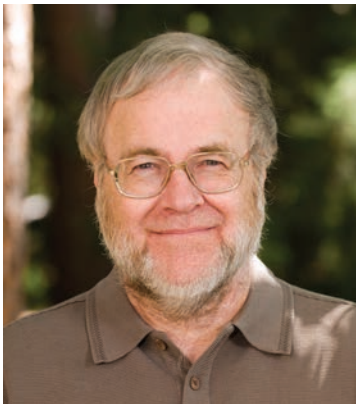
Don Ryan talks about statistical analytics in marketing decisionmaking.

Iain Johnstone gives a talk titled, "Accreditation: A Perspective from the Committee."

ASA staff help attendees register for the conference.

Eric Nantz teaches the short course, "Introducing R for Statistical Analysis."

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



Burnham

The Wildlife Society's highest honor, the Aldo Leopold Memorial Award, was recently awarded to **Kenneth P. Burnham**, professor emeritus of the department of fish, wildlife, and conservation biology at Colorado State University (CSU). The award recognizes individuals who have made significant contributions to wildlife conservation.

Burnham began his career as a statistician for the U.S. Fish and Wildlife Service and continued as an area statistician for the USDA Agricultural Research Service in the southeast United States. His early research produced a wide variety of statistical methods used by ecologists around the world. These methods had a profound impact on the science behind numerous monitoring programs, including the northern spotted owl, endangered desert tortoise, endangered fish on the Colorado River, salmon passage through hydro dams on the Columbia River, and assistance in planning and conducting the 2000 U.S. Census.

Starting in 1988, and for the next 21 years, Burnham held the position of assistant unit leader for the Colorado Cooperative Fish and Wildlife Research Unit at CSU. His work led to effective insights into a broad range of biological systems in many places throughout the world. He is a longtime member and Fellow of the ASA.

The award is named after Aldo Leopold, who is considered the "father" of wildlife science. Following Leopold's death in 1948, the Wildlife Society has annually awarded an individual the Aldo Leopold Memorial Award in his honor. ■

Ming Yuan, associate professor in the H. Milton Stewart School of Industrial and Systems Engineering (ISyE), was recently awarded the Coca-Cola Junior Professorship for a three-year term.

The Coca-Cola Junior Professorship is supported by a gift from Coca-Cola to support research and development in ISyE. Endowed professorships, such as this one, are awarded to outstanding faculty, ensuring them the resources they need to remain at the forefront of their fields and to lead teaching and research efforts in their key areas.

In addition to this recent honor, Yuan was the recipient of the National Science Foundation Career Award in 2009 for his exemplary work in sparse modeling and estimation with high-dimensional data. He also was named a Distinguished Cancer Scholar from the Georgia Cancer Coalition in 2007 and was the recipient of the John van Ryzin Award in 2004.

Yuan earned his PhD in statistics from the University of Wisconsin at Madison. He also holds a master's in computer science from the University of Wisconsin and a bachelor's in electrical engineering and information science from the University of Science & Technology of China. Yuan's current research interests include statistical learning, bioinformatics, and methods of regularization. ■

Janet Norwood

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

The award recipient will deliver a lecture on September 12 at the UAB award ceremony and receive travel expenses and a $5,000 prize.

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

Nominations should include a full curriculum vitae accompanied by a letter of no more than two pages describing the nature of the candidate's contributions. Contributions may be in development and evaluation of statistical methods, teaching of statistics, application of statistics, or any other activity that can arguably be said to have advanced the field of statistical science. Self-nominations are acceptable.

Send nominations by June 29 to David B. Allison, distinguished professor, associate dean for science, school of public health, at *dallison@uab.edu*. Electronic submissions of nominations are encouraged. The winner will be announced July 6, 2012.

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

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

sectionnews

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

Biometrics

The Biometrics Section will sponsor four Continuing Education (CE) courses and six invited sessions at the 2012 Joint Statistical Meetings in San Diego, California. Following is a list of the CE courses and invited sessions.

CE Courses

- Smoothing Splines: Methods and Applications
  Instructor: Yuedong Wang
- Statistical Methods for Genome-Wide Association, Copy Number Variants and Rare Variants Analysis
  Instructors: Hongzhe Lee and Wei Pan
- Statistics Analysis with Missing Data
  Instructors: Rod Little and Trivellore Raghunath
- Design and Analysis of Biomarker Studies for Risk Prediction
  Instructors: Tianxi Cai and Yingye Zheng

Invited Sessions

- Recent Methodology Developed for the Design of Early-Phase Clinical Trials
  Organizer: Thomas Braun
- Statistical Challenges and Innovative Solutions for Correlated Data
  Organizer: Peiyong (Annie) Qu
- Statistical Methods for High-Dimensional Complex-Structured Object Data
  Organizer: Veera Baladandayuthapani

Award Competitions

The section also announces the results of the 2012 David Byar Award competition. A record high of 62 submissions was received. Through an anonymous review process, the award committee chose **Yang Ning** of The Johns Hopkins University for "Reducing the Sensitivity to Nuisance Parameters in Nonstandard Likelihood," with co-author Kung-Yee Liang. Additionally, travel awards were given to the following:

Huaihou Chen of Columbia University for "A Marginal Approach to Reduced-Rank Penalized Spline Smoothing with Application to Multilevel Functional Data," with co-authors Yuanjia Wang, Myunghee Cho Paik, and H. Alex Choi

Shuo Chen of Emory University for "A Bayesian Hierarchical Framework for Modeling Brain Connectivity of Neuroimaging Data," with co-author F. DuBois Bowman

Jeff Goldsmith of The Johns Hopkins University for "Corrected Confidence Bands for Functional Data Using Principal Components," with co-authors Sonja Greven and Ciprian Crainiceanu

Min Jin Ha of The University of North Carolina for "Testing and Estimation of Partial Correlation Networks," with co-author Fred A. Wright

Peisong Han of the University of Michigan for "Conditional Empirical Likelihood Inference for Unbalanced Longitudinal Data," with co-authors Peter X.-K. Song and Lu Wang

Yen-Tsung Huang of Harvard University for "Joint Analysis of SNP and Gene Expression Data in Genome-Wide Association Studies," with co-authors Xihong Lin and Tyler VanderWeele

Han Liu of The Johns Hopkins University for "The Nonparanormal Skeptic," with co-authors Fang Han, Ming Yuan, John Lafferty, and Larry Wasserman

Jennifer Sinnott of Harvard University for "Omnibus Risk Assessment via Accelerated Failure Time Kernel Machine Modeling," with co-author Tianxi Cai

The Byar award winner will receive $1,500, and travel award winners will each receive $800.

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

Quality and Productivity

This year's Quality and Productivity Research Conference will take place from June 4–7 in Long Beach, California, and feature a wide 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 4, Di Michelson of SAS Institute will provide the short course "Topics in Statistical Process Control." Registration is open for both the short course and conference. See w*ww.qprc2012.com* for details.

Also, the section will sponsor one invited session and four roundtable events during the 2012 Joint Statistical Meetings in San Diego, California. Christine Anderson-Cook organized the invited session "Statistical Engineering Case Studies in Industry and Government," inviting Peter Parker of NASA, Grant Reinman of Pratt & Whitney, and William Brenneman of Procter & Gamble to speak. Ron Snee will serve as discussant. The roundtables include the following:

- "Multivariate Process Monitoring for Nonmanufacturing Applications," with Blair Christian
- "Common Misconceptions in Response Surface Modeling," with Thomas Bizik
- "Enabling Process and Product Robustness with Data-Driven Decisions," with Daksha Chokshi
- "Differences Between a Career in Clinical Statistics vs. Industrial Statistics," with Todd Coffey

After JSM, the Fall Technical Conference will take place in St. Louis, Missouri, from October 4–5. The theme is "Statistics and Quality: Expanding the Horizon." Two short courses will be offered on the day before the conference and two more on the day after. For information, visit the conference website at *http://amstat-online.org/spes/2011/11/10/call-for-papers-2012-fall-technical-conference*.

The section is always interested in receiving proposals for short courses. Contact Rachel Silvestrini at *rtjohnso@nps.edu* for more information.

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

Survey Research Methods

The Survey Research Methods Section education officer, Marilyn Seastrom, organized four webinars for the spring of 2012. The first, titled "Practical Tools for Nonresponse Bias Analysis," is scheduled for April 24 and will be presented by Kristen Olson of the University of Nebraska-Lincoln and Jill Montaquila of Westat.

There is a fee to view each webinar, and the cost depends on the length of the presentation, which is typically two hours. Participants are allowed one web connection and one audio connection to view the presentation.

To register for the upcoming webinar, visit *www.amstat.org/sections/srms/webinar.cfm*.

Additionally, the section is sponsoring two roundtables and one Continuing Education course for this year's JSM in San Diego, California. The first roundtable, led by Lars Lyberg of the University of Stockholm, Sweden, is titled "Total Survey Error in Practice." The second, led by Joe Sakshaug of the Institute for Employment Research, Nuremberg, is titled "Challenges with Linking Survey and Administrative Data Set."

The Continuing Education course, "Paradata in Survey Research," will be presented by Frauke Kreuter of the University of Michigan.

For details. visit the Survey Research Methods Section news online at *http://magazine.amstat.org/blog/category/membernews/amstatsections*.

chapternews

Chicago

The ASA's Chicago Chapter is hosting a conference on May 4, titled "America the Predictable? Different Approaches to Understanding and Forecasting Political Election Results." Speakers include Allan Lichtman (The Keys to the White House: Forecast for 2012), John G. Geer (Political Attack Advertising), Forrest Nelson (Iowa Electronic Markets), and Filippo Menczer (Tracking the Diffusion of Political Ideas in Social Media). For more information and to register, visit *www.123signup.com/event?id=ckhvm*.

To list your section's news in *Amstat News,* send an email to Managing Editor Megan Murphy at *megan@amstat.org* with the details.

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

›› Indicates events posted since the previous issue

2012

June

1–22—Financial Time Series Analysis: High-Dimensionality, Nonstationarity, and the Financial Crisis, Singapore
For more information, visit *www2.ims.nus.edu.sg/Programs/012hidim/index.php* or contact Claire Tan, 3 Prince George's Park, Singapore, International 118402, Singapore; 65161892; *imstlf@nus.edu.sg*.

***3–6—SRCOS Summer Research Conference, Jekyll Island, Georgia**
For details, visit *www.sph.emory.edu/srcos2012* or contact Bob Waggoner, Rollins School of Public Health, 1518 Clifton Road, N.E., #318, Mailstop: 1518-002-3AA (SPH: Biostatistics), Atlanta, GA 30322; (404) 727-7693; *rwaggon@emory.edu*.

4–6—Workshop on Parameter Estimation for Dynamical Systems, Eindhoven, The Netherlands
For more information, visit *www.few.vu.nl/~shota/peds2.php* or contact Shota Gugushvili, De Boelelaan 1081a, Amsterdam, International 1081 HV, The Netherlands; +31 (0)20 5987980; *s.gugushvili@vu.nl*.

***4–7—Quality and Productivity Research Conference (QPRC), Long Beach, California**
For details, visit *www.qprc2012.com* or contact Daniel Jeske, Room 2605, STAT-COMP Building, 900 University Ave., Riverside, CA 92521; (951) 827-3014; *daniel.jeske@ucr.edu*.

6–9—MedicReS World Congress on Good Medical Research, Vienna, Austria
For more information, visit *www.ic2012.medicres.org* or contact Burcin Akicier, Armada Is Merkezi Kat 12 Sogutozu, Ankara, International 06100, Turkey; +905072072777; *info@bsb.com.tr*.

>>8–15—Algebraic Statistics 2012, Penn State University, University Park, Pennsylvania
For more information, visit *www.math.psu.edu/morton/aspsu2012/index.html* or contact Sonja Petrovic, 326 Thomas Bldg., University Park, PA 16802; *as2012@psu.edu*.

>>10–13—2012 ASA Conference on Radiation and Health, Kennebunkport, Maine
For details, visit *www.amstat.org/meetings/radiation/2012/index.cfm* or contact Lisette Werbowetzki, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; *lisette@amstat.org*.

>>11–14—International Conference on Establishment Surveys, Montréal, Québec, Canada
For more information, visit *www.amstat.org/meetings/ices/2012/index.cfm* or contact ASA Meetings, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; *meetings@amstat.org*.

>>13–15—The 19th IMS/ASA Spring Research Conference (SRC) on Statistics in Industry and Technology, Cambridge, Massachusetts
For details, visit *www.stat.harvard.edu/SRC2012* or contact Tirthankar Dasgupta, 1 Oxford St., Cambridge, MA 02138; (617) 496-8911; *dasgupta@stat.harvard.edu*.

13–15—37th Annual Summer Institute of Applied Statistics, Provo, Utah
For more information, visit *statistics.byu.edu/37th-annual-summer-institute-applied-statistics* or contact Amy Royer, 223 TMCB, Provo, UT 84602; (801) 422-4506; *aroyer@stat.byu.edu*.

14–15—Symposium on Modeling Immune Responses from Complex Data, Rochester, New York
For details, visit *cbim.urmc.rochester.edu/education/2012-symposium* or contact Jeanne Holden-Wiltse, Dept. of Biostatistics and Computational Biology, University of Rochester, 601 Elmwood Ave., Box 630, Rochester, NY 14618; (585) 275-0386; *jeanne_wiltse@urmc.rochester.edu*.

>>14–15—Project-Based Introductory Statistics Workshop, Middletown, Connecticut
For more information, visit *qac.blogs.wesleyan.edu/summer-workshop* or contact Lisa Dierker, 207 High St., Middletown, CT 06459; (860) 685-2137; *ldierker@wesleyan.edu*.

17–21—ISBIS 2012, Bangkok, Thailand
For more information, visit *www.isbis2012-thailand.org* or contact David Banks, Department of Statistical Science, Box 90251, Duke University, Durham, NC 27708; (919) 684-3743; *banks@stat.duke.edu*.

18–29—Joint 2012 MBI-NIMBioS-CAMBAM Summer Graduate Workshop Stochastics Applied to Biological Systems, Columbus, Ohio
For more information, visit *www.mbi.osu.edu/eduprograms/graduate2012.html* or contact Rebecca Martin, 1735 Neil Ave., Columbus, OH 43210; (614) 688-3519; *rebecca@mbi.osu.edu*.

20–22—Using Lean Six Sigma to Prevent Avoidable Readmissions, Chicago, Illinois
For details, visit *www.wcbf.com/quality/5112* or contact Selina Mirpuri, First Floor, Jubilee House, Merrion Avenue, London, International HA7 4RY, UK; 800 959 5346; *selina.mirpuri@wcbf.com*.

20–24—8th International Symposium on Statistics, West Lafayette, Indiana
For more information, visit *www.stat.purdue.edu* or contact Diane Martin, 250 N. University Ave., West Lafayette, IN 47907; (765) 494-3141; *martindl@purdue.edu*.

23–25—International Conference on the Interface Between Statistics and Engineering, Tainan, Taiwan
For more information, visit *conf.ncku.edu.tw/icise* or contact Shuen-Lin Jeng, No. 1, Univeristy Road, Tainan, International 701, Taiwan; 886-6-2757575-53600; *sljeng@mail.ncku.edu.tw*.

24–27—32nd Annual International Symposium on Forecasting, Boston, Massachusetts
For details, visit *http://forecasters.org/isf/index.html* or contact Pam Stroud, 53 Tesla Ave., Medford, MA 02155; (781) 234-4077; *isf@forecasters.org*.

25–27—3rd Annual Pacific Coast Statisticians and Pharmacometricians Innovation Conference (PaSiPhIC), San Luis Obispo, California
For more information, visit *www.pasiphic.calpoly.edu* or contact Brian Smith, One Amgen Center Drive, MS 38-3-B, Thousand Oaks, CA 91360; (805) 447-1378; *brismith@amgen.com*.

25–29—SAMSI Summer Program: Nonlocal Continuum Models for Diffusion, Mechanics, and Other Applications, Research Triangle Park, North Carolina
For more information, visit *www.samsi.info/workshop/nonlocal-continuum-models-diffusion-mechanics-and-other-applications* or contact Karem Jackson, 19 T.W. Alexander Drive, RTP, NC 27709; (919) 685-9324; *admin@samsi.info*.

27–29—Using Lean Six Sigma and Process Improvement to Improve Patient Satisfaction: Improving Quality, Safety, and Experience, Boston, Massachusetts
For details, visit *www.wcbf.com/quality/5113* or contact Selina Mirpuri, First Floor, Jubilee House, Merrion Avenue, London, HA7 4RY, UK; (+1) 800 959 5346; *selina.mirpuri@wcbf.com*.

>>27–29—WCBF's Using Lean, Six Sigma, and Process to Improve Patient Satisfaction: Improving Quality, Safety, and Experience, Chicago, Illinois
For details, visit *www.wcbf.com/quality/5113* or contact Selina Mirpuri, 30 S. Wacker Drive, 22nd Floor, Chicago, IL 60606; (800) 959-6549; *selina.mirpuri@wcbf.com*.

July

1–4—IMS Asia Pacific Rim Meetings, Tsukuba, Japan
For more information, visit *http://ims-aprm2012.org/index.html* or contact Runze Li, Department of Statistics, Penn State University, University Park, PA 16802-2111; (814) 865-1555; *rli@stat.psu.edu*.

3–5—Leeds Annual Statistical Research (LASR) Workshop, Leeds, United Kingdom
For more information, visit *www1.maths.leeds.ac.uk/statistics/workshop/lasr2012* or contact Kanti Mardia, University of Leeds, School of Mathematics, Woodhouse Lane, Leeds, InternationalLS2 9JT, UK; *workshop@maths.leeds.ac.uk*.

3–6—International Statistical Ecology Conference (ISEC) 2012, Oslo, Norway
For more information, visit *www.cees.uio.no/news/2010/isec2012.html* or contact Carl Schwarz, Statistics and Actuarial Science, Burnaby, British Columbia, V5A1S6, Canada; (778) 782-3376; *cschwarz@stat.sfu.ca*.

3–6—Fields Institute International Symposium on Asymptotic Methods in Stochastics, in Honor of Miklós Csörgo's Work, Ottawa, Canada
For more information, visit *www.fields.utoronto.ca/programs/scientific/12-13/stochastics* or contact Rafal Kulik, 585 King Edward Ave., Ottawa, International K1N6N5, Canada; *rkulik@uottawa.ca*.

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

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*.

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

Arizona

■ T/TE Associate/Full Professor in Biostatistics, University of Arizona, Public Health. The successful candidate will develop and teach graduate-level courses, mentor graduate students, and contribute to the research and service mission of the college. Review will begin on April 27, 2012, and continue until the position is filled. For a complete listing of position duties, qualifications, and to apply, please visit *www.uacareertrack.com/applicants/Central?quickFind=203042*. University of Arizona is an AA/EOE.

Arkansas

■ Located in Little Rock, the pediatric biostatistics program at the University of Arkansas for Medical Sciences is recruiting a master's-level biostatistician to become an integral part of a collaborative analytical unit specializing in clinical research. Minimum qualifications include proficiency in SAS/R, two years professional experience; some graduate experience may qualify. Please forward a cover letter, résumé, and two names of references to *ACHBiostat@uams.edu*. University of Arkansas for Medical Sciences is an AA/EOE.

District of Columbia

■ Small DC biostatistical firm (*www.statcollab.com*) involved in medical research and consulting seeks several biostatisticians to perform project coordination, data analysis, SAS programming, and report writing. Send cover letter (include Ref: ASA-BIO-1201), résumé, writing sample, program sample, and unofficial transcripts (graduate and undergraduate) by email (*office@statcollab.com*), fax (202) 247-9701, or by snail mail: Statistics Collaborative, Inc., 1625 Massachusetts Ave., NW, Suite 600, Washington, DC 20036.

Florida

■ Biostatistician or epidemiologist. The Jaeb Center for Health Research, a nonprofit clinical trials coordinating center in Tampa, Florida, has an open position for a biostatistician or epidemiologist interested in an academic medical research environment offering an excellent opportunity for professional growth. Master's degree required. Work will involve data analyses, manuscript preparation, and protocol development. Details at *www.jaeb.org*. Cover letter & CV to: *stats@jaeb.org*. EOE/DFWP.

■ The department of statistics at UCF has an opening beginning August 2012 for a 9-month instructor. An MS or PhD in statistics or closely related field is required. Applicants must apply at *www.jobswithucf.com*. Upload letter of interest, teaching statement, CV, graduate transcripts, and list three references. Have three letters of reference sent to Dr. Schott, Department of Statistics, UCF, P.O. Box 162370, Orlando, FL 32816-2370. University of Central Florida is an equal opportunity affirmative action employer. Women and minorities are strongly urged to apply. Search documents may be viewed by the public upon request in accordance with Florida statute. AA/EOE.

■ Senior statistician. The InfiLaw System, a consortium of independent law schools, headquartered in Naples, FL, is accepting applications for an experienced statistician capable of modeling, market segmentation, and design of experiments.

www.westat.com EOE

Survey Sampling Statistician

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 4621BR

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

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 **4621BR** in the space provided.

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Applicants should possess a master's degree in statistics and at least 10 years' experience in a business statistical environment and Six Sigma Green Belt certification. PhD degree is preferred. Details are available at *www.infilaw.com.* The InfiLaw System is an Equal Opportunity Employer.

Georgia

■ The Winship Cancer Institute of Emory University Biostatistics and Bioinformatics core has MS-level senior biostatistician ref-22825BR and bioinformatics analyst ref-20894BR positions. We are recruiting candidates w/ experience in clinical trials, genomics areas, and Bayesian methods. Preference will be given to candidates w/cancer research experience. Applicants should submit a cover letter, CV, and three reference letters to: MS Search Committee reference number 22825BR. See *www.emory.jobs.* Winship Cancer Institute of Emory University is an equal opportunity/affirmative action employer. The

Clinical Professor of Biostatistics
A Position in the Collaborative Studies Coordinating Center
Department of Biostatistics

UNC GILLINGS SCHOOL OF GLOBAL PUBLIC HEALTH

The Collaborative Studies Coordinating Center (CSCC) in the Department of Biostatistics at The University of North Carolina at Chapel Hill (UNC) is seeking applications for a Clinical Track faculty position beginning in Fall 2012. The faculty appointment will be in the Department of Biostatistics in UNC's Gillings School of Global Public Health. Applicants are sought at the Professor level. A doctoral degree in Statistics, Biostatistics, or equivalent is required. Applicants should have broad research and teaching interests, substantial experience directing multi-center clinical trials and epidemiological studies, and the ability to engage in collaborative research with investigators at UNC and other universities and research centers. Candidates should have a strong publication record and have at least five years of experience as coordinating center Principal Investigator, including at least three multi-center projects in an academic setting and have experience teaching at least two different courses at the graduate level.

Founded in 1971, the CSCC is the longest-running, NIH-funded Coordinating Center with a portfolio of studies spanning various disease areas. The University of North Carolina is among the nation's top public research universities, with dynamic programs in biostatistics, epidemiology, statistical genetics, bioinformatics, and medicine. The application deadline is June 30, 2012.

To apply, use the electronic submission website at http://jobs.unc.edu/2502402 and upload PDF versions of your CV, cover letter, and research and teaching statements. Candidates must also arrange for three letters of recommendation to arrive via email at bseagrov@bios.unc.edu. Letters should be addressed to:

Faculty Search Committee
c/o Betsy Seagroves, Department of Biostatistics
CB #7420, McGavran-Greenberg Hall
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7420

At the UNC Gillings School of Global Public Health, diversity, inclusiveness and civility are core values as well as characteristics of the School. We strongly encourage applications from diverse individuals, including but not limited to diversity in such characteristics as race/ethnicity, color, national origin, age, gender, socioeconomic background, religion, creed, veteran's status, gender identity, gender expression, sexual orientation and disability. The University of North Carolina at Chapel Hill is an Equal Opportunity Employer.

department has a culturally diverse faculty and strongly encourages applications from women and minority candidates.

Illinois

■ Asst. Professor. Responsibilities include collaborative work within an active multidisciplinary clinical research environment, methodological research, and some teaching. Doctorate in statistics/biostatistics required. Experience with missing data methods; strong communication and computer skills required; longitudinal data and clinical trials experience preferred. Cover letter and CV to Elizabeth Avery, Dept. of Preventive Medicine, Rush University Medical Center, 1700 W. Van Buren, Suite 470, Chicago, IL 60612, *Elizabeth_F_Avery@rush.edu*. Rush University Medical Center is an EOE.

Maine

■ Postdoctoral opportunities in computational and systems biology in the Center for Genome Dynamics at The Jackson Laboratory (*www.genomedynamics.org*). Center investigators use computation, mathematical modeling, and statistics to understand the genetics of complex traits. Requires PhD in quantitative field such as computer science, statistics, applied mathematics or in biological sciences with strong quantitative background. Apply at *www.jax.org/careers* (JobID 2311). The Jackson Laboratory is an EOE/AA employer.

■ Bioinformatics analyst opportunity at the Center for Genome Dynamics at The Jackson Laboratory (*www.genomedynamics.org*). Successful candidate will provide statistical and bioinformatics analysis support with a focus on systems genetics. Position offers opportunities for independent research and publication. Minimum requirements: PhD in a biomedical and/or biostatistics discipline or MS degree and significant relevant experience. Apply at *www.jax.org/careers* (JobID 3149). *www.genomedynamics.org.* The Jackson Laboratory is an EOE/AA employer.

Maryland

■ The department of medicine and department of epidemiology and public health (division of biostatistics and

bioinformatics) and the Baltimore VA Geriatric Research, Educational and Clinical Center invite applications for a biostatistician with a PhD and 3 years' experience in collaborative clinical research for a faculty appointment at the assistant or associate professor level. Visit *http://medschool.umaryland.edu/epidemiology/employ.asp*; submit CV and 3 references to *ywu@epi.umaryland.edu*. The University of Maryland, Baltimore is an equal opportunity, affirmative action employer. Minorities, women, veterans, and individuals with disabilities are encouraged to apply.

Massachusetts

■ Tufts Clinical and Translational Science Institute is recruiting for a statistician to work in its research design center. Responsibilities include consulting and providing biostatistics services to researchers applying for grant funding and mentoring students and teachers in clinical and translation science. The work is collaborative with research departments across Tufts and its affiliated organizations. Candidates should have a PhD in statistics or a related field. It is Tufts Medical Center's policy, consistent with federal and state law, to provide equal opportunity to all applicants and employees with respect to the administration of personnel policies and practices, including recruitment, hiring, training, promotion, transfer, compensation, benefits, disciplinary action, layoff, termination and other terms and conditions of employment, without regard to an individual's actual or perceived race, color, religion, sex, pregnancy, sexual orientation, gender identity or gender expression, national origin, age, disability, veteran status, marital status, genetic traits and any other classification protected by law; and ensure that all employment decisions are based on valid job requirements.

Ohio

■ The department of quantitative health sciences at Cleveland Clinic is recruiting for faculty, postdoctoral, and master's-level positions. Many areas are being sought, including biostatistics, data mining, health economics, health status measures, and analysis of population-based registries. Details for all positions, as well as application instructions, are at *www.lerner.ccf.org/qhs/jobs.* Cleveland Clinic is a AA/EOE.

Texas

■ StataCorp, the developer of the statistical software Stata, invites applications for a senior statistician and software developer (ST-1S) position. Candidates must have a PhD in statistics, programming experience in compiled or matrix programming languages, and good communication skills. Submit CV and cover letter to *hrd@stata.com*. For more information, visit *www.stata.com/employment.* StataCorp is an EEO/AA Employer.

■ StataCorp, the developer of the statistical software Stata, invites applications for a senior biostatistician and software developer (ST-1B) position. Candidates must have a PhD in biostatistics, programming experience in compiled or matrix programming languages, and good communication skills. Submit CV and cover letter to *hrd@stata.com*. For more information, visit *www.stata.com/employment*. StataCorp is an EEO/AA Employer.

International

■ Senior instructor of rank comparable to associate professor position in the Dept. of ISOM. Applications will be accepted until the position is filled. Excellence in teaching and PhD required by employment start date. The successful applicant is expected to play an important role in teaching and developing business statistics courses for undergraduate and MBA programs of the business school. Submit CV and three referees to *stat11@ust.hk.* The Hong Kong University of Science and Technology School of Business and Management is an EOE. ■

VCU Medical Center
Virginia Commonwealth University

Department of Biostatistics
Assistant Professor
Position #F34070

The Department of Biostatistics at Virginia Commonwealth University (VCU) is seeking to fill a tenure-eligible faculty position at the level of assistant professor. The candidate should have interdisciplinary research interests with the potential for external funding and scholarship that complements and expands existing expertise in the department. Research areas of particular interest include (but are not limited to) longitudinal modeling in the areas of obesity and cardiovascular metabolic risk factors. Faculty are expected to maintain extramural grant support, teach and advise graduate students, and provide departmental and university service.

The VCU Department of Biostatistics consists of 16 full-time faculty and offers both M.S. and Ph.D. programs in biostatistics, including a concentration in Genomic Biostatistics and a M.S. in Clinical Research and Biostatistics Concentration. In addition to other computational resources at VCU, our department supports its own high-performance computing cluster.

Qualifications: Ph.D. or equivalent, in biostatistics or a closely related field. Applicants must demonstrate research experience working collaboratively on growth and maturation modeling using data from large longitudinal cohorts, record of publication/presentation in area of expertise, excellent oral and written communication skills.

All candidates should have demonstrated experience working in and fostering a diverse faculty, staff, and student environment or commitment to do so as a faculty member at VCU. Potential candidates can submit applications, including a statement of research, teaching philosophy, curriculum vitae and contact information for three professional references, via mail - to Yvonne Hargrove, Department of Biostatistics, Virginia Commonwealth University, P.O. Box 980032, Richmond, VA 23298-0032 or by e-mail to yfhargro@vcu.edu.

Virginia Commonwealth University is an equal opportunity/affirmative action employer. Women, minorities and persons with disabilities are encouraged to apply.

LSU HealthShreveport
HEALTH SCIENCES CENTER

Christus Schumpert Health System Endowed Chair
Employment Opportunity – Biostatistician/Epidemiologist

The Department of Neurosurgery at Louisiana State University Health Science Center is seeking an biostatistician/epidemiologist to join as the Christus Schumpert Health System Endowed Chair focusing on neuroscience research, stroke and outcomes data. This position will be at the Associate Professor/Professor Faculty level, tenure track, as commensurate with experience. Our research program includes a broad array of applied epidemiologic, clinical services and scientific research.

The successful candidate will be able to take leadership in a program of applied research; mining our large clinical database to produce successful research activities culminating in the writing and publication of scientific papers and the acquisition of applicable grants. They will be responsible for developing research plans, conducting analysis of existing databases, assessing gaps in data collection and analysis, overseeing research intended to acquire new data, and will focus on collaborative, applied research with research team colleagues in neurosurgery and neurology which will require good communication among the multiple departments.

Qualifications include: PhD in Biostatistics/Epidemiology or a closely related field with interest in neurosciences; advanced knowledge of research principles, theories, and concepts; applied statistical skills; applied knowledge of statistical software for analysis of complex data; and a proven record of achievement including peer reviewed publications and national presentations.

Salary, startup package, and space allocation will be commensurate with faculty rank and extramural funding. Applicants should have a PhD and/or MD with relevant postgraduate experience. Applications will be reviewed as they are received until the position is filled. Shreveport is a progressive modern city with excellent schools, numerous family activities, and a very low cost of living. Interested individuals who wish to participate in a unique, diverse, academically productive medical center should send a C.V. with a letter describing research or clinical interests and with three letters of reference to:

Anil Nanda, MD, FACS
Professor and Chairman, Department of Neurosurgery
LSU Health Sciences Center,
1501 Kings Highway, Shreveport, Louisiana 71130-3932,
FAX: 318-675-4457
ananda@lsuhsc.edu

LSU Health Sciences Center is an Affirmative Action/Equal Opportunity Employer.

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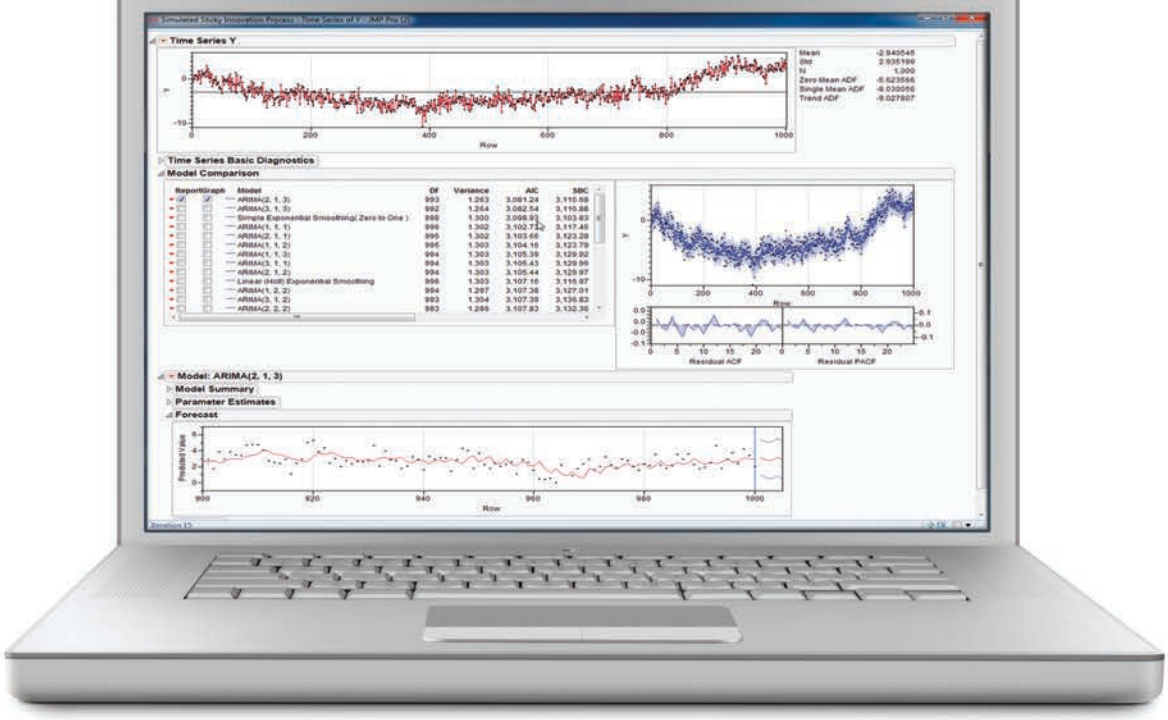

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