

Statistics Impacts a Broad Range of Topics, Many of Which Will Be Discussed at the Joint Statistical Meetings in Miami Beach

Public policy, manufacturing, healthcare, national security policy -- just a few of the subjects under discussion as 5,500 statisticians convene July 30

ALEXANDRIA, VA (PRWEB) JULY 23, 2011 – Statistics enhances our understanding of and plays a critical role in the decisions that impact our daily lives. Sessions at the 2011 Joint Statistical Meetings (JSM) will provide a look into the ways that statisticians contribute to a large variety of disciplines important to everyone, the American Statistical Association (ASA) said today. JSM, the world's largest annual gathering of statisticians, is expected to draw about 5,500 statistics experts from government, industry and academia to the Miami Beach Convention Center July 30 to August 4.

"Statistics is indeed an all-encompassing discipline, and the JSM program reflects that," said Nancy Geller, ASA President. "The rich variety of contributions made by statisticians is clearly on display during this exciting week."

[Note: Members of the press can register online to attend any of the conference sessions at <http://www.amstat.org/meetings/jsm/2011/index.cfm?fuseaction=pressregistration> ASA will be pleased to set up interviews with the presenters; contact [rosanne\(at\)amstat.org](mailto:rosanne(at)amstat.org) or call 703.946.3820]

Titles for the 2011 JSM sessions reflect the broad influence statistics has on issues – public policy, politics, manufacturing, healthcare, national security policy – that are important to our lives today and will be in the future. A small sample of the approximately 2,500 JSM session topics appears below; additional sessions of interest can be found in the JSM online program at <http://www.amstat.org/meetings/jsm/2011/onlineprogram/index.cfm?fuseaction=main>, where you can search on keywords, presenter's name or affiliation, and activity number.

The world is calling; should we answer? (Activity 430)

Deming Lecture by Roger Hoerl, GE Global Research

Could statisticians answer the call? Hoerl believes that statisticians have the ability to address not only the narrow technical questions, but also the big complex challenges of the 21st century, by creatively integrating statistical and non-statistical tools to develop innovative approaches to the complex problems facing the world.

<http://www.amstat.org/meetings/jsm/2011/onlineprogram/AbstractDetails.cfm?abstractid=303459>

Mathematics, Statistics, and Political Science (Activity 45)

Presenter: Andrew Gelman, Columbia University

For each of several examples in public opinion, voting, political representation, and policy, we discuss ways in which statistical analysis has enhanced our understanding.

<http://www.amstat.org/meetings/jsm/2011/onlineprogram/ActivityDetails.cfm?SessionID=206451>

Supreme Court Finds Statistical Significance Is Not Necessary for Causation (Activity 438)

Presenters: Steve Ziliak, Roosevelt University ; Joseph "Jay" Kadane, Carnegie Mellon University ; Donald Rubin, Harvard University ; Daniel T. Kaplan, Macalester College

On March 22, the US Supreme Court found that Matrixx [as a public company] could not use the lack of statistical significance to withhold adverse information from investors. "Matrixx's premise that statistical significance is the only reliable indication of causation is flawed." "Matrixx proposed bright-line rule requiring an allegation of statistical significance to establish a strong inference of scienter is once again flawed." This session examines the implications of the courts' finding for statistics in general and for statistical education in particular.

<http://www.amstat.org/meetings/jsm/2011/onlineprogram/AbstractDetails.cfm?abstractid=303461>

Statistics and Evidence-Based Medicine (Activity 97)

Presenter: Christopher Schmid, Tufts Medical Center

Evidence-based medicine (EBM) is the use of the best available evidence gathered using scientific methods to make decisions about the care of patients. Statistics plays a key role in EBM. Sources of evidence for the risks and benefits of interventions and tests include clinical trials, observational studies, diagnostic tests, meta-analysis, decision and cost effectiveness analysis

<http://www.amstat.org/meetings/jsm/2011/onlineprogram/AbstractDetails.cfm?abstractid=300769>

Mirror, Mirror on the Car, Who's the Fairest of Them by Far? (Activity 62)

Presenter: Jennifer H. Van Mullekom, DuPont

Sponsor: ASA Section on Physical and Engineering Sciences

The concept of statistical engineering has received much press in industrial statistics and quality journals; the concept is prevalent in the manufacturing, financial and healthcare industries. One such application comes from the automotive paint business at DuPont. A series of statistical techniques was used to relate the appearance of a coated article to human perception. This series of techniques was then applied to multiple paint colors and resulted in the submission of a patent application. With respect to business implications, it allows the business to easily classify applications for a particular finish thus reducing testing cost. Ultimately, it may be used to set a new standard for the automotive paint appearance.

<http://www.amstat.org/meetings/jsm/2011/onlineprogram/AbstractDetails.cfm?abstractid=302061>

Supporting National Security Policy with Science and Technology (Activity 94)

Presenter: Sallie Keller, IDA Science & Technology Policy Institute

Sponsor: ASA Section on Statistics in Defense and National Security

Science, technology, and policy --- where the rubber meets the road for national security. We will discuss the nuances of how innovations in science and technology can best support national security policy, and how national security policy needs to be modified as a result of innovations in science and technology.

<http://www.amstat.org/meetings/jsm/2011/onlineprogram/AbstractDetails.cfm?abstractid=300925>

Teaching Statistics Using the News Media (Activity 182)

Presenter: T. Paulette Ceesay, Merck & Co., Inc

Sponsor: ASA Section on Statistical Education

In this age of the internet, society is continuously bombarded with information 24 hours a day. Recently, a lot of emphasis has been placed on teaching students statistical concepts and how to apply them to the understanding of the real world instead of regurgitating and manipulating statistical methods. The media is an ideal medium to accomplish this task. The use of statistical thinking concepts to help students critically analyze information in the media in areas such as health, science, and politics will be discussed as well as the challenges of teaching statistics deemphasizing quantitative methods.

<http://www.amstat.org/meetings/jsm/2011/onlineprogram/AbstractDetails.cfm?abstractid=302196>

The implications of statistical measurement on public policy (Activity 450)

Panelists: Amy Braverman, California Institute of Technology; Daniel F. McCaffrey, RAND Corporation; James Rosenberger, Penn State University; and Clyde Tucker.

Sponsor: ASA Scientific and Public Affairs Advisory Committee

Policymakers are becoming more and more dependent on statistical information to describe current conditions and make policy. Much of this information is a result of complex statistical measurement issues that are not at all obvious to the policymakers, yet alternative measurements could lead to dramatically different policies. This panel will present statistical measurement issues on four selected policy areas:

Dan McCaffrey will discuss methodological issues in the Race To The Top such as modeling teacher contributions to student achievement given the complex realities of students' instructional inputs. He will also discuss the challenges to assigning student achievement to teachers' training programs. Clyde Tucker will discuss defining economic concepts (e.g. unemployment) through data collection, adjustment, estimation and analysis to the content of official publications of results by the Federal statistical agencies. Jim Rosenberger will discuss the measurement issues confronting the new Office of Financial Research

created as part of the Wall Street reforms. Amy Braverman will describe measuring greenhouse gases from space used for monitoring climate change and treaty verification.

<http://www.amstat.org/meetings/jsm/2011/onlineprogram/AbstractDetails.cfm?abstractid=300467>

About the Joint Statistical Meetings

JSM, which has been held annually since 1974, is conducted jointly with the American Statistical Association (ASA), the International Biometric Society (ENAR and WNAR), the Institute of Mathematical Statistics (IMS), the Statistical Society of Canada (SSC), the International Chinese Statistical Association, and the International Indian Statistical Association. JSM activities include oral presentations, panel sessions, poster presentations, continuing education courses, exhibit hall (with state-of-the-art statistical products and opportunities), career placement service, society and section business meetings, committee meetings, social activities, and networking opportunities. JSM is open to members of all participating associations, as well as non-members and has special pricing for students, seniors, K-12 teachers; one-day registrations also are available. Complete JSM program information is available at <http://www.amstat.org/meetings/jsm/2010/index.cfm>.

About the American Statistical Association

Headquartered in Alexandria, Virginia, the American Statistical Association is the world's largest community of statisticians and the second oldest continuously operating professional society in the United States. For 170 years, the ASA has supported excellence in the development, application, and dissemination of statistical science through meetings, publications, membership services, education, accreditation, and advocacy. Its 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. For additional information about the American Statistical Association, please visit the ASA web site at <http://www.amstat.org> or call 703.684.1221.

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