

June 2015 • Issue #456

AMSTATNEWS

The Membership Magazine of the American Statistical Association • <http://magazine.amstat.org>



AAPOR's Polling Transparency Initiative Officially Launches

ALSO:

Meet William Sabol,
Director of the Bureau
of Justice Statistics

Negotiating a Statistical
Career Part 2: A JSM
Panel Discussion

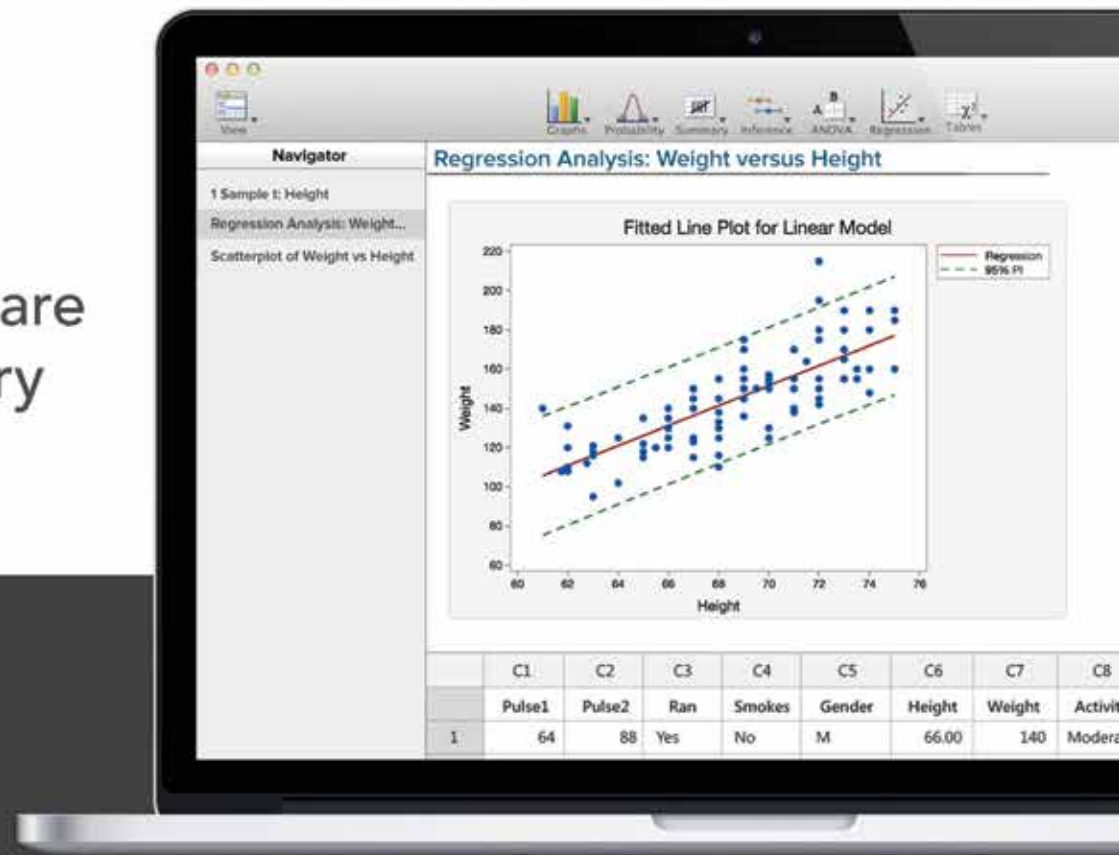
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JUNE 2015 • ISSUE #456

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

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American Statistical Association



Promoting the Practice and Profession of Statistics®

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

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



Contributing Editor

Katie Ferguson spent six years as a recruiter and human resource generalist for the City of Chicago. As a specialist in quantitative marketing science and operations research, she helped launch Burtch Works' mid- and junior-level analytics practice and has been working with analytics professionals for seven years.

Ferguson

Additional Resources

Volunteer to become a JSM docent. If you have attended three or more Joint Statistical Meetings, consider becoming a 2015 JSM docent by following these five easy steps:

1. Make plans to attend JSM 2015.
2. Be willing to answer questions and help first-timers have a positive JSM experience.
3. Attend an orientation session on Sunday, August 9, and a thank you reception on Wednesday, August 12.
4. Attend JSM events and invite first-timers to join you.
5. Send your contact information to JSMDocent@amstat.org to receive more information.

Make the most of your ASA membership

Visit the ASA Members Only site: www.amstat.org/membersonly.

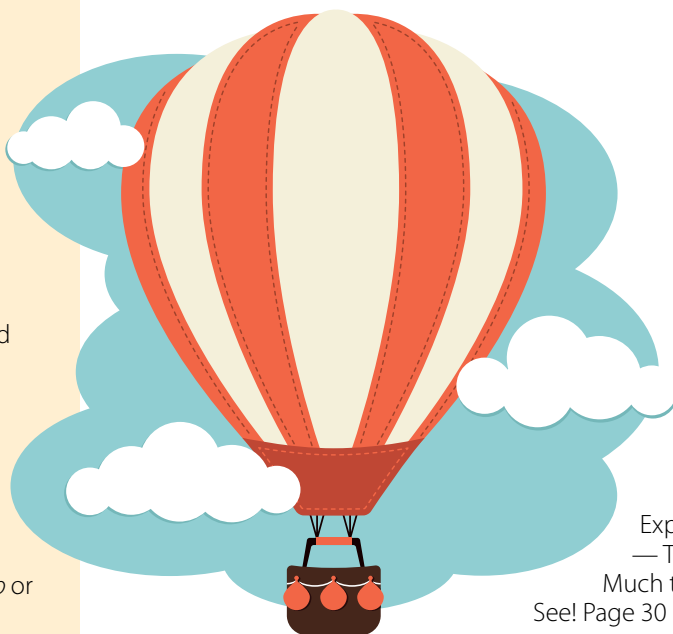
Visit the **ASA Calendar of Events**, an online database of statistical happenings across the globe. Announcements are accepted from educational and not-for-profit organizations. To view the complete list of statistics meetings and workshops, visit www.amstat.org/datetime.

The ASA JobWeb, a targeted job database and résumé-posting service, helps you take advantage of valuable career opportunities. Check out the services available at www.amstat.org/jobweb or email jobweb@amstat.org.

If you reside in a developing country and are a member of one of the ASA's reciprocal societies, **you are eligible to receive an additional \$5** off your developing country membership dues. Visit <http://bit.ly/1Jgyd5F> for more information.

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Current Events Relate to ASA Mission

Two topics this month related to elements of the ASA's mission: promote the proper application of statistics and anticipate and meet member needs.

First, new editors to a social psychology journal established a policy that the journal will not accept articles that include p -values or hypothesis tests. While we may have different viewpoints about various statistical tools, do the editors' actions address underlying issues about misuse of methods? There is an altogether different approach that ASA is taking to air those differences.

Second, several state legislatures recently passed laws that included the phrase "religious freedom" in their title. The legislation raised concerns regarding unlawful discrimination. These legislative actions led the ASA to issue a press release opposing legislation that would allow an organization to unlawfully discriminate and reaffirming its meeting conduct policy.

P-values

The widely used p -value has come under fire recently in several publications. The new editors of the *Journal of Basic and Applied Social Psychology* imposed the following policy: Authors will have to remove all vestiges of the null hypothesis significance testing procedure (p -values, t -values, F -values, statements about "significant" differences or lack thereof, and so on). Shortly thereafter, in *Science News*, this statement appeared: " P -values are at the root of all (well, most) scientific evil."

Our statistical tent is big enough to include differing

viewpoints on the proper analysis and interpretation of data to support making better decisions. An array of perspectives about the use of the p -value and the editors' decision are discussed by colleagues in the Royal Statistical Society at <http://bit.ly/1GnVIZX> and the International Society for Bayesian Analysis at <http://bit.ly/1KSOU7Y>.

Likely there is general agreement that practical significance and economic and other important consequences should accompany any decision based on sample data, regardless of a p -value. In the era of Big Data, there is wide understanding that very large samples with consequent small standard errors result in small p -values. Less widely appreciated may be the role of nonsampling errors that often dominate when large samples are taken. Banning improper usage of statistical methods from publication is sound; however, it is not sound to exclude papers that reference a widely held approach simply because an editor does not value it.

Hopefully, there is consensus that any tool can be misapplied. However, it is unwise to make the leap from "a valuable tool can be misused" to "never use it at all." Many of us, on reading these critical comments about the p -value and hypothesis testing, concluded that the action of banning a paper that employs them fits the description of "throwing the baby out with the bath water." Nor is a p -value in and of itself the root of any evil, rhetorical hyperbole aside. If we agree these statements are an overreaction, what is a measured, appropriate, and thoughtful reaction?

Before addressing that question, let me mention a few other common situations many of us encounter in which our statistical tools can be misused. Powerful statistical software has become readily available. Knowledge of how to use its vast capabilities correctly may be less common. It's easy to analyze data in inappropriate ways and, of course, reach indefensible conclusions. That does not speak to the tool; rather, it is commentary on the knowledge and experience of the user.

Differences in means in "before" and "after" measures on a set of patients could be analyzed (inappropriately) as independent samples where truly significant differences might be overlooked due to a failure to incorporate the power of correlated data. Estimating differences obtained by combining data from two surveys conducted in the same places (counties, schools, homes, etc.) while failing to reflect the likely correlations in the two sets of estimates will lead to improper inferences in the same way the first example does. Estimating means and totals from data collected via a stratified, clustered, unequal probability design, using software built on the assumption of simple random samples, produces incorrect standard errors and improper inferences. Using a normal assumption on proportions near zero or one with small enough samples can yield confidence intervals that include values below zero or greater than one. As a last example, analyzing a case-control study as if it were a cohort study leads to improper conclusions (as was pointed out



David Morganstein

regarding Brian Hooker's paper on vaccinations and autism (<http://1.usa.gov/1EoOkYv>), a paper later retracted by *Translational Neurodegeneration*, the journal that imprudently published it).

Let us not conclude from these examples of misusing statistical methods that the tools themselves are flawed and, because they can be misused, they should be excluded from publication. Instead, we would suggest that better education of practitioners is a much-preferred solution. Education is a significant component of ASA programs: short course offerings, support for teachers in public schools, and guidance for undergraduate and graduate programs.

(As an aside, these examples offer an important rationale behind this year's presidential initiative to create a modern, interesting, and sound Stat 101 course for nonstatisticians. We'll be hearing from Dick DeVaux and his committee later this year. This speaks to the next point.)

What, if anything, is the responsibility of the ASA when statements like the above appear online and in publications? On the ASA home page, we express the concern that this psychology journal's policy may have its own negative consequences while recognizing there needs to be open discussion in the larger research community. We also note, "A group of more than two-dozen distinguished statistical professionals is developing an ASA statement on p -values and inference that highlights the issues and competing viewpoints. The ASA encourages the editors of this journal and others who might share their concerns to consider what is offered in the ASA statement to appear later this year and not discard the

proper and appropriate use of statistical inference." Our executive director, Ron Wasserstein, organized this group to initiate just this discussion. We look forward to the results of their efforts, perhaps before this summer's Joint Statistical Meetings.

As statisticians, do we have a role to play here? We do have an ethical obligation to "avoid condoning or appearing to condone careless, incompetent, or unethical practices in statistical studies conducted in your working environment or elsewhere" (from ASA's Ethical Guidelines for Statistical Practice, <http://bit.ly/1EoOUoR>). The International Statistical Institute's Declaration on Professional Ethics has pursuing objectivity as its first principle: "The statistician should guard against predictable misinterpretation or misuse. If such misinterpretation or misuse occurs, steps should be taken to inform potential users." (See <http://bit.ly/1KS1yIV>.)

Yes, we do have a role: to avoid condoning careless practices and inform potential users.

Rejecting a paper whose authors use inference improperly, blindly considering .05 sacrosanct, improves the quality of published research. Excluding papers solely because they contain hypotheses tests or p -values will not.

Meeting Conduct Policy

On March 30, the Indiana legislature passed a law titled the Religious Freedom Restoration Act. While the full impact of that law remained to be defined in subsequent court decisions, one interpretation of the act suggested

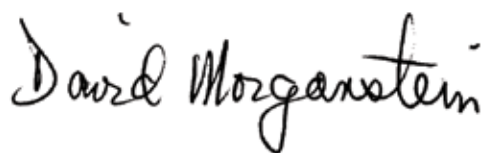
it could be used by businesses to refuse service to a potential customer based on that customer's gender identity or sexual orientation. Immediately after Indiana passed this legislation, Arkansas lawmakers passed a similar "religious freedom" bill.

To reaffirm the ASA's Meeting Conduct Policy—that all participants in ASA activities will enjoy a welcoming environment free from unlawful discrimination, harassment, and retaliation—the following statement was issued:

The American Statistical Association opposes any legislation that would have the effect of allowing an organization or entity to discriminate against or deny services to anyone based on gender, sexual orientation, gender identity or expression, disability, race, ethnicity, religion, age, national origin, veteran status, or other protected status. Consistent with our Meeting Conduct Policy, the ASA will not enter into a contract to hold a meeting in any state that passes such legislation.

Subsequent to Indiana's governor signing the legislation, the legislature revised the wording to clarify that the law could not be used for unlawful discrimination. Similar clarifications were included in the bill that finally passed in Arkansas.

In light of these legislative actions, it is appropriate that the ASA state clearly it remains committed to its Meeting Conduct Policy.



Highlights of the March 2015 ASA Board of Directors Meeting

ASA President David Morganstein welcomed board members to the ASA office in Alexandria, Virginia, for its first meeting of 2015. He noted that much of the agenda would be devoted to board discussion of future directions for the ASA and encouraged thinking and dreaming big. The highlights of the meeting follow.

Discussion Items

- Led by Donna LaLonde, ASA director of programs, the board discussed frameworks for the development of mentoring programs by the ASA and its component entities. Mentoring is a major current initiative of the ASA.
- ASA Executive Director Ron Wasserstein led a board discussion about ways to bridge the gap between student membership and regular membership. This is one aspect of a board discussion theme for 2015 regarding growing and sustaining ASA membership.
- The board spent several hours in a vigorous discussion regarding how the ASA should position itself with respect to data science. Morganstein led the discussion, which produced a number of threads for staff and board follow-up.
- The ASA will be the lead society for the 2016 Mathematics Awareness Month. The board discussed possible theme ideas. Based on those ideas and other post-meeting discussions, the theme will be “The Future of Prediction” and will focus on the myriad ways mathematics and statistics serve in prediction and forecasting matters of importance in our daily lives. (More information about Mathematics Awareness Month at <http://bit.ly/1cwgrz1>.)

Action Items

- The board approved the recommendations put forward in the *Statistical Education of Teachers (SET)* document, a report prepared by a committee of ASA members chaired by Chris Franklin. These recommendations spell out the preparation needed for students preparing for

2015 Board of Directors

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Anna Nevius, *First-Year Council of Sections Representative*

Ming-Yen Cheng, *International Representative*

David van Dyk, *Publications Representative*

Ron Wasserstein, *Executive Director and Board Secretary*

careers in teaching statistics in grades K–12. *SET* was a strategic initiative of the 175th anniversary campaign (<http://bit.ly/1ALm0yO>).

- New journal editors for 2016–2018 were appointed following recommendations from search committees and the Committee on Publications.
 - Stephen Buckland, University of St. Andrews, *Journal of Agricultural, Biological, and Environmental Statistics*

- o Montserrat Fuentes, North Carolina State University, *Journal of the American Statistical Association*, Applications and Case Studies and Coordinating Editor
- o Dianne Cook, Iowa State University, *Journal of Computational and Graphical Statistics*
- o Jun Shao, University of Wisconsin, *Journal of Nonparametric Statistics*
- o Soma Roy, Cal Poly San Luis Obispo, *Journal of Statistics Education*
- o Dan Apley, Northwestern University, *Technometrics*
- Seven proposals submitted for support through the Membership Initiative Program were funded by the board.
- The board set pricing for journal subscriptions for 2016, with a modest increase in price.
- A proposal by the Chicago Chapter to establish a joint award with the ASA, the Harry V. Roberts Statistical Advocate Award, was enthusiastically approved by the board.
- The ASA agreed to partner with the Consortium for the Advancement of Undergraduate Statistical Education (CAUSE) on the Undergraduate Statistics Project Competition.

Reports


- ASA Treasurer Mingxiu Hu reported on ASA investments, which had a year-end market value of about \$16.6 million. ASA assets are managed by an outside firm in accordance with board-approved investment policy and under the eye of the treasurer and Finance Committee.
 - Associate Executive Director and Director of Operations Steve Porzio reported on the 2014 ASA financials, noting a net operating income of \$967,000. Higher-than-expected revenue from JSM and publications led to this positive result.
 - The board accepted the audit report for 2014, congratulating the staff and especially Porzio for another clear audit.
 - ASA Director of Development Amanda Malloy briefed the board on the ASA's development program, including the membership giving campaign (formerly the "annual fund drive"), planned giving, and corporate partnerships.
 - ASA Director of Science Policy Steve Pierson brought the board up to date on a wide array of ASA advocacy and informational efforts. A specific focus of Pierson's report was on the ASA's concerns regarding efforts to inform U.S. House of Representatives members about statistical issues associated with proposals to make response to the American Community Survey voluntary.
 - ASA Vice President Jim Rosenberger reported to the board on the activities of the many committees that make up the ASA's Membership Council. For each committee, he reported on its major accomplishments in 2014, compared them to the previously reported planned activities, and then looked ahead to activities for 2015. Regular communication between the board and the various committees is essential to efficient operation of the association.
 - Equally important to the efficiency and effectiveness of the ASA are the chapters and sections, so, as it always does, the board heard detailed reports from the governing boards of both groups and their respective activities.
 - The board was updated on the progress of four strategic initiatives for 2015: (1) further developing mentoring programs and recognition of outstanding mentors within the ASA (<http://bit.ly/1DWLauS>); (2) Stats 101; (3) JSM docent program (<http://bit.ly/1cwk87W>); and (4) Stats.org collaboration (<http://bit.ly/1PvdryX>). All these initiatives are moving along as scheduled. (For an overview, see <http://bit.ly/1zKWUVx>.)
 - President-elect Jessica Utts discussed with the board potential strategic initiatives for 2016. These initiatives will be finalized over the next few months and ready for announcement by JSM. All initiatives of the ASA presidents are based on the ASA's strategic plan.
- The board meets again June 12 in Alexandria for its annual budget review. Its next regular meeting is in August, before the start of JSM in Seattle. ■

2014 Audit Report for the American Statistical Association

American Statistical Association

Financial Report
December 31, 2014

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Independent Auditor's Report

To the Board of Directors
American Statistical Association
Alexandria, Virginia

Report on the Financial Statements
We have audited the accompanying financial statements of the American Statistical Association (the Association), which comprise the balance sheet as of December 31, 2014, and the related statements of activities and cash flows for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Association's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the American Statistical Association as of December 31, 2014, and the changes in its net assets and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

McGladrey LLP

Gaithersburg, Maryland
March 23, 2015

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Member of the Worldnet International network of independent accounting, tax and consulting firms.

American Statistical Association

Balance Sheet
December 31, 2014

Assets	
Current Assets	
Cash	\$ 473,303
Receivables, net	471,698
Prepaid expenses and other assets	244,420
Total current assets	1,189,421
Investments	16,605,389
Equity in Joint Venture	33,713
Bond Issuance Costs, Net	89,047
Property and Equipment, Net	7,475,866
	24,204,015
	\$ 25,393,436
Liabilities and Net Assets	
Current Liabilities	
Accounts payable and accrued expenses	\$ 809,609
Due to joint venture	35,061
Deferred revenue	2,214,249
Capital lease – current	39,071
Bonds payable – current	307,125
Total current liabilities	3,405,115
Capital Lease – Less Current Portion	26,054
Bonds Payable – Less Current Portion	4,843,720
	8,074,889
Commitments and Contingencies (Note 10)	
Net Assets	
Unrestricted:	
Undesignated	14,522,912
Board designated	1,387,545
	15,910,457
Temporarily restricted	646,064
Permanently restricted	762,026
	17,318,547
	\$ 25,393,436

See Notes to Financial Statements.

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2014 Audit Report for the American Statistical Association (continued)

American Statistical Association					
Statement of Activities					
Year Ended December 31, 2014					
	Unrestricted				
	Undesignated	Board Designated	Temporarily Restricted	Permanently Restricted	Total
Revenue and Support					
Meetings	\$ 3,208,204	\$ -	\$ -	\$ -	\$ 3,208,204
Membership	2,117,865	-	-	-	2,117,865
Publications	1,951,188	-	-	-	1,951,188
Special projects	721,567	-	64,204	150,130	935,901
Section income	67,392	588,101	-	-	655,193
Education	424,345	6,345	-	-	430,690
Administration	365,084	-	-	-	365,084
Grants and awards	143,499	-	-	-	143,499
Net assets released from restriction	52,344	-	(52,344)	-	-
Total revenue and support	9,051,188	594,446	11,860	150,130	9,807,624
Expenses					
Program services:					
Meetings	2,262,848	-	-	-	2,262,848
Membership	788,009	-	-	-	788,009
Publications	1,287,286	-	-	-	1,287,286
Special projects	1,877,800	-	-	-	1,877,800
Section expenses	69,774	576,957	-	-	646,731
Education	423,661	1,630	-	-	425,291
Grants and awards	157,206	-	-	-	157,206
Total program services	6,866,584	578,587	-	-	7,445,171
Supporting services:					
Management and general	1,246,283	-	-	-	1,246,283
Fundraising	152,594	-	-	-	152,594
Total expenses	8,265,461	578,587	-	-	8,844,048
Change in net assets before unrealized gain on investments					
	785,727	15,859	11,860	150,130	963,576
Unrealized gain on investments	520,994	-	45,267	-	566,261
Total gains	520,994	-	45,267	-	566,261
Change in net assets	1,306,721	15,859	57,127	150,130	1,529,837
Net Assets					
Beginning	13,216,191	1,371,686	588,937	611,896	15,788,710
Ending	\$ 14,522,912	\$ 1,387,545	\$ 646,064	\$ 762,026	\$ 17,318,547

See Notes to Financial Statements.

3

American Statistical Association	
Statement of Cash Flows	
Year Ended December 31, 2014	
Cash Flows From Operating Activities	
Change in net assets	\$ 1,529,837
Adjustments to reconcile change in net assets to net cash provided by operating activities:	
Depreciation	307,336
Amortization of bond issuance costs	6,637
Decrease in allowance for doubtful receivables	(4,170)
Equity in earnings from joint venture	(37,037)
Unrealized and realized gains on investments	(737,990)
Contributions restricted for investment in perpetuity	(150,130)
Changes in assets and liabilities:	
(Increase) decrease in:	
Receivables	77,983
Prepaid expenses and other assets	(65,413)
Increase (decrease) in:	
Accounts payable and accrued expenses	(113,302)
Deferred revenue	(99,303)
Net cash provided by operating activities	714,448
Cash Flows From Investing Activities	
Purchases of investments	(3,067,349)
Proceeds from sales of investments	2,653,688
Purchases of property and equipment	(27,731)
Net cash used in investing activities	(441,392)
Cash Flows From Financing Activities	
Principal payment on bonds payable	(298,803)
Principal payments on capital lease obligations	(13,017)
Contributions restricted for investment in perpetuity	150,130
Equity distribution from joint venture	279,375
Repayments to joint venture, net	(416,291)
Net cash used in financing activities	(298,606)
Net decrease in cash	(25,550)
Cash	
Beginning	498,853
Ending	\$ 473,303
Supplemental Disclosures of Cash Flow Information	
Cash paid for income taxes	\$ 75,000
Cash paid for interest expense	\$ 141,860
Supplemental Schedule of Noncash Investing and Financing Activities	
Equipment acquired under capital lease	\$ 78,142

See Notes to Financial Statements.

Notes to Financial Statements

Note 1. Nature of Activities and Significant Accounting Policies

Nature of activities: The American Statistical Association (the Association) was founded in 1839 and incorporated in 1841 under the not-for-profit laws of the Commonwealth of Massachusetts as a professional association serving statisticians and all individuals interested in the study and/or application of statistics. The Association's objectives are to foster statistics and its applications, to promote unity and effectiveness of effort among all concerned with statistical problems, and to increase the contribution of statistics to human welfare. The Association conducts meetings, produces publications devoted to statistical methodology and its applications, makes available information concerning the science of statistics and its contributions, cooperates with organizations in the advancement of statistics, stimulates research, promotes high professional standards and integrity in the application of statistics to problems of science and of public policy, fosters education in statistics, and, in general, makes statistics of service to science and society.

A summary of the Association's programs and services follows:

Meetings: The Association provides for various meetings and workshops that serve as a forum for the latest developments in statistical theory and application. These meetings offer a concentrated opportunity for the exchange of ideas and discussion of research findings among colleagues.

Membership: Costs related to member service maintenance.

Publications: The Association produces various publications and magazines. These publications represent the Association's commitment to the ongoing enhancement of statistical education and the public's understanding of statistics.

Special projects: Represent various projects undertaken to further statistics among the public. This includes expenses for various awards presented, which increase the visibility of statistics and its methods with the general public.

Section expenses: Represent the Association's organization in groups by professional subject matter. These sections facilitate professional interchanges and research opportunities in statistics.

Education: The Association offers a wide range of continuing education opportunities, which represent a forum for emerging statistics research. These programs include workshops, lectures, and expenses related to the production and sale of educational materials.

Grants and awards: Represent expenses related to providing advice and technical assistance, which enhance statistical education through the support of federal, state, and local government agencies.

Management and general: Includes the functions necessary to secure proper administrative functioning of the Board of Directors, maintain an adequate working environment, and manage financial and budgetary responsibilities of the Association.

A summary of the Association's significant accounting policies follows:

Basis of accounting: The financial statements are prepared on the accrual basis of accounting, whereby revenue is recognized when earned and expenses are recognized when incurred.

American Statistical Association

Notes to Financial Statements

Note 1. Nature of Activities and Significant Accounting Policies (Continued)

Basis of presentation: The financial statement presentation follows the recommendations of the Financial Accounting Standards Board Accounting Standards Codification (the Codification). As required by the Non-Profit Entities Topic of the Codification, *Financial Statements of Not-for-Profit Organizations*, the Association is required to report information regarding its financial position and activities according to three classes of net assets: unrestricted net assets, temporarily restricted net assets, and permanently restricted net assets.

Financial risk: The Association maintains its cash in bank deposit accounts, which at times, may exceed federally insured limits. The Association has not experienced any losses in such accounts. The Association believes it is not exposed to any significant financial risk on cash.

The Association invests in equity mutual funds, fixed income mutual funds, and a money market fund. Such investments are exposed to various risks, such as market and credit. Due to the level of risk associated with such investments and the level of uncertainty related to changes in the value of such investments, it is at least reasonably possible that changes in risks in the near term would materially affect investment balances and the amounts reported in the financial statements.

Receivables: Receivables are carried at original invoice amounts, less an estimate made for doubtful receivables based on a review of all outstanding amounts on a monthly basis. Management determines the allowance for doubtful accounts by identifying troubled accounts and by using historical experience applied to an aging of accounts. Receivables are written off when deemed uncollectible. Recoveries of receivables previously written off are recorded when received. The provision for doubtful accounts, based on management's evaluation of the collectability of receivables, was \$6,548 at December 31, 2014. No interest is charged on any outstanding receivables.

Investments: Investments with readily determinable fair values are recorded at fair market value. To adjust the carrying value of the investments, the change in fair value is allocated among program activity revenue in the statement of activities.

Equity in joint venture: The Association has an investment in a certain joint venture for which the equity method of accounting is used. Under the equity method, the original investment is recorded at cost and is adjusted by the Association's share of undistributed earnings or losses of the joint venture. A distribution in the amount of \$279,375 was received during the year ended December 31, 2014.

Property and equipment: Property and equipment are stated at cost and are depreciated over their estimated useful lives on the straight-line method. Equipment purchased through capital leases is amortized based on the straight-line method over the lesser of the estimated useful life of the equipment or the life of the lease. The Association capitalizes all property and equipment purchased with a cost of \$5,000 or more.

Capital lease: The Association has a 24-month capital lease agreement for equipment. At December 31, 2014, accumulated depreciation related to the leased equipment was \$2,605. Lease payments totaling \$39,071 and \$26,047 will be made during the years ended December 31, 2015 and 2016, respectively.

2014 Audit Report for the American Statistical Association (continued)

American Statistical Association	
Notes to Financial Statements	
Note 1. Nature of Activities and Significant Accounting Policies (Continued)	
<p>Valuation of long-lived assets: The Association reviews property and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of the long-lived asset is measured by a comparison of the carrying amount of the asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the estimated fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value, less costs to sell.</p> <p>Bond issuance costs: The Association paid certain customary fees as required to refinance the note used to finance the acquisition of its new headquarters. These fees have been capitalized and are being amortized over the term of the bonds. Amortization expense was \$6,637 for the year ended December 31, 2014.</p> <p>Net assets: The Association's net assets are comprised of:</p> <p><u>Unrestricted net assets:</u> <i>Undesignated net assets</i> are the net assets that are neither permanently restricted nor temporarily restricted by donor-imposed stipulations.</p> <p><i>Board designated net assets</i> result from the Board of Directors designating \$1,387,545 at December 31, 2014, of unrestricted net assets to be used for various section activities and other board-approved projects.</p> <p><i>Temporarily restricted net assets</i> result from contributions whose use is limited by donor-imposed stipulations that either expire by passage of time or can be fulfilled and removed by actions of the Association pursuant to these stipulations. Net assets may be temporarily restricted for various purposes, such as use in future periods or used for specified purposes.</p> <p><i>Permanently restricted net assets</i> result from contributions whose use is limited by donor-imposed stipulations that neither expire by the passage of time nor can be fulfilled or otherwise removed by the Association's actions.</p> <p>Revenue and support: Meeting revenue is recognized at the time the meeting takes place. Amounts received in advance of the meeting are shown as deferred revenue.</p> <p>Membership dues are recognized ratably over the applicable membership period to which they apply. Payments for memberships, subscription sales, product sales, or services to be rendered and received in advance are deferred to the appropriate period.</p> <p>Publication revenue is recognized upon delivery of the material.</p> <p>All donor-restricted revenue is reported as an increase in temporarily or permanently restricted net assets, depending on the nature of the restriction. When a restriction expires (that is, when a stipulated time restriction ends or purpose restriction is accomplished), temporarily restricted net assets are reclassified to unrestricted net assets and reported in the statement of activities as net assets released from restrictions.</p> <p>Functional allocation of expenses: The costs of providing various programs and other activities have been summarized on a functional basis in the statement of activities. Accordingly, certain costs have been allocated among the programs and supporting services benefited.</p>	

American Statistical Association	
Notes to Financial Statements	
Note 1. Nature of Activities and Significant Accounting Policies (Continued)	
<p>Income taxes: The Association is exempt from federal income taxes under Section 501(c)(3) of the Internal Revenue Code. In addition, the Association qualifies for the charitable contribution deductions and has been classified as an organization that is not a private foundation. However, the Association is required to report unrelated business income to the Internal Revenue Service and the state of Virginia, as well as pay certain other taxes to local jurisdictions. The Association incurred approximately \$108,000 in income tax expense on unrelated business income related to the net income earned on advertising sales of \$922,824 for the year ended December 31, 2014.</p> <p>The accounting standard on accounting for uncertainty in income taxes addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under this guidance, the Association may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The guidance on accounting for uncertainty in income taxes also addresses de-recognition, classification, interest and penalties on income taxes, and accounting in interim periods.</p> <p>Management evaluated the Association's tax positions and concluded that the Association has taken no uncertain tax positions that would require adjustments to the financial statements to comply with the provisions of this guidance. The Association files income tax returns in the U.S. federal jurisdiction. Generally, the Association is no longer subject to U.S. federal, state, or local income tax examinations by tax authorities for years before 2011.</p> <p>Use of estimates: The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.</p> <p>Subsequent events: The Association evaluated subsequent events through March 23, 2015, which is the date the financial statements were available to be issued.</p>	
Note 2. Receivables	
Receivables consist of the following at December 31, 2014:	
Publication receivables	\$ 407,419
Trade account receivables	51,724
Grant receivables	19,103
	<u>478,246</u>
Less provision for doubtful accounts	6,548
	<u>\$ 471,698</u>

American Statistical Association	
Notes to Financial Statements	
Note 3. Investments	
Investments consist of the following at December 31, 2014:	
Equity mutual funds	\$ 10,183,123
Fixed income mutual funds	6,131,697
Money market fund	290,569
	<u>\$ 16,605,389</u>
The following summarizes investment income for the year ended December 31, 2014:	
Unrealized gains	\$ 566,261
Interest and dividends	326,885
Realized gains	171,729
Investment fees	(63,226)
	<u>\$ 1,001,649</u>
Net interest and dividends and realized gains are recorded in the applicable revenue and support line items in the statement of activities.	
Note 4. Equity in Joint Venture	
The following schedule presents summarized financial information from the joint venture, in which the Association has a 60% equity ownership, as of and for the year ended December 31, 2014.	
Condensed income statement information	
Revenues	\$ 120,515
Expenses	64,326
Net income	<u>\$ 56,189</u>
Condensed balance sheet information	
Total assets	\$ 74,944
Total liabilities	18,755
Net equity	<u>\$ 56,189</u>

American Statistical Association																																																																																																																																																													
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2014 Audit Report for the American Statistical Association (continued)

American Statistical Association
Notes to Financial Statements

Note 6. Temporarily and Permanently Restricted Net Assets (Continued)

Permanently restricted net assets consist principally of accumulated contributions for various awards, lecture series, and scholarships. These assets consist of the following at December 31, 2014:

	Balance December 31, 2013	Additions	Balance December 31, 2014
Noether Memorial Fund	\$ 206,506	\$ -	\$ 206,506
Sirken Award	-	150,000	150,000
Deming Lecture Fund	67,275	-	67,275
Youden Award	61,082	-	61,082
EC Bryant Fund	60,000	-	60,000
Wilks Memorial Fund	47,143	-	47,143
Walter Fund	45,000	-	45,000
Lingzi Lu Fund	39,640	130	39,770
Karl E. Peace Award	34,000	-	34,000
Marquardt Memorial Fund	26,250	-	26,250
Lester R. Curtin Award	25,000	-	25,000
	<u>\$ 611,896</u>	<u>\$ 150,130</u>	<u>\$ 762,026</u>

The Board of Directors of the Association has interpreted the Uniform Prudent Management of Institutional Funds Act (UPMIFA) as requiring the preservation of the fair value of the original gift as of the gift date of the donor-restricted endowment funds, absent explicit donor stipulations to the contrary. As a result of this interpretation, the Association classifies as permanently restricted net assets (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. The remaining portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure by the Association in a manner consistent with the standard of prudence prescribed by UPMIFA. In accordance with UPMIFA, the Association considers the following factors in making a determination to appropriate or accumulate donor-restricted endowment funds:

- The duration and preservation of the fund.
- The purposes of the Association and the donor-restricted endowment fund.
- General economic conditions.
- The possible effect of inflation and deflation.
- The expected total return from income and the appreciation of investments.
- Other resources of the Association.
- The investment policies of the Association.

The Association has adopted investment and spending policies for endowment assets that attempt to provide a predictable stream of funding to programs supported by its endowment while seeking to maintain purchasing power of the endowment assets.

All earnings of the endowment are reflected as temporarily restricted net assets until appropriated for expenditure based on donor restrictions by the various Committees of the Association. The Board of Directors has assigned a Committee to each program for the purposes of selecting and recommending individuals for awards or grants.

American Statistical Association
Notes to Financial Statements

Note 6. Temporarily and Permanently Restricted Net Assets (Continued)

For the year ended December 31, 2014, the Association had the following endowment-related activities:

	Temporarily Restricted	Permanently Restricted
Endowment net assets – December 31, 2013	\$ 200,586	\$ 611,896
Contributions	-	150,130
Net appreciation and income	65,688	-
Appropriation of endowment assets for expenditure	(21,999)	-
Endowment net assets – December 31, 2014	<u>\$ 244,275</u>	<u>\$ 762,026</u>

Note 7. Retirement Plans

The Association has a 401(k) profit sharing plan and a money purchase plan. Both plans cover substantially all full-time employees from date of hire. Under the terms of the 401(k) profit sharing plan, the Association will match 100% of the participating employee's contributions, up to 3% of the employee's salary. Under the terms of the money purchase plan, the Association contributes 6% of an eligible employee's compensation to the plan. Contribution expense to the plans is as follows for the year ended December 31, 2014:

Money purchase plan	\$ 175,756
401(k) profit sharing plan	82,107
	<u>\$ 257,863</u>

Note 8. Related Party Transactions

The Association is a co-sponsor in one joint venture. It has a maintenance agreement with the same joint venture, in which it provides management and collection services, office space, and editorial and administrative support.

The following schedules summarize the Association's financial activity with the joint venture as of and for the year ended December 31, 2014:

Due to Joint Venture	
Technometrics	\$ (35,061)
Maintenance Agreement Revenue	
Technometrics	\$ 32,530

American Statistical Association
Notes to Financial Statements

Note 9. Bonds Payable

On August 1, 2005, the Association entered into an agreement with the Industrial Development Authority of the City of Alexandria to issue \$6,500,000 of Industrial Development Revenue Bonds (the Bonds) on behalf of the Association to finance the purchase and renovation of a new headquarters building. During the year ended December 31, 2013, the Association refinanced its outstanding Industrial Development Revenue Bonds (the Bonds) that were due to mature on May 31, 2030. The Association paid the balance due on the Revenue Bonds and issued Revenue Refunding Bonds (the Bonds) for \$5,396,000 with SunTrust Bank, the holder of the Bonds, which has a maturity date of August 1, 2030. The Bonds are callable on May 1, 2028, by the bondholder with 120 days notice. Interest on the Bond is calculated at a fixed rate of 2.75%. The bond is collateralized by the land and building owned by the Association. In connection with the Bonds, the Association must be in compliance with certain specified covenants.

Interest expense incurred for the year ended December 31, 2014, was \$141,860.

Annual principal payments on the Bonds at December 31, 2014, are due in future years as follows:

Year Ending December 31,	
2015	\$ 307,125
2016	315,678
2017	324,469
2018	333,506
2019	342,793
2020 – 2028	3,327,274
	<u>\$ 4,950,845</u>

Note 10. Commitments and Contingencies

Hotel space: The Association reserves hotel space for its conventions several years in advance. The contracts stipulate the number of rooms to be reserved and the time period for which they are to be reserved. As of the date of this report, contracts for hotel space had been entered into through 2020. However, due to the numerous variables involved, the Association's potential liability under these contracts cannot be determined.

Legal matters: From time to time, the Association may be subject to various legal proceedings, which are incidental to the ordinary course of business. In the opinion of management, there are no material legal proceedings to which the Association is a party.

American Statistical Association
Notes to Financial Statements

Note 11. Fair Value Measurements

The Association follows the Codification topic, *Fair Value Measurement*. The Codification applies to all assets and liabilities that are being measured and reported on a fair value basis. The Codification establishes a framework for measuring fair value in accordance with generally accepted accounting principles and expands disclosure about fair value measurements. The Codification enables the reader of the financial statements to assess the inputs used to develop those measurements by establishing a hierarchy for ranking the quality and reliability of the information used to determine fair values. The Codification requires that assets and liabilities carried at fair value will be classified and disclosed in one of the following three categories:

- Level 1 Quoted market prices in active markets for identical assets or liabilities.
- Level 2 Observable market-based inputs or unobservable inputs corroborated by market data.
- Level 3 Unobservable inputs that are not corroborated by market data.

In determining the appropriate levels, the Association performs a detailed analysis of the assets and liabilities that are subject to the standard. At each reporting period, all assets and liabilities for which the fair value measurement is based on significant unobservable inputs are classified as Level 3.

The table below presents the balances of assets measured at fair value on a recurring basis by level within the hierarchy:

	Total	Level 1	Level 2	Level 3
Financial assets				
Equity mutual funds:				
S&P 500 index fund	\$ 4,949,725	\$ 4,949,725	\$ -	\$ -
Small and mid-cap fund	2,301,892	2,301,892	-	-
Global real estate fund	932,580	932,580	-	-
Foreign large blend	637,812	637,812	-	-
International fund	785,435	785,435	-	-
Emerging markets	575,679	575,679	-	-
	<u>10,183,123</u>	<u>10,183,123</u>	-	-
Fixed income mutual funds:				
Intermediate-term bond	2,111,271	2,111,271	-	-
Short-term bond	1,321,591	1,321,591	-	-
High yield	1,136,745	1,136,745	-	-
Inflation protected bond	958,947	958,947	-	-
Emerging markets	603,143	603,143	-	-
	<u>6,131,697</u>	<u>6,131,697</u>	-	-
Money market fund	290,569	290,569	-	-
	<u>\$ 16,605,389</u>	<u>\$ 16,605,389</u>	\$ -	\$ -

The equity and fixed income mutual funds and money market fund of the Association are publicly traded on active markets and are considered Level 1 items.

NASS Commissions Panel to Improve Census Count

Jamie Nunnally, Communications Director, National Institute of Statistical Sciences and Statistical and Applied Mathematical Sciences Institute

Every five years, the U.S. Census of Agriculture enumerates the characteristics of farms and farmers, and planning is underway for the 2017 census. To ensure it does not systematically miss women or new/beginning farmers, the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) called for an expert panel review and invited public comment. The National Institute of Statistical Sciences (NISS) was commissioned to convene the panel, whose members had a broad range of expertise that included statistics, social science, and agriculture. The panel was charged with considering changes to the census questionnaire that would lead to improved accuracy of counts of women and new/beginning farmers for the 2017 Census of Agriculture.

Members of the expert panel met from April 2–3 at the USDA in Washington, DC. Deputy Secretary of Agriculture Krysta Harden discussed the importance of accurately representing these two groups. Specific charges to the expert panel were the following:

- Do the items currently being reported in the Census of Agriculture adequately capture the participation of women and new/beginning farmers?
- With the data currently being collected, what additional information could/should be reported?
- Do these items fully meet the needs of stakeholders? If not, what information should be reported?

Reasons women and new/beginning farmers are particularly vulnerable to undercount are multiple and differ for the two groups. In the case of new/beginning farmers (those who have farmed for fewer than 10 years), they are often too new to appear in the list frame, or sometimes fail to recognize themselves as “farmers” when the operation is small or a sideline effort. Also small new farms, like other small businesses, often go in and out of business too rapidly to be counted in an every-five-year census.

The vast majority of farms in the United States are family farms, ranging in size from tiny to multi-million-dollar operations. The family farm culture often persists in identifying the family patriarch as the principal operator, whether he is working

Expert Panelists

Norman Bradburn, *NORC at the University of Chicago*

Fred Conrad, *University of Michigan/JPSM*

John Eltinge, *Bureau of Labor Statistics*

Danny Klinefelter, *Texas A&M and Texas A&M AgriLife Extension*

Jim MacDonald, *USDA/ERS*

Doris Mold, *American Agri-Women*

Eileen O'Brien, *U.S. Energy Information Administration*

Alicia Robb, *Kaufman Foundation*

Nora Cate Schaeffer, *University of Wisconsin*

Brian Schilling, *Rutgers, New Jersey Ag Experiment Station*

Nell Sedransk, *NISS and North Carolina State University (chair)*

Rick Valliant, *University of Maryland/JPSM*

Diane Willimack, *U.S. Census Bureau*

Anthony Yeboah, *North Carolina A&T*

or retired, whether he still lives on the farm or has moved away. Space on the form is limited, so even when a woman fills out the census form, she may not self-identify as one of the farm operators.

Farming requires running the business and taking care of crops and managing livestock. Actually, the definition of “farmer” is based on having responsibility for major farm operation decisions. Even though not all important decisions are made in the fields or barns and pens, a farm woman who is in charge of the business activities may be overlooked in designating the “farm operators.”

NASS provided extensive background information on the Census of Agriculture and Agricultural Resource Management Survey (an annual USDA survey with more comprehensive data for a sample of farming operations), as well as agriculture census and survey questionnaires from Canada and Europe.

The expert panel's report will be published this fall. NASS expects to incorporate the recommendations that are feasible into the planning and implementation of the 2017 Census of Agriculture. ■

STAFF SPOTLIGHT:

Megan Ruyle



Mary Schwarz/Birchtree Photography
Megan Ruyle, pictured with husband Tom and baby Owen, joins the ASA as a graphic designer/production coordinator.

I'm Megan Ruyle, the ASA's newest graphic designer and production coordinator. I am a native North Carolinian with Yankee parents, so that's why I don't have an accent and use "you guys" interchangeably with "y'all." I attended the University of North Carolina at Wilmington and majored in English after realizing marine biology was not the field for me. Hanging out at the beach and running the school newspaper, however, totally rocked.

After working as a copy editor for a few years, I decided that maybe I wanted to be a professor and attended graduate school at the University of Missouri's famed school of journalism. Academic life was not for me, and I returned to newspapers, moving first to a town in Maine 15 minutes from where Stephen King was born (and yes, his books make a lot more sense now) and then to the Washington, DC, area, where I worked as a production designer at a publication that covered Congress. I joined the ASA excited to learn about this amazing community and organization, and I look forward to meeting the ASA's members at JSM in August.

I spend most days thinking about my 1-year-old son, Owen, and my husband, Tom. I also think about what's for dinner and how to squeeze in a workout so I'm not out of breath as I chase an active toddler around the house (and up the stairs, and in the yard, and away from the dog food, and ...). ■

JSSM Papers to Be Featured in JSM Invited Sessions

Two papers published in the *Journal of Survey Statistics and Methodology* will be featured in invited sessions at the Joint Statistical Meetings in Seattle this August.

The first, "Accuracy in Estimation with Nonresponse: A Function of Degree of Imbalance and Degree of Explanation," is by Carl-Erik Sarndal and Peter Lundquist. With ever-higher levels of nonresponse, researchers have tried to use "responsive" designs with the objective of realizing a well-balanced final set of respondents. This means monitoring the composition of the sample using auxiliary variables. Auxiliary variables are important at the estimation stage as well (e.g., when calibrated weights are used in the nonresponse adjustment). The main questions addressed in this talk are the following: Is balancing worth a perhaps costly and demanding effort in data collection? Could one have done equally well by saving the use of the auxiliary information for the estimation stage?

The second paper is "Representative Surveys in Insecure Environments: A Case Study of Mogadishu, Somalia," by Jesse Driscoll and Nicholai Lidow. This talk will describe the first representative survey conducted in 25 years in Mogadishu, including the challenges related to the lack of data for constructing a frame, poor security, and the fragmented nature of authority within the city. The key elements in this successful effort were the use of remote sensing, the systematic development of local contacts through the Somali diaspora, the flexible deployment of staff, and mobile technology. Given the importance of reliable estimates for humanitarian response and policy choices, documenting the shortcomings and lessons learned are important for future data-collection efforts in insecure environments.

The Journal of Survey Statistics and Methodology is co-sponsored by the American Statistical Association and American Association for Public Opinion Research. For details, visit <http://bit.ly/1F7Rmnc>. ■

Meet William Sabol, Director of the Bureau of Justice Statistics

Amstat News invited William Sabol, director of the Bureau of Justice Statistics, to respond to the following questions so readers could learn more about him and the agency he leads.

What about this position appealed to you?

The challenge of building and enhancing statistical programs that can address the breadth of BJS's statutory mission while working within the budgetary and staff constraints within which BJS has to operate. There are increasing demands for timely and relevant criminal justice statistics; the position gives me an opportunity to contribute to meeting these demands, to work with talented staff in setting priorities and implementing changes and improvements to BJS's statistical programs, and to participate in the broader efforts of the federal statistical system to address some of the challenges presented by declining response rates in household surveys and the use of administrative data and Big Data for statistical purposes.

(I note that I came to BJS in late 2006 to head up one of its statistical units; I served as its deputy director and then acting director beginning in January 2013, when Jim Lynch, the former director, took the position as the department chair of criminology at the University of Maryland.)

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

Maintaining the integrity of BJS statistical programs and the data it releases. I believe BJS has a solid record of producing

credible, if sometimes less than timely, statistics, and, as a result, BJS has a reputation as an honest broker, even when this means it will release statistics that could be perceived to be unfavorable to an administration either in terms of content or timing. This reputation must be preserved.

Enhancing the relevance of BJS's statistical programs.

As with all the federal statistical agencies, the information demands—content and timeliness—on BJS are increasing. To meet these demands, we may need to retire or modify some programs fairly extensively, but not at the expense of losing the continuity of key indicators; we will need to continue to innovate through greater use of a core-supplement model to expand the content of surveys; we will have to continue to expand our use of administrative records while focusing on the value that can be through record linkage, whether this involves linkages internal to record systems to create longitudinal systems or linkage with external data systems to expand content.

Dissemination. We need to modify our dissemination strategies to address challenges in the marketplace, in which entities repackage or use official statistics and become sources that users rely upon. We need

to ensure that users and stakeholders view BJS as an authoritative source, less they fail to see the need to continue to fund the statistical system. I think developing products targeted to specific audiences and stakeholders will help.

What do you see as your biggest challenge(s) for the BJS?

Maintaining high-quality statistical programs within a challenging budget environment.

The demands on BJS to produce new series and take on additional institutional research responsibilities continue to increase. To meet these, we will have to make difficult decisions about programs that may affect their scope and periodicity, as well as the nature of statistical releases. We will have to figure out how to expand our coverage of criminal justice issues without undermining the coherent statistical infrastructure in place.

Recruiting, training, and retaining staff.

BJS staff members are dedicated and committed to their craft and have deep knowledge about how criminal justice systems operate. To meet emerging demands and respond to some of the challenges facing federal statistical agencies—declining response rates, use of administrative data, and Big Data—BJS will need to retool and develop new skills through



William Sabol has more than 25 years of research experience on criminal justice and sentencing policy, formal and informal social control in communities, disparities in criminal justice outcomes, and statistical methods. A Fulbright Scholar, Sabol completed his PhD from the University of Pittsburgh Graduate School of Public and International Affairs.



Robert F. Kennedy Department of Justice/Courtesy of Wikimedia Commons

William Sabol is the director of the Bureau of Justice Statistics, a part of the Department of Justice.

recruitment and training. A special challenge for a statistical agency with a small staff is how to accomplish the retraining while keeping the trains running.

Demonstrating the relevance of statistical indicators in the era of evidence-based programming.

The demands for evidence about what works could provide a basis for a relative shift in funding away from statistical systems toward experimental evidence, but building new statistical systems and upgrading existing ones provides fundamental information to program administrators about the magnitude of problems to consider. It also provides important information to evaluators to use in determining what to focus on to determine what works. In addition, the criminal justice system statistical infrastructure can be used to support large-scale evaluations

based on quasi-experimental methods that a small number of experimental trials cannot support on a project-by-project basis.

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

The federal statistical system has been immensely helpful to BJS by establishing both standards that statistical agencies must achieve and protections they should enjoy to preserve the quality of our statistics and the independence necessary to maintain public confidence in these data. Foundation documents like *Principles and Practices* and the Holdren *Memo on Scientific Integrity* are valuable resources for any statistical agency.

The statistical community should continue to support institutional arrangements that benefit all statistical agencies.

BJS serves on the Interagency Council for Statistical Policy (ICSP), and this provides a great opportunity to learn from the experiences of the other heads of the principal statistical agencies and the Office for Management and Budget staff. The ICSP is a very helpful group for sharing experiences related to common problems such as staffing and succession planning, budgeting and planning under extreme uncertainty, and addressing challenges confronting the statistical agencies such as Big Data and dissemination and stakeholder engagement issues, to name a few. OMB's Federal Committee on Statistical Methodology has produced a number of important products that BJS benefits from, notably the FCSM efforts related to administrative data such as its model Memorandum of Understanding for data sharing and its

guidance on data quality for administrative records.

BJS has a committee of the American Statistical Association, the ASA Committee on Law and Justice, that provides information to it on statistical and organizational issues such as data quality and statistical reporting practices, designing and using statistical collections for research and evaluation purposes, and training and staff development. BJS also benefits from an Office for Justice Program Science Advisory Board (SAB) with a subcommittee that focuses on statistical issues. The members of this subcommittee are knowledgeable about BJS's programs and report to the full SAB.

BJS is in the process of opening itself up to the broader statistical community through its visiting fellowship program, its use of intergovernmental personnel act transfers, its analytic research centers, a small young scholars program, and a graduate research fellowship program. A central aim of these efforts is to engage the broader statistical community in mutually beneficial projects that address methodological problems and substantive issues. Through these arrangements, researchers get access to data behind BJS' firewall in return for useful products. A challenge that BJS faces in opening up to the outside is dealing with the sense of entitlement that some on the outside bring to the enterprise. In these cases, there is a view that BJS can do things putatively in a cost-less manner, such as building customized data systems.

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

It's difficult to single out the biggest accomplishment because the agency has done a lot with a relatively small number of staff. For example, it has entered the world of Big Data by developing an automated system for

linking, parsing, and standardizing into statistical research databases on criminal histories the variable and unstructured text files that are known as "records of arrest and prosecution" (or RAP) sheets maintained by states' criminal history repositories. It has used administrative data from state departments of correction to develop systems for creating longitudinal histories of persons' prison terms and used this to track the prison histories of individuals. It has a project that will test linking corrections records to other sources of administrative data. It has improved the precision of the National Crime Victimization Survey, is developing an NCVS subnational estimates program, and is expanding the content to address important issues related to police service.

BJS and its data-collection agents received the 2014 American Association


for Public Opinion Research Policy Impact Award for the decade of work it did in response to the requirements of the Prison Rape Elimination Act (PREA) of 2003 (P.L. 208-79), which required BJS to measure annually the incidence and effects of prison rape and conduct surveys in not less than 10% of all federal, state, and county jails and of current and former inmates. Along with these, BJS's more recent efforts to establish a national system of incident-based crime statistics drawn from the operational data systems of local police departments, a project known as the National Crime Statistics-Exchange, and its efforts to build statistical systems about the victims' services field stand out as models of collaborative efforts to build new statistical infrastructure that fill gaps in our understanding of crime and the broader justice system's response to it. ■

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ASA LEADERS REMINISCE

J. Stuart (Stu) Hunter

In the sixth installment of the Amstat News series of interviews with ASA presidents and executive directors, we feature a discussion with 2003 ASA President J. Stuart (Stu) Hunter.

COMING UP

Please return to this column next month, when we will feature an interview with 2001–2007 ASA Executive Director William B. Smith.

Q Stu, thank you for taking time for this interview. You earned your undergraduate degree in electrical engineering and you master's degree in engineering mathematics, but then studied statistics for your doctorate. What factored into your decision to move into the field of statistics?

A In 1940, after graduating from high school, I worked for the Prudential Insurance Company as junior clerk, and I ended up in its actuarial department working with IBM punch cards. Later, while in the Army, I took engineering courses at North Carolina State University and took calculus

from R. L. Anderson. After the war, I returned to NC State to finish a degree in electrical engineering and found Andy (Professor Anderson) in the statistics department. My formal statistics education began then and there.

Q What motivated you and George Box to write *Statistics for Experimenters*?

A I had the good fortune to be one of George's first (of two) graduate students—Sigurd Andersen the other. There was great interest in fractional factorial and response surface designs, and I had many opportunities to give short courses

J. Stuart Hunter is a statistician and professor emeritus in the school of engineering and applied science at Princeton University. He earned a bachelor's degree in electrical engineering in 1947, a master's degree in applied mathematics in 1949, and a PhD in statistics in 1954—all from North Carolina State University. He is the founding editor of *Technometrics* and, in 1993, he served as president of the American Statistical Association. He is a fellow of the American Statistical Association, American Society for Quality, Royal Statistical Society, and American Association for the Advancement of Science. Hunter became an honorary member of the American Society for Quality in 1999 and he was elected a member of the National Academy of Engineering in 2005.

The first "Stu Hunter Research Conference" was held in 2013 at the Chateau Marquette, in Amsterdam, the Netherlands. The second of these conferences was held in Phoenix, Arizona, in 2014, and the third was held in March of 2015 in Leuven, Belgium (see <https://feb.kuleuven.be/drc/kbi/stuhunter2015>).



Hunter

Hunter is a highly decorated statistician. He received the Shewhart Medal in 1970, U.S. Army S. S. Wilks Medal in 1987, Deming Medal in 1986, and Founders Award of the American Statistical Association in 1995.

He also has been honored with the W.J. Youden, Ellis Ott, and Brunbaugh awards of the American Society for Quality. He received an honorary degree from his alma mater in 2006 and again in 2008 from The Pennsylvania State University. In 1996, the Environmetrics Society established an annual lecture in his honor.

Hunter has published extensively and is a co-author with I. Guttman and S. S. Wilks of *Introductory Engineering Statistics* (1965) and co-author with G. E. P. Box and W. G. Hunter of *Statistics for Experimenters* (1979). In 1968, he was the instructor in the 32 one-half hour episode TV course "The Design of Experimenters with Structured Text" and, in 1971, a similar program, "Statistics for Problem Solving and Decision Making," all sponsored by Westinghouse Learning. He remains active as a consultant and lecturer.



From left: Roger Hoerl, David Steinberg, Stuart Hunter, Dick DeVeaux, Brad Jones, and Hugh Chipman gather during a celebration of Hunter's contributions to *Technometrics* and statistics.

and lectures. This included 32 half-hour TV tapes sponsored by Westinghouse Learning and later, when I was elected to the National Academy of Engineering, I was declared to be the “Johnny Appleseed” of industrial experimental design. When George returned to the USA to head up the Statistical Techniques Research Group at Princeton, it seemed the most logical thing in the world to have a book. Bill Hunter, who was then an undergraduate student at Princeton, was a great help in getting mimeo copies made for a course on design of experiments that both George and I gave in the chemical engineering department. When Bill later went to Wisconsin to work on his PhD, he became a natural added author.

Q You were the founding editor of *Technometrics*. What motivated you to establish this journal? Who else worked on the founding of *Technometrics*?

A A lot of early conversations at the Gordon Conferences argued the need for a statistics journal for the engineering sciences. Cuthbert Daniel and George were particularly avid advocates. My many short courses for the Chemical Division of the ASQC had fattened its treasury,

When I was elected to the National Academy of Engineering, I was declared to be the “Johnny Appleseed” of industrial experimental design.

and launching a technical journal seemed a natural use for this resource. While a graduate student at NC State, I had occasionally helped Sarah Porter and Gertrude Cox proofread and edit early issues of *Biometrics*, and I just selected myself to be the editor. R. A. Fisher named the journal *Technometrics*.

Q What accomplishment as president of the ASA did you find most gratifying?

A I initiated the drive to establish certification for statisticians while president. The motion to begin certification was tabled at the last meeting of my presidential year. Serious family illness forced me to be absent. ■

2014 ESRA Winner Talks Statistics, Journalism, and P -Values

Morteza Marzjarani

When did you become interested in statistics, and who inspired you?

When I was a college freshman at the University of South Florida, I thought I wanted to major in chemical engineering, so I took a job in a polymers lab in the chemical engineering department. But it turned out that bench work and I didn't get along. I'm just no good with my hands at all. So, the lab director had me work on a data-analysis program in the FORTRAN language instead. When he explained the least-squares-error minimization concept behind the program, I thought, "Aha! This is so much better than mixing chemicals!" So I switched to industrial engineering. I took classes on applied probability and statistics—queuing theory, quality control, stochastic processes, and design of experiments. I loved it so much that I decided to get a PhD in either operations research or statistics. I asked an engineering grad student for his opinion. He said, "Don't do statistics. Everything that can be done in statistics was already done by the 1950s. It's a dead field." This was 1995. I decided to bet on him being wrong.

Thank goodness I did. I started the doctoral program in statistics at Stanford University in 1996, right at one of the most exciting times to be in Silicon Valley and study statistics. Best decision of my life.

Statistics and science journalism don't seem like they have anything in common. Was it hard to transition from doing statistics to writing about science?

Not as much as I expected, actually. Science journalists and applied statisticians are kindred spirits. Both require some of the same skills. You need to be able to

synthesize and analyze a large amount of information, and boil it down to its essence. You need to communicate complicated ideas in a way that's easy for non-specialists to understand. And you're trained to have a healthy sense of skepticism. Journalists have a saying about the importance of gathering evidence for a story and not trusting anecdotes: "If your mother says she loves you, check it out." To me, this sounds like something a statistician would say: "What's the evidence that my mother loves me?"



Regina Nuzzo is the 2014 winner of the Excellence in Statistical Reporting Award and professor of statistics at Gallaudet University in Washington, DC. She earned her PhD in statistics from Stanford University in 2003.

I see you work at Gallaudet University in Washington, DC, the nation's only liberal arts university for the deaf and hard-of-hearing. What is that like?

Gallaudet is a fascinating place to work. Everything on campus is done in either American Sign Language (ASL) or written English—no spoken English. I teach statistics to undergraduate and graduate students in sign language. It's fun and also very challenging. ASL doesn't have signs for all the statistical concepts, so you need to be creative in how you teach things and really make everything concrete and visual.

How do you make the concept of standard deviation, or eigenvalue decomposition, or moment-generating function succinctly visual? I get four dimensions to do that—three spatial, plus time—so it's kind of fun to play with.

I didn't know sign language when I started teaching at Gallaudet. I was born with a severe hearing loss, myself, but I used hearing aids and lip reading growing up. Many students with hearing loss use sign language interpreters in college and grad school, but when I was at Stanford, I used the university-provided real-time captioning for the biostatistics seminars, kind of like you see on TV.

Except, here, the captionists had to figure out how to spell words like “heteroskedasticity.”

Is it hard to do your writing and also be a university faculty member?

It’s not easy, to be honest. University systems are traditionally centered on a teaching-and-research rewards model, and the sort of statistics communication and science communication that I and others do doesn’t really have a formally recognized place in that. I have colleagues in other fields who are in the same boat—they have PhDs and teach, and they also write award-winning books, essays, and articles and do public speaking. But sometimes it’s hard for universities to know how to weigh the value of this compared to publishing a technical paper in a peer-reviewed journal. I think they’re both valuable in different ways. What’s really intriguing is the UK’s model of “professorships in the public engagement of science,” or the “public understanding of science,” where a faculty member’s formal duties involve these sorts of science communication activities. It would be interesting to see how this model would apply to the United States. Wouldn’t it be exciting to have a U.S. professor for public engagement in statistics and data?

What do you think about ESRA?

I’m so excited that this award exists! There’s so much room for data and statistics in modern journalism—data visualization, investigative reporting projects that come from original data, plus covering all the new developments in statistics. This award is a terrific idea and a terrific honor. I can’t wait to see the 2015 award winner.

What have you done since you won the award?

I’ve written a few more statistics-themed articles, including a news brief for *Scientific American* on non-representative political election polling, a feature for *New Scientist* on the state of the Bayesian-frequentist debate, a technical article for a medical journal on the inverse fallacy and misinterpretations of the p -value, and a news story for *Scientific American* on a psychology journal’s decision to ban null hypothesis significance testing. I’ve also given a few talks about my *Nature* feature and statistics in the media to different audiences, which has been very enjoyable.



Your article about p -values won the 2014 ESRA award. In a few sentences, could you please explain your view of the p -value and what motivated you to write the article about the p -value?

The idea for the *Nature* feature grew out of some reporting I had done for a shorter *Nature* news piece. I realized that between the great work that was being done on p -hacking, the common misinterpretations of p -values, and the reproducibility crisis in science, there was a very interesting story here. I worked with my fabulous editors at *Nature* to really find the angle for the article.

My own view of the p -value? I say it’s like a screwdriver—designed for a particular purpose, and it’s very good at doing that, driving screws, but the problem comes when we use it to bang nails and then complain that it’s not a good hammer. P -values are misunderstood.

But if this article makes nonstatisticians a little more curious about what’s going on underneath the hood of p -values, then that can only be a good thing. I’ve had so many people contact me to say the article has sparked their interest in the whole issue, which is pretty exciting. ■

Negotiating a Statistical Career

Part 2: A JSM Panel Discussion

This blog post is reprinted with permission by the author, Leila Zelnick.



Leila Zelnick is a biostatistician, reader, runner, cook and baker (there's a difference!), musician, gardener, and occasional blogger.

MORE ONLINE

To read more from Zelnick's blog, visit <http://bit.ly/1ciw2lm>.

Last week's session on negotiation in a statistical career covered a broad range of situations in which negotiations skills might come in handy. The four panelists—**Nandini Kannan** of The University of Texas at San Antonio (NK), **David Madigan** of Columbia University (DM), **Nancy Reid** of the University of Toronto (NR), and **Kelly Zou** of Pfizer Inc. (KZ)—brought a wealth of experience in both academia and industry to the discussion. I summarized the first part of the session, about negotiating an initial salary, at <http://bit.ly/1IwyjXF>. The remainder of the session took the form of scenarios posed by the moderator, Paula Roberson (University of Arkansas for Medical Sciences), in which negotiation might be needed.

Scenario 1: Negotiating pausing the tenure clock. This scenario can apply either to having children or taking care of an elderly parent. Some institutions have formal agreements already in place with respect to the tenure clock, but if not, you might need to negotiate. In general, the same advice as for salary negotiations applies: just ask and don't worry about figuring out if you'll get it or not. NR commented that it's the university's job (and in their best interest) to make sure you can do your job well. Plus, she says, everyone wants women on their statistics faculty—and if they don't, come to Canada! :)

DM also shared the experience of having an incoming faculty member negotiating to come up for tenure early. Don't do this! You are only negotiating against yourself. If you are successful early, go up for tenure early, but don't negotiate it into your contract at the outset.

Scenario 2: Negotiating for a reduction of workload for major professional/service organization duties. What is appropriate here seems to be a bit greyer than in some scenarios, and depends highly on what the scope of the work is. Called to become the editor of *JASA*? Absolutely ask for a reduction in workload (at least in the academic sphere), since it's a major responsibility that also brings honor to your institution and department.

Organizing a conference? Perhaps less reasonable to ask for a reduced workload. If you have a clear sense of the value of the activity, you can make a case to the chair/dean.

In industry, KZ noted that negotiating a reduction in workload might be reasonable if the activity is highly relevant to your assigned tasks at work. Many companies have yearly goal-setting or professional development plans; you can write these extra activities into your plan, and the achievements can show innovation and leadership. (But avoid the impression you are overextending yourself). Extra care may be needed if you work in the financial sector, where regulation may limit your extracurricular activities.

Scenario 3: Negotiating sabbatical and/or extended leave. Sabbatical schedule is usually fairly straightforward with respect to university policy, but there may be negotiations about how much support is available while on sabbatical, or whether you are allowed to teach outside of your university. Extended leave (such as the program officer position at the National Science Foundation (NSF) held by NK for several years) can be harder—while it can be a valuable experience that reflects well on you and the university, it may be hard to “replace” you (teaching-wise) while you are still on the rolls. Most importantly, make sure the review process (for promotion, merit raises, etc.) is clear before you leave. Will the extended leave be viewed as a positive? You likely won't have as much time for research while you are away.

Scenario 4: Negotiating workload (such as teaching release and for local service). When can you ask your dean or department chair for release time? Activities that will add value to your institution (and cannot be easily accomplished within the scope of your current duties) such as developing a new course or building a new program are most likely to be well received. NK commented that minority and women faculty are often put on many committees (because it looks good). If this is the case, you may be able to negotiate the three or four committees where you will have the greatest impact.

Scenario 5: Negotiating for support that will help in applying for grants (e.g., partial time for a programmer). DM reiterated here that if you don't ask for it, you won't get it! As long as you make a reasonable case, asking for this kind of support will not reflect badly on you. KZ mentioned the results of a Harvard study that found that women tended to receive smaller grants than men because they asked for less money. Make sure you ask for support if it's needed, and realize you are setting the stage for future grants in asking for support for students, programmers, etc. (There may be internal grant funders at your institution that can provide this type of support.)

Scenario 6: Negotiating at the time of changing position within a company/institution. DM noted that there is diversity by institution here with respect to what is negotiable. Some roles (say, within the department) may be preset in terms of compensation and teaching relief; exterior roles within the larger university (e.g., faculty senate, committee on curriculum) may be invisible to the department and require more to make your work apparent in these areas. NK emphasized the importance of clarity on how accepting these leadership roles will affect your promotion. She recommended getting agreements in writing (deans change and verbal agreements may not be honored) and trying to negotiate some time off to get research back on track after a heavy administrative duty such as department chair.

Scenario 7: Negotiating collaborative authorship and author position. The panelists agreed that, while potentially uncomfortable, it's best to discuss this up front (before a grant is submitted). Make sure to be listed as a co-principal investigator or investigator, not just a consultant. Make sure you have publication rights, and make sure you are all on the same page as to the expectations for contributions for authorship.

Scenario 8: Negotiating with funding agencies about the terms of an award. Know that if you get funded, your proposed budget will be cut. But by calling the program officer, you may be able to mitigate the effects. Additional student support is the easiest to negotiate; salary is hardest, since NSF has set rules.

Identify the things you NEED (versus the things you WANT), and make sure you negotiate so you will have the tools/resources at your disposal to be successful in your job.

The program officer may be able to offer suggestions (especially for women/minorities) on where else to seek funding. It can sometimes be a good idea to call the program officer (Ask nicely!) at the end of the fiscal year, when they might have some extra money (e.g., for an extra student). (NK primarily has experience with NSF funding, but suggested the same approach is possible with NIH awards.)

Scenario 9: Negotiating retirement. DM commented that, in academia, there's a bias in favor of retirement because of the desire to renew and bring in new blood. That means there's often willingness to negotiate and make retirement attractive. Retirement plans in academia have become "ever more exotic" and may include financial incentives—so be creative! In industry, a retirement plan might be possible, such as a gradual reduction of hours, or working with mentees for knowledge transfer before you leave. When layoffs are imminent, taking a retirement package may be an attractive option. (Make sure to negotiate having health care in retirement, if possible!)

And there's enough advice to take you from graduation to retirement! One final piece of advice, from my fabulous dissertation advisor Patrick Heagerty (who was recently named chair of UW Biostatistics): Identify the things you NEED (versus the things you WANT), and make sure you negotiate so you will have the tools/resources at your disposal to be successful in your job. ■

Editor's Note: All opinions expressed here are those of the author and do not necessarily reflect those of the American Statistical Association or the panelists. Some comments and questions have been summarized for content to the best of the author's ability.

AAPOR's Polling Transparency Initiative Officially Launches

Timothy P. Johnson, Transparency Initiative Coordinating Committee Chair

ASA'S STATEMENT ON THE INITIATIVE

"The American Statistical Association recognizes the importance of transparency in survey research methods and hence endorses the American Association for Public Opinion Research's Transparency Initiative. The ASA encourages all professional organizations involved significantly in the collection and/or analysis of survey data to join this important movement."

MORE ONLINE
For details about the transparency initiative, including access to online educational resources, visit www.aapor.org.

The American Association for Public Opinion Research's (AAPOR) Transparency Initiative formally opened for business October 8, 2014. Since then, more than 40 survey-based organizations have applied and been accepted for membership, and new members continue to be admitted almost weekly.

For many years, AAPOR has advocated for transparency in the public reporting of public opinion and survey research. The growing diversity in approaches to survey sampling and data collection makes the clear disclosure of research methodology essential to ensure that both the public and other researchers have the information necessary to judge the quality of survey research.

AAPOR created the transparency initiative to encourage wider and more effective disclosure of research methods. Its goal is to promote methodological disclosure through a proactive, educational approach that assists survey organizations in developing simple and efficient means for routinely disclosing the research methods associated with their publicly released studies.

As part of AAPOR's goal of promoting an open science of public opinion and survey research, the transparency initiative now recognizes organizations that pledge to consistently practice transparency in their reporting of survey-based research findings. In doing so, AAPOR makes no judgment about the quality or rigor of the methods being disclosed. But full and effective disclosure improves the ability of consumers to make those judgments.



Editors of AAPOR's journals now require the reporting of all transparency initiative disclosure elements as part of each submitted manuscript. *JSSAM* is copublished by the ASA.

The disclosure standards for the transparency initiative are the same standards found in the AAPOR Code of Professional Ethics and Practices, <http://bit.ly/1cwjRBl>, which all individual members of AAPOR pledge to follow. But the transparency initiative applies these standards to organizations. AAPOR assists participating organizations in complying with the initiative and seeks to educate survey sponsors and the public about the importance of transparency.

The process for joining the transparency initiative is not difficult. Organizations are asked to designate

Excellent
Very Good
Good
Average
Poor

CONTEMPLATED ELEMENTS OF THE TRANSPARENCY INITIATIVE INCLUDE:

- AAPOR’s public recognition of excellence in transparency
- Education for organizations in how to make transparency a routine part of their work
- Outreach to survey sponsors, users of survey data and the public to reinforce the value of transparency and to publicize the organizations that participate in the initiative
- Collaboration with other associations and academic disciplines in these activities

— Courtesy of AAPOR.org

a liaison and pledge to abide by AAPOR’s disclosure standards, to train their employees to do so, and to document that they understand how to properly disclose the methodology of the public opinion and other surveys they conduct. Organizations that join the transparency initiative before October of 2015 will be designated as charter members.

Participating organizations benefit by receiving formal, public recognition of their voluntary commitment to abide by the disclosure standards of AAPOR’s Code of Professional Ethics and Practices. The profession also benefits by elevating the transparency, and hence the integrity, of its work. The public benefits

by having greater access to detailed information with which to evaluate the quality of survey data being reported.

In support of the transparency initiative, the editors of AAPOR’s three journals—*Public Opinion Quarterly*, *Journal of Survey Statistics and Methodology*, and *Survey Practice*—announced earlier this year that they now require the reporting of all transparency initiative disclosure elements as part of each manuscript submitted for peer review. The American Statistical Association, World Association for Public Opinion Research, and Association of Academic Survey Research Associations have all endorsed the initiative. ■



SPA Committee Seeks Input, Feedback

The ASA has a longstanding interest in promoting the use of sound statistical methods to improve public policy. One of the association's main advisory groups for such issues is the Scientific and Public Affairs (SPA) Committee. Its charge includes the following:

- Consider public policy issues that affect the statistical community or to which statisticians can contribute
- Recommend policies to the ASA Board of Directors
- Serve as a liaison between the ASA and other statistical experts, professional and governmental organizations, and the media

The SPA Committee is committed to promoting statistical science in policymaking, and members are keen to hear from ASA members about policy issues relevant to its charge.

A key activity of the SPA Committee is to help the ASA Board respond to emerging policy issues. A case in point is the committee's contribution to the ASA's letter to Congress on what has been commonly referred to as the Secret Science bill. This bill proposed that the U.S. Environmental Protection Agency be prohibited from implementing policies unless all data and analytical methods are open to the public for review. Members of the SPA Committee read through the draft language, identified its strengths and weaknesses, and worked with ASA Director of Science Policy Steve Pierson to draft a letter that the ASA leadership could send to Congress. Concerns in the letter focused on potential threats to data confidentiality posed by imprecise language in the bill and possible repercussions for the EPA's ability to make evidence-based policy; web search "Secret Science ASA."

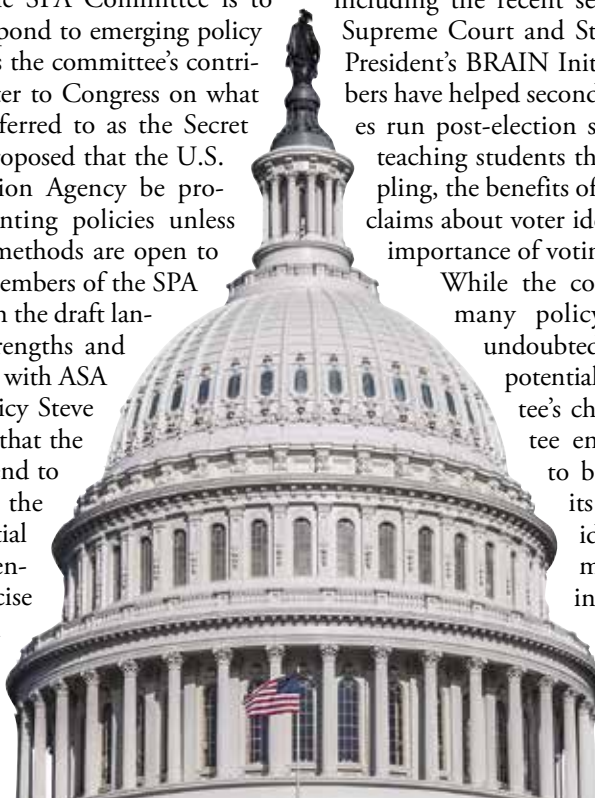
The committee also has advised the ASA on its board statements concerning the most-pressing and highest-profile policy concerns to our profession, including the proposed banning of the book *How to Lie with Statistics* in statistical training in the Veterans Administration, the qualifications for instructors of statistics courses, the creation of the National Institute of Finance, and the use of "value-added" models in the evaluation of educators.

The Committee is following a variety of policy issues with statistical relevance, including voter identification legislation and its disproportionate impact on voting, data-based Supreme Court cases, and governmental regulations involving statistical agencies.

The SPA Committee also promotes interest in statistical methods in public policy within the association. It runs a poster competition at JSM, awarding prizes for posters that best demonstrate the significance of statistics to society. Committee members also organize invited sessions at JSM, including the recent sessions Statistics and the Supreme Court and Statistical Science and the President's BRAIN Initiative. Committee members have helped secondary school statistics classes run post-election surveys, with the goal of teaching students the power of random sampling, the benefits of objective data analysis in claims about voter identification laws, and the importance of voting.

While the committee keeps up with many policy issues, members are undoubtedly unaware of many that potentially fall within the committee's charge. Thus, the committee encourages ASA members to bring important issues to its attention and welcomes ideas for activities that promote statistical methods in public policy. Contact the current committee chair, Jerry Reiter, at jerry@stat.duke.edu or vice-chair, Dan McCaffrey, at dmccaffrey@ets.org. ■

MORE ONLINE
Reach out to the SPA committee. Visit their web page at <http://bit.ly/1JEzNFB>.



STATtr@k

10 Tips for Entry-Level Analytics Professionals

Katie Ferguson, Executive Recruiter at Burtch Works



It's no secret that analytics and data science are the hottest fields to get into right now. But getting into the field can be tough, and even with a stellar degree, it can be tricky to navigate the quantitative job landscape as an entry-level professional. Below are items recruiters look for in early career professionals, as well as tips that may help you in your initial search.

1

A completed internship. A great way to test your skills, continue learning, and expand your network is to complete an internship (see

www.amstat.org/education/internships.cfm). Without previous work experience, prospective employers will look at internships (and coursework) to determine if you might be a good fit for their organization.

2

Experience with large, real-world data sets. One of the biggest challenges students will face in their first analytics job is lack of experience with messy, large, real-world data sets. It is crucial that you find a way to add this to your experience through MOOCs (massive online

open curriculum) such as Coursera or Udacity, internships, coursework, or Kaggle competitions.

3

Kaggle competitions. Kaggle hosts data-crunching competitions in which you can practice your skills; compete against other members; and gain access to large, real-world data sets similar to the ones you might use at your first job. It is a great resource, and employers often view Kaggle experience similar to how they would view coursework or internships.

4

SAS certification. Although the availability of tools to wrangle Big Data has been diversifying, many employers still use SAS—and many look to the certification to verify credibility of analytical skills.

5

A LinkedIn profile. More than 90% of recruiters who use social media use LinkedIn. It has become the go-to resource for many companies wishing to check your references and résumé. Having an updated, professional profile allows companies to see you as a person they might want to hire, not just an anonymous résumé.

6

An advanced degree. In “Burtch Works Study: Salaries of Predictive Analytics Professionals” (see <http://bit.ly/1IBiy02>), 86% of analytics professionals had at least a master’s degree and 18% had a PhD in data science. Among data scientists, 88% held at least a master’s degree and 46% held a PhD.

7

Familiarize yourself with the industry. Learn about the key players in your industry and what the latest tools and techniques are. Also, stay aware of industry news that may affect your opportunities or the companies you’re applying to.

8

Research companies. As well as knowing more about the industry you’re targeting, you should make sure to research the companies you’re applying to. Knowing about changes in business strategies, corporate goals, and current events are

MORE ONLINE

- Top Career Tips for Young Analytics Professionals
www.slideshare.net/LindaBurtch/bw-top-career-tips-2014-06-18
- Job Search Mistakes
www.burtchworks.com/2014/12/08/8-biggest-job-search-mistakes-quants-still-making
- Career Strategy Mistakes
www.burtchworks.com/2014/12/15/worst-strategic-career-mistakes-quants-are-making
- More Tips from Burtch Works
www.burtchworks.com

all ways to show you have business savvy in addition to technical chops. Companies like to hear you are well informed, because this shows you are committed, interested, and willing to learn as much as you can about their needs and concerns.

9

Read job descriptions. Looking through job descriptions is a great way to get a feel for what technical skills companies want and indicate what else you may need to learn.

10

Network, network, network! Although it may be daunting, networking is a great way to learn about opportunities. Check out your local chapter of the ASA, join other industry groups, or attend local meet-ups to network with professionals in your field. Once you have completed your LinkedIn profile, you can add everyone you meet as a connection and join relevant LinkedIn groups.

For more information about job interviews, references, and strengthening your communication skills, check out Burtch Works’ blog at www.burtchworks.com/blog. Best of luck with your endeavors, and make sure to connect with me on LinkedIn! ■



THE WORLD OF STATISTICS

UNSD, The World of Statistics Joining Forces on World Statistics Day 2015

Jeffrey Myers, ASA Public Relations Coordinator

The United Nations Statistics Division (UNSD) is gearing up for World Statistics Day 2015, and The World of Statistics is joining the agency to help promote the celebration to statistical organizations around the globe.

World Statistics Day 2015 will be marked October 20 this year. As part of the celebration, the global statistical community will showcase its achievements and ongoing work to improve society globally.

Ronald L. Wasserstein, ASA executive director and member of The World of Statistics Steering Committee (<http://bit.ly/1Jh52zq>), recently met with several UNSD officials, including Director Stefan Schweinfest, at the United Nations in New York City.

Wasserstein updated the UNSD representatives on The World of Statistics network—which is comprised of more than 2,360 organizations in academia, industry, government, and research—and agreed to share UNSD-developed information about World Statistics Day plans and activities with the network's participants.

UNSD already unveiled the celebration logo, launched a website (<http://worldstatisticsday.org>), and released a kick-off video unveiling the celebration's logo (<http://bit.ly/1QMuzCO>). It will be developing and sharing additional materials and resources in the coming months.

Participant News

Europe—The European Network for Business and Industrial Statistics 15th Annual Conference (ENBIS-15) will take place in Prague in the Czech Republic. The conference sessions are scheduled for September 7–9, while preconference administrative meetings, courses, and workshops will be conducted September 6. Similar post-conference sessions will be held September 9–10. More information about ENBIS-15 will be published online at www.enbis.org.

Jamaica—The Jamaica Statistics Symposium (JASSYM) and Preconference Workshop 2015 will be held October 28–30 in Kingston. The event will introduce individuals from all sectors of the country's society to the best methods of management, analysis,

interpretation, and application of findings from data. Go to the event Facebook page for additional information and the call for papers (www.facebook.com/JamStatSymp).

Romania—The National Institute of Statistics (NIS) is conducting a series of roundtable discussions with the Institute for National Economy (INE) in 2015. The series brings together organizations representing official statistics (NIS) and research (INE and the Romanian Academy) to clarify statistical methodologies, develop data series, or devise new indicators or quantification/estimation methods of current economic and social trends. The timing and topics for the roundtables are the following:

- March: System of Sustainable Development Indicators: Level and Trends in Romania Compared to Other EU Countries
- June: Macroeconomic Efficiency Reflected in the Indicators of the INS
- September: Gaps in Per Capita Consumption Indicators Depending on the Level of Household Income
- December: Trends in R&D and Innovation in Romania and Requirements of the EU 2020 Strategy

United States—The first Summer Institute in Statistics for Big Data will be held at the University of Washington in Seattle July 6–22. The institute will consist of a series of two-and-a-half-day modules designed to introduce biologists, quantitative scientists, and statisticians to modern statistical techniques for the analysis of biomedical Big Data. Go to the event website (<http://bit.ly/1HjgDym>) for more information.

Uzbekistan—The 3rd Scientific Conference: Statistics and Its Applications will be held at the National University of Uzbekistan in Tashkent October 16–17. Attendees will be scientists of the Republic of Uzbekistan who are engaged in current issues of statistics and its practical application, as well as foreign scientists. For more information, visit <http://bit.ly/1L3Znf3>. ■



MORE ONLINE

Read previous issues of *News from The World of Statistics* e-newsletter at www.worldofstatistics.org/news-of-the-world-of-statistics-archive.

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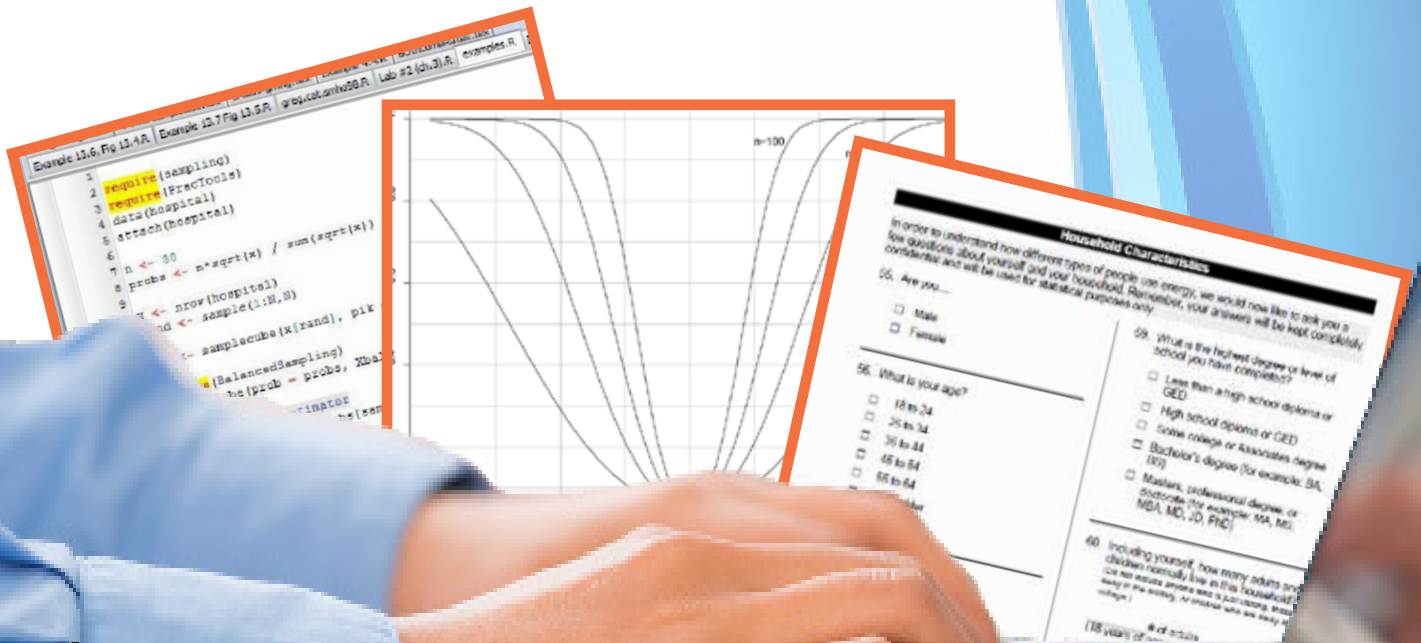
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GAISE 2015: New Report for a New Era

Michelle Everson

The *Guidelines for Assessment and Instruction in Statistics Education (GAISE) College Report*, originally endorsed by the ASA in 2005, has had a profound effect on the teaching of statistics. However, advances in technology alone warrant a re-evaluation of the *GAISE College Report*. Students have access to technologies and web resources that did not exist when the report was drafted, and the kinds of data sets students can access also have changed dramatically. In addition, there are new assessment tools and new thoughts about how teachers can and should assess students.

Also, an extensive literature has been published since 2005, and many innovative ideas and advances need to be incorporated into a new report and made accessible to a wider audience. By sharing specific ways the GAISE recommendations can be implemented within a variety of settings (e.g., in the classroom, in online or blended learning environments, etc.) and types of first courses, the overall quality of statistical education can be improved further.

A committee originally assembled through the Section on Statistical Education will review the GAISE recommendations and propose changes to be incorporated into a new report. The committee, already underway on the review, reaffirmed the following six core *GAISE College Report* recommendations:

1. Emphasize statistical literacy and develop statistical thinking
2. Use real data
3. Stress conceptual understanding, rather than mere knowledge of procedures
4. Foster active learning in the classroom
5. Use technology for developing conceptual understanding and analyzing data
6. Use assessments to improve and evaluate student learning

The committee welcomes input from the entire statistics education community. A webinar will be presented through the Consortium for

GAISE Committee Members

Robert Carver, *Stonehill College*

Michelle Everson (chair), *The Ohio State University*

John Gabrosek, *Grand Valley State University*

Ginger Holmes Rowell, *Middle Tennessee State University*

Nicholas Horton, *Amherst College*

Robin Lock, *St. Lawrence University*

Megan Mocko, *University of Florida*

Allan Rossman, *Cal Poly San Luis Obispo*

Deborah Rumsey, *The Ohio State University*

Paul Velleman, *Cornell University*

Jeffrey Witmer, *Oberlin College*

Beverly Wood, *Indian River State College*

the Advancement of Undergraduate Statistics Education in July (see www.causeweb.org/webinars). Additionally, a panel session titled “GAISE into the Future: Updating a Landmark Report for

an Increasingly Data-Centric World” will take place at the Joint Statistical Meetings in Seattle August 10 from 2:00 p.m. to 3:50 p.m. PDT. The committee will share details about the process and changes being considered and solicit feedback.

Plans are in place to present a revised college report to the ASA Board of Directors for endorsement before the end of 2015. ■



Explore Seattle — There's So Much to Do and See!

Check out some of Seattle's attractions beyond the convention center

Outdoors

The largest local outdoor organization, **The Mountaineers**, <http://bit.ly/1RAEpcn> offers hiking, biking, climbing, scrambling, sailing, and kayaking.

The Seattle Chapter of the Sierra Club, <http://bit.ly/1L0m9EC>, offers area outings, primarily hiking.

The Cascade Bicycle Club, www.cascade.org, offers organized bicycle rides, keeping a list of local bike rental possibilities.



Seattle Day Trips

Pike Place Market, www.pikeplacemarket.org, located in the heart of downtown Seattle, is the oldest continuously operated public market in the United States. The market's neon sign provides an image of Seattle seen on many of the souvenirs sold within its shops. The history of the market's beginnings—onion prices increasing tenfold in the early 1900s and resultant pressure from citizens and consumers to cut out the middle man and buy direct from the producer—still inform its practices.

Take the occasion to meet the producers of fresh fruit, vegetables, and flowers or visit the world-famous fishmongers at **The Pike Place Fish Market**, who literally make fish fly both over the counter and to your home.

Wander the labyrinth of funky underground shops, but be prepared to brave the crowds, as Pike Place Market attracts more than 10 million visitors every year.

The adjacent mini-park is a grand picnic spot, with views of Puget Sound, ferries, and the Olympic Mountains.

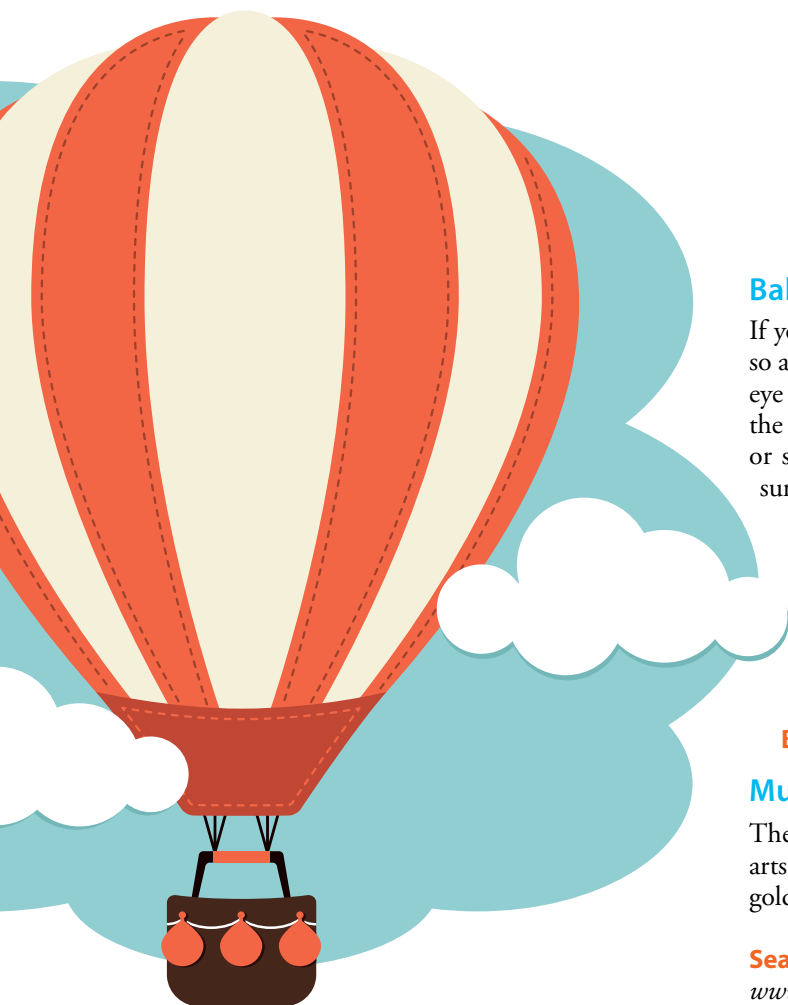
Seattle Center, www.seattlecenter.com, site of the 1962 World's Fair, is another crowd pleaser that claims more than 10 million visitors per year. In addition to the Space Needle, the 87-acre campus includes museums, gardens, fountains, theaters, shops, and restaurants.

For the engineers in the group, the **Hiram M. Chittenden (Ballard) Locks**, www.seattle.gov/TOUR/locks.htm, which transfer commercial and pleasure boats between the saltwater of Puget Sound and the fresh water of Lake Union, will likely prove appealing. Environmental statisticians may appreciate the 21-level fish ladder built in 1976 next to the locks to preserve the migrating fish runs. Adult salmon should still be heading back to

their former birthplace and future spawning ground in early August; they can be seen jumping over some of the weirs and from lighted underwater viewing windows. The botanical gardens and grassy slopes provide the perfect space for a picnic while watching boats lock through.

For something off the beaten path, try visiting Seattle neighborhoods by foot. From **Alki Beach** <http://www.seattle.gov/tour/alki.htm> (southwest of downtown Seattle),





views of the city, the Olympic Mountains, and Bainbridge Island are spectacular. Sunbathers and volleyball players on the beach may have you forgetting you're visiting the "rainy city."

As you meander along the beachside trail, you'll see a small replica of the Statue of Liberty, reminiscent of the area's original name—New York-Alki—and an obelisk marking the spot where city founders first disembarked from their vessel back in 1851.

In **Lake Union**, www.visitseattle.org/Visitors/Discover/Neighborhoods/Lake-Union-Area.aspx, you can see the home of Insightful, Corp., makers of S-PLUS software. You'll also get a look at the old Lake Union Steam Plant. The building, while retaining some semblance of its former life with facsimile smokestacks, was converted into an office building.

Finally, you'll have a street-side view of the many floating homes along Lake Union. If you'd like a better view of the houseboats along Lake Union, kayaking is the way to go. By kayak, you can weave in and out of the docks and more closely note the variety of homes—from beach shacks on logs to floating palaces with underwater basements—otherwise restricted to residents.

Ballooning

If you can't decide what to do because it all sounds so appealing, take a hot air balloon and get a bird's-eye view of everything. There are several outfits in the area that offer a range of options, from sunrise or sunset tours for groups to a romantic couple's sunset flight:

Let's Go Ballooning <http://lets goballooning.com/hot-air-balloon-rides-in-seattle>

Airial Balloon Company
www.airialballoon.com

Balloon Depot www.balloondepot.com

Museums

There also is a variety of museums, ranging from arts to science, industrial history to aerospace, and gold to glass:

Seattle Art Museum
www.seattleartmuseum.org

Museum of History & Industry
www.mohai.org

Science Fiction Museum and Hall of Fame
www.seattle.gov/TOUR/scifi.htm

Pacific Science Center
www.pacificsciencecenter.org

Seattle Children's Museum
<http://thechildrensmuseum.org>

Wineries

Many of the islands have wineries that offer tours and tastings on the weekend in addition to estate-grown wines, such as **Madeleine Angevine** and **Siegerrebe**.

Other wineries in Washington include those in **Woodinville**, just 20 miles northeast of Seattle, and **eastern Washington**. Check out Washington Wine Tours at www.washingtonwinetours.com for more information.



Washington Day Trips

National parks, forests, and monuments surround Seattle and provide many opportunities to get away from the city and become lost in nature.

To the west of downtown and across the island-peppered Puget Sound, is **Olympic National Park**, www.nps.gov/olym/index.htm, home of Mount Olympus (7,965 feet).

To the northeast is **North Cascades National Park**, www.nps.gov/nocal/index.htm. Snoqualmie National Forest, www.fs.usda.gov/mbs, runs north/south from the North Cascades to **Mount Rainier National Park**, www.nps.gov/moral/index.htm, home of the 14,410-foot mountain that shares its name.

Mount St. Helens National Volcanic Monument, www.fs.usda.gov/mountsthelens, created two years after the 1980 eruption with the goal of allowing the surrounding area to respond naturally to the disturbance, is almost directly south of Seattle—as the crow flies.

A good source of information for hikes, mountain biking, or climbing in the Washington mountains is the **Washington Trails Association**, www.wta.org, which hosts a search engine that allows you to specify region and additional criteria—such as round-trip distance, elevation gain, must-see attractions (e.g., waterfalls, lakes), and user types (e.g., hikers, climbers, or kids).

If you're inspired by the mountains, but would prefer a shorter day trip with less hiking, **Snoqualmie Falls**, www.snoqualmiefalls.com, is a good option that's only 30 miles east of Seattle. The nearly 300-foot falls is a popular tourist spot that attracts around 1.5 million visitors per year. The viewing platform is only 200 feet from the parking lot and is accessible by wheelchair.

Another option is to drive north from Seattle to the beautiful **Deception Pass State Park**, www.parks.wa.gov/411/Deception-Pass-State-Park, where marine, forest, and mountain views abound. The Deception Pass Bridge takes you to the northeastern tip of **Whidbey Island**. From the town of Clinton in the south of Whidbey, you can catch a Washington State Ferry boat back to the mainland.

Whidbey Island is just one of many islands in the sound that can be visited with ease from Seattle. Ten miles southwest of the city is **Vashon Island**, www.experiencewa.com/cities/vashon-island, which has a funky, artsy feel.

Bainbridge Island, www.ci.bainbridge-isl.wa.us, 10 miles west of the city, is somewhat more refined, with a renovated historic town offering fine dining options.

Farther from the city, the **San Juan Islands**, www.visitsanjuans.com, offer the most rural feel. The San Juans, as they're affectionately called by locals, are accessible by the ferries or, if you're not afraid of flying in puddle jumpers and want to avoid the ferry lines, by float plane.

For more about the arts, festivals, shopping, and dining, go to Visit Seattle at www.visitseattle.org/Portals/JSM/Welcome.aspx. ■



MWM Statistics Workshop for Middle- & High-School Mathematics and Science Teachers

SPONSORED BY THE AMERICAN STATISTICAL ASSOCIATION (ASA)

www.amstat.org/education/mwm

Based on the Common Core State Standards for Mathematics (corestandards.org) and Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report: A Pre-K–12 Curriculum Framework (www.amstat.org/education/gaise)

Dates: Tuesday, August 11, and Wednesday, August 12, 2015, 8:00 a.m. to 4:00 p.m.

Place: Seattle, Washington, Washington State Convention Center or nearby hotel (workshop meeting room TBD)

Audience: Middle- and high-school mathematics and science teachers. Multiple mathematics/science teachers from the same school are especially encouraged to attend.

Objectives: Enhance understanding and teaching of statistics within the mathematics/science curriculum through conceptual understanding, active learning, real-world data applications, and appropriate technology

Content: Teachers will explore problems that require them to formulate questions; collect, organize, analyze, and draw conclusions from data; and apply basic concepts of probability. The MWM program will include examining what students can be expected to do at the most basic level of understanding and what can be expected of them as their skills develop and their experience broadens. Content is consistent with Common Core standards, GAISE recommendations, and *NCTM Principles and Standards for School Mathematics*.

Presenters: GAISE report authors and prominent statistics educators

Format: Middle-school and high-school statistics sessions. Activity-based sessions, including lesson plan development

Provided: Refreshments. Handouts. Certificate of participation from the ASA certifying professional development hours. Optional graduate credit available

Cost: The fee for the two days is \$50. Attendees do not need to register for the Joint Statistical Meetings* to participate.

Follow up: Follow-up activities and webinars (www.amstat.org/education/k12webinars). Networking with statisticians and teachers to organize learning communities

Registration: More information and online registration is available at www.amstat.org/education/mwm. Space is limited. If interested in attending, please register as soon as possible.

Contact: Rebecca Nichols at rebecca@amstat.org or (703) 684-1221, Ext. 1877

*The Joint Statistical Meetings is the largest annual gathering of statisticians, where thousands from around the world meet to share advances in statistical knowledge. The JSM activities include statistics education sessions, poster sessions, and the exhibit hall.

REGISTRATION FORM

2015 ASA Biopharmaceutical Section FDA-Industry Statistics Workshop

September 16–18, 2015 • Marriott Wardman Park—Washington, DC

1. Print or type all information and retain a copy for your records.
2. Use a separate form for each registrant.
3. Mail form with payment to FDA-Industry Statistics Workshop Registration, 732 N. Washington Street, Alexandria VA 22314. Fax form (credit card only) to (703) 684-2037.
4. Registration form must be received by August 26, 2015, to be processed at the reduced rate. Purchase orders will not be accepted. ASA Federal ID #53-0204661



www.amstat.org/meetings/fdaworkshop/2015

Forms received without payment will not be processed.

ATTENDEE INFORMATION

ASA ID # (if known) _____

Name _____

Preferred Name for Badge (if other than first name) _____

Organization _____

Address _____

City _____ State/Province _____ ZIP/Postal Code _____

Country (non-U.S.) _____

Phone _____

Email _____

MEAL PREFERENCE

Lunch on Thursday, September 17, is included with your workshop registration.

Please indicate the table number (see back of form) for your 1st, 2nd, and 3rd choices. 1st _____ 2nd _____ 3rd _____

- Lunch only Not attending lunch

Select one of the following menu options: Regular Vegetarian

IN CASE OF EMERGENCY, list the name and phone number of the person we should contact (remains confidential).

Emergency Contact's Name _____

Telephone Number _____

- Please update my ASA customer contact information with this contact information.
- Please exclude my name from the conference attendee roster that will appear on the conference website.



This meeting is ADA accessible.

- Please check here if you need special services due to a disability or have food allergies/restrictions and attach a statement regarding your needs.

CANCELLATION POLICY

Cancellations received by August 26 will be refunded, less a \$25 processing fee and less a \$10 processing fee for each short course. Cancellations received from August 27 to September 7 will be refunded, less a \$50 processing fee and less a \$15 processing fee for each short course. Requests for refunds received after September 7 will not be honored. All cancellations must be made in writing to ASAInfo@amstat.org, via fax to (703) 684-2037, or mailed to FDA-Industry Statistics Workshop Registration, 732 N. Washington Street, Alexandria VA 22314.

REGISTRATION FEE (required)

	By August 26	August 27 –September 7	
Registrant	\$335	\$360	\$ _____
Academic (nonstudent)	\$240	\$265	\$ _____
Biopharm Section Member	\$250	\$275	\$ _____
Government Employee	\$150	\$175	\$ _____
Student	\$130	\$155	\$ _____

SHORT COURSES Wednesday, September 16

\$105 each before August 26; \$110 each August 27–September 7

8:30 a.m.–12:00 p.m.

- SC1: An Overview of Statistical Considerations in Personalized Medicine: Concept and Methodology, Meijuan Li, FDA \$ _____
- SC2: Handling Missing Data in Clinical Trials, Sonia Davis, The University of North Carolina at Chapel Hill; Michael O’Kelly, Quintiles \$ _____
- SC3: Equivalence and Similarity Testing, Shein-Chung Chow, Duke University; Yi Tsong, FDA/CDE \$ _____
- SC4: Introduction to PK/PD Modeling for Statisticians, Yaming Hang, Biogen Idec; Alan Hartford, AbbVie \$ _____

1:30 p.m.–5:00 p.m.

- SC5: Dose-Finding in Drug Development: Methods and Implementation, with Focus on MCP-Mod, Frank Bretz, Novartis; Jose Pinheiro, Johnson & Johnson \$ _____
- SC6: Statistical Strategies for Clinical Development of Personalized Medicines, Cong Chen, Merck \$ _____
- SC7: Bayesian Adaptive Phase I Oncology Trials: Methodology and Implementation, Beat Neuenschwander, Novartis Pharmaceuticals AG; Satrajit Roychoudhury, Novartis Pharmaceuticals \$ _____
- SC8: Designing Observational Comparative Studies Using Propensity Score Methodology in Regulatory Settings, Donald Rubin, Harvard University; Lilly Yue, FDA/CDRH \$ _____

TOTAL \$ _____

PAYMENT

- Check/money order payable to the American Statistical Association (in U.S. dollars on U.S. bank)

Credit Card: American Express Discover MasterCard VISA

Card Number _____

Expiration Date _____ Security Code _____

Name of Cardholder _____

Authorizing Signature _____

Roundtable Luncheon Topics Thursday, September 17

Adaptive Design

- TL1 Logistics and Implementation of Adaptive Trial Designs, Eva Miller, inVentiv Health Clinical
- TL2 Enriching Patient Population by Response: Placebo Run-In, Randomized Withdrawal, Sequential Parallel Comparison Design (SPCD), and Twice Enriched Design (TED), Anastasia Ivanova, The University of North Carolina at Chapel Hill
- TL3 Key Characteristics in Bayesian Adaptive Design, Xin Fang, FDA/CDRH
- TL4 Challenges and Opportunities for Statisticians in Planning/Implementing Adaptive Trial Designs, Nan Shao, Covance, Inc.
- TL5 HO P-Value–Based Futility Decision and Other Seemingly Inappropriate Methods, Stan Lin, FDA/CBER
- TL6 Adaptive Designs in Unblinded Studies?, Jie (Jack) Zhou, FDA/CDRH
- TL7 Are Statisticians Ready to Implement Increasing Number of Platform Trials?, Emelita de Leon-Wong, PPD
- TL8 Adaptive Design in Medical Device Trials, Peter Lam, Boston Scientific

Bioequivalence, Generics, and Biosimilars

- TL9 Statistical Issues and Methods in Biosimilar, Jin Xu, Merck

Biomarkers

- TL10 Precision Medicine: Statistical Issues, Trial Design, and Regulatory Aspects, Amir Handzel, Astrazeneca

Comparative Effectiveness

- TL11 Relevance and Data Accessibility for Network Meta-Analyses for Comparative Effectiveness Research Using Patient-Level Randomized Clinical Trial Data, Leiya Han, PPD
- TL12 Statistical Assessment of Comparative Effectiveness in Clinical Trials, Isaac Nuamah, Janssen R&D

Diagnostics

- TL13 Precision Studies for In-Vivo Devices, Bipasa Biswas, FDA

DSMB/Interim Analysis/Advisory Committee

- TL14 Incorporating Futility into a Phase 3 Outcomes Trial Governed by a Data-Monitoring Committee, Richard Davies, GlaxoSmithKline

Early Phase Trials

- TL15 Robust Decision Making in Early-Stage Clinical Development, Yanli Zhao, MedImmune/AstraZeneca; Erik Pulkstenis, MedImmune

High-Dimensional Data (e.g., Pharmacogenomics)

- TL16 Best Practices in Next-Generation Sequencing Methodology with Impact on High-Dimensional Findings, Justin Davis, AbbVie

Medical Devices

- TL17 How to Treat Site in Clinical Trials: Fixed or Random?, Chul Ahn, FDA/CDRH
- TL18 Immunoassay, Limit of Quantitation, Limit of Detection, Modeling, Kuang-Lin He, Fujirebio Diagnostics, Inc.
- TL19 Making Sense of Sensors, Vadim Zippunnikov, The Johns Hopkins University

Meta-Analysis

- TL20 Bayesian Meta-Analysis and Meta-Analysis for Stroke and Myeloma, Xiaoping Liu, Zhongnan Hospital of Wuhan University

Missing Data

- TL21 The Prevention and Treatment of Missing Data in Clinical Trials: How Far Have We Come?, Gosford Sawyerr, Janssen Pharmaceuticals
- TL22 Practical Issues with MMRM, Dalong Huang, Takeda Development Center Americas, Inc.
- TL23 Impact of Missing Data and Their Imputations in Long-Term Treatment of Chronic Auto-Immune Diseases, Achim Guentner, Novartis Pharmaceuticals AG
- TL24 Missing Data Analysis Planning in Late-Stage Clinical Trials: A Check-Up on Current Practices, Davis Gates, Merck
- TL25 Investigating Product Complaints: Pitfalls of Working with Manufacturing Data, Aaron Spence, BIOVIA

Modeling and Simulation

- TL26 Validation of Predictive Modeling in Observational Studies, Rui Li, Quintiles; Zahouhui Su, Quintiles
- TL27 The Interface Between Statistical and PKPD Modeling and Simulation, Matthew Rotelli, Eli Lilly and Company
- TL28 Analyses of Longitudinal Clinical Data with Time-Varying Covariates, Rong Liu, Eli Lilly and Company; Qianyi Zhang, Eli Lilly and Company

Noninferiority

- TL29 Bayesian and Frequentist Approaches to Noninferiority Clinical Trials, Carl DiCasoli, Bayer Healthcare Pharmaceuticals
- TL30 Noninferiority Trial with Survival Endpoints, Mengdie Yuan, FDA; Elena Rantou, FDA/CDER

Observational Studies

- TL31 The Impact of EU Post-Approval Safety Surveillance Studies (PASS), Charles Liss, AstraZeneca Pharmaceuticals
- TL32 Statistical Considerations for Handling Treatment Switches in Observational Studies, William Hawkes, Quintiles RWLPR

Oncology

- TL33 PFS: Central vs. Local, Lihui Zhao, Novartis
- TL34 Noninferiority in Cancer Trials, Tingting Yi, Novartis

- TL35 Challenges and Opportunities of Statistics in Oncology Immunotherapy, Yi He, Celldex Therapeutics

Other

- TL36 Statistical Intellectual Property, Philip Lavin, Lavin Consulting LLC
- TL37 A Comprehensive Review of the Multiple-Sample Tests for the Three General Data Types, Ying Yang, FDA/CDRH
- TL38 Leadership and Career Development for Junior Statisticians Working on Clinical Trials, Lei Gao, Sanofi
- TL39 Crossover Design in Clinical Studies, Tao Wang, Eli Lilly and Company
- TL40 We the People of the Biopharm Section ... Chat with the Chair-Elect, B. Christine Clark, QDS

Patient-Reported Outcomes and Patient Preferences

- TL41 Patient-Reported Outcomes in Oncology, Laura Fernandes, FDA
- TL42 Incorporating Patient Preferences Evidence into Regulatory Considerations, Martin Ho, FDA/CDRH
- TL43 PRO and COA Experiences: Regulatory and Patient Priorities and Processes, Laura Johnson, FDA

Regulatory Topics/Guidances

- TL44 Pathway for Antibiotics: Revisiting Endpoints and Designs, Prasanna Ambati, PPD
- TL45 Next-Generation Sequencing Diagnostic Tests, Peggy Wong, Merck
- TL46 Challenges and Good Practices to Improve the Quality of Therapeutic Device Submissions, Manuela Buzoianu, FDA/CDRH

Role of Statisticians

- TL47 Promotion of Involvement of Statistician and Statistical Analysis of Risk Based Monitoring in Clinical Trials, Xiaoqiang Xue, Quintiles Inc.

Safety

- TL48 Blinded and Unblinded Evaluation of Aggregate Safety Data During Clinical Development, Bill Wang, Merck

Therapeutic Area Specific Topic

- TL49 Risk Stratification Strategies to Identify Low-Risk Patients in Cardiovascular Clinical Trials, Juliana Ianus, Janssen R&D; CV Damaraju, Janssen R&D
- TL50 Suicidal Ideation and Behavior: Design and Analysis of Clinical Trials, Pilar Lim, Janssen R&D; Rosanne Lane, Janssen R&D

Quality/Validation

- TL51 IWRS: Interactive Web Response System—Looking Beyond Randomization and Medication Kit Assignment, Rama Melkote, Janssen R&D; Kim Cooper, Janssen R&D

Statistics Without Borders Receives Humanity Road's Da Vinci Award

Statistics without Borders (SWB) is a recipient of Humanity Road's 2014 Da Vinci Award, which is presented to a patron or contributor that supports its programs. SWB was honored for coauthoring and publishing *Guide to Social Media Emergency Management Analytics* (<http://humanityroad.org/smemanalyticsguide>), a tool for emergency managers and decision-makers that helps them identify and discuss relevant questions when planning social media in emergency management response. "We wish to thank SWB for all their help in performing the data study and contributing to this important guidebook," said Humanity Road President Chris Thompson.

Humanity Road delivers disaster preparedness and response information to the global mobile public before, during, and after a disaster.

A version of *Guide to Social Media Emergency Management Analytics* will be published in the June issue of *Statistical Journal of IAOS*. ■

MORE ONLINE
Find out more about Statistics without Borders here: <http://community.amstat.org/statisticswithoutborders/home>. Want to know more about Humanity Road? Look here: <http://humanityroad.org/2014-davinci>.

A Guide to Social Media Emergency Management Analytics

Understanding the Place of Analytics through Typhoon Haiyan Social Media Analysis



Cat Graham | Chris Thompson
Humanity Road

Michiko Wolcott | Joseph Pollack | Minh Tran
Statistics Without Borders



The cover of the *Guide to Social Media Emergency Management Analytics* from Statistics without Borders.



Michiko Wolcott

Who's Who

- **Michiko Wolcott** was the coordinator and team lead on the SWB side. Follow [@Michiko_wolcott](#) on Twitter.
- **Joseph Pollack** was instrumental in incorporating the humanitarian crisis view in the project and contributed to the initial draft of the paper.
- **Minh Tran** was a collaborative data analyst throughout the project.

Sharon-Lise Normand is the 2015 recipient of the L. Adrienne Cupples Award for Excellence in Teaching, Research, and Service in Biostatistics. The annual award honors a biostatistician whose academic achievements reflect the contributions exemplified by Cupples, who is professor in Harvard's T.H. Chan School of Public Health (SPH).

Normand was honored for her research on the development of statistical methods for health services research and inquiries into methods for the analysis of patterns of treatment and quality of care for patients with cardiovascular disease and mental disorders.

Normand is professor of biostatistics at Harvard Medical School and the SPH.

For more information about the award and Sharon-Lise Normand, visit <http://bit.ly/1zWdbYj>.

Bin Yu, chancellor's professor in the University of California, Berkeley, Department of Statistics, was named the 2016 Institute of Mathematical Statistics (IMS) Rietz Lecturer. She will present her lecture at the World Congress of Probability and Statistics, which will take place July 11–15, 2016, in Toronto, Ontario, Canada.

The Rietz Lecturer is chosen every three years by the IMS Committee on Special Lectures. It is one of the highest academic honors bestowed by the IMS. For details, visit <http://bit.ly/1H14N6F>.

The American Association for Public Opinion Research (AAPOR) recently announced **Roger Tourangeau**, vice president and associate director at Westat, the newest member of its executive council.

Tourangeau began his three-year term at the 70th Annual AAPOR Conference, held May 14–17 in Hollywood, Florida, where he gave a presentation titled "Mobile Devices for the Collection of Sensitive Information." Tourangeau will serve a year as vice president/president-elect, a year as president, and a year as past president.

For more information, visit <http://bit.ly/1JCCWN7>. ■



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Obituary

A Legacy of Objectivity

By Tom Plewes, Director of the Committee on Population of the National Research Council

Federal statistical agencies are keenly aware of the need for data objectivity, which requires that data be accurate, reliable, and unbiased and presented in an accurate, clear, and unbiased manner. To be trusted, they need to be presented in a clearly nonpartisan way. No one realized this more nor did more to advance the reputation for objectivity of the critical employment, price, and wage data produced by the Bureau of Labor Statistics (BLS) than its 10th commissioner, Janet L. Norwood, who passed away due to complications from Alzheimer's disease on March 27, 2015, in Austin, Texas, at the age of 91.

During her career at BLS and in years after her service as commissioner, Janet found many platforms for advancing the quality, integrity, reliability, and objectivity of federal statistics. She came up through the ranks at BLS, mainly in the bureau's price programs, and was deputy commissioner when, in May 1979 and after 16 years in BLS, she was confirmed as commissioner following the death in office of Julius Shiskin and a short period of service as acting commissioner. Only one other commissioner had previously come up through the ranks, and, until Janet, no commissioner had been female. Other firsts marked her career. She was appointed by a democratic president (Carter) and twice reappointed by a republican (Reagan).

As commissioner, with service from 1979 to 1991, Janet's public contribution to the objectivity of data centered on monthly open testimony on the jobs report—usually on the first Friday of each month—before the Joint Economic Committee of Congress. These monthly employment reports are among the earliest, most closely watched, and politically charged of the federal government's indicators of the health of the economy.

The hearings had an ignoble beginning, introduced in 1971 during the tenure of her predecessor, Geoffrey Moore, when the then-secretary of labor dictated an end to monthly press conferences at which the commissioner explained the data. Shortly thereafter, Congress's Joint Economic Committee stepped into



Janet Norwood in 2004

the breach and began this series of monthly hearings to give the commissioner a platform for an impartial discussion of the statistics. Janet took full advantage of the opportunity to go to Congress and, via widespread press and TV coverage, the public each month, eventually logging 137 hearings over her 12-year tenure. Her analysis in these hearings was precise and crisp, and she took pains to avoid interpretation that might be perceived as political in tone, often side-stepping efforts by members of one party or the other to add flavor to the data releases.

Many considered these monthly appearances dry, technical affairs, but jousting over the meaning of the data often made for high theater. Janet excelled at walking a fine line and sticking to the story the data told. Her nonpartisanship and demeanor engendered trust, and that trust extended to the data, even though the estimates sometimes looked wacky on a month-to-month basis and were hard to explain.

More than surviving and enhancing the hearings, however, Janet made her mark on the bureau by initiating programs to protect and enhance the

Tom Plewes served as associate commissioner for employment and unemployment statistics under Janet Norwood, carrying her papers to hearings on Capitol Hill for many of her 137 Joint Economic Committee appearances.



Barbara Everitt Bryant (left), U.S. Census Bureau director, and Janet Norwood, commissioner of the Bureau of Labor Statistics, sign an agreement for sharing data between the two agencies on February 7, 1990.

quality and scope of its core programs. She did it despite widespread budget cuts during most of her tenure. In tackling often difficult technical problems, she insisted on that same impartiality and focus on the independent public-service role of the bureau.

Janet's major contribution was in the significant improvements made to the sensitive Consumer Price Program (CPI). It was a time when inflation was rising substantially and great attention was paid to the CPI, but there was much controversy over its technical merits. In this time of heightened interest, Janet was able to implement revisions in the homeownership component of the CPI that improved its quality. Also on the substantive side, she implemented significant improvements in the availability and quality of data on women and minorities.

Janet served as elected president of the American Statistical Association in 1989 while serving as commissioner. In the years after she stepped down

as commissioner in 1991, she continued to remain active in statistical bodies and public service venues. As a senior official at the Urban Institute, she wrote papers and testified before Congress about various political issues. She served on and chaired a number of study panels for the National Research Council's Committee on National Statistics and was active on panels for the National Academy of Public Administration. She chaired the Advisory Committee on Leading Indicators at the NY Conference Board and served as a member of the executive committee on the board of directors of the National Opinion Research Center at the University of Chicago. In another first, she was the first woman elected as president of the prestigious Cosmos Club in Washington.

Janet leaves a legacy of commitment to objectivity, integrity, and quality of the federal government's data that lives on today in the BLS and throughout the government.

sectionnews

Biometrics

Edited by Sheng Luo, Biometrics Section Publications Officer

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

The Biometrics Section will sponsor two Continuing Education courses and six invited sessions at the 2015 Joint Statistical Meetings in Seattle, Washington. To view the list of courses and invited sessions, as well as the winner of the travel awards and Byar Young Investigator Award, visit <http://bit.ly/1EXsH5y>.

The section also invites applications for funding to

support initiatives developing outreach projects focused on enhancing awareness of biostatistics among quantitatively talented U.S. students. Of particular interest are projects that encourage students to pursue advanced training in biostatistics. For more information, contact the strategic initiatives subcommittee chair, Roslyn Stone, at Roslyn@pitt.edu.

sessions, but if we generate enough good ideas, we will be able to compete for additional slots.

Also, if you have ideas for short courses, submit them to the section's 2015–2016 Continuing Education chair, Andrea Troxel, at atroxel@mail.med.upenn.edu.

For more information about the section, read its latest news and updates at www.bio.ri.ccf.org/Biometrics.



JSM 2016

It's also time to start thinking about invited sessions for next year's Joint Statistical Meetings, which will be held July 30 to August 4 in Chicago, Illinois. Anyone who is interested in organizing an invited session or who has ideas for one should contact the section's 2016 program chair, Dipankar Bandyopadhyay, at dbandyop@umn.edu.

A typical invited session consists of three 30-minute talks followed by a 10-minute invited discussion and 10 minutes of floor discussion. However, other formats are possible. The 2015 program is a good source for examples.

Remember, the most mature ideas will have an advantage in competing for the limited number of slots, so it's best to have your ideas in final form now. The Biometrics Section will have at least four invited

Physical and Engineering Sciences

William Li, SPES JSM Chair

The Section on Physical and Engineering Sciences (SPES) program for JSM 2015 will feature three invited, three topic-contributed, and five contributed sessions.

Invited

Scaling Up Response Surface Models for Big Geostatistical and Computer Simulation Data, organized by Robert Gramacy of The University of Chicago

Design and Analysis of Mixture Experiments: New Methods with Applications, organized by Scott Cooley of Pacific Northwest National Laboratory

Complex and High-Dimensional Inference in Astrostatistics, organized by Jessi Cisewski of Carnegie Mellon University

Topic-Contributed

Physical Sciences, organized by David Jones of Harvard University

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New Developments and Applications in Design of Experiments, organized by Julie Zhou of the University of Victoria

Statistical Innovations in Failure Time Modeling of Complex Systems: Pathway to a Better Decision, organized by Sanjib Basu of Northern Illinois University

Awards for Outstanding Presentations

Michael Crotty, SPES Awards Chair

The section is also pleased to announce the results of its annual competition for contributed papers presented at last year's JSM in Boston, Massachusetts. The outstanding presentation awards encourage excellence in presentation and help raise the SPES contributed sessions to a higher level.

All awards are based on audience evaluations of each speaker.

Outstanding Presentation Award

Christine Anderson-Cook, Los Alamos National Laboratory: "Identifying the Best 16-Run Regular or Non-Regular Screening Design for 6 to 8 Factors Using Multiple Objectives"

Runner-Up, Outstanding Presentation Award

Hernando Ombao, University of California, Irvine: "Modeling Neuronal Cross-Interactions"

Honorable Mentions

Andrew Robinson, University of Melbourne: "ML vs. MRR: Weibull Parameter Estimation for Making Decisions"

Shan Ba, Procter & Gamble: "Optimal Sliced Latin Hypercube Designs for Computer Experiments with Continuous and Categorical Factors"

Maria Weese, Miami University: "Powerful Supersaturated Designs When Effect Directions Are Known"

Gwendolyn Eadie, McMaster University: "Measuring the Mass of a Galaxy: An Evaluation of the Performance of Bayesian Mass Estimates Using Statistical Simulation"

Winners received a certificate recognizing their accomplishment and a cash award.

The awards for the JSM 2014 best presentations will be presented at the SPES mixer during the 2015 meetings in Seattle. Those who assisted with the evaluations are Po-hsu Chen, Elizabeth Claassen, Stephanie DeHart, Emily Griffith, Laura Lancaster, Rajneesh Rajneesh, and Liz Schiferl.

Visit the section's website at <http://community.amstat.org/spes/home> for more news and announcements. ■

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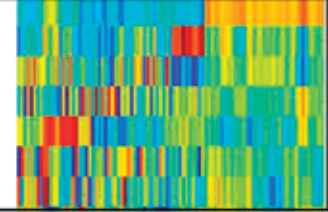
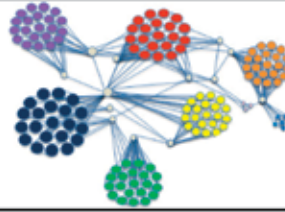
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November 1-3, 2015
in Hickey Auditorium
Department of Biostatistics

The University of Texas MD Anderson Cancer Center, Houston, Texas

Target audience: Biostatisticians, bioinformaticians, computer scientists and computational biologists who practice biomedical and biopharmaceutical research in collaboration with basic scientists and clinicians

Topics:

Metabolomics	Proteomic-genomic integrative analysis
Radiogenomics	Statistical methods for imaging genomics
Single-cell technologies	Using EHR data in genetic/genomic studies
Cancer imaging studies	Early detection & validation integrative cancer studies
Omics in ovarian cancer	Cancer subgroup identification & molecular characterization
Integrative genomics across data types	Copy number analysis from next-generation sequencing data

Program Co-chairs: Kim-Anh Do, PhD (*MD Anderson*)
Xihong Lin, PhD (*Harvard SPH*)

Christina Kendzierski, PhD (*Univ Wisconsin, Madison*)

Program Committee:

Keith Baggerly, PhD (<i>MD Anderson</i>)	Jeffrey Morris, PhD (<i>MD Anderson</i>)
Veerabhadran Baladandayuthapani, PhD (<i>MD Anderson</i>)	Adam Olshen, PhD (<i>UCSF</i>)
Debashis Ghosh, PhD (<i>Univ Colorado, Denver</i>)	Pei Wang, PhD (<i>Mt Sinai Med Center</i>)
Tim Johnson, PhD (<i>Univ Michigan</i>)	

Keynote Speakers:

Rafael Irizarry, PhD (<i>Dana-Farber Cancer Institute</i>)	Xihong Lin, PhD (<i>Harvard SPH</i>)
Eric Schadt, PhD (<i>Mount Sinai Medical Center</i>)	

General session speakers include:

Genevra Allen, PhD (<i>Rice Univ</i>)	Eric Lock, PhD (<i>Univ Minnesota</i>)
Keith Baggerly, PhD (<i>MD Anderson</i>)	Jason McDermott, PhD (<i>Pacific NW Natl Lab</i>)
Veerabhadran Baladandayuthapani, PhD (<i>MD Anderson</i>)	Jeffrey Morris, PhD (<i>MD Anderson</i>)
Henrik Bengtsson, PhD (<i>UCSF</i>)	Bin Nan, PhD (<i>Univ Michigan</i>)
Pratip Bhattacharya, PhD (<i>MD Anderson</i>)	Nicholas Navin, PhD (<i>MD Anderson</i>)
Rivka Colen, MD (<i>MD Anderson</i>)	Arvind Rao, PhD (<i>MD Anderson</i>)
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Registration and further information — <http://biostatistics.mdanderson.org/iBRIGHT2015>

2015

June

» **17–19—GDRR 2015 4th Symposium on Games and Decisions in Reliability and Risk, Istanbul, Turkey**

For details, visit www.maoner.com/GDRR-2015.htm or contact Refik Soyer, 2201 G St. NW, Washington, DC 20052; (202) 994 6445; soyer@gwu.edu.

17–19—40th Annual Summer Institute of Applied Statistics, Provo, Utah

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

18–19—missDATA2015, Rennes, France

For details, visit missdata2015.agrocampus-ouest.fr or contact Vincent Audigier, Applied Mathematic Department, Agrocampus Ouest, 65 rue de Saint-Brieuc, Rennes, International 35042, France; 02 23 48 54 76; audigier@agrocampus-ouest.fr.

21–24—International Symposium on Forecasting, Riverside, California

For details, visit <http://forecasters.org/isf> or contact Pamela Stroud, 53 Tesla Ave., Medford, MA 02155; (781) 234-4077; isf@forecasters.org.

» **22–24—International Conference on Prostate Cancer, Orlando, Florida**

For more information, visit prostatecancer.cancersummit.org or contact Jenny Anderson, 5716 Corsa Ave., Suite 110, Los Angeles, CA 91362; (650) 268-9744, prostatecancer@omicsgroup.com.

» **28–7/1—BIOSTAT 2015, Dubrovnik, Croatia**

For more information, visit www.hbmd.hr/biostat-2015 or contact Diana Simic, Mihanoviceva 38, Zagreb, International HR-10000, Croatia; +385 98 483 902; diana.simic@foi.hr.

***29–7/1—Joint Symposium on Biopharmaceutical Statistics, Beijing, China**

For details, visit www.isBioStat.org or contact Jie Chen, 304 Evening Walk Lane, Warrington, PA 18976; (215) 491-4623; jiechen0713@gmail.com.

29–7/2—Bayesian Nonparametrics: Synergies Between Statistics, Probability, and Mathematics, Research Triangle Park, North Carolina

For details, visit www.samsi.info/workshop/bayesian-nonparametrics-synergies-between-statistics-probability-and-mathematics-bnp-sspm-j or contact Jamie Nunnally, 19 T.W. Alexander Drive, RTP, NC 27709; (919) 685-9300; nunnally@niss.org.

30–7/2—33rd Leeds Annual Statistical Research Workshop, Leeds, UK

For more information, visit www1.maths.leeds.ac.uk/statistics/workshop/lasr2015 or contact Jessica Brennan, School of Mathematics, University of Leeds, Leeds, International LS2 9JT, UK; +(0)1133435116; Leeds.LASR@gmail.com.

July

1–3—2015 International Conference of Computational Statistics and Data Engineering, London, United Kingdom

For more information, visit www.iaeng.org/WCE2015/ICCSDE2015.html or contact IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, International HK; (852) 3169-3427; wce@iaeng.org.

1–4—5th IMS-China International Conference on Statistics and Probability, Kunming, China

For details, visit www.2015simschina.com or contact Qiwei Yao, London School of Economics, Houghton Street, London, International WC2A 2AE, United Kingdom; 442079556767; q.yao@lse.ac.uk.

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

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

» Indicates events posted since the previous issue

6–8—International Symposium in Statistics (ISS) 2015 on Advances in Parametric and Semiparametric Analysis of Multivariate, Time Series, Spatial-Temporal, and Family-Longitudinal Data, St. John's, Newfoundland, Canada

For details, visit www.iss-2015-stjohns.ca or contact Brajendra Sutradhar, Mathematics and Statistics, St. John's, Newfoundland A1C5S7, Canada; (709) 864-8731; bsutradh@mun.ca.

6–10—30th International Workshop on Statistical Modelling, Linz, Austria

For more information, visit ifas.jku.at/iwsm2015 or contact Helga Wagner, Altenbergerstr.69, Linz, International 4040, Austria; 004373224686831; iwsm2015@jku.at.

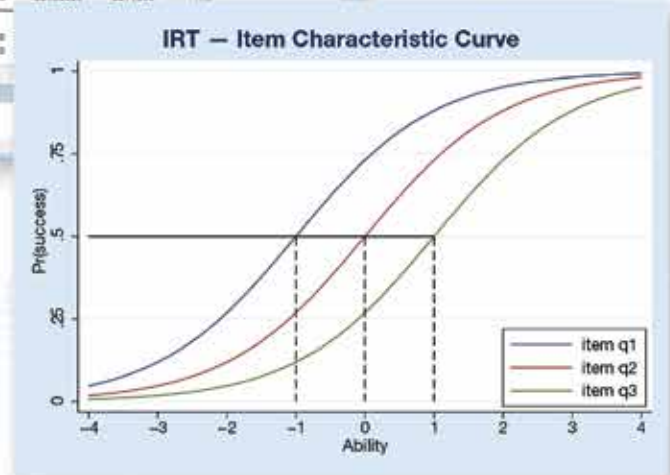
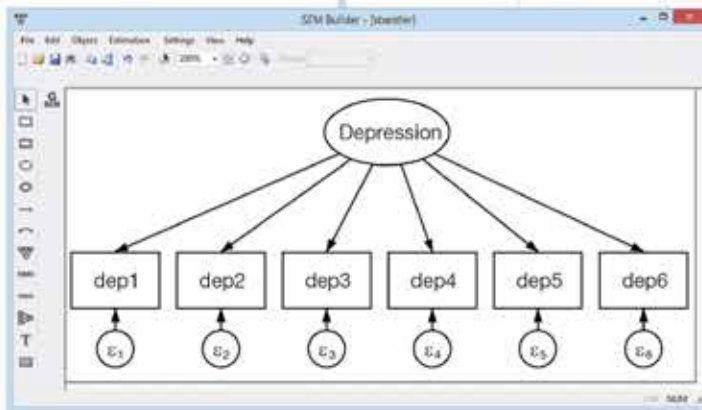
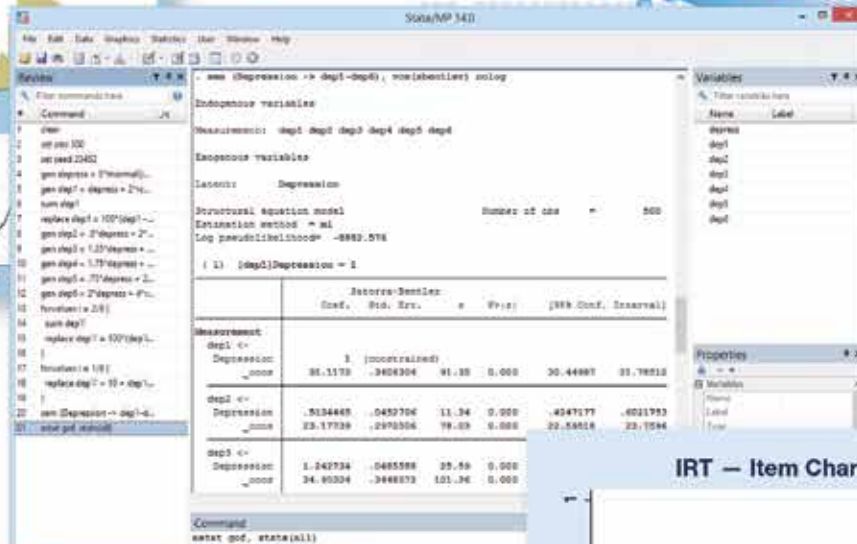
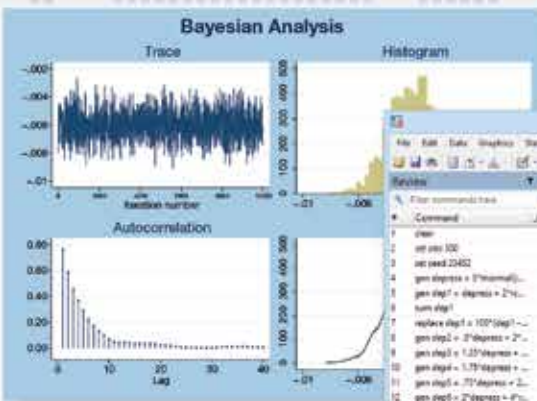
» ***12–15—ISNPS 2015 Biosciences, Medicine, and Novel Nonparametric Methods, Graz, Austria**

For details, visit www.medunigraz.at/imi/isnps2015 or contact Michael Schimek, University of Graz, Graz, International 8036, Austria; +43 316 38513201; michael.schimek@medunigraz.at.

12–16—International Meeting of the Psychometric Society, Beijing, China

For more information, visit www.psychometricsociety.org/content/imps-2015 or contact Susan Rees, 2424 American Lane, Madison, WI 53704; (608) 268-4712; info@psychometricsociety.org.

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» **13–15—Stress Management Summit, Philadelphia, Pennsylvania**

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» **20–22—4th International Conference on Gastroenterology, Orlando, Florida**

For more information, visit gastroenterology.conferenceseries.com or contact Veronika Stark, 5716 Corsa Ave., Suite 110, Los Angeles, CA 91362-7354; (800) 216-6499; gastroenterology@conferenceseries.net.

» **20–22—4th International Conference on Urology, Barcelona, Spain**

For more information, visit urology.conferenceseries.com or contact Emily Johnes, 5716 Corsa Ave., Suite 110, Los Angeles, CA 91362-7354; (702) 508-5200, Ext. 9009; urology@conferenceseries.net.

» **27–29—4th International Conference on Tissue Science and Regenerative Medicine, Rome**

For details, visit www.tissuescience-regenerativemedicine.conferenceseries.com or contact Eva Jones, Holiday Inn Rome Aurelia, Rome, Italy, (650) 268-9744, tissuescience@omicsgroup.com.

» **27–29—International Conference on Clinical Trials, Orlando, Florida**

For details, visit clinicaltrials.conferenceseries.com or contact Christopher Bradley, 2360 Corporate Circle, Suite 400, Henderson, NV 89074-7722; (888) 843-8169; clinicaltrial@omicsgroup.com.

August

» **4–6—Visual Intelligence to Address Ophthalmological Disorders, Valencia, Spain**

For more information, visit ophthalmology.conferenceseries.com or contact Margaret Miller, OMICS Group Conferences, 5716 Corsa Ave., Suite 110, Los Angeles, CA 91362-7354; (650) 268-9744; ophthalmology@omicsgroup.com.

5–8—XXV International Statistical Symposium, Armenia, Colombia

For more information, visit simposioestadistica.unal.edu.co or contact Luis Fernando Grajales Hernández, Department of Statistics - Building 404, Office 342, Bogota, International 01, Colombia; 5713165327; simestadi_fcbog@unal.edu.co.

6–8—21st ISSAT International Conference on Reliability & Quality in Design, Philadelphia, Pennsylvania

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

***8–13—2015 Joint Statistical Meetings, Seattle, Washington**

For more information, visit www.amstat.org/meetings/jsm/2015/index.cfm or contact ASA Meetings, 732 North Washington St., Alexandria, VA 22314; (703) 684-1221; meetings@amstat.org.

» **10–11—Global Summit and Expo on Multimedia and Applications, Birmingham, Alabama**

For more information, visit multimedia.global-summit.com or contact Gracie Jones, 5716 Corsa Ave., Suite 110, Los Angeles, CA 91362-7354; (650) 268-9744, multimedia@omicsgroup.com.

» **10–12—Annual Summit on Sleep Disorders and Medicine, San Francisco, California**

For details, visit sleepmedicine.global-summit.com or contact OMICS Publishing Group, 5716 Corsa Ave., Suite 110, Los Angeles, CA 91362-7354; (650) 268-9744; editor.psychology@omicsonline.org.

» **17–19—International Conference on Mobile Computing and Networking, Birmingham, Alabama**

For details, visit mobilecomputing.conferenceseries.com or contact Edwin Jonson, 5716 Corsa Ave., Suite 110, Los Angeles, CA 91362-7354; (650) 268-9744, mobilecomputing@conferenceseries.com.

» **17–19—International Conference and Exhibition on Satellite, Houston, Texas**

For details, visit satellite.conference-series.com or contact Valentina Esther, Crowne Plaza Houston River Oaks, 2712 Southwest Freeway, Houston, TX 77098; (650) 268-9744, satellite@omicsgroup.com.

23–27—ISCB Conference 2015, Utrecht, The Netherlands

For details, visit www.iscb2015.info or contact Natasja van Schaik, Kloosterweg 6c, Harmelen, International 3481 XC, The Netherlands; +31880898101; iscb2015@congressbydesign.com.

» **24–26—3rd International Conference on Radiology and Imaging, Toronto, Ontario, Canada**

For more information, visit radiology.conferenceseries.com or contact Emily Hunt, Toronto Airport Marriott Hotel, 901 Dixon Road, Toronto, Ontario M9W 1J5, Canada; (650) 268-9744; radiology@omicsgroup.com. ■

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■ Department of applied mathematics and statistics is seeking a leading professor (full professor with tenure) in statistics with expertise and funding record in the broad area of Big Data analytics. This new faculty position is anticipated for spring 2016. For a full position description, application procedures, and/or to apply online, visit www.stonybrook.edu/jobs.

North Carolina

■ The department of biostatistical sciences, Wake Forest School of Medicine, Winston-Salem, NC, is recruiting a PhD in biostatistics, statistics, computer science, or informatics. Expertise in managing large medical record data sets such as administrative claims (CMS) or Epic. Collaboration on local and national medical research projects, methodologic research and teach graduate courses in biostatistics/bioinformatics. Email CV to Monica Kiger, mkiger@wakehealth.edu. AA/EOE. ■

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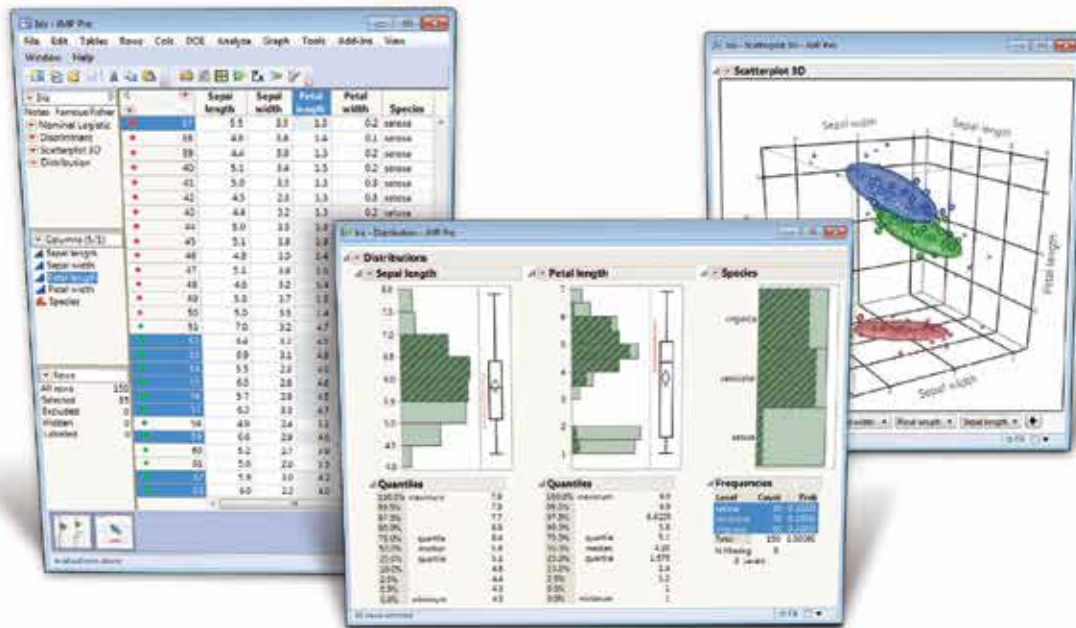
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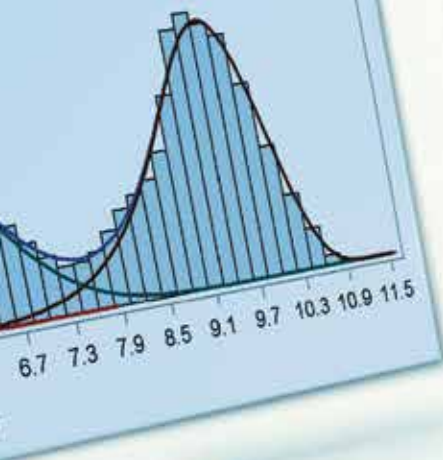
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