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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.

Amstat News (ISSN 0163-9617) is published monthly by the American Statistical Association, 732 North Washington Street, Alexandria VA 22314-1943 USA. **Periodicals postage paid** at Alexandria, Virginia, and additional mailing offices. POSTMASTER: Send address changes to Amstat News, 732 North Washington Street, Alexandria VA 22314-1943 USA. Send Canadian address changes to APC, PO Box 503, RPO West Beaver Creek, Rich Hill, ON L4B 4R6. Annual subscriptions are \$50 per year for nonmembers. Amstat News is the member publication of the ASA. For annual membership rates, see uwww.amstat.org/join or contact ASA Member Services at (888) 231-3473.

> American Statistical Association 732 North Washington Street Alexandria, VA 22314–1943 USA (703) 684–1221 • FAX: (703) 684-2037

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ADDRESS CHANGES: addresschange@amstat.org

AMSTAT EDITORIAL: amstat@amstat.org

ADVERTISING: advertise@amstat.org

WEBSITE: http://magazine.amstat.org Printed in USA © 2011 American Statistical Association



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

features

- 3 President's Corner
- 4 Highlights of the November 2010 ASA Board of Directors Meeting
- 6 Annual Fund Drive Reaches New Heights
- 12 A Comparison of Statistics and Biostatistics Salaries
- 15 YouTube Videos Wanted for Competition
- 16 Report of the Visibility and Impact in Policymaking Workgroup
- 17 Proposals Sought for Atlanta Conference
- 18 People to People Delegation to China Has 'Blast'
- 19 Oscar Kempthorne Interview Now on YouTube
- 21 Member Spotlight

columns

25 MASTER'S NOTEBOOK Going East Multinational pharmaceutical companies look to

employ statisticians in China

This column is written for statisticians with master's degrees and highlights areas of employment that will benefit statisticians at the master's level. Comments and suggestions should be sent to Keith Crank, ASA research and graduate education manager, at *keith@amstat.org*.



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Fan



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Online Articles

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

Radstats Membership Available to Those Interested in Political Implications of Statistics

The Radical Statistics Group (Radstats) is a selffunded, independent organization whose concern is the extent to which official statistics reflect governmental purposes. Read more at http:// magazine.amstat.org/blog/2011/02/01/radstatsfeb11.

Analysis of Shape Experiments Featured in

Technometrics Enrique del Castillo and Bianca M. Colosimo consider a different kind of complex data: the geometric shape of an object. See http:// magazine.amstat.org/blog/2011/02/01/techfeb11.

Journal of Nonparametric Statistics End of Year

Highlights The 2010 volume covers a range of topics, including nonparametric testing for survival data, bootstrap estimation for clustered data, nonparametric functional estimation, time series modeling and prediction, and two-sample nonparametric testing. See *http://magazine.amstat*. org/blog/2011/02/01/jnpsfeb11.

Executive Editor of *Statistics Surveys* Named

Ranjan Maitra of Iowa State University is the new executive editor of Statistics Surveys. See http:// magazine.amstat.org/blog/2011/02/01/editorfeb11.

December JASA Features Overview of Methods

for Chronic Disease Research The December 2010 issue of the Journal of the American Statistical Association features an article by Ross Prentice that is based on his 2008 Fisher Lecture at the Joint Statistical Meetings. See http://magazine.amstat.org/ blog/2011/02/01/jasafeb11.

Invited Perspective Featured in Statistical Analysis and Data Mining There are two good perspectives in the latest issue: a vision of emergent trends by Arnold Goodman and James Goodnights' view of the global rise of analytics in companies, government, and foundations. See http://magazine. amstat.org/blog/2011/02/01/samfeb11.

columns

27 STATtr@k

Tips for Statisticians Starting a Career in Business

This column is geared toward people who are in a statistics program, recently graduated from a statistics program, or recently entered the job world. 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.



Contributing Editor

Eduardas Valaitis joined Pricewaterhouse Cooper's national economics and statistics practice as a consultant in 2008. He earned his PhD in mathematical statistics from Yale University in 2005 and taught as a tenure-track assistant professor in the mathematics and statistics department at American University.

29

SCIENCE POLICY **Bill Increasing U.S. Census Bureau Autonomy Fizzles**

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.



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.

Pierson

departments

statistician's view 23

How the Statistical System Can Help Create Jobs

31 education

Contest Helps High-School Students Find Solutions to Real-World Issues

member news

- 32 People News
- 34 Awards and Deadlines
- Section Chapter Committee News 37
- 38 Calendar of Events
- 39 **Professional Opportunities**

Leadership Support Council? What's That?

any of you may not have realized there was a big change in the coordination of ASA committee activities in 2010. The Committee on Committees was replaced with the Leadership Support Council (LSC). This new structure divided ASA committees among four councils (education, membership, professional issues and visibility, and awards), each representing between eight and 13 committees, as well as certain sections and outreach groups. For details, see *www.amstat. org/committees/committeelist.cfm.*

The purpose of the LSC is to connect the committees to the board of directors, and this was done by having each council chaired by a vice president or the past president. The chair of the LSC is the president-elect, who also appoints the vice chairs of the councils. One additional member of the LSC is responsible for coordinating sessions at the Joint Statistical Meetings that are proposed by the committees. This member represents committees on the JSM Program Committee. See www.amstat.org/ committees/commdetails.cfm?txtComm=SBNLSC01.

The LSC was recommended by a workgroup resulting from one of 2009 ASA President Sally Morton's initiatives. Perhaps the major accomplishment of the LSC in 2010 was implementing this fundamental change in the ASA's operations. Our start was not stellar: Washington's second large snowfall converted our first scheduled, face-to-face, all-day meeting into a two-hour phone call!

During 2010, the LSC met by conference call three times and in person at JSM. Members agreed to follow operating procedures drafted by the executive director. Members of the LSC made several recommendations to the board of directors that have now been approved. One recommendation was that, beginning with appointments made in 2011, members of ASA committees should be members of the ASA, with exceptions being permitted for joint committees with other organizations and committees requiring outside expertise, such as the Energy Statistics Committee (requires economists) and the Law and Justice Committee (requires criminologists). The rationale for this is that those on committees serve a leadership role and represent the association.

Another accomplishment was devising a procedure for removing nonfunctioning committee members. This procedure attempts to reconnect inactive members with their committees prior to removal. Members of the LSC also began deliberations about procedures for proposing new awards to be presented at JSM.

The ASA committee structure is vast, and the council structure is meant to be flexible. Oversight of committees by the LSC allows for such flexibility. At its request, the Advisory Committee on Continuing Education was reassigned to the Membership Council. The Advisory Committee on Teacher Enhancement and the Membership Survey Committee were sunsetted, because their charges overlapped with the charges of other committees. Two ad hoc committees became permanent: the Advisory Committee on Climate Change (see www.amstat.org/committees/ commdetails.cfm?txtComm=ABTARS01) and the Conference on Statistical Practice Organizing Committee (see www.amstat.org/committees/ commdetails.cfm?txtComm=ABTORG05). A new award committee also was established, the Best Journal of Statistics Education Paper Award Committee (see www.amstat.org/committees/ commdetails.cfm?txtComm=CCRAWD07).

The LSC was instrumental in helping me make the committee appointments for 2011, the major job of the president-elect. As of this writing, I have made more than 170 committee appointments. Many were of people I did not know, and I could not have done this without the recommendations of the LSC vice chairs (and through them, the committee chairs), ASA Executive Director Ron Wasserstein, and the able record-keeping of ASA Committees Coordinator Jim Dickey. The ASA is fortunate to have a large group of active members who volunteer their time and effort to the organization.

This year, the LSC is chaired by Bob Rodriguez, president-elect and author of the document that created this structure. He will find the LSC a pleasure to work with, as did I. I look forward to hearing about this year's achievements.

Nancy L. Beller



Nancy Geller

Highlights of the November 2010 ASA Board of Directors Meeting

2010 ASA Board of Directors

Sastry Pantula, president

Nancy Geller, president-elect

Sally Morton, past president

Nat Schenker, third-year vice president

Christy Chuang-Stein, second-year vice president

Rod Little, first-year vice president

David Banks, third-year Council of Sections representative

Jeri Mulrow, second-year Council of Sections representative

Jessica Utts, first-year Council of Sections representative

Susan Hilsenbeck, third-year Council of Chapters representative

David Marker, second-year Council of Chapters representative

Tom Short, first-year Council of Chapters representative

Geert Verbeke, international representative

Karen Kafadar, publications representative

Keith Ord, treasurer

Ron Wasserstein, ASA executive director

SA Past-President Sastry Pantula led the final board meeting of 2010 from November 19–20 at the ASA office in Alexandria, Virginia. Board members were joined by incoming members for 2011 as part of the annual transition process. Here are the highlights:

- The board approved a change to Article IX of the ASA bylaws (*www.amstat.org/about/ bylaws.cfm*) requiring that, with certain exceptions, all members of ASA committees who are appointed by the ASA shall be full members of the association during the term of their appointment. The change takes effect on January 1, 2012.
- The board approved changes to the charges and/or compositions of the Committee on Privacy and Confidentiality, Committee on Scientific Freedom and Human Rights, and Excellence in Statistical Reporting Award Committee. The board also eliminated the Membership Surveys Committee (at its request and after considerable review) and increased the size of the Survey Review Committee.
- The board created permanent committees to plan and organize the annual ASA Conference on Statistical Practice, to begin in early 2012.
- The board approved a petition to form an outreach group called "The Friends of Australasia." This group joins three other such groups: the Caucus of Academic Representatives (formed in 2007), Isolated Statisticians (formed in 2009), and Statistics Without Borders (formed in 2010).
- The board heard a report on the Royal Statistical Society's (RSS) "getstats" program for statistical literacy in the United Kingdom. RSS Executive Director Martin Dougherty joined the board meeting by

phone to review the program, which has as its mission "A society in which our lives and choices are enriched by an understanding of statistics." See *www.getstats. org.uk* for details.

- The board enjoyed a creative session to address three matters of interest to the ASA: (1) identifying a theme for the 2012 Mathematics Awareness Month, which will be hosted by the ASA; (2) improving attendee and participant experience at the Tuesday night President's Awards and Address session at JSM; and (3) planning for the 175th anniversary of the association. The discussions were summarized, and the summaries will be used in future planning.
- The board heard the annual report of the Education Council from ASA Vice President and Education Council Chair Rod Little and Education Council Vice Chair Roxy Peck.
- As at every meeting, the board heard the treasurer's report, reports from the councils of sections and chapters, and a report on the ASA's science policy activities.
- The board conducted its annual walkthrough of the ASA financial statements. This discussion, led by the ASA's auditor, helps current and incoming board members better understand the ASA's financial situation and how to interpret a financial statement from a nonprofit entity.
- The board heard a presentation by Presidentelect Bob Rodriguez about the rise of an area of practice known commonly as "analytics," and discussed the role the ASA should play in this area.
- The board received the annual report of the Strategic Plan Review Committee and heard progress reports from the strategic initiative workgroups for 2011.
- The board received the recommendations from the 2010 Education Workgroup, the last report of the four strategic initiative workgroups appointed by 2010 President Sastry Pantula. Action on these recommendations will follow in the coming months.

2011 ASA Board of Directors

Nancy Geller, president

Bob Rodriguez, president-elect

Sastry Pantula, past-president

Christy Chuang-Stein, third-year vice president

Rod Little, second-year vice president

Mary Mulry, first-year vice president

Jeri Mulrow, third-year Council of Sections representative

Jessica Utts, second-year Council of Sections representative

John Bailer, first-year Council of Sections representative

David Marker, third-year Council of Chapters representative

Tom Short, second-year Council of Chapters representative

Bonnie LaFleur, first-year Council of Chapters representative

Ray Chambers, international representative

Karen Kafadar, publications representative

Keith Ord, treasurer

Ron Wasserstein, ASA executive director

The board approved a recommendation to enter into final negotiations with a publisher, which will collaborate with the ASA to publish the Journal of the American Statistical Association, The American Statistician, Journal of Business & Economic Statistics, Statistics in Biopharmaceutical Research, Journal of Computational and Graphical Statistics, and Technometrics. Pending final negotiations, the transition to the new publisher will take place during 2011 and start officially in 2012.

The board next meets April 8−9 in Alexandria.

Annual Fund Drive Reaches New Heights

Scott Evans, ASA Development Committee Chair

record number of contributors made the 2010 Annual Fund Drive the most successful ever. More than 700 ASA members contributed more than \$34,000. These funds helped the ASA promote the practice and profession of statistics in several ways during 2010. Here are a few examples:

The Census at School program was launched in the United States, promoting statistical literacy in grades 4–12. See *www.amstat.org/ censusatschool/index.cfm*.

The ASA advocated to Congress and others promoting statistical literacy for K–12 students. See *www.amstat.org/outreach/statliteracy*.

StatFest programs, hosted by ASA chapters, encouraged minority college students to pursue careers in statistics.

The ASA provided several memberships to international statisticians, including a good-sized group from China.

The ASA supported student travel awards.

The annual fund drive consists of two components. All members are provided the opportunity to make a contribution to the fund at the time of their membership renewal. About 625 people responded in this way, contributing more than \$19,600. In addition, about 2,200 members of the ASA community were contacted by email. Targeted members included current and former board members, ASA Fellows, current and former Council of Sections Governing Board members and Council of Chapters Governing Board members, senior members, and longtime members. More than 80 people responded to this email, donating more than \$14,400 in support of ASA activities.

The number of donors in each of the two components and the amounts given exceed previous years' levels, pointing to extraordinary generosity on the part of the ASA membership. This generosity is particularly impressive given the great economic challenges of today.

"The ASA is an invaluable resource to the community of statisticians," noted Marie Davidian of North Carolina State University. "Giving to the ASA allows me to acknowledge the association's role in my professional growth and, much more importantly, help ensure that the ASA will continue to provide strong leadership in promoting our profession to the benefit of all of us for whom statistics is much more than just a career."

Nick Horton of Smith College said "In addition to the time I invest as a volunteer, I give to the ASA because it works to promote the field of statistics. These efforts create educational and advocacy opportunities that let others know of how statistical methods can help address the complex problems that we face."

Annual Fund Drive Team Members

Scott Evans, Development Committee Chair John Boyer, Development Committee Member A. Blanton Godfrey, Development Committee Member Don Hedeker, Development Committee Member Joyce Narine, ASA Accountant and Grants Manager Keith Ord, ASA Treasurer Steve Porzio, ASA Associate Executive Director and Director of Operations Jerry Schindler, Development Committee Member

Ron Wasserstein, ASA Executive Director

Lee Wilkinson, Development Committee Member

"I consider ASA as my professional home," observed Mingxiu Hu, a statistician for Millennium Pharmaceuticals. "ASA promotes the profession of statistics and statistical science, which makes my job as a statistician more visible and influential in the pharmaceutical industry. In return, I feel it's my obligation to support ASA, both financially and by serving the organization as a volunteer, to ensure its continued success."

"The ASA supports and promotes the use of statistics not just for statisticians, but for society as a whole," said Margie Nemeth, a statistician at Monsanto. Through the annual fund, Nemeth says, she contributes to the success of the ASA and helps "ensure that future statisticians will have an organization which will provide them the opportunities/programs which they need." The 2011 annual fund drive will kick off in late spring, though members have the opportunity to contribute throughout the year when they renew their memberships. On behalf of the ASA and the Development Committee, thank you for your support.

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Paul L. Schmidbauer Mildred E. Schmidt David A. Schoenfeld John R. Schoenfelder John D. Schoolfield John H. Schuenemeyer Scott Schumacher Steve Schwarzbek Stanley L. Sclove Ananda Sen John William Senner Lynne Seymour Aarti S. Shah Nagambal D. Shah Mack C. Shelley II Patricia A. Shewokis Harland H. Shoemaker Thomas H. Short Patrick E. Shrout Satva R. K. Siddani Eric R. Siegel Gary A. Simon Miles Edward Simpson Michael D. Sinclair Steven J. Skates Aleksandra B. Slavkovic Stewart P. Sloane II Eric V. Slud Robert D. Small David McCulloch Smith Jeffrey A. Smith Robert A. Smith Alfred C. Snikeris Steven Sonder Edward J. Sondik Felix Sosa-Gaston Mat Soukup Susan E. Spruill Christopher J. Sroka Nancy J. Stambler Robert R. Starbuck Marco Steenbergen Leonard A. Stefanski Blair Sterba-Boatwright John Aubrey Steward Susan LeRoy Stewart Allan Stewart-Oaten John M. Stickler Lvnn Stokes Elizabeth Stone Daniel Stram Mark C. Strong Walter W. Stroup Wendy L. Swanson Ruth Ellen Swanton Dennis E. Sweitzer Glenn Lyle Maximilian Swetman

David Sylwester Julie Tackett Daniel Joseph Tancredi Erica S. Taucher Marcia A. Testa Anthony D. Thrall Paul A. Tobias Tamara Tom Carlos E. Toro-Vizcarrondo Robert D. Tortora James P. Tuck Alan R. Tupek Ralph M. Turner Kazuki Uematsu John Van Dewater Cynthia B. Van Landingham Hal R. Varian Timothy W. Victor Eric Vittinghoff Andrew Vogt Yevgeniy Voinov Iulia Volaufova Hajime Wago Jing Wang Ferdinand T. Wang Joe H. Ward Jr. Herbert W. Ware Bette L. Warren David Weakliem Michael T. Weaver Alison Webering Sidney L. Weiss Larry Weldon Thomas A. Wellington Brady West James P. Whipple Charles E. White Andrew A. White Linda C. Whitehand G. David Williamson Othmar W. Winkler David Winsemius Michael Wolf Robert L. Wolpert Derek Wong Adeline M. Wong Colin O. Wu Michael S. Wulfsohn Timothy S. Wyant Mengyuan Xu Kazunori Yamaguchi Xiaowei Yan Suzy Yang Jie Yang Hung-Wen Yeh Kwee-Poo Yeo Lisa H. Ying

Donald Ylvisaker Marian Y. Y. Yong Mina Yoo Russell S. Yost Racheal Zhang Tonglin Zhang Wenyan Zhao Zhiwei Zhu Eric R. Ziegel Melissa L. Ziegler Corwin M. Zigler Grenith J. Zimmerman Brenda A. Zimmerman

\$100-\$499 Paul D. Allison

Ersen Arseven Arlene Ash Mary Ellen Bock John E. Boyer Jr. **Thomas Butts** Louis J. Cote Sandra Cruz-Garcia Robert L. Davis Jay L. Devore Philip M. Dixon Scott Evans Ronald S. Fecso Joseph L. Gastwirth Dennis Gilliland Donald Guthrie Choudary Hanumara Frank Harrell Brian A. Harris-Kojetin Xuming He James Hess Susan Hilsenbeck Klaus Hinkelmann Nicholas Horton Michael M. Ikeda Imke Janssen Karen Kafadar Lee D. Kaiser Jerome P. Keating Elizabeth J. Kelly Tim K. Keyes Martin S. King Elizabeth S. King-Sloan Gary G. Koch Uwe Koehn Henryka K. Komanska Peter Lachenbruch Martin Lesser Roderick Little Robert L. Mason

Keishiro Matsumoto Madhu Mazumdar Katherine Monti Jerry Moreno Edward Mulrow Jeri Metzger Mulrow Mary H. Mulry Margaret Nemeth Jean D. Opsomer Keith Ord Frank J. Ossiander **Gladys** Reynolds V. A. Samaranavake **Richard Scheaffer** Marilyn M. Seastrom Dolores Silva Smith Marla D. Smith Richard L. Smith Steven Snapinn Daniel L. Solomon Edward Joel Spar Nancy L. Spruill John A. Stewart Veronica Taylor Ronald Thisted Carol B. Thompson Norris Clyde Tucker Geert Verbeke William Woodall Gooloo Wunderlich Jerome Yurow Marvin Zelen

\$500+

Martha Aliaga Stan Altan David Banks Christy Chuang-Stein Marie Davidian Nancy Geller Mingxiu Hu Stuart Hunter Daniel Kasprzyk Margaret Martin Sally Morton Michael O'Fallon Sastry Pantula Robert Rodriguez Pranab K. Sen Ron Wasserstein Leland Wilkinson



A Comparison of Statistics and Biostatistics Salaries

Keith Crank, ASA Research and Graduate Education Manager

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The ASA takes three salary surveys: an academic statistics salary survey; an academic biostatistics salary survey; and a salary survey of statisticians and biostatisticians in business, industry, and government. The first two are done every year, and the third is done every two years. Reports on the 2010 academic salary surveys appeared in the December 2010 and January 2011 issues of *Amstat News*. A report on the next business, industry, and government salary survey will appear later this year.

The results of these salary surveys are presented in different ways, making them difficult to compare. In particular, the academic statistics salary data are presented as nine-month salaries, while the other two sets of data are presented as 12-month salaries. The data are presented this way to be consistent with the way appointments are made in the different areas.

In this article, I will try to provide a reasonable comparison of academic salaries for faculty in statistics and biostatistics. In doing so, I will take the 12-month biostatistics faculty salaries as my point of comparison. The main issue, then, is how to adjust the nine-month statistics faculty salaries so the comparison is valid.

The comparative information is provided in Tables 1, 2, and 3. These data are for faculty at research institutions. Table 1 is for assistant professors, Table 2 for associate professors, and Table 3 for full professors. All three tables give the nine-month salaries for statistics faculty, the 12-month salaries for biostatistics faculty, and the scaled values to convert a nine-month salary to an 11-month and a 12-month value for statistics faculty. Since the primary comparisons are between the biostatistics salaries and the 11-month and 12-month statistics salaries, I have placed the biostatistics salaries between the two scaled statistics salaries. The biostatistics salaries are highlighted in green. Values above the biostatistics numbers are highlighted in blue, while values below are highlighted in yellow.

At the assistant professor level, the nine-month salaries for statistics faculty are (not surprisingly) all below the 12-month salaries for biostatistics faculty. Most of the values in the 11-month column also are below the 12-month salaries for biostatistics faculty. But, the values in the 12-month column for statistics faculty are all above the salaries for biostatistics faculty. So, what does this say about statistics versus biostatistics faculty at the assistant professor level?

I think it says statistics faculty members receive less compensation than biostatistics faculty members do. An assistant professor in statistics receives his/her nine-month salary. In addition, there is the possibility of supplementing that salary with grants, additional teaching, and outside consulting. But, for an assistant professor trying to establish a research program, additional teaching and outside consulting are drains on the faculty member's time. And the additional teaching would not pay at the same rate as the academic year salary. Only a research grant (which is often limited to two month's salary or less) would be considered productive for an assistant professor. The number of assistant professors in statistics departments who receive 12 months of salary is minimal. So, I think statistics assistant professors, in general, receive less pay than biostatistics assistant professors do.

For associate and full professors in statistics, the situation is no better. The 12-month column for this level is generally below the corresponding value for biostatistics faculty. While it's more likely that associate and full professors in statistics get closer to a 12-month salary than an 11-month salary, it is certainly not automatic. I think most statistics faculty members with tenure are able to supplement their university salary with outside consulting, but I don't know whether that brings them to a "12month equivalent."

Based on the 2010 academic salary surveys of statistics and biostatistics faculty, it appears biostatistics faculty members are paid more than statistics faculty. But, salary is only one piece of the job picture when deciding where one wants to work.

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

		Statistics	Statistics	Biostatistics	Statistics
Rank/Year in Rank	Percentile	Nine Month	Eleven Month	Twelve Month	Twelve Month
		(Sample Size)	(Sample Size)	(Sample Size)	(Sample Size)
Assistant 0	25th	NA	NA	\$ 85,000	NA
	50th	\$ 80,000	\$ 97,800	90,000	\$106,700
	75th	NA	NA	104,100	NA
		(6)		(11)	
	25th	<mark>\$ 68,000</mark>	\$ 83,100	\$ 89,000	\$ 90,700
1	50th	76,600	93,700	95,000	102,200
1	75th	80,300	<mark>- 98,200</mark>	106,700	107,100
		(25)		(27)	
	25th	<mark>\$ 67,500</mark>	\$ 82,500	\$ 89,700	\$ 90,000
2	50th	75,000	<mark>91,700 </mark>	93,000	100,000
	75th	79,100	96,600	96,600	105,400
		(37)		(27)	
	25th	<mark>\$ 70,600</mark>	\$ <mark>86,300</mark>	\$ 89,100	\$ 94,100
2	50th	77,200	94,400	94,000	103,000
5	75th	84,000	<mark>102,700</mark>	105,200	112,000
		(31)		(24)	
4	25th	<mark>\$ 68,100</mark>	\$ <mark>83,200</mark>	\$ 89,700	\$ 90,800
	50th	75,500	92,300	94,800	100,700
	75th	79,500	97,100	99,800	105,900
		(40)		(30)	
5	25th	<mark>\$ 72,700</mark>	\$ 88,800	\$ 95,300	\$ 96,900
	50th	77,000	94,200	98,400	102,700
	75th	80,800	<mark>- 98,700</mark>	102,000	107,700
		(29)		(28)	
6 or More	25th	<mark>\$ 69,500</mark>	<mark>\$ 84,900</mark>	\$ 91,000	\$ 92,600
	50th	76,100	<mark>93,000</mark>	97,400	101,400
	75th	78,500	<mark>95,900</mark>	103,100	104,700
		(14)		(43)]

Table 1—Salaries for Assistant Professors at Research Universities

Table 2—Salaries for Associate Professors at Research Universities

Rank/Year in	Percentile	Statistics	Statistics	Biostatistics	Statistics
		Nine Month	Eleven Month	Twelve Month	Twelve Month
капк		(Sample Size)	(Sample Size)	(Sample Size)	(Sample Size)
Associate 0	25th	<mark>\$ 81,200</mark>	<mark>\$ 99,200</mark>	\$100,800	\$108,200
	50th	85,000	103,900	113,700	113,400
	75th	89,000	108,700	130,900	118,600
		(16)		(10)	
1	25th	\$ 75,900	<mark>\$ 92,800</mark>	\$103,000	\$ <mark>101,200</mark>
	50th	82,200	100,500	106,500	109,600
	75th	91,000	111,200	115,100	121,300
		(21)		(21)	
	25th	\$ 79.500	<mark>\$ 97,200</mark>	\$105,600	\$106,100
2	50th	87,100	106,400	114,700	116,100
2	75th	94,700	115,700	132,400	126,300
		(31)		(15)	
	25th	<mark>\$ 78,300</mark>	<mark>\$ 95,800</mark>	\$119,900	\$ <mark>104,500</mark>
2	50th	88,000	107,600	130,000	117,300
5	75th	<mark>96,200</mark>	117,600	140,600	128,300
		(23)		(28)	
	25th	\$ 76,320	<mark>\$ 93,300</mark>	\$110,700	\$ <mark>101,800</mark>
4	50th	84,900	103,700	119,700	<mark>113,200</mark>
4	75th	94,300	115,200	123,000	125,700
		(25)		(17)	
	25th	<mark>\$ 70,000</mark>	<mark>\$ 85,500</mark>	\$117,400	<mark>\$ 93,300</mark>
-	50th	<mark>74,100</mark>	90,600	125,700	98,800
5	75th	85,200	104,100	147,100	<mark>113,600</mark>
		(13)		(12)	
	25th	\$ 77,200	<mark>\$ 94,300</mark>	\$110,000	\$ <mark>102,900</mark>
6–10	50th	84,600	<mark>103,500</mark>	133,900	<mark>112,900</mark>
	75th	92,600	113,200	150,000	<mark>123,500</mark>
		(40)		(13)	
11–15	25th	<mark>\$ 68,100</mark>	<mark>\$ 83,200</mark>	\$116,700	<mark>\$ 90,800</mark>
	50th	72,900	<u>89,100</u>	131,100	97,200
	75th	87,600	107,100	150,800	<mark>116,800</mark>
		(16)		(15)	
16 or More	25th	<mark>\$ 65,000</mark>	<mark>\$ 79,500</mark>	\$ 96,700	<mark>\$ 86,700</mark>
	50th	70,100	<mark>85,700 85,7000 85,7000 85,700 85,700 85,700 85,700 85,700 85,700 85,700 85,7000 85,7000 85,7000 85,7000 85,7000 85,7000 85,7000 85,7000 85,7000 85,7000 85,7000 85,700000 85,7000 85,7000 85,70000 85,7000 85,70000 85,7000 85,7000 85,7</mark>	101,600	93,500
	75th	80,100	97,900	135,300	<mark>106,800</mark>
		(15)		(9)	

Note: Statistics faculty members are typically on a nine-month appointment, while biostatistics faculty members are typically on a 12-month appointment. Elevenmonth and 12-month statistics salaries are scaled from the nine-month values. **Biostatistics salaries** are highlighted in green. Values above the biostatistics numbers are highlighted in blue, while values below the biostatistics numbers are highlighted in <mark>yellow.</mark>

Rank/Year in	Percentile	Statistics	Statistics	Biostatistics	Statistics
Rank		Nine Month	Eleven Month	Twelve Month	Twelve Month
		(Sample Size)	(Sample Size)	(Sample Size)	(Sample Size)
	25th	NA	NA	NA	NA
Full	50th	\$100 500	\$122.800	\$159.800	\$134,000
0	75th	NA	NA	NA	NA
0		(4)		(4)	
1	25th	\$ 91,400	\$111,700	\$133,200	\$121,900
	50th	94,400	115,400	134,600	125,900
	75th	117.000	143,000	143,200	156,000
	/ 5411	(10)		(8)	
	25th	\$ 88 800	\$108.600	\$138,700	\$118 500
	50th	94,500	115,500	146,300	126,000
2	75th	116,000	141 800	175 100	154 700
	/501	(19)	141,000	(16)	157,700
	25th	\$ 85 700	\$104.800	\$148,400	\$114 300
	50th	108 200	132 300	168 300	144 300
3	75th	129 600	158,000	186.400	172 800
	7501	(21)	150,400	(12)	172,000
	25th	(21) \$102,400	\$125.200	(12) \$146.600	¢126 600
	ZJUI	<u>\$102,400</u>	3123,200	\$140,000	\$130,000
4	50(n	175,000	150,000	101,500	149,000
	/501	(13)	104,900	189,000	<u>179,900</u>
	25th	\$100,900	\$123 300	\$159 100	\$134 600
	50th	120 500	147 300	173 300	160 700
5	75th	126,500	154 600	185,000	168 600
	/501	(18)		(13)	100,000
	25th	\$104,700	\$128,000	\$155,500	\$139,600
6–10	50th	126,400	154,500	\$188,100	168,500
	75th	146,700	179,300	211,100	195,600
		(59)		(37)	
	25th	\$100.000	\$122,200	\$156,200	\$133,300
11–15	50th	114,000	139,300	192,700	152,000
	75th	133.800	163,500	222.600	178,400
		(59)		(21)	
	25th	\$110.400	\$134,900	\$174,700	\$147,200
16–20	50th	133,800	163,600	207.200	178,500
	75th	152,600	186,500	231,300	203,400
		(70)		(14)	200,100
	25th	\$102,900	\$125,700	\$162,600	\$137.200
21-25	50th	115,100	140,600	180.000	153,400
21-23	75th	134 100	163.800	229 800	178 700
	/ 5 (11	(48)		(14)	
	25th	\$110,200	\$134,600	\$182,200	\$146,900
26–30	50th	136.800	167,200	204,900	182.400
	75th	146 100	178 600	244 800	194 800
	/	(24)	170,000	(11)	
	25th	\$113 900	\$139 200	NA	\$151.900
31 or More	50th	133 100	162 700	\$184 100	177.400
	75th	159,700	195,200	NA	213 000
			155,200	107	213,000

Table 3—Salaries for Full Professors at Research Universities

Note: Statistics faculty members are typically on a nine-month appointment, while biostatistics faculty members are typically on a 12-month appointment. Eleven-month and 12-month statistics salaries are scaled from the ninemonth values. **Biostatistics sala**ries are highlighted in green. Values above the biostatistics numbers are highlighted in blue, while values below the biostatistics numbers are highlighted in <mark>yellow.</mark>

YouTube Videos Wanted for **Competition**

Tom Short, John Carroll University

The American Statistical Association invites the submission of original digital videos that celebrate the many and varied achievements and roles of statisticians.

ASA President Nancy Geller recently asked members of the 2011 Public Awareness Workgroup to devise a contest for short films about statistics and statisticians. The competition is intended to stimulate public awareness of the many facets of statistics and life as a statistician. Samples can be viewed at *www.amstat.org/youtube*.

What You Need to Know

All submissions must be the original design and creation of the entrants and must not infringe anyone else's copyright protections (see *www.youtube.com/t/ howto_copyright*).

Cash prizes will be awarded: first place - \$1,000; second place - \$350; third place - \$150.

All student entrants for the first-, second-, and third-place winning videos will be offered a one-year student membership in the ASA.

Each entry will be judged on two equally weighted criteria: quality of statistical content and entertainment value.

Members of the ASA 2011 Public Awareness Workgroup will serve as judges, and decisions by the judges are final.

Submissions are limited to five minutes in length.

In submitting a video, entrants agree that the video may be displayed by the ASA, featured in its publications, and included on its website.

A completed online entry form must be submitted with every entry.

The submission deadline is July 15.

Winners will be announced at JSM 2011 in Miami Beach, Florida (entrants need not be present to win).



2011 Public Awareness Workgroup Members

Tom Short, John Carroll University (chair) Rosanne Desmone, Mt. Vernon PR & Communications Steven Goodman, The Johns Hopkins University Rod Little, U.S. Census Bureau Megan Murphy, ASA Deb Nolan, University of California, Berkeley Michael Posner, Villanova University Lindsay Renfro, Baylor University Erin Tanenbaum, Claritas, A Nielsen Company

Contact Tom Short at *tshort@jcu.edu* to receive a code that will permit you to upload the video to the competition's YouTube site.

Members of the American Statistical Association's 2011 Public Awareness Workgroup, ASA employees, ASA directors, and their immediate family members are ineligible to receive awards in the competition.

For more information, contact Short at *tshort@ jcu.edu*. ■

Report of the Visibility and Impact in Policymaking Workgroup

Visibility and Impact in Policymaking Workgroup Members

Ann Cannon, at-large member

Mike Cohen, Committee of Representatives to the AAAS

Mary Gray, Scientific and Public Affairs Advisory Committee

Sally Morton, 2009 ASA president (chair)

Steve Pierson, ASA director of science policy (ex officio member)

Duane Steffey, at-large member

Ron Wasserstein, ASA executive director (ex officio member)

David Williamson, Scientific and Public Affairs Advisory Committee

Alyson Wilson, at-large member

ealth care, climate change, education ... How can the ASA be prepared to speak on emerging policy issues? 2010 ASA President Sastry Pantula appointed a workgroup to find out. The Visibility and Impact in Policymaking Workgroup's charge was to "standardize the process for identifying emerging issues and for providing timely response in the areas of public policy and science policy in collaboration with the ASA director of science policy and the other statistical associations." Members of the workgroup considered the process of identifying policy issues, developing position statements, and

communicating the ASA's perspective. They then reported to the ASA Board during JSM 2010, providing the recommendations below.

With statisticians spread throughout industry, academia, and government working on a vast array of topics, statisticians could speak on a variety of policy issues that arise each day. Members of the workgroup emphasized the need for transparency in whatever approach was adopted and recommended that the ASA provide a means for members to understand the process leading to a science policy action.

To assess where to best place ASA resources, group members found two classifications of policy topics to be useful. They defined issues to be proactive or reactive and urgent or recurring. Members of the workgroup recommended that the ASA focus on proactive and/or recurring issues to start with, anticipating that once a process is in place to deal with such issues, the process may be adapted for reactive and/ or urgent issues. They further categorized ASA policy actions as addressing four situations:

- Societal issues through statements, endorsements, and/or recommendations
- Outreach to Congress, decisionmakers, the media, or the public through informational pieces
- Promotion of statistics
- Actions on professional and other issues of importance to statisticians

The ASA should make soliciting and forecasting issues part of the association's culture; such permeation will require a significant amount of outreach and education. ASA chapters, committees, and sections are vital to the process. Members of the workgroup suggested using multiple channels to educate members about how they can be involved, including an "optin" policy email list and outreach materials such as email examples to sections and chapters.

Chapters are particularly attuned to local issues. For example, members of a Michigan chapter engaged ASA leadership in their efforts to include more statistics in state curriculum standards.

Committees and sections follow specific topics relevant to statisticians. For example, the Committee on Privacy and Confidentiality (CPC) alerted the ASA to the news that the Department of Health and Human Services (HHS) would be reconsidering its HIPAA privacy rules. The association wrote a letter to HHS Secretary Kathleen Sebelius about the role statisticians play in this issue, resulting in the CPC chair being invited to participate in a HHS workshop on the topic.

When considering the best vehicle for how the ASA should be heard, members of the workgroup suggested the policy issue be concretely defined, including defining the audience (e.g., Congress; policymakers at the federal, state, or local level; policymakers in the executive and legislative branches; the media; teachers at various educational levels; statisticians; or the public).

There are many ways for the ASA to be heard on policy issues, including board statements or endorsements, white papers, letters from the ASA president, personal contact (e.g., phone call or visit), op-eds, education pieces, and ASA website material. Products should take into account varying attention spans, as well the quantitative sophistication of the audience. Members of the workgroup recommended the ASA partner with other professional societies via joint statements, letters, and other activities when it is mutually beneficial and when the combined effort will have a stronger impact than separate efforts.

Developing the statements or other policy vehicles requires significant contributions from ASA members. It is important to recognize these contributions and ensure broad involvement across the membership-and not just the usual suspects. Members of the workgroup recommended the ASA continue to educate members on the nature, importance, and impact of ASA policy work; recognize volunteers and their products; and provide ASA staff assistance to the extent possible. The ASA also might consider developing a funding mechanism to support policy activities.

At present, ASA staff members prepare a press release and policy board statement, identify other potential audiences, and reach out to other policymakers as appropriate. The ASA also keeps federal statistical agencies and the Office of Management and Budget informed if the issue involves a federal agency. Dissemination needs to be continuous to be effective. Outreach efforts should be broad, including board statements and endorsements, press releases, briefings for key policymakers and staff, op-ed pieces, engagement of policymakers via hearings and legislative action, and engagement of ASA members to disseminate information outside the Beltway.

Beyond the current efforts, workgroup members recommended the ASA maximize the effect of statements by the following:

- Consulting policymakers early in a process so any deliverables are most helpful to their needs
- Furthering the use of ASA web pages for outreach, beyond current science policy pages
- Developing a policy speakers program
- Engaging ASA members in disseminating information
- Ensuring statements address why statisticians and/or statistics are particularly relevant to the policy issue

The ASA strategic plan states, "Decisionmaking discussions in public policy and science policy must be guided by sound data and statistical analysis. The ASA and the statistical profession should actively participate in these discussions to promote the use of appropriate data and effective methods, and to ensure that the statistical sciences receive an appropriate share of public funding for scientific research and education." The ASA can play a key role in promoting "the need for sound statistical practice to inform decisionmaking in public policy and science policy." Workgroup members hope they have helped the association progress in this pivotal role.

Proposals Sought for Atlanta Conference

The Atlanta Conference on Science and Innovation Policy 2011 welcomes proposals for papers, posters, sessions, and short courses. The conference theme is "Building Capacity for Scientific Innovation and Outcomes." Submissions on any topic in science and innovation policy are welcome by March 1.

The conference will take place at Georgia Tech's Global Learning Center in Atlanta September 15–17, with preconference events September 13–14.

For more information, visit *www. atlantaconference.org.*



People to People Delegation to China Has 'Blast'

Ronald L. Wasserstein, ASA Executive Director

ASA members will find in their mailboxes within a few weeks an invitation to participate in the next ASA People to People Delegation, which will travel to Israel November 3–11 and be led by ASA President Nancy Geller. Plans are also in the works for a delegation to Russia in the early fall of 2012, led by ASA President-elect Bob Rodriguez. For additional information, contact Ron Wasserstein, ASA executive director, at *ron@amstat.org*.



2010 ASA President Sastry Pantula (right) receives a gift from Hu Jian, the president of Xian University of Finance and Economics.

Thirty-four ASA members and 12 guests participated in a 12-day professional and cultural journey to China in partnership with People to People Ambassador Programs from November 30 to December 11, 2010.

"The purpose of the trip was to discuss with statisticians in China matters of common interest regarding the development of statistical capacity in the work force and statistical literacy in the general population," said Sastry Pantula, 2010 ASA president and a co-leader of the delegation. "Delegates had the opportunity to learn and share about these matters and much more during this exhilarating and very exciting experience."

In the spring of 2010, ASA members received an invitation to participate in the program. More than 60 people expressed interest, and, in the end, 46 took part. The 34 delegates' time was nearly equally divided among professional meetings, cultural activities, and transit. The 12 guests took in sights and had other cultural experiences during the days in which the delegates were in professional meetings. The delegation visited Beijing, Xi'an, and Shanghai.

The professional meetings, organized by the ASA and People to People, were the key activity of the program. "As an industrial statistician in a developed country, I take for granted the infrastructure that has been developed to capture the

data needed to conduct meaningful work," noted Dennis Kunimura, a statistician with Boart Longyear Company. "I gained a greater appreciation of the challenges facing China and the need for professional exchanges to help them face those challenges."

Meeting size and type varied. Delegates met at statistics departments or schools at five universities: Renmin University in Beijing, Xi'an University of Finance and Economics in Xi'an, Northwest University in Xi'an, East China Normal University in Shanghai, and Fudan University in Shanghai. At the latter, the delegates participated in the Shanghai Biostatistics Forum.

Delegates also spent a full day with representatives from the National Bureau of Statistics in China, the Chinese government's statistical arm. On some occasions, the delegation met with a small number of people, and on others, many including more than 400 who attended the meeting at Xi'an University of Finance and Economics. On most occasions, there was great opportunity for interaction between the delegates and the Chinese hosts. On all occasions, delegates were warmly welcomed and extended great hospitality.

"We were treated as royalty by our hosts in China," said Frank DeMeo, a statistician with Abbott Labs.

At every location, Pantula had the opportunity to pass along greetings on behalf of the delegation and

the ASA. He emphasized the ASA's interest in building long-term relationships with the Chinese statistical community. He pointed out the key role Chineseborn statisticians already play at the ASA and in the world community of statisticians.

As important as the professional meetings with Chinese statisticians were, the opportunity for delegates to interact with one another was at least as important. "The ASA People to People Statistical Delegation was a truly fabulous experience. It was the perfect mix of professional and cultural events," said Jeri Mulrow, ASA Board member. "It was exciting to meet our Chinese counterparts and to learn more about the field of statistics in China. However, it was even more rewarding to meet and to get to know so many terrific ASA statisticians and their guests who were part of the delegation."

Carol Lancaster, professor emerita of the Medical University of South Carolina, concurred and noted the importance of following up on the professional activities. "The trip was more than I could have ever imagined," she said. "Not only did it offer a terrific chance to meet and network with new and old colleagues, but also the wonderful possibility to share information with international colleagues. It was great to hear, even shortly after our trip, that plans were already in the works for a variety of joint activities. Fantastic! How outstanding it is that our visit is already accomplishing its goals."

The cost of the trip was not inexpensive, about \$5,500 per person, and delegates were responsible for finding their own funding. But this was an all-in cost, including airfare, hotels (all five-star international hotels), in-country travel, and almost all meals. In addition to the professional work, delegates visited fascinating places such as the Forbidden City, the Great Wall at Badaling, the Terra Cotta Warriors Museum, the Big Wild Goose Pagoda, the Shanghai Museum, and Yu Garden.

Renee Moore of the University of Pennsylvania described the ASA People to People Delegation to China as "one of the most rewarding experiences of my life, both professionally and personally."

"I expected to learn from our Chinese counterparts," she said, "but unexpected was how much I would learn from our own group of ASA delegates. I walked away with ideas on how to build upon my scholarship, my teaching, and my outreach goals of improving statistical literacy and education. Personally, I met lifelong friends and had unforgettable experiences in three different cities in China. I am very grateful to ASA and People to People for providing me with such an amazing opportunity and experience that I will never forget."

Mulrow summed up the experience succinctly: "If given the chance, I would do it again. It was a blast."

Oscar Kempthorne Interview Now on YouTube

Michele Christian, Iowa State University Library Associate Professor-Special Collections Department



Oscar Kempthorne, in a video, discusses his life and career as a statistician.

In 1991, alumni and friends of Iowa State University's Department of Statistics and Statistical Laboratory provided support for filming an interview with Oscar Kempthorne, notable statistician and statistics professor at Iowa State University. Noel Cressie (former Iowa State University statistics professor) conducted the interview on July 31, 1991, at Iowa State University.

In the video, Kempthorne discusses his life and career as a statistician. He touches on monitoring the election in Greece after World War II; working for Iowa State; his views on statistical theory and practice; and his consulting, research, and publications. This video is number 28 in the American Statistical Association's Distinguished Statistician Video Series. The video was originally stored on VHS, a copy of which is housed in the Special Collections Department at Iowa State University Library. In 2006, the Special Collections Department had the videotape transferred to DVD to provide additional access. In 2010, the department added "Oscar Kempthorne: From Observation to Inference" to its ever-growing collection of videos on YouTube.

Because YouTube limits the time for each video to 15 minutes, the interview was divided into five parts. To see all parts, visit the Oscar Kempthorne playlist at *www.youtube.com/view_play_list?p=5CE19A1DCF8EC055*.

In addition, the department houses Kempthorne's papers. Download a PDF of them at *www.lib.iastate. edu/arch/rgrp/13-24-52.pdf.* ■



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MEMBER SPOTLIGHT



Oberg

I loved math in high school. I enjoyed biology too, but those classes seemed like a lot of memorization to me. With math, if I forgot something, I could start with what I knew and work to figure out where I needed to be. So, I headed off to college to learn all I could about math. When I graduated, I was going to be an expert!

By the time I was done, I had a math major and a statistics minor. I didn't know what to do with my degree, but I vowed I would never take another statistics course in my life—I had had enough of squaring and summing numbers. I saw a flyer about volunteering to teach in underdeveloped countries. That sounded fun, and I could help people in need, so back to school I went to get a teaching endorsement.

You never know the impact seemingly small events will have on your life. I saw a flier for a seminar about this thing called biometry. I was intrigued, so made the time between waiting tables and attending classes to attend. Linda Young, at the time from the University of Nebraska - Lincoln (UNL), gave the seminar and talked about a job in which you could help people solve problems. You could actually meet with researchers and go out to the farmer's fields so you would really understand the challenges of a particular experiment. She caught my attention! Her job sounded like so much fun. Even though it involved statistics, I decided to abandon education classes and try it. After all, they used computers so it might not be so bad.

My time in the biometry department at UNL changed my outlook on statistics. I was most intrigued by the variety of problems to which statistics can be applied. Highlights during my time there included summer internships to learn more about I am almost guaranteed that my focus will be different five years from now. That makes it fun to look forward to tomorrow!

life on the job as a statistician. One summer, I worked in the UNL entomology department planting various corn varieties, counting chinch bugs on corn, and measuring dimensions of soybean plants. What I learned most that summer was that data collection can be a challenge chinch bugs were scarce that year, I got sick from heat exhaustion, and soybean canopy is an absolute haven for mosquitoes.



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My second internship was with General Motors. I found this position through the Amstat News internship postings [www. amstat.org/education/internships]. My role there was to characterize the personality of cars and understand why some nameplates have more crashes than others do. Again, I learned the importance of data collection and understanding the variables I was working with. This was vital to accurately characterize the personality of a car.

I still didn't think I knew enough when I finished my master's degree, so I headed off to North Carolina State University (NCSU) for a PhD. I received excellent training and mentoring during my time there, just as I had at UNL. Again, I sought out positions teaching, performing statistical research, and working "in the field" through internships at SAS and the VA hospital. Through these positions, I learned the importance of communication, objectivity, attention to detail, and thoroughness. I also

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discovered that my favorite aspect of being a statistician was learning more about science through my collaborations—it was almost like not having to decide what I wanted to do when I grew up!

Anyone performing research needed a statistician to help think about hypotheses, data collection, analyses, and data interpretation. So, I could seek out people performing research in areas I found interesting and learn about exciting new areas of research while helping their research be of top quality.

During my job search as I was finishing my PhD in statistics, one of my interviews was with the Mayo Clinic in Rochester, Minnesota. Truthfully, I had no intention of the job since my husband couldn't transfer there, but I'd heard about Mavo all my life and wanted to see what it was all about. Once I visited, Mayo had my attention! I was so excited by the mission and the work performed there. It was obvious Mayo researchers were among the best in the world, and the passion and excitement they had for their work was contagious. Long story short ... off we went to Minnesota.

There are several things I love about working at the Mayo Clinic. There is a wide variety of research studies, ranging from basic science experiments using cell lines or animals to observational studies and randomized trials. Projects involve everything from defining hypotheses and grant writing to database design and data cleaning to analysis and statistical methods development. The statistical unit is among the largest in the country, which allows us to focus on a specific disease and/or analytical area. We work in teams, and the atmosphere is collegial-there is always someone with whom to hash through a tough problem.

My work has changed focus over the past 11 years. When I started, I focused on endocrinology. Over time, I began working with gene expression microarrays, understanding the data and helping researchers intelligently digest the data explosion to guide their research programs. Later, my focus turned to shotgun mass spectrometry proteomics and methods to catalogue and measure protein expression. Lately, my focus has been on understanding expression data from next-generation sequencing platforms and modeling methods in systems biology studies. When working on the cutting edge, there are always new things to learn and figure out. I am almost guaranteed that my focus will be different five years from now. That makes it fun to look forward to tomorrow!

I've found that communication is a vital key to success. A course in medical terminology helped me get started in understanding the language of my medical collaborators, and asking them question after question and reading related publications helps me understand more about the science every day. As a statistician, successful application of statistical tools hinges on a deep and thorough understanding of the biological question, potential biases, and how to best measure the desired endpoint.

I finally appreciate that there will always be more to learn. There is no degree that teaches you everything. On the contrary, a degree equips you with a toolbox. While I'm not out in the fields like I envisioned after Young's seminar, my training in statistics has enabled me to have a fulfilling career through which I can help others and learn more every day. And, although I'm not teaching in underdeveloped countries, I am helping others by guiding research design and analysis and working on studies prioritized based on the needs of Mayo Clinic patients.

How the Statistical System Can Help Create Jobs

E.J. Reedy

ith unemployment rates stubbornly high and the global economy increasingly competitive, the United States needs to better understand businesses, policies to support businesses, and, ultimately, how to spur job creation.

Jobs don't just appear or disappear; they are created (and destroyed) by businesses that are reacting to market conditions and opportunities. While our national statistical system is increasing its capacity to produce statistics on these dynamic processes, policymakers could better target job creation programs if the statistical system collected more data about how businesses finance operations and investment in innovation, especially at the regional/local level. Further, to bolster the value of data currently produced, we need to nourish active data user communities to advance the substantive scientific understanding of job creation policies and educate policymakers about the importance and utility of the data.

The Current Situation

While we postulate about factors that drive business success—access to financing, investments in innovation and research and development, etc.—many of the drivers of business success and job creation are a mystery. Most of the data produced by the national statistical offices are only used for tabular outputs describing conditions at a certain point in time. Our national statistical system is just beginning to collect and organize data to better examine business dynamics so job creation and destruction can be understood in more meaningful ways.

New data from the Census Bureau's Business Dynamics Series and the Bureau of Labor Statistics' Business Employment Dynamics program have begun to shed light on the complex process of business dynamics in the U.S. economy. Groups such as NORC at the University of Chicago and the Census Bureau's Center for Economic Research are showing it is possible to maintain confidentiality while allowing researchers to have secure access to microdata. Many other statistical agencies recognize the need for creating user communities but are at nascent starting points.

What Is Needed

While the statistical agencies have made huge advances in describing dynamics at the national level, now is the time to put meat on the bones of these descriptions and to provide increasingly local, timely information. We have little data from the statistical agencies to help examine how certain business inputs relate to outcomes such as employment generation. Tabulations about cross-sectional populations are not adequate substitutions for statistical programs that produce statistics on dynamic processes or microdata research.

While not the only topic that could be considered in a statistical system looking to better measure factors that drive job creation, small business financing certainly is among the top possibilities. Indeed, we at Kauffman have funded an eight-year longitudinal panel of new businesses (Kauffman Firm Survey) that focuses largely on the topic because we believe it is important but understudied.

Other private efforts such as the National Federation of Independent Businesses provide timely information. But private efforts must be matched by improved public efforts if we are to achieve better national and subnational coverage and to have data that can be matched with other government survey and administrative records.

How to Get There

For the next generation of research and collection on what drives economic growth and job creation, the United States needs a statistical system that recognizes the need for quality survey collection, enhanced use of administrative records, and a coordinated microdata research program.

On small business financing, a leader is needed to bring together the different agencies interested in the topic. The Small Business Administration is not well funded (and also is not a statistical agency), but it is interested in better small business finance data and has included developing better data in its strategic plan. The Federal Reserve historically has been a leader in the collection of small business finance data, but has new potential leadership bubbling up from the local level. As the Fed shifts more of its efforts to regional economic development as part of the changing role of the 12 regional banks that make up the Federal Reserve System, local teams have realized the need for better business financing data if they are to accurately track local conditions. While these regional Federal Reserve representatives don't yet have a collective voice in driving changes coming out of Washington, they make up an important group.

E.J. Reedy is a research fellow for the Ewing Marion Kauffman Foundation, where he blogs as the Data Maven and coordinates entrepreneurship and innovation data-related initiatives such as the Kauffman Firm Survey and the foundation's multiyear series of symposiums on data.

Tomorrow's statistical system will be borne out of the changes made in the wake of today's financial crisis.

> The Census Bureau would be a logical lead agency to collect more meaningful financing data, but it currently lacks an internal advocate. If enhanced collection on small business finance were to come about, the survey work needs to be complemented by an effort to promote more research using microdata by integrating small business financing data into ongoing research using the Longitudinal Business Database at the Census Bureau.

> Indeed, on the topic of innovation, the National Science Foundation could implement a similar complementary effort to encourage more

microdata research to accompany their recent improvements in their research and development and innovation surveys.

Why Change?

As the government and other nonprofits implement more local programs to spur job creation or small business development, data are desperately needed to track local trends in business outcomes and conditions. It's because of this that politicians tend to be more interested in supporting programs that can help provide independent, meaningful, and timely data on job creation in their regions. The statistical community should recognize this and strengthen their collections before politicians become alienated consumers of private data.

Tomorrow's statistical system will be borne out of the changes made in the wake of today's financial crisis. While some improvements to data collection are likely to cost money—getting data faster and/or larger samples—many others are relatively cheap and likely to save money in the long term. The changes we make or don't make will be our legacy in better understanding economic growth and job creation.



MASTER'S NOTEBOOK

Going East

Multinational pharmaceutical companies look to employ statisticians in China

Coco Fan, Foster Partners RSA, and Ping Zhan, AstraZeneca

2002 analysis report of China's growing drug market by Boston Consulting Group states "[B]y 2010, we expect the country to emerge as the fifth-largest pharmaceutical market in the world, with revenues of over \$24 billion—more than triple its current size." China, which is the world's third-largest pharmaceutical market after the United States and Japan, grew faster than expected. Drug sales are predicted to increase 25%– 27% to more than \$50 billion next year, overtaking Japan's by 2015.

China's ascent has forced western drugmakers to revise their growth strategies. Multinational pharmaceutical companies continue to increase their investment in China, developing drugs for diseases more prevalent in Asia, choosing local contract research organizations to shape up their outsourcing strategies, and competing for a growing market. Their common goal of enhancing profitability leads them to search for ways to develop innovative treatment modalities that increase productivity and decrease costs. Statistics plays an important role in transforming drug development strategy from a trial-and-error to a data-driven decisionmaking process that produces safe, efficacious, and differentiated drugs. In the dawn of personalized medicine, statisticians are working side by side with biologists to identify predictive biomarkers for patient population selection.

The talent gap in China's pharmaceutical industry is enormous, as there has never been a role for statisticians in pre-clinical and clinical application areas. Working closely with big pharmaceutical companies, we found that drugmakers are looking for statisticians from the West or who were trained in the West to meet their needs. Specifically, they are looking for candidates with an MSc in statistics and strong technical capability. Several years of relevant working experience and good communication skills also are important, as statisticians frequently work closely with multidisciplinary teams.

The sites opened by Western pharmaceutical companies in China primarily employ young and locally recruited people. Many have studied or worked overseas and embrace Western culture while maintaining Chinese traditions. They are fluent in written and verbal English. The office space and culture are very much like other Western sites. Performance reviews and promotions follow the corporate process, regardless of location. Also, exposure to further technical training and international conferences is the same. In fact, changes in the work day are minimal when working for a Western pharmaceutical company in China.

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STAT*tr*@k

Tips for Statisticians Starting a Career in Business



ncreasing amounts of data become available to business-Les every day, and we, statisticians, are uniquely qualified to help them prepare, organize, and analyze these data. The term "business intelligence" is often used to describe such analyses, and most industry leaders rely on statistical analyses to guide business transformation and growth in an informed, thorough, and actionable manner. Therefore, new graduates with master's or doctorate degrees in statistics are highly sought after; however, to land an industry job, statistical expertise alone is not sufficient. The following are some tips that will help both job seekers and those who have just started their career as industry statisticians.

Avoid Narrow Specialization

Leading statistics programs in the United States are generally focused on providing their advanced-degree students with solid theoretical foundations and the ability to perform exceptional research in a narrow field of study. However, as a statistician outside of academia, you will mostly use established and credible methods to analyze large amounts of data in a compressed timeline. These methods will likely span a number of fields, such as time series, clustering, or sampling. As such, those "applied" courses that so many of us looked down upon in our days as graduate students (i.e., data analysis, SAS programming, sampling methods) are useful for building analytical skills industry statisticians rely on to succeed. Moreover, while your dissertation and studies may have been focused on discrete noninformative priors, it would help tremendously if you are proficient in a number of analytic areas.

Improve Your Software Proficiency and Programming Skills

Industry-standard statistical software packages such as SAS, SPSS, and EViews are becoming

increasingly user-friendly; however, they often provide pointand-click interfaces that do not require the user to be proficient with the underlying programming language. I strongly recommend you avoid relying on the point-and-click approach to data cleaning, organization, and analysis. Instead, you should spend time learning a few programming languages and, in general, ensure that your programming/ logic skills are excellent. As an industry statistician, you may have to learn your employer's proprietary programming environment, and having experience in a multitude of languages will be useful.

Finally, you should be proficient with such industrystandard software as Excel and Access, as they may be the only software you have at your disposal. Therefore, you should not treat them as mere data repositories, but become capable of using their full functionality, including functions, shortcuts, macros, queries, and add-ons.

Become More Than a Technical Asset

While certain industry jobs may rely solely on your technical skills, it is more likely that you will have to develop and rely on your "soft" skills to sustain a long-term successful career in the industry. Sample size calculations may be all you are doing as a junior statistician at a biopharmaceutical company, but you may, as you advance, have to explain clinical trial results to an FDA panel and investors or effectively convey the importance of your analyses and results to a CEO that is about to cut your department's funding. As such, developing your oral and written communication skills is imperative for your success.

To do so, take an English writing class to boost your writing skills, subscribe to the *Economist* or *Bloomberg Businessweek* and learn from their written communication style, use opportunities to present your work to nonstatisticians and tailor your presentations and verbal communication skills to be engaging to such an audience, and learn what communication styles are appropriate in different circumstances.

Focus on the Impact of Your Results

While we, statisticians, often get excited about asymptotic properties of a newly minted estimator, your clients/employer will most likely be uninterested in such minutia. In your work, the type of analyses and methods used will be of little interest to your audience; instead, they will want the answer to the "so what" question. Thus, when performing analyses, you should not look at the underlying data as simply numerical or categorical values, but rather spend time trying to understand the business processes that yielded the data and what these data tell you before you proceed with your analyses.



For example, you may be asked to assess health care claims data to devise an algorithm for flagging potentially fraudulent claims. You should familiarize yourself (through research or conversations with specialists) with the way health care claims are processed, common fraud types, and other relevant details. The responsibility of understanding the data and interpreting the results so they are meaningful to your clients/employer lies with you, and you should be proactive in educating yourself because you may be handed the data without much of an explanation.

Be Flexible

Finally, one of the most important factors for landing a job or successfully advancing in your career as an industry statistician is your ability to be flexible. Being flexible may entail the following:

- Being able to consider a number of analytical approaches, instead of relying on the technique you are most comfortable with
- Collaborating with colleagues whose working styles differ from yours
- Being willing to work extra hours or on weekends and travel for a few days to meetings on short notice
- Juggling a number of competing priorities and saying "no" when you have too much on your plate
- Understanding when you need to make a decision on your own or seek the advice of a specialist or your boss

If these all sound like fun aspects of a job, rather than insurmountable challenges, then a job as an industry statistician may be just right for you.

SCIENCE POLICY Bill Increasing U.S. Census Bureau Autonomy Fizzles

Steve Pierson, ASA Director of Science Policy



A bill to strengthen the U.S. Census Bureau's autonomy cleared the United States Senate unanimously in the closing days of the lame duck Congress but—despite the efforts of the ASA, members of Congress, and many others—failed to muster the votes necessary in the House of Representatives to send it to President Barack Obama's desk. Any efforts to achieve the important and long-recognized reforms of the largest statistical agency—and major scientific agency—must start over in the new Congress.

The Census Översight Efficiency and Management Reform Act of 2010 (H.R. 4945/S. 3167) would have made the Census Bureau more autonomous within the Commerce Department through provisions including a direct report to the secretary of commerce, a fixed five-year term for the director, independent testimony to Congress, and more control over the Census Bureau's operations and management. (Currently, the U.S. Census Bureau director reports to the commerce under secretary for economic affairs, as does the Bureau for Economic Analysis director.)

The statistical community and Census Bureau stakeholders—including the ASA Board of Directors, the seven living former Census Bureau directors, Council of Professional Associations on Federal Statistics, Consortium of Social Science Associations, American Association for Public Opinion Research, and dozens of other organizations—supported the bill. Further, the National

Memo Allows Government Scientists to Serve in Professional Societies

A December 17, 2010, memo from John Holdren, Office of Science and Technology Policy director, contained a provision to promote professional development of government scientists by allowing their "full participation in professional or scholarly societies, ... including removing barriers for serving as officers or on governing boards of such societies." The ASA welcomed the news because of its practice of having a president and vice-president serve from the government sector every three years. Also, government scientists serve important roles in sections, chapters, and committees. Read more in my January 3 blog post, "Obama Administration Science Integrity Memo Includes Good News for ASA Governance and Government Statisticians: More Steps Necessary," under Recent Blogs at *http://community.amstat.org.*

Academies' Principles and Practices of a Federal Statistical Agency lists the merits of the bill's main components and the U.S. General Accountability Office's December 14 report, 2010 Census, discusses the benefits the continuity of five-year terms would provide. (For details, see my December 14 blog post, "House to Take up Census Autonomy Bill Today: ASA Members Urged to Voice Support," under Recent Blogs at http://community.amstat.org.)

The Census Bureau would have benefitted immensely from the reforms in this bill. As a major science agency whose statistical products inform our democratic process and help guide hundreds of billions of dollars in federal assistance, the U.S. Census Bureau must be objective and insulated from improper influence, in both reality and perception. The fixed term for the director, the direct report to the secretary, and the increased autonomy would have bolstered the Census Bureau's independence. It also would have improved the bureau's efficiency and nimbleness by streamlining decision processes and ensuring continuity in leadership.

In both 1999 and 2009, the Census Bureau operated without a Senate-confirmed director during final preparations for the decennial census and,

Cosponsors Needed for STAT Act of 2011

The bill to promote K–12 statistics education—the Statistical Teaching, Aptitude, and Training Act of 2010 (STAT Act of 2010), introduced by Rep. Dave Loebsack (IA-D) in September—attracted 10 cosponsors in the 111th Congress, thanks to the work of ASA members.

The bill will be reintroduced early in the 112th Congress as the STAT Act of 2011, and the ASA will again urge cosponsorship. To help your U.S. representative understand the importance of K–12 education and the work statisticians do, sign up for the ASA Statistical Literacy Grassroots Campaign at *http://mail.amstat.org/outreach/statliteracy*.

You will be provided with assistance for setting up and preparing for a meeting with your representative in his/her home district. The following chapters have been active in this campaign: Boston, Colorado/Wyoming, Hawaii, New Jersey, Philadelphia, and San Francisco Bay Area.

Cosponsors of the STAT Act of 2010 were Madeleine Bordallo (D-GU), Michael Capuano (D-MA), Elijah Cummings (D-MD), Barney Frank (D-MA), Raul Grijalva (D-AZ), Edward Markey (D-MA), James McGovern (D-MA), Jared Polis (D-CO), David Price (D-NC), and Mike Quigley (D-IL).

Science Policy Actions

ASA president sends letter to Treasury Secretary Timothy Geithner regarding Office of Financial Research.

ASA signs letters urging House passage of S. 3167, "Census Oversight Efficiency and Management Reform Act of 2010."

ASA signs letter in support of \$750 million increase for NIH in FY 2011 budget.

as the Government Accountability Office report 2010 Census observes, the average tenure of the past 11 census directors is about three years. The fixed term would help avoid leadership gaps during critical decennial census planning stages and facilitate the longer-term planning so vital to decennial censuses.

After precursor bills making the U.S. Census Bureau independent failed to gain sufficient support, H.R. 4945/S. 3167 was introduced in March of 2010 with the bicameral and bipartisan sponsorship of Sen. Thomas Carper (D-DE), Sen. Tom Coburn (R-OK), Rep. Carolyn Maloney (D-NY), and Rep. Charles Dent (R-PA). The key Senate census oversight committee promptly approved the bill in April but, despite outside requests, the House census oversight body—the Information Policy, Census, and National Archives Subcommittee of the Oversight and Government Reform Committee—failed to act on the bill.

With the 111th Congress focused on high-profile bills in the lame duck Congress, the Senate quietly and unanimously passed S. 3167 on December 8, 2010, with two changes. One eliminated a provision allowing the census director to submit a budget request to Congress before it has been vetted by the administration and the other added a provision establishing a technology advisory committee to "make recommendations to the director and publish reports on the use of commercially available technologies and services to improve efficiencies and manage costs in the implementation of the census and census-related activities."

With time quickly running out in the 111th Congress, House Majority Leader Steny Hoyer agreed to bring up S. 3167 under suspension of rules, thereby disallowing amendments but requiring a two-thirds majority. (The House considered the Senate-passed version of the bill because there would not have been time to reconcile differing versions of the bill had the House passed its own version.)

ASA members actively supported this effort by organizing a letter signed by 31 organizations urging House passage. The ASA also issued a press release with quotes from ASA past-presidents Sally Morton and Vincent Barabba, the latter a former census director. Additionally, the ASA issued its first membership-wide alert with an email from Morton asking all members in the United States to call their U.S. representatives and push for support of S. 3167.

With 201 votes in favor and 167 votes against, the bill failed to pass on a largely party-line vote— Democrats in favor, Republicans opposed. Rep. Patrick McHenry (R-NC), leading Republican opposition to the bill, contended the bill needed more consideration—citing a lack of hearings on the bill—and noted Secretary of Commerce Gary Locke's opposition.

The ASA will monitor any Census Bureau reform efforts in the new Congress and strive to work with the architects of any new bills.

Contest Helps High-School Students Find Solutions to Real-World Issues



oody's Mega Math Challenge contenders have broken down the numbers behind the U.S. Census, figured out the effect of the stimulus package, and assessed the unintended consequences of increased ethanol use. Now, there's a new problem coming their way in March.

The contest sets out to remind highschoolers that math is more than problems in a textbook. In 14 hours, teams are required to solve an openended, applied math-modeling problem focused on a real-world issue. The challenge is Internet-based, and students are allowed to use free, publicly available, inanimate sources of information.

Solutions are judged based on the approach and methods used and the creativity displayed in problemsolving and math modeling. There is no unique, correct answer, and partial solutions are accepted.

The next challenge weekend is set for March 5–6; the registration deadline is February 25. There are no entrance or participation fees, and each high school may enter up to two teams of three to five students each.

The problem is unknown to teams until they log in on their selected challenge day at 7 a.m., after which they will have until 9 p.m. to research the question, analyze their findings, develop a model, and submit their solution.

Scholarship prizes totaling \$100,000 will be awarded to winning students to use toward the pursuit of higher education.

The contest is unlike the tests students routinely encounter. As Jacob Hurwitz of Montgomery Blair High School in Maryland—whose team won the top prize in the 2010 challenge—puts it, "I've never done a math competition that was open-ended and applied math to something real like the census. Most of the time, it's math that nobody cares about; it's just some abstract concept."

The goal of the competition is to introduce students to applied math as a powerful problemsolving tool and viable and exciting profession. "Moody's Mega Math Challenge is an excellent venue for students to apply critical thinking skills to reallife problems that have immediate relevancy," says Raymond Eng, a teacher-coach at High Technology High School in New Jersey whose teams have found success in every contest.

Past challenge winners have appeared on national cable news shows, been interviewed by radio talk show hosts, had their papers published in peerreviewed research publications, and been invited by the experts, themselves, to present their findings.

The challenge is funded by The Moody's Foundation and organized by the Society for Industrial and Applied Mathematics. Complete information can be found at *http://m3challenge.siam.org*. ■

ACCESS TEACHING RESOURCES

Visit the ASA's education page online and access resources such as workshops, publications, and student competitions.

www.amstat.org/education

Submitted by Ann Harrison

In October 2010, Colombian statistician Daniel Guzmán took the witness stand to present expert testimony in the case of Edgar Fernando García, a 26-year-old Guatemalan union leader who vanished in 1984. Guzmán, who is a member of the Benetech Human Rights Data Analysis Group (HRDAG), was asked by the Guatemalan attorney general to submit his analysis of records in the Guatemalan National Police Archive, which documented García's detention by police. García was one of tens of thousands of Guatemalans who disappeared during the country's 36 years of armed internal conflict.

Guzmán's testimony, given against two former police officers on trial for their alleged role in García's disappearance, was based on quantitative results from HRDAG's fouryear analysis of the Guatemalan National Police Archive. Guzmán designed a coding strategy to catalog the contents of the archive. ASA advisers Paul Zador and Gary Shapiro helped Guzmán design a sampling protocol. Because the archive was too large and disorganized to be sampled directly, HRDAG analysts used a topographical sampling frame and multistaged random sample.

After three years of coding key variables from random samples of archive documents, Guzmán and his colleagues were able to calculate the percentage of documents known by different police units. Their findings helped support arguments by prosecutors that relatively highlevel National Police officers were aware of the planning, design, and supervision of the type of operations that resulted in García's disappearance.

Guzmán also calculated estimates comparing the 667 documents pertaining to the García case with the representative sample of all the documents in the archive. This comparison showed that the units responsible for direction and coordination of National Police policy were acquainted with proportionately more than twice the number of documents related to the García case than with the total of all documents in the archive. By calculating the percentage of documents known by different police command structures, these findings helped analysts reach conclusions about relationships among Guatemalan security forces and communications between the army and police.

Ten days after the start of the García trial, a tribunal of the Guatemalan Supreme Court found the two police officers guilty of forced disappearance and sentenced them each to a maximum term of 40 years in prison.

Guzmán's testimony supported prosecutors' arguments about how the officers' actions against García took place within the context of National Police policies. This testimony also helped the Guatemalan judiciary and the public understand how statistical methods provide an objective approach to understanding massive collections of human rights data.

Michael Latta, the William J. Baxley Jr. applied business professor at Coastal Carolina University (CCU), was recently named associate dean of CCU's E. Craig Wall Sr. College of Business Administration.

The position entails various administrative duties within the Wall College of Business in support of the dean, students, faculty, and staff.



Latta

"As the workload of the Wall College increases in volume and complexity, we are fortunate to have someone with Latta's experience and abilities to fill this key position," said J. Ralph Byington, dean of the Wall College of Business.

Latta earned a PhD in psychology from Iowa State University. He joined CCU

Read about your colleagues and friends in the news. Go to *www.amstat.org* and click on "Statisticians in the News." in 2005 after many years in industry, including positions at companies such as AstraZeneca, Boehringer Mannheim, DuPont, and Wyeth. In addition, he owned and operated YTMBA Research, a firm specializing in predictive analytics. He has been a marketing and management consultant to Fortune 500 and small family businesses. Recently, he has taught capstone courses in marketing strategy and strategic management.



Rao The Royal Statistical Society (RSS) recently awarded **Calyampudi Radhakrishna Rao**, worldrenowned statistician, the Guy Medal in Gold. The highest award given to a statistician in the United Kingdom, the Guy medal is given every three years to "those who are judged to have merited a significant mark of distinction by reason of their innovative contribution to theory or application of statistics."

The medal will be presented to Rao at an awards ceremony following the society's annual general meeting on June 29.

To read more about the Guy medal, visit *www.rss.org.uk/main. asp?page=2468*. To read more about Rao, visit *www.worldlingo. com/ma/enwiki/en/Calyampudi_ Radhakrishna_Rao.* ■

Obituaries

Alva L. Finkner

Submitted by Peter Bloomfield

Alva L. Finkner, 93, passed away December 3, 2010. He was born in Akron, Colorado, on May 8, 1917. He earned his BS in agronomy from Colorado State College (1938), MS in agronomy from Kansas State College (1940), and PhD in experimental statistics from North Carolina State College (1950). He began his career with the Statistical Reporting Service of the U.S. Department of Agriculture and served as head of the Raleigh Research Office. He was appointed as an associate professor of experimental statistics at NC State from 1950 to 1955, professor from 1955 to 1960, and adjunct professor from 1960 to 1983. He joined Research Triangle Institute in 1960 and was senior vice president before retiring in 1983. He served as deputy director for statistical methodology and standards with the U.S. Census Bureau and was a member of the committee that planned administration of the 1980 Census of Population. His legacy at RTI includes leading its first international programs and "quality of life" studies. He also co-authored Handbook of Area Sampling and was closely involved with the National Assessment of Educational Progress.

Finkner was drafted into the U.S. Army in 1942, where he was awarded several medals, and honorably discharged in 1946. He was a member of the Operations Analysis Standby Unit of the U.S. Air Force from 1950 to 1970 and a member of the National Defense Executive Reserve from 1967 to 1970. ■

Zakkula Govindarajulu

Submitted by Usha Govindarajulu with contributions from Subir Ghosh

Zakkula Govindarajulu, "Raju," 77, of Lexington, Kentucky, passed away December 5, 2010.

Govindarajulu had a distinguished career in statistics and was known for his work in sequential analysis, nonparametrics, and biostatistics. He earned his PhD in statistics from the University of Minnesota in 1956 under Richard Savage. During his time in Minnesota, he met his wife, Gayatri. He joined the University of Kentucky, Lexington, faculty in 1968.

Govindarajulu was awarded the Jacob Wolfowitz Prize for theoretical advances in the mathematical and management sciences. He also was a Fellow of the Royal Statistical Society, the American Society for the Advancement of Science, the International Statistical Institute, the Institute of Mathematical Statistics, and the American Statistical Association. In addition, he published six books and more than 174 research articles, supervised approximately 25 doctoral students, and served on various editorial boards.

Govindarajulu, a faithful follower of Sai Baba's teachings, founded a Sai Baba center in Lexington. ■

Deadlines and Contact Information for ASA National Awards, Special Lectureship, COPSS Awards

March 9, 2011 ASA Statistics in Chemistry Award

March 15, 2011 ASA W. J. Dixon Award for Excellence in Statistical Consulting

March 15, 2011 ASA Founders Award

March 15, 2011 ASA W. J. Youden Award in Interlaboratory Testing

March 15, 2011 ASA Waller Education Award

April 1, 2011 ASA Gertrude M. Cox Scholarship

April 1, 2011 ASA Outstanding Statistical Application Award

April 1, 2011 ASA Edward C. Bryant Scholarship

April 1, 2011 ASA Excellence in Statistical Reporting Award

April 1, 2011 ASA Samuel S. Wilks Memorial Medal Kenneth M. Goldberg kgoldber@its.jnj.com

Nominations: Pam Craven pamela@amstat.org

Questions: George A. Milliken Milliken@ksu.edu

Nominations: Pam Craven pamela@amstat.org

Questions: Sastry G. Pantula pantula@stat.ncsu.edu

Nominations: Pam Craven pamela@amstat.org

Questions: Chih-Ming Wang jwang@boulder.nist.gov

Nominations: Pam Craven pamela@amstat.org

Questions: June Morita june@stat.washington.edu

Pam Craven pamela@amstat.org

Nominations: Pam Craven pamela@amstat.org

Questions: Petrutza C. Caragea pcaragea@iastate.edu

Nominations: Pam Craven pamela@amstat.org

Questions: Kimberly S. Weems weems@stat.ncsu.edu

Nominations: Pam Craven pamela@amstat.org

Questions: Denise A. Lievesley denise.lievesley@kcl.ac.uk

Nominations: Pam Craven pamela@amstat.org

Questions: Daniel Zelterman daniel.zelterman@yale.edu

Gertrude M. Cox Award

Members of the Gertrude M. Cox Award Committee are seeking nominations for the 2011 Gertrude M. Cox Award.

The annual award was established in 2003 through a joint agreement between the Washington Statistical Society (WSS) and RTI International. It recognizes a statistician in early to mid-career (fewer than 15 years after his/her terminal degree) who has made significant contributions to survey methodology, experimental design, biostatistics, or statistical computing.

The award is presented at the WSS annual dinner, usually held in June, where the recipient will deliver the keynote address on a topic of general interest to the WSS membership. The award consists of a \$1,000 honorarium, the cost of travel expenses to attend the WSS annual dinner, and a commemorative plaque.

Nominations should be emailed to Karol Krotki at *kkrotki@rti.org* by February 28. A bio or CV is sufficient; there is no formal application form.

The award is in memory of Gertrude M. Cox (1900-1978). In 1945, Cox became director of the Institute of Statistics of the Consolidated University of North Carolina. In the 1950s, as head of the department of experimental statistics at North Carolina State College, she played a key role in establishing mathematical statistics and biostatistics departments at The University of North Carolina. Upon her retirement from North Carolina State University in 1960, Cox became the first head of the statistical research division at the newly founded RTI. She was a founding member of the International Biometric Society (IBS) and, in 1949, became the first woman elected into the International Statistical Institute. She served as

president of both the American Statistical Association (1956) and IBS (1968-1969). In 1975, she was elected to the National Academy of Sciences.

This year's award committee consists of Jonaki Bose, Michael Brick, and John Eltinge from WSS and Marcus Berzofsky, Phil Kott, and Krotki (chair) from RTI.

Past recipients include Sharon Lohr, Alan Zaslavsky, Tom Belin, Vance Berger, Francesca Domenici, Thomas Lumley, Jean Opsomer, and Michael Elliott.

Roger Herriot Award

Nominations are being sought for the 2011 Roger Herriot Award for Innovation in Federal Statistics. The award is intended to reflect the special characteristics that marked Roger Herriot's career: dedication to the issues of measurement, improvements in the efficiency of data collection programs, and improvements and use of statistical data for policy analysis.

The award is not limited to senior members of an organization, nor is it to be considered a culmination of a long period of service. Individuals at all levels within federal statistical agencies, other government organizations, nonprofit organizations, the private sector, and the academic community may be nominated on the basis of their contributions.

The recipient will be chosen by a committee comprising representatives of the Washington Statistical Society and the Social Statistics and Government Statistics sections of the American Statistical Association. Herriot was associated with, and strongly supportive of, these organizations during his career. The award consists of a \$1,000 honorarium and a framed citation, which will be presented at a ceremony



Herriot

during the Joint Statistical Meetings in August. The Washington Statistical Society also will host a seminar given by the winner on a subject of his or her choosing.

Nomination packages should contain the following:

• A cover letter from the nominator that includes references to specific examples of the nominee's contributions to innovation in methodology, procedure, organization, administration, or other areas of federal statistics (contributions need not have been made by or while a federal employee)

- Up to six additional letters of support that demonstrate the innovativeness of each contribution
- A current CV for the nominee, including contact information

Both individual and group nominations may be submitted. Committee members may consider nominations made for prior years, but they encourage resubmission of those nominations with updated information.

Previous award recipients include Joseph Waksberg, Monroe Sirken, Constance Citro,



Toll Free 1-800-262-1171



9th International Conference on Health Policy Statistics Cleveland, Ohio October 5–7

Focusing on advancing methods to improve health care through various studies and the quantitative analysis of data, ICHPS offers:

- Invited and contributed sessions
- Workshops intended to provide research training and career development in the methods, resources, and applications at the forefront of contemporary health policy research

See *www.amstat.org/meetings/ichps/2011* for details.

Organized by the Health Policy Statistics Section of the ASA

Roderick Harrison, Clyde Tucker, Thomas Jabine, Donald Dillman, Jeanne Griffith, Daniel Weinberg, and David Banks.

For more information, contact Robert Fay, chair of the 2011 Roger Herriot Award Committee, at (240) 314-2318 or *BobFay@ Westat.com*. Completed packages must be received by April 1. Electronic submissions in Microsoft Word or PDF format are strongly encouraged. Contact Fay to make arrangements to fax or mail a nomination.

Young Researcher Award

The International Indian Statistical Association (IISA) is seeking nominations for two Young Researcher Award winners. The awards will honor an outstanding researcher in theory and one in applications. The recipients will have a birth date of January 1, 1966, or later and have made significant contributions to high-quality research (theory and methodology or applications) and education. Candidates must be an IISA member to be eligible.

Nominations should contain the following:

- A cover letter explaining the significance of the candidate's research contributions and specifying the area to be considered (theory and methods or applications)
- An updated CV
- Three letters of support

Nomination packages should be sent to M.B. Rao at *raomb@ UCMAILUC.EDU* by February 28 (preferably as a PDF file). Awards will be presented at the IISA conference in Raleigh, North Carolina, to take place April 21–24. Plaques and prizes of \$250 will be given. ■

sectionnews

Biometrics

The Biometrics Section begins 2011 with a thank you to last year's section chairs and congratulations to this year's executive committee. The section also needs volunteers to chair sessions at this year's JSM in Miami Beach, Florida. If interested, contact the section's 2011 program chair, Tianxi Cai, at *tcai@ hsph.harvard.edu*.

Applications are being accepted for the 2011 David P. Byar Young Investigator Award. For more information, visit *www.bio.ri.ccf.org/Biometrics/ UpdateFeb2011.html.*

For detailed information about the section's activities, visit the section news department online at *http://magazine.amstat.org/?cat=17*.

Biopharmaceutical

The Biopharmaceutical Section will cosponsor the 2011 Midwest Biopharmaceutical Statistics Workshop (MBSW) at Ball State University in Muncie, Indiana, May 23–25. This year's theme is "Beyond Statistics: Delivery Is Key."

The workshop will begin with a half-day short course on adaptive clinical trial design and continue with afternoon plenary sessions. There will be four parallel tracks—clinical, discovery/pre-clinical, nonclinical, and post-approval—with sessions on Tuesday and Wednesday. Each session will be at least two hours in length with three to five speakers. Poster abstracts must be submitted by April 18.

The program and registration and hotel information are available at *www.mbswonline.com*. For more information, visit *http://magazine.amstat. org/?cat=17*.

Government Statistics

The National Household Travel Survey (NHTS)—a new data set released by the Department of Transportation—is of interest to Government Statistics Section members and statisticians. The NHTS has been conducted since 1969, and the most recent iteration—the 2009 NHTS—caps the data series that now includes 40 years of trends in travel behavior. The NHTS includes information about all modes of travel and for all purposes. In addition to providing travel statistics, there is information about households, persons, vehicles, and travel day activities.

For details about the survey, visit the NHTS Topic Briefs at *http://nhts.ornl.gov* or read the section news online at *http://magazine.amstat.org/?cat=17*.

Quality and Productivity

The 28th ASA Quality and Productivity Research Conference (QPRC) will be held at the Hotel Roanoke and Conference Center in Roanoke, Virginia, June 8–10. The goal of the conference is to improve the quality of products and services and the productivity of industries by identifying new application areas in which statistics can have a significant impact and by stimulating the research and development of better statistical methods. Statistical issues and research approaches drawn from collaborative research will be highlighted.

To contribute papers on these topics for presentation at the conference, submit title, authors, and a short abstract to *cp@qprc2011.org*. The deadline for abstract submission is March 28.

For details, visit *www.amstat-online.org/* sections/qp/qprc/2011 or Amstat News online at http:// magazine.amstat.org/?cat=17.

Statistics in Defense and National Security

The Section on Defense and National Security (SDNS) invites nominations for the Distinguished Achievement Award. This award is given to a member of the statistical community in recognition of an outstanding accomplishment or a record of sustained contributions at the intersection of the statistical profession and national defense or national security.

The award will be presented at the 2011 Joint Statistical Meetings in Miami Beach, Florida. Any member of the section is allowed to nominate. Electronic nominations are preferred and should be emailed to Patricia Jacobs at *pajacobs@nps.edu*. The deadline for nomination is March 15.

For details about how to nominate a colleague, visit *http://magazine.amstat.org/?cat=17.* ■

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

calendar of events

To view

the entire list

meetings and

www.amstat.

org/dateline.

workshops, visit

of statistics

The following events are the latest additions to the ASA's online calendar of events. Announcements are accepted from education and not-forprofit organizations only. To view the complete list of statistics meetings and workshops, visit *www. amstat.org/dateline.*

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

2011

March

17–18—Finitely Presented Solvable Groups, New York, New York

For details, visit *rio.sci.ccny.cuny.edu/ caissny.org/fpsg2011.php* or contact Mario Torres, 160 Convent Ave., New York, NY 10031; (212) 650-5167; *mtorres2@ccny.cuny.edu*.

April

*13—UPenn Annual Conference on Statistical Issues in Clinical Trials, Philadelphia, Pennsylvania

For more information, contact Donna Zikowitz, 421 Curie Blvd., Philadelphia, PA 19104; (215) 573-2728; *zikowitz@upenn.edu*.

May

2—Info-Metrics Across the Sciences, Washington, DC

For more information, visit www. american.edu/cas/economics/ info-metrics/workshop/index.cfm or contact Amos Golan, 4400 Massachusetts Ave. NW, Economics, Kreeger 104, Washington, DC 20016; (202) 885-3770; info-metrics@ american.edu.

June

6–7—Risk and Extreme Values in Insurance and Finance, Lisbon, Portugal

For details, visit *www.rev2011.ceaul. fc.ul.pt* or contact Isabel Fraga Alves, Bloco C6, Piso 4, Cidade Universitária, Campo Grande, Lisboa, International 1749-016, Portugal; *isabel.alves@fc.ul.pt*.

6–9—3rd Nordic-Baltic Biometric Conference, Turku, Finland

For more information, visit *www. nbbc11.utu.fi* or contact Jaakko Nevalainen, Assistentinkatu 7, Turku, International 20014, Finland; *jaakko. nevalainen@utu.fi.*

13–17—Statistical Challenges in Modern Astronomy V, University Park, Pennsylavania

For details, visit *astrostatistics.psu. edu/scma5* or contact Eric Feigelson, Dept. of Astronomy & Astrophysics, 525 Davey Laboratory, University Park, PA 16802; (814) 865-0162; *edf@ astro.psu.edu.*

19–24—The 35th Conference on Stochastic Processes and Their Applications (SPA 2011), Oaxaca, Mexico

For more information, visit abalontico.matem.unam.mx/ SPA/index.php or contact Hans Lucas, P.O. Box 24070, Den Haag, International 2490 AB, The Netherlands; spa2011@matem. unam.mx.

August

4–6—17th ISSAT International Conference on Reliability and Quality in Design, Vancouver, British Columbia

For details, visit *issatconferences.org* or contact Conference Secretary, P.O. Box 1504, Piscataway, NJ 08855; *rqd@issatconferences.org*.

17–19—IAOS Satellite Conference to the ISI World Statistics Congress, Belfast, United Kingdom

For more information, visit isi.cbs.nl/ images/2011/AOSBelfastSatelliteCo nf-Flyer.pdf or contact H. Lucas, P.O. Box 24070, Den Haag, International 2490 AB, The Netherlands; IAOS2011@dfpni.gov.uk.

October

3—Philosophy of Information, Washington, DC

For details, visit *www.american. edu/cas/economics/info-metrics/ workshop/workshop-2011-fall. cfm* or contact Amos Golan, 4400 Massachusetts Ave. NW, Economics, Kreeger 104, Washington, DC 20016; (202) 885-3770; *info-metrics@ american.edu.*

November

12—Information Theory and Shrinkage Estimation, Washington, DC

For details, visit *www.american. edu/cas/economics/info-metrics/ workshop/workshop-2011-november. cfm* or contact Amos Golan, 4400 Massachusetts Ave. NW, Economics, Kreeger 104, Washington, DC 20016; (202) 885-3770; *info-metrics@ american.edu.*

2012

March

30–31—Information and Econometrics of Networks, Washington, DC

For more information, visit www. american.edu/cas/economics/ info-metrics/workshop/ workshop-2012-spring.cfm or contact Amos Golan, 4400 Massachusetts Ave. NW, Economics, Kreeger 104, Washington, DC 20016; (202) 885-3770; info-metrics@american.edu.

July

3–6—International Statistical Ecology Conference (ISEC) 2012, Oslo, Norway

For details, visit *www.cees.uio.no/ news/2010/isec2012.html* or contact Carl Schwarz, Statistics and Actuarial Science, Burnaby, BC, V5A1S6, Canada; (778) 782-3376; *cschwarz@ stat.sfu.ca*.

*28-8/2—2012 Joint Statistical Meetings, San Diego, California For more information, contact ASA Meetings, 732 North Washington St., Alexandria, VA 22314; (888) 231-3473; meetings@amstat.org.

California

Department of statistics, University of California, Irvine invites applications for the position of assistant professor in residence/director of the Center for Statistical Consulting. The director oversees center operations, consults with clients, and works with statistics faculty to define the center's priorities. Qualifications: Applicants must hold or be near completion of a PhD degree in statistics, biostatistics, or a related field. For further information, see *www.ics.uci.edu/employment/ employ_faculty.php*. The University of California, Irvine is an equal opportunity employer committed to excellence through diversity, has a National Science

Professional Opportunity listings may not exceed 65 words, plus equal opportunity information. The deadline for their receipt is the 20th of the month two months prior to when the ad is to be published (e.g., May 20 for the July issue). Ads will be published in the next available issue following receipt.

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

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

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

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

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

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



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For more information contact Bill Kahn, VP of Analytics, at wkahn@travelers.com or go to our website: travelers.com/Careers. Travelers is an equal opportunity employer. We actively promote a drug-free workplace. © 2010 The Travelers Indemnity Company. All rights reserved. Foundation Advance Gender Equity Program, and is responsive to the needs of dual-career couples.

Indiana

Two faculty positions (level commensurate with experience/qualifications), division of biostatistics/IU School of Medicine. Duties include statistical research, collaborative research, and teaching. PhD in biostatistics, statistics, or related field required; practical experience preferred. Observational studies, imaging, or psychometrics expertise desirable. Excellent communication skills required. Competitive salary/excellent benefits. Send CV, research/teaching statements, 3 refs: Search Committee, Biostatistics, HS3000, 410 W. Tenth Street, Indianapolis, IN 46202-3012. Indiana University is an EEO/AA employer, M/F/D.

Senior faculty position (level commensurate with experience/qualifications), division of biostatistics/IU School of Medicine. Duties include statistical research, collaborative research, and teaching. PhD in biostatistics, statistics, or related field required. Excellent research record, experience directing student research, and excellent communication skills required. Competitive salary/excellent benefits. Send CV, research and teaching statements, 3 refs: Search Committee, Biostatistics, HS3000, 410 W. Tenth Street, Indianapolis, IN 46202-3012. Indiana University is an EEO/AA employer, M/F/D.

Louisiana

■ Tulane University Department of Mathematics. Professor of practice in statistics. Non-tenure track, three years initially, renewable, beginning fall 2011 pending administrative approval. Require PhD in statistics/mathematics, strong commitment to undergraduate statistics education. Send CV and three recommendations addressing teaching to Statistics Search Committee, Mathematics Department, Tulane University, New Orleans, LA 70118. Or apply via *MathJobs.org*. Tulane University is an Affirmative Action/Equal Opportunity/ADA Employer that is



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SENIOR LECTURER/ASSOCIATE PROFESSOR IN STATISTICS

School of Mathematics, Statistics and Operations Research Wellington, New Zealand

Applications are invited for the position of Senior Lecturer/Associate Professor in Statistics within the Statistics and Operations Research Group of the School of Mathematics, Statistics and Operations Research. The School wishes to make an appointment in "Statistics" with a preference for someone with a teaching and research record in any of the areas of mathematical, computational, applied or spatial statistics, demography, biostatistics or actuarial science.

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The School of Mathematics, Statistics and Operations Research offers programmes in the disciplines of Mathematics, Statistics and Operations Research. Research strengths in statistics and operations research are in time series analysis, multivariate statistics, statistical bioinformatics, categorical data analysis, asymptotic theory of empirical and point processes, stochastic modeling, Bayesian statistical methods, biometrics and statistics education. The Statistics and Operations Research Group is an active and stimulating research environment. It has longstanding links with the wider statistical community in Wellington.

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Faculty Position in Biostatistics Group Health Research Institute, Seattle, WA

The Group Health Research Institute (GHRI) is seeking candidates for a faculty position in Biostatistics at the Assistant, Associate, or Senior level. The biostatistician will have the opportunity to collaborate with behavioral science, epidemiological and health services researchers in a variety of areas including behavioral medicine, behavioral health, cancer, women's health, preventive care, complementary and alternative medicine, and other research areas relevant to improving health and health care. Successful candidates are expected to collaborate with GHRI investigators, as well as pursue independent research.

GHRI (www.grouphealthresearch.org/) is an internationally recognized academic research organization that primarily conducts federally funded clinical, epidemiologic, and health services research. The faculty includes 33 doctorate-level investigators (including 7 doctorate-level biostatisticians), 10 masters-level biostatisticians, and 12 masters/doctorate-level research associates. GHRI and surrounding research centers are part of a vibrant statistical community. Current areas of statistical research conducted at GHRI include biased sampling schemes, longitudinal and clustered data analysis, evaluation of diagnostic and screening tests, microsimulation modeling, spatial statistics, multistate disease modeling, latent class analysis, and methods for drug/vaccine safety and effectiveness studies. GHRI is affiliated with Group Health Cooperative (www.ghc.org), a non-profit, consumer-governed, integrated health care organization and an affirmative action/equal opportunity employer.

Applicants should have a PhD in Biostatistics, Statistics, or equivalent field, excellent oral and written communication skills, and a strong interest in active collaboration on public domain interdisciplinary research. Experience with mixed models, missing data, causal inference, and survival analysis are desired. Appointees will be encouraged to explore affiliation with the Department of Biostatistics at the University of Washington once established at GHRI.

Review of applications will continue until the position is filled. Submit letter of interest, CV, and three letters of recommendation at http://www.ghc.org/careers/publicEmployment.ihtml (job# 102181).



NORC at the UNIVERSITY OF CHICAGO

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

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

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

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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

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Michigan

Assistant Professor of Statistics. Department of statistics at Western Michigan University in Kalamazoo, Michigan, has a tenure-track rank assistant professor position beginning August 2011. The department has particular interest in candidates with research interests in statistics or biostatistics. Interested candidates should apply online at *www. wmich.edu/hr/careers-at-wmu.html.* Inquiries may be made to *stat-search@ wmich.edu.* EOE.

Postdoctoral Fellowship in Statistical Reinforcement Learning at the University of Michigan. This position will involve research on methods for constructing and evaluating sequential, clinical, decisionmaking polices (dynamic treatment regimes) using experimental trial data. To apply for this position, please send your CV and a statement of your interests to Susan Murphy, *stat-posting@umich.edu*, Department of Statistics, University of Michigan, Ann Arbor, MI 48109-1107. Women and minorities are encouraged to apply. The University of Michigan is supportive of the needs of dual-career couples and is an equal opportunity/affirmative action employer.

University of Michigan Biostatistics Department and Cancer Center has a research track faculty position beginning fall 2011. Candidates will be expected to undertake methodology research and collaborate in cancer research. Information available: *www.sph.umich.edu/biostat*. Contact cair of Cancer Biostatistics Search Committee, Dept. of Biostatistics, 1415 Washington Heights, Ann Arbor, MI 48109-2029. Email *aprileh@umich. edu*. EOE/AA.

Ohio

EOE

The Ohio State University Statistics Department: Assistant Director, SSES Program (*www.stat.osu.edu/~sses*). This is a

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Statistical Methods for Very Large Datasets Conference

Johns Hopkins University Baltimore, Maryland June 1-3, 2011



The Department of Biostatistics at the Johns Hopkins Bloomberg School of Public Health organizes a 3-day conference on the Statistical and Computational Analysis of Very Large Data Sets. The conference is scheduled from June 1-3, 2011 and will be hosted in beautiful, downtown Baltimore, Maryland, USA at the InterContinental Harbor Court Hotel. The conference has a one-track session for invited presentations featuring a distinguished panel of experts. It also has a high profile session for contributed poster presentations for which abstracts are currently being solicited. A panel discussion will attempt to define what large data sets are, anticipate new challenges, and identify possible solutions. Women, minorities and persons with disabilities are especially encouraged to apply and participate in the Conference. In particular travel awards will be designated for women, racial/ethnic minorities and persons with disabilities, and other individuals who have been traditionally underrepresented in science to promote representation from these groups in accordance with their representation in Biostatistics. Poster submission: send a title and a one page poster abstract to Jeff Leek (jleek@jhsph.edu). Other inquiries: contact Ciprian Crainiceanu (ccrainic@ihsph.edu) or Risha Zuckerman (rzuckerm@jhsph.edu). Early bird registration fees (before 02/01/2011): \$170 for general registration and \$50 for students. For more information visit the conference website: http://www.regonline. com/builder/site/Default.aspx?eventid=757633



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Full or Associate Professor in Biostatistics

Candidates should be proven scholars with strong publication records and substantive research experience as well as seasoned educators who have taught a variety of statistics courses and mentored graduate students. Individuals with a range of applied and methodological areas of interest and expertise will be considered. The successful candidate will be expected to provide direction and leadership to biostatistics research and training in the Department. The position is a tenured or tenuretrack faculty line.

Assistant Professor in Biostatistics (two position openings*)

Candidates should have a doctoral degree in biostatistics or statistics, a publication record in their field, and some teaching experience. The positions involve scholarship through applied and/or methodological research. Collaboration with Department and School faculty as well as researchers throughout the University will be encouraged. Candidates with a variety of applied and methodological areas of interest will be considered. The positions are tenure-track and also involve teaching and academic advising in support of the School's graduate degree programs.

Apply online at <u>www.drexeljobs.com</u>. Use "biostatistics" as a key word in the Search Postings area and select the appropriate position. Please complete the short on-line application and also submit your C.V. and a cover letter describing your interests, background, and qualifications online.

<u>Questions/inquiries can be addressed to:</u> Craig J. Newschaffer, Ph.D. Chair, Department of Epidemiology & Biostatistics <u>cnewscha@drexel.edu</u>

* One position is pending final approval. Drexel University is an equal opportunity/affirmative action employer.

publichealth.drexel.edu

non-tenure track, academic-year appointment as assistant director of the Program in Spatial Statistics and Environmental Statistics (SSES) in the department of statistics. Requires a PhD in statistics and a demonstrated interest in research administration, statistical research, and teaching. Applicants must apply at www. jobsatosu.com; search postings and enter job requisition #354290. To build a diverse work force, Ohio State encourages applications from minorities, veterans, women, and individuals with disabilities. Flexible work options available. EEO/AA Employer. Ohio State is an NSF Advance Institution.

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NORC at the UNIVERSITY OF CHICAGO

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SENIOR FELLOW

The National Opinion Research Center (NORC), one of the nation's most respected social science research organizations, seeks a new Senior Fellow to join its team of world class experts in survey research and methodology. This is an exceptional opportunity for a first rate statistician to join an organization recognized as a scientific leader, to contribute to a broad range of major projects with national impact, and to help advance the state-of-the-art in social science research.

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Reporting to the Executive Vice President, Survey Research, the Senior Fellow is a highly visible technical leadership role with impact and influence across NORC and its broad portfolio of social science work. The Senior Fellow contributes to the statistical integrity of NORC's projects, ensuring high data quality and methodological rigor. In collaboration with senior fellows, statisticians and methodologists, project directors, and other organizational leaders, the Senior Fellow provides intellectual guidance to large and complex research engagements at all stages, from proposal and survey design to data analysis and interpretation. At the same time, the Senior Fellow conducts cutting-edge research and will build her/his individual research portfolio, identifying critical areas in statistics to investigate and securing external funds to support this endeavor.

The successful candidate will therefore be an experienced professional who has directed large-scale statistical research efforts, has experience in design and execution of research projects which involve extensive primary data collection, and has demonstrated success in developing new business and/or attracting funding for new initiatives. Additionally, those candidates with proven managerial experience are encouraged to apply and will be considered for an administrative leadership role within the Division.

Isaacson, Miller, a national executive search firm, has been retained to assist NORC in this important recruitment. All inquiries, nominations/referrals, and resumes with cover letters, should be sent electronically and in confidence to: Vivian Brocard, Vice President, Ponneh A. Varho, Senior Associate, Isaacson, Miller, E-mail: 3968@imsearch.com

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To learn more about NORC, please visit www.norc.org.





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lational Association of Secondary School Principals has placed this program on the NASSP National Advisory List of Student Contests and Activities for 2010-2011

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NORCp. 41, 46
Smith Hanley p. 44
Travelers Companies p. 39
U.S. Census Bureaup. 42
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