



WASHINGTON, DC • AUGUST 6-11
WALTER E. WASHINGTON CONVENTION CENTER

JSM 2022

REGISTRATION GUIDE

STATISTICS: A FOUNDATION FOR INNOVATION

JSM will be held at the Walter E. Washington Convention Center, 801 Mount Vernon Place NW, Washington, DC 20001.



WELCOME BACK



JOIN US IN WASHINGTON, DC, FOR THE STATISTICAL EVENT OF THE SUMMER

THE 2022 JOINT STATISTICAL MEETINGS is one of the largest statistical and data science events in the world, which means there is **something for everyone**. JSM offers a unique opportunity for statisticians in academia, industry, and government to exchange ideas and explore opportunities for collaboration. It also is an excellent venue for early-career statisticians (including current students) to learn from and interact with experienced members of the profession.

This year's gathering will cover a broad range of topics, including:

- Artificial Intelligence
- Machine Learning
- Bayesian Analysis
- Climate Informatics
- Ecological Statistics
- Innovative Clinical Trial Design
- Clinical Research and Drug Development
- Foundations of Data Science

Register today at [ww2.amstat.org/jsmregistration](https://www2.amstat.org/jsmregistration).

AUGUST 6-11

2022

WASHINGTON, DC

JSM

The Joint Statistical Meetings is the largest annual gathering of **statisticians** and **data scientists** in the world! This year's conference will be held August 6-11 at the Walter E. Washington Convention Center in Washington, DC.

MEET, MINGLE WITH, AND LISTEN TO SUCH WELL-KNOWN STATISTICIANS AS:

David Banks, Duke University

Nancy Bates, US Census Bureau

Tony Cai, University of Pennsylvania

Joseph G. Ibrahim, The University of North Carolina

Karen Kafadar, University of Virginia

Lisa LaVange, The University of North Carolina

Peter Mueller, The University of Texas at Austin

Marc A. Suchard, University of California at Los Angeles

Jeremy Taylor, University of Michigan

Ingrid Van Keilegom, KU Leuven

Sue-Jane Wang, FDA

C. F. Jeff Wu, Georgia Institute of Technology

Ming Yuan, Columbia University

600+

*invited,
contributed, topic-
contributed, and
poster sessions*

52

countries



13

**participating
statistical
societies**

6,500+
attendees

40+

**employers hiring
for more than
100
positions**



75+
exhibitors



1,400+
students

REGISTER EARLY

Register online at
[ww2.amstat.org/
jsmregistration](http://ww2.amstat.org/jsmregistration)
or by returning
the form
in this guide.

STUDENT PERKS

- Enjoy reduced registration, professional development, and Career Service fees
- Meet other students at the Student Mixer Monday night
- Explore the EXPO to learn about emerging technology
- Network with renowned statisticians
- Attend technical presentations
- Join the ASA for only \$25

ADD ON MORE JSM

In addition to the parallel sessions taking place during most of the meetings, there are other activities you can add to your program for an additional cost: **Professional Development courses** and **workshops, roundtable discussions**, and the **Career Service**. In short, we expect you to be very busy. **See you in DC!**



JSM also offers a unique opportunity for statisticians in academia, industry, and government to exchange ideas and explore opportunities for collaboration.

SPECIAL EVENTS

SUNDAY AUGUST 7

JSM First-Time Attendee Orientation and Reception

(Sponsored by Novartis)

12:30 p.m. – 2:00 p.m.

JSM Opening Mixer and Invited Poster Session

(Sponsored by Westat and Eli Lilly & Company)

8:30 p.m. – 10:30 p.m.

MONDAY AUGUST 8

International Indian Statistical Association Mixer and General Body Meeting

5:30 p.m. – 7:30 p.m.

JSM Student Mixer

(Sponsored by Two Sigma)

6:00 p.m. – 8:00 p.m.

Korean International Statistical Society Annual Meeting

6:00 p.m. – 8:00 p.m.

ASA Longtime Member Reception

(by invitation only)

6:30 p.m. – 7:30 p.m.

TUESDAY AUGUST 9

JSM Dance Party

9:30 p.m. – 12:00 a.m.



Attendees mingle during the 2019 JSM Opening Mixer in Colorado.



Follow us on
Twitter using
@AmstatNews and
#JSM2022.

IMPACT *DC*

MAKE A DIFFERENCE IN THE LOCAL COMMUNITY.

Drop off some much-needed items at the **ASA GivesBack** table while you are at JSM. Donations will benefit the Capital Area Food Bank.

To find more ways to help, visit www.capitalareafoodbank.org/how-to-help/donate-food.

FEATURED SPEAKERS



ASA PRESIDENT'S INVITED ADDRESS

Reginald DesRoches, Rice University

Monday, August 8, 4:00 p.m.



COPSS ELIZABETH L. SCOTT LECTURE

Madhu Mazumdar, Icahn School of
Medicine at Mount Sinai

*Biostatistical Methods and Team Science:
Generating Evidence for Optimization of
Clinical Practice*

Tuesday, August 9, 2:00 p.m.

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ASA PRESIDENT'S ADDRESS

Katherine Ensor, Rice University

*Celebrating Statistical Foundations Driving
21st-Century Innovation*

Tuesday, August 9, 8:00 p.m.

ADDITIONAL LECTURES



DEMING LECTURE

David L. Banks, Duke University

Deming and the Industries of Today

Tuesday, August 9, 4:00 p.m.



MEDALLION LECTURE I

Dylan Small, University of Pennsylvania

*Protocols for Observational Studies:
Methods and Open Problems*

Tuesday, August 9, 8:30 a.m.



COPSS DISTINGUISHED ACHIEVEMENT AWARD AND LECTURESHIP

Nancy Reid, University of Toronto

Likelihood and Its Discontents

Wednesday, August 10, 4:00 p.m.



MEDALLION LECTURE II

Huixia Judy Wang,
The George Washington University

Extreme Conditional Quantiles

Wednesday, August 10, 10:30 a.m.

EXPO 2022

The JSM EXPO is a focal point for learning about, networking with, and celebrating the statistical community.

PLANNING TO JOIN US IN DC ARE:

Abt Associates

**Addinsoft
XLSTAT**

**American Statistical
Association**

ASA Store

Bayesic Technologies

Berry Consultants

**Bureau of
Transportation Statistics**

**Cambridge
University Press**

Daiichi Sankyo

Hawkes Learning

Insilicom

**Institute for Mathematical
and Statistical Innovation**

K3-Innovations

Mayo Clinic

Merck

MIT

Mitre Corporation

**National Science
Foundation**

**National Security
Agency**

nQuery/StatSol

Otsuka Pharmaceutical

Penfield Search

Penn State





JSM attendees can visit myriad vendor booths throughout the conference—and at special events such as the Opening Mixer—in the JSM EXPO.

PNNL

Project Euclid

RTI International

SIAM

Softlytics Corp.

StataCorp

The Lotus Group

US Census Bureau

University of Florida

University of Kansas

Unlearn.ai

VTEX

Westat

EXPO HOURS

SUNDAY

1:00 p.m. – 6:00 p.m.

8:30 p.m. – 10:30 p.m.
(Opening Mixer)

MONDAY

9:00 a.m. – 5:30 p.m.

TUESDAY

9:00 a.m. – 5:30 p.m.

WEDNESDAY

9:00 a.m. – 2:30 p.m.





Where is the best place to grab refreshments or a treat and network with other attendees? Inside the JSM EXPO, of course! Take a break from sessions and **enjoy refreshments** and while making new connections.

Stop by for **coffee, popcorn, ice cream**, or a **specialty tasting of area microbrews** or **wine**. There will also be a fun **photobooth** for making memories and opportunities to meet with **Destination DC staff** to ask questions about the area.



JSM Photo Booth
Create memories with your
friends using fun props.



DATA ART SHOW

In the JSM EXPO! Explore the relationship
between data and art with this JSM
exhibit featuring art made from data by
your colleagues.



JSM attendees view exhibits at the 2019 Data Art Show.

PARALLEL SESSIONS

It is impossible to do justice to the breadth and depth of the scientific program by highlighting just a few highly visible sessions. With so many parallel sessions taking place, everyone is guaranteed to find presentations of interest.

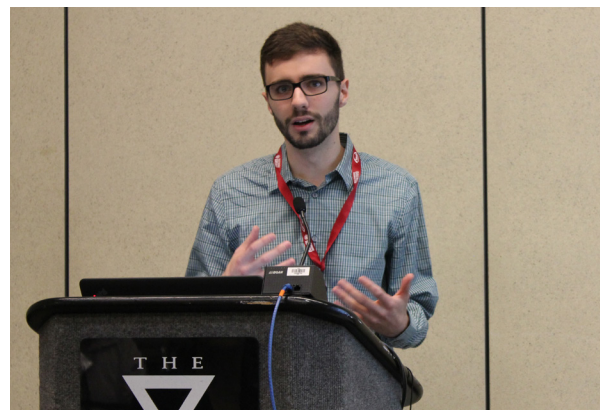


SPEED SESSIONS

Be sure to catch a speed session! Each will consist of 20 oral presentations of approximately four minutes, followed by a poster session later in the meeting.

Speed session topics for 2022 include the following:

- Bayesian Statistics
- Biopharmaceutical Methods
- Data Challenge
- Epidemiology
- Medical Devices
- Nonparametrics
- Physical and Engineering Sciences
- Statistical Computing
- Statistical Graphics
- Statistical Learning and Data Science
- Defense and National Security
- Statistics in Genomics and Genetics



Robert Garrett from Miami University presents his oral presentation (top) and digital poster (bottom) during the Data Challenge contributed speed session at JSM 2017 in Baltimore, Maryland.

INTRODUCTORY OVERVIEW LECTURES

The popular Introductory Overview Lectures (IOLs) will return in 2022, with the following sessions:

Computational Advertising, given by David Banks of Duke University and Nathaniel Stevens of the University of Waterloo

Sports Analytics: Step Up to the Plate, given by Mark Glickman of Harvard University and Jun Yan of the University of Connecticut

Interface Between Randomized Controlled Trials and Real-World Studies: Principle, Practice, and Perspective for Precision Medicine Development, given by Jie Chen of Overland Pharmaceuticals

Statistics and Networks: Looking Back and Looking Forward, given by Eric Kolaczyk of Boston University and Purnamrita Sarkar of The University of Texas at Austin

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ADD-ON SESSIONS

In addition to the parallel sessions taking place during most of the meetings, there are other activities you can add to your program for an additional cost: Professional development courses and workshops, roundtable discussions, and the Career Service.

SPEAKERS WITH LUNCH AND ROUNDTABLE DISCUSSIONS

SPEAKERS WITH LUNCH

If listening to a fascinating talk while having lunch with friends and colleagues sounds good to you, sign up for one of the speakers with lunch events. These lunches—offered Monday through Wednesday from 12:30 p.m. – 1:50 p.m.—also provide great discussion and networking opportunities. **Tickets are \$50.**

ROUNDTABLE DISCUSSIONS

For interesting discussion and a networking event that doesn't bust your wallet, register for an A.M. roundtable discussion, offered Monday through Wednesday from 7:00 a.m. – 8:15 a.m. **Tickets are \$25.**

If early morning isn't your style, P.M. roundtables also offer great discussion and networking opportunities and are held Sunday through Wednesday from 12:30 p.m. – 1:50 p.m. **Tickets are \$50.**

Sign up for one (or more) of these opportunities when you register. The speakers with lunch events and roundtables offer both regular and vegetarian meals. Be sure to indicate your preference when you register.

**These events do sell out!
Tickets for those not sold out
are available onsite until
2 p.m. the day prior.**

SUNDAY, AUGUST 7



TICKETS ARE \$50

SPAIG LUNCHTIME SPEAKER

SL01

Christopher Marcum, White House
Office of Science and
Technology Policy

*A Framework for Scientific
Integrity in Statistical Context*

In his first week in office, President Joe Biden issued the Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking. The memo put into motion the creation of a 57-member task force, which produced a report articulating five key principles federal agencies may use to bolster the integrity of the science they conduct, communicate, and use: valuing dissent in scientific discourse; applicability of scientific integrity to the whole of government; bringing scientists and policymakers together in the decision-making process; promoting transparency in the sharing of science; and having accountability for violations of scientific integrity. We will talk about how the report may guide scientific integrity policies, practices, and culture at the 13 principal statistical agencies (and well beyond).



MORE ONLINE

To view complete
roundtable
descriptions, visit
[ww2.amstat.org/
meetings/jsm/2022](http://ww2.amstat.org/meetings/jsm/2022).



MONDAY, AUGUST 8

A.M. ROUNDTABLES • TICKETS ARE \$25

SECTION ON STATISTICAL CONSULTING

ML01: There's Always Room to Negotiate: Building Negotiation Skills for Statisticians

Terrie Vasilopoulos, University of Florida College of Medicine

Sonja I. Ziniel, University of Colorado School of Medicine

Members of the Pathways to Promotion Committee of the ASA Statistical Consulting Section will discuss strategies to improve negotiation skills, prepare for negotiations, and assess your own goals during negotiations.

ML02: Multiplicity-Adjusted Multinomial Models with a Common Referent Group

Jimmy Thomas Efirid, CSPEC/HSR&D/DVAHCS

We will discuss the uses and limitations of various multinomial models in applied practice.

SECTION ON STATISTICS IN EPIDEMIOLOGY

ML03: Student and Faculty Perspectives on NIH F31 Fellowships and Strategies for Building Strong Proposals

Crystal Shaw, University of California at Los Angeles

Thomas R. Belin, University of California at Los Angeles

The roundtable is designed for both students interested in applying for NIH predoctoral fellowships and faculty interested in mentoring students through the NIH F31 fellowship process.

SECTION ON STATISTICS IN IMAGING

ML04: Statistical Methods for Uncertainty Quantification and Information Extraction from Neuroimaging Data

Juna Goo, Boise State University

Guanqun Cao, Auburn University

Chittrak Banerjee, Wells Fargo

We will focus on recent statistical methodologies for tractography and connectivity tests based on diffusion tensor imaging data and uncertainty quantification for functional MRI data.

SOCIAL STATISTICS SECTION

ML05: Summary of Recent Committee on National Statistics Report on Transparency in Official Statistics

Michael L. Cohen, Committee on National Statistics

Dan Kasprzyk, NORC

A panel of the Committee on National Statistics of the National Academy of Sciences recently issued the report "Transparency in Statistical Information for the National Center for Science and Engineering Statistics and All Federal Statistical Agencies." We will summarize the findings, recommendations, and implications of this report.

MONDAY, AUGUST 8

P.M. ROUNDTABLES • TICKETS ARE \$50



BIOMETRICS SECTION

ML07: Career as an Academic Statistician Within a Data Coordinating Center for an NIH-Funded Clinical Trials Network

Valery Durkalski-Mauldin, Medical University of South Carolina

Eva Petkova, NYU School of Medicine

Seasoned statisticians will share stories about their professional growth and personal achievements resulting from their involvement in data coordinating centers.

BIOPHARMACEUTICAL SECTION

ML08: Demonstration of Contribution of Component for Combination Drug Development

Meihua Wang, Alkermes

Linda Sun, Merck & Co.

Statisticians from academia, the FDA, and industry will share their thoughts about and experience with combination drug development.

ML09: The Tripartite Estimand Approach: When Is It Useful?

Stephen J. Ruberg, Analytix Thinking

Participants in this roundtable will be challenged to think about

TICKETS ARE \$50

ML06

SECTION ON STATISTICS IN SPORTS SPEAKER

Katherine Evans, Monumental Basketball

A Review of Causal Inference in Sports

Broadly speaking, statistics can be categorized into description, prediction, and (causal) inference. Sports analytics are often focused on description and prediction. However, most questions of interest at the team level are about causal mechanisms (e.g., How effective is this play call? How do we win more games?). We will review several papers addressing causal problems in various sports and discuss a roadmap for better causal research in the field.



different disease states or trial designs to compare and contrast ITT and TEA.

HEALTH POLICY STATISTICS SECTION

ML10: Project Management for Academic Research

Laura Hatfield, Harvard Medical School

We will discuss best practices for project management, including software, work habits, and principles.

MENTAL HEALTH STATISTICS SECTION

ML11: Mapping the Genetic-Imaging-Clinical Pathways for Neuropsychiatric and Neurodegenerative Diseases

Hongtu Zhu, The University of North Carolina at Chapel Hill

We will discuss the development of efficient and scalable analytical methods for mapping the biological pathway, from genetic to imaging to clinical data.

SECTION ON STATISTICAL CONSULTING

ML12: Joint Statistical Consultation Mechanism Between Biostatistics and Research Informatics for Researchers Using Large Institutional Data Repositories

Paul Christos, Weill Cornell Medicine

We will talk about an innovative joint consultation mechanism between biostatistics and research informatics personnel that allows for joint consultations with clinical researchers.

SECTION ON STATISTICAL LEARNING AND DATA SCIENCE

ML13: Reproducible Research in Data Science

Elizabeth C. Chase, University of Michigan

We will share best practices, preferred tools, and educational resources for making our data science work more reproducible.

SECTION ON STATISTICS IN EPIDEMIOLOGY

ML14: Career Development as a Junior or Mid-Career Faculty Applied Statistician

Alden Lawrence Gross, Johns Hopkins Bloomberg School of Public Health

This roundtable will engage junior and mid-career faculty who see

themselves as applied biostatisticians or methodologists. We will discuss strategies to commit to a scientific domain during one's career, rather than working in a supportive capacity.

SECTION ON STATISTICS IN GENOMICS AND GENETICS

ML15: Emerging Challenges and Opportunities in Statistical Genetics and Genomics

Xihong Lin, Harvard University

We will discuss statistical and computational opportunities and challenges in scalable analysis of large whole genome data, biobanks, integrative analysis of different types of genetic and omic data, and cloud computing.

SECTION ON TEACHING OF STATISTICS IN THE HEALTH SCIENCES

ML16: The Statistician as an Investigator and Educator, Not Just a Power Calculator, on Clinical Research Protocols

Alexia Iasonos, Memorial Sloan Kettering Cancer Center

We will cover the challenges, opportunities, and responsibilities statisticians have as collaborators and educators when working with clinicians.

SURVEY RESEARCH METHODS SECTION

ML17: Record Linkage: The Good, the Bad, and the Ugly

Rebecca Steorts, Duke University

We will discuss how record linkage has changed with the rise of big data, computational advancements, and tracking devices.

ML18: Surveys and Data Science: Oil and Water, or a Delicious Cocktail?

Jean Opsomer, Westat

We will share ideas and opinions about applying data science tools to survey practices and discuss how survey statisticians can manage it going forward.

SECTION ON STATISTICAL COMPUTING

ML19: New Trends of Statistical Computing in Modern Data Science

Faming Liang, Purdue University

Jun Liu, Harvard University

We will talk about emerging topics in statistical computing, such as deep learning for computational statistics, scalable Monte Carlo methods for big data computing, and big data analytics in biomedical science.

TUESDAY, AUGUST 9

A.M. ROUNDTABLES • TICKETS ARE \$25



BIOPHARMACEUTICAL SECTION

TL01: Aggregate Safety Review, Analysis Planning, and Reporting

Rosanne Lane, Janssen

This discussion will revolve around experiences and best practices for providing ongoing statistical support for safety reviews of a single compound developed for multiple diseases.

GOVERNMENT STATISTICS SECTION

TL02: Combining Visualization Best Practices with Agency Standards for Statistical Graphics in Government Reports

Haley Jeppson, National Institute of Statistical Sciences

Brian Habing, National Institute of Statistical Sciences

We will discuss the challenges arising from creating engaging and useful visualizations for diverse audiences that adhere to an agency's standards.

HEALTH POLICY STATISTICS SECTION

TL03: Tips for Interviewing Well

Joseph C. Cappelleri, Pfizer

We will talk about how to increase the chance of receiving a job offer. Many tips will be provided and discussed.

SECTION ON PHYSICAL AND ENGINEERING SCIENCES

TL04: Data Fusion of Physical and/or Novel Data Types

Emily Casleton, Los Alamos National Laboratory

We will discuss data fusion algorithms and potential issues they can address.

SURVEY RESEARCH METHODS SECTION

TL05: Disclosure Limitation for Surveys

Rolando Andres Rodriguez, US Census Bureau

We will focus on modern survey disclosure limitation methods and the need for proper global disclosure risk measures and informed participation by survey stakeholders.



JSM 2019 attendees enjoy lively discussion during a roundtable session.



TUESDAY, AUGUST 9

P.M. ROUNDTABLES • TICKETS ARE \$50

TICKETS ARE \$50

TL06

ECONOMIC OUTLOOK LUNCHTIME SPEAKER

Susan Helper, Case Western Reserve University

What We Know and What We Wish We Knew

Disruption due to COVID-19 has brought supply-chain vulnerabilities into public consciousness. But these issues reflect long-standing trends and present opportunities and challenges. We will discuss the importance of market- and policy-based incentives in the evolution of supply chains and the key roles better data and statistical tools can play in improving supply chain resilience, innovation, and sustainability.



BIOPHARMACEUTICAL SECTION

TL07: The Use of Non-Concurrent Randomized Controls in Multi-Arm Adaptive Platforms Trials

Ben Saville, Berry Consultants

Let's discuss the use of time-adjusted analyses (both Bayesian and frequentist) to model potential temporal drift and the tradeoffs between bias and precision that should be considered in the evaluation of treatments with staggered entry.

TL08: Dose Optimization for Early Hematology and Oncology Trials

Shaoyi Li, BMS

We will talk about a recent *NEJM* white paper and methods for dose selection.

MENTAL HEALTH STATISTICS SECTION

TL09: MHealth: Challenges and Opportunities in Clinical Research from a Statistical Perspective

Samprit Banerjee, Cornell University Weill Medical College

We will discuss the major challenges in the design and analysis of mHealth data, discuss appropriate use of existing statistical methodology, and identify areas that need new methodological development.

SECTION ON BAYESIAN STATISTICAL SCIENCE

TL10: Bayesian Causal Inference: Basics, Challenges, and Opportunities

Fan Li, Duke University

This roundtable brings experts and consumers of Bayesian causal inference together to discuss its basics, challenges, and opportunities in theory and practice.

SURVEY RESEARCH METHODS SECTION

TL11: Combining Information from Multiple Surveys and Other Sources of Information in Small Area Estimation

Carolina Franco, NORC at the University of Chicago

We will discuss the practical and statistical challenges of combining information from various sources in small area estimation, encouraging participants to

share their own experiences, research, and the practical challenges they have faced.

SECTION ON STATISTICAL CONSULTING

TL12: The Role of Statisticians in Peer Review of Clinical and Translational Research

Phillip Schulte, Mayo Clinic

We will discuss how collaborative biostatisticians can get involved in the peer review process; roles from ad-hoc reviewer to the editorial board; managing time, effort, and quality expectations from editors; and communicating feedback.

SECTION ON STATISTICAL LEARNING AND DATA SCIENCE

TL13: Pros and Cons of Utilizing Stepped-Wedge Cluster Randomized Trial in Evaluation of Health Care Delivery Interventions

Madhu Mazumdar, Icahn School of Medicine at Mount Sinai

We will discuss an ongoing stepped-wedge cluster randomized trial at Mount-Sinai Health System evaluating a clinical decision support system intervention using ML-based mortality predictive data.

TL14: Statistics in Data Sonification

Jami Mulgrave, Making Music with AI Podcast

We will talk about how the use of sound to represent sequence data—sonification—has potential as an alternative and complement to visual representation, as well as the part statisticians play in this field.

SECTION ON STATISTICS IN EPIDEMIOLOGY

TL15: Statisticians on Social Media: Find Your Voice, Build Your Network

Natalie Dean, Emory University

We will discuss the potential value of social media, types of engagement strategies, developing content, and navigating pitfalls.

TL16: Tips for Writing an NIH K Career Development Award

Jaime Lynn Speiser, Wake Forest School of Medicine

This roundtable is ideal for early-career faculty members and graduate students/postdocs preparing for an academic career at soft-money institutions. Participants will learn about best practices for writing K grants and how to set yourself up for success.

MORE ONLINE

To view complete roundtable descriptions, visit ww2.amstat.org/meetings/jsm/2022.

SECTION ON TEACHING OF STATISTICS IN THE HEALTH SCIENCES

TL17: Innovative Approaches to Teaching Statistics to Millennials and Gen Z

Hoang Thanh Nguyen, The University of Texas Medical Branch at Galveston

We will discuss approaches such as gamification, simulation, flipped classroom, and interactive team learning.

SOCIAL STATISTICS SECTION

TL18: Getting Involved in Data for Social Good: Experiences and Opportunities

David Corliss, Peace-Work

This roundtable brings together experiences from statisticians working in analytics for social good and offers practical recommendations for getting connected to projects.



WEDNESDAY, AUGUST 10

A.M. ROUNDTABLES • TICKETS ARE \$25

BIOPHARMACEUTICAL SECTION

WL01: Diversity and Inclusion in the Pharmaceutical Industry

T. Paulette Ceesay, Merck & Co.

Darcy Hille, Merck & Co.

We will discuss suggestions for attracting and retaining talent using an approach that encourages and supports the development of a healthy culture within the workplace.

SECTION ON STATISTICAL LEARNING AND DATA SCIENCE

WL02: On the Trade-Offs Between Statistical and Computational Efficiencies

Aritra Guha, AT&T

Arkaprava Roy, University of Florida

The goal of this roundtable discussion is to provide an extensive and broad understanding of trade-offs between statistical and computational efficiencies across modern statistics and machine learning literature.

SOCIAL STATISTICS SECTION

WL04: Gun Violence Research Designs Needed to Combat Myths About Police Shootings and Safety

James Landis Rosenberger, Penn State and NISS

Join this roundtable to discuss transformative approaches to providing safer communities for both police and residents.



JSM 2019 attendees enjoy an A.M. roundtable discussion.



Carol Corrado gives the Business and Economic Statistics Section Economic Outlook Luncheon in 2019.

WEDNESDAY, AUGUST 10

P.M. ROUNDTABLES • TICKETS ARE \$50



BIOPHARMACEUTICAL SECTION

WL06: Challenges and Opportunities in Safety Monitoring and Analysis of Clinical Trials

Philip He, Daiichi Sankyo

We will discuss the challenges and opportunities in support of safety analysis and monitoring in clinical trials.

WL07: Meet and Greet with the Biopharmaceutical Section Chairs

Alan H. Hartford, Takeda

Come to this roundtable with your questions and suggestions for improving the membership experience. Also, volunteer your time to get involved in the section.

MENTAL HEALTH STATISTICS SECTION

WL08: Identifying and Countering Semi-Hidden Ethnic Biases in Mental Health Clinical Studies

Douglas Samuelson, Infologix

Clinical trials and mandated studies often limit the sampling frame to people with one clear diagnosis and no comorbidities, which tends to exclude people who are poorer and nonwhite.

TICKETS ARE \$50

WL05

HEALTH POLICY STATISTICS SECTION SPEAKER

Elizabeth Stuart, Johns Hopkins University

The Need for, and Challenges of, Policy Evaluation During the COVID-19 Pandemic

With a variety of local, state, and even national COVID-19–related policies being implemented across the country and world, there is an opportunity to learn about the relative effectiveness of those policies to guide policymaking during the pandemic and beyond. However, accurately estimating policy effects is challenging. Beyond the issues faced for any policy, evaluation of COVID-19 policies is complicated by challenges related to infectious disease dynamics and lags, lack of direct observation of key outcomes, and multiple interventions occurring on an accelerated time scale. I will provide a high-level overview of the key designs and considerations when estimating policy effects, recent advances in statistical methods to estimate policy effects, and lessons for statisticians when engaging in policy evaluation and the communication of evaluation findings to the media and general public.



Let's talk about how statisticians can take a more prominent role in recognizing and responding to these biases.

SECTION ON PHYSICAL AND ENGINEERING SCIENCES

WL09: Advances in Design for Computer Experiments

Thomas Santner, The Ohio State University

We will focus on design problems in participant applications and group suggestions for practical solutions. Among the areas we expect discuss is design for black-box and gray-box codes.

MORE ONLINE

To view complete roundtable descriptions, visit ww2.amstat.org/meetings/jsm/2022.

SECTION ON STATISTICAL CONSULTING

WL10: Career Development of Staff Statisticians in Academic Settings

Xiaoming Sheng, University of Utah College of Nursing

Margaret Stedman, Stanford University

This discussion will be an opportunity for staff statisticians and their supervisors to share views on the opportunities and barriers to retention and promotion.

SECTION ON STATISTICAL LEARNING AND DATA SCIENCE

WL12: Data Science as a Curriculum

Julia Wrabel, Colorado School of Public Health

Elizabeth Sweeney, University of Pennsylvania

We will explore and debate what topics should be included in a data science curriculum to broadly educate students for careers in both industry and academia.

WL13: Statistical Approaches to Algorithmic Fairness

Yuekai Sun, University of Michigan

Current algorithmic fairness practices were not developed with statistical perspective of algorithmic bias in mind. We bring together stakeholders and statisticians to align their goals and promote mutual understanding.

SECTION ON STATISTICS IN DEFENSE AND NATIONAL SECURITY

WL14: The Role of the Statistics Profession in the Current Wave of Artificial Intelligence

Laura Freeman, Virginia Tech

We will discuss how statistical thinking can advance the current state-of-the-art, contributions statistical engineering can make to achieving assured AI, and implications for educating the next generation of professional statisticians.

SECTION ON STATISTICS IN EPIDEMIOLOGY

WL15: Should Hazard Ratio Be Used to Quantify Treatment Effect?

Ronghui Xu, University of California at San Diego

We will discuss using or not using hazard ratio in statistical application and research.

SURVEY RESEARCH METHODS SECTION

WL16: Disclosure Limitation for Surveys

John M. Abowd, US Census Bureau

We will talk about the need for proper global disclosure risk measures and informed participation by survey stakeholders.

WL17: Estimation Methods for Combining Probability and Nonprobability Samples

Michael Yang, NORC at the University of Chicago

Researchers will share their most recent research and experience in combining probability and nonprobability samples for survey estimation. Discussions will focus on successes, challenges, client communications, and future research agenda.



PROFESSIONAL DEVELOPMENT

Professional Development (PD) is a fundamental component of the professional life of statisticians, and it increases the value of their contributions to society. PD is the process of improving and broadening the knowledge, skill, and personal qualities needed to be successful in the practice of statistics.

Continuing education offerings consist of courses and computer technology workshops in statistical methodology and practice. Courses are offered in two-day, one-day, and half-day formats Saturday through Tuesday. Computer technology workshops are offered in two-hour intervals on Wednesday.

Professional skills development consists of courses, workshops, and panel discussions on topics such as effective communication, collaboration, leadership, and influence.

To view complete professional development course descriptions, visit ww2.amstat.org/meetings/jsm/2022.



REGISTRATION

To participate in professional development offerings, you must register for JSM. Lower rates are given to those adding courses and workshops to their registration from May 2 to June 30. After June 30, late registration rates apply. Registration depends on seat availability and will be handled on a first-come, first-served basis.

COURSE PARTICIPATION CERTIFICATES

The ASA provides course participation certificates upon request to those who attend the entire course (certificates are not available to computer technology workshop attendees). Certificates will be emailed after JSM.

DISCOUNT

PStat® and GStat accredited members in good standing with the ASA will receive a 20 percent discount on professional development courses and workshops.

PROFESSIONAL DEVELOPMENT

M=Member

NM=Nonmember

S=Student

(Prices in parentheses are for after June 30)

CONTINUING EDUCATION COURSES



Saturday, August 6

CE_01C

8:30 a.m. – 5:00 p.m.

Regression Modeling Strategies (two-day course)

Instructor(s): Frank Harrell

Sponsors: Biometrics Section, Section on Statistical Consulting

This course provides methods for estimating the shape of the relationship between predictors and response using the method of augmenting the design matrix using restricted cubic splines. Methods for data reduction will be introduced and methods of model validation will be covered, as will auxiliary topics such as modeling interaction surfaces, and variable selection. A brief introduction to the Rrms package for handling these problems will also be given.

FEES: M - \$675 (\$920)
NM - \$825 (\$1,120)
S - \$390 (\$530)

CE_02C

8:30 a.m. – 5:00 p.m.

Categorical Data Analysis

Instructor(s): Alan Agresti and Ralitza Gueorguieva

This short course surveys the most common methods for analyzing

categorical data. The first part focuses on contingency table analysis, logistic regression for binary data, logistic model building, and loglinear models. The second part introduces logistic models for multi-category ordinal and nominal responses and clustered data using generalized estimating equations and random effects.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_03C

8:30 a.m. – 5:00 p.m.

Text Analysis for Statisticians Who Want to Become Data Scientists

Instructor(s): Karl Pazdernik and Lauren Phillips

This course will provide an overview of text analysis and natural language processing. All aspects of the text analysis pipeline will be covered, including data preprocessing, converting text to numeric representations, and training supervised and unsupervised learning methods for standard text-based tasks. The course will alternate between presentation and hands-on exercises in Python. Attendees should be familiar with R, Python, or both and have a basic understanding of statistics and/or machine learning.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_04C

8:30 a.m. – 5:00 p.m.

Modern Statistical Learning for Observational Data

Instructor(s): David Benkeser

Sponsor: Biometrics Section

We will provide an overview of modern techniques for analyzing observational data, focusing on recent advances in the field of targeted learning, which facilitates the use of state-of-the-art machine learning tools to flexibly adjust for confounding while yielding valid statistical inference. We will discuss methods for inference on the effect of single time-point interventions. We will also introduce the multi time-point extension of these methods and discuss strategies for dealing with missing data.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_05C

8:30 a.m. – 5:00 p.m.

Model-Based Clustering and Classification

Instructor(s): Adrian Raftery and Brendan Murphy

This course frames cluster analysis and classification in terms of statistical models, thus yielding principled estimation, testing and prediction methods. It builds the basic ideas in an accessible but rigorous way, with extensive data

examples and R code; describes modern approaches to high-dimensional data and networks; and explains such recent advances as Bayesian regularization, non-Gaussian model-based clustering, cluster merging, variable selection, semi-supervised and robust classification, clustering of functional data, text and images, and co-clustering.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_06C **8:30 a.m. – 5:00 p.m.**

An Introduction to R for Non-Programmers

Instructor(s): William Lambert

Participants will be introduced to the basics of R. Basic data manipulation, cleaning, and data visualization will be discussed. Learning through examples will be emphasized. Participants are encouraged to bring their laptops. This course is designed for individuals who have little to no experience with object oriented programming. Familiarity with programming in tools such as SAS will be helpful, but is not required.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

Sunday, August 7

CE_01C **8:30 a.m. – 5:00 p.m.**

Regression Modeling Strategies *(two-day course)*

Instructor(s): Frank Harrell

Sponsors: Biometrics Section, Section on Statistical Consulting

CE_07C **8:00 a.m. – 12:00 p.m.**

Fairness in Data Science: Criteria, Algorithms, and Open Problems

Instructor(s): Ilya Shpitser, Daniel Malinsky, and Razieh Nabi

Sponsor: Statistics in Epidemiology Section

We will review a variety of fairness criteria and algorithms that aim to be ‘fairness-aware’ in various ways, with an emphasis on methods rooted in causal inference. We will conclude by describing a variety of methodological and translational problems that remain. The course assumes basic familiarity with statistical inference, maximum likelihood, and basic predictive modeling.

FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)

CE_08C **8:30 a.m. – 5:00 p.m.**

Machine Learning and Deep Learning

Instructor(s): Annie Qu, Xiao Wang, and Edgar Dobriban

Sponsor: Statistical Learning and Data Science Section

This course will provide a comprehensive overview of statistical machine learning and deep learning methods. Topics include classical methods and modern techniques, including basic machine learning tools, supervised and unsupervised learning, deep neural network, computational algorithms and software of deep learning, and various applications in deep learning.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_09C **8:30 a.m. – 5:00 p.m.**

Practical Considerations for Bayesian and Frequentist Adaptive Clinical Trials

Instructor(s): Peter Müller, Byron Jones, and Frank Bretz

Sponsor: Section on Bayesian Statistical Science

We introduce various adaptive methods for Phase I to Phase III clinical trials using frequentist

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(Prices in parentheses
are for after June 30)

and Bayesian methods. Accordingly, we introduce different types of adaptive designs and illustrate practical considerations with case studies. Types of adaptive designs covered include dose escalation/de-escalation and dose insertion designs, adaptive dose-finding studies, trials with blinded and unblinded sample size re-estimation, and adaptive designs for confirmatory trials with treatment or population selection at interim.

**FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)**

CE_10C

8:30 a.m. – 5:00 p.m.

A Practical Introduction to the Analysis of Incomplete Data

Instructor(s): Ofer Harel

Sponsor: Biometrics Section

The purpose of this course is to demonstrate the importance of dealing correctly with incomplete data—to formulate the missing data problem and explain the best practices for dealing with the problem. We will introduce incomplete data vocabulary, ad-hoc techniques, and principled procedures to deal with incomplete data. We will emphasize practical implementation of the proposed strategies, including discussion of software to implement procedures for incomplete data, and the advantages and

disadvantages of different missing data methodologies. Prerequisites: knowledge of standard statistical models such as the multivariate-normal, multiple linear regression, contingency tables, and basic maximum likelihood for common distributions.

**FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)**

CE_11C

8:30 a.m. – 5:00 p.m.

Gaussian Process Modeling, Design, and Optimization

Instructor(s): Robert Gramacy

Sponsor: Physical and Engineering Sciences Section

This course details statistical techniques at the interface of geostatistics, machine learning, mathematical modeling via computer simulation, calibration of computer models to data from field experiments, and model-based sequential design and optimization under uncertainty. We will concentrate on modern statistical methods, computation, and implementation, as well as modern application/data type and size. The course material will emphasize deriving and implementing methods over proving theoretical properties.

**FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)**

Monday, August 8

CE_13C

8:00 a.m. – 12:00 p.m.

Bayesian Analytics in Practice

Instructor(s): Sujit Ghosh and Amy Shi

We will introduce general notions of Bayesian methods via hierarchical models and then expand the topic with more realistic and complex models that have emerged as a result of current machine learning literature. These models will be illustrated through practical applications to various real case studies, avoiding much of the theoretical underpinnings. Participants with basic knowledge of probability theory and statistical inferential framework will find the course useful in expanding their toolkit with the advanced use of Bayesian analytical methods.

**FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)**

CE_14C

1:00 p.m. – 5:00 p.m.

Evidence-Based Approach in Pediatric Drug Development: Progress and Lessons Learned

Instructor(s): Satrajit Roychoudhury, Margaret Gamalo, and Robert 'Skip' Nelson

Sponsor: Biopharmaceutical Section

We will introduce the general scientific framework of extrapolation

and provide an overview of available design and analysis approaches. We'll elaborate on the use of the Bayesian hierarchical model and discuss the practicality of the underlying assumptions associated with it. Finally, we'll discuss extensions of BHM to handle possible deviations from underlying assumptions and implementation using R. A real-life case study will be included to illustrate the practical implementation and regulatory hurdles.

FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)

CE_15C

8:30 a.m. – 5:00 p.m.

Causal Effects and Their Estimation: A Practical Workflow from Planning to Application

Instructor(s): Clay Thompson, Michael Lamm, and Yiu-Fai Yung

Sponsor: Statistical Programmers and Analysts Section

When does an effect estimate have a causal interpretation, and which effect has an interpretation appropriate for your question? This course provides an overview of causal inference designed to answer these type of practical questions when data from an observational or nonrandomized study is analyzed. It describes the differences between possible choices for causal estimands, tools

for analyzing a data-generating process, and statistical methods that support valid effect estimation. It also reviews the definition of causal effects in a potential outcomes framework, discusses estimates for total effects, and describes the decomposition of effects through causal mediation analysis, with an emphasis on dichotomous treatments.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_16C

8:30 a.m. – 5:00 p.m.

Practical Solutions for Working with Electronic Health Records Data

Instructor(s): Rebecca Hubbard and Yong Chen

Sponsor: Statistics in Epidemiology Section

This short course will introduce participants to the basic structure of EHR data and provide a practical set of tools to analyze this rich data resource through a combination of lecture and hands-on exercises in R. The first part of the course will cover issues related to the structure and quality of EHR data. In the second half, we will discuss statistical methods to mitigate data quality issues arising in HER. This course will be of interest to researchers without prior experience working with EHR data, as well as more

experienced individuals interested in learning practical solutions to common analytic challenges.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_17C

8:30 a.m. – 5:00 p.m.

An Introduction to Item Response Theory

Instructor(s): Brian Leventhal

I will cover the basic tenets and concepts of item response theory with the goal of having attendees develop an understanding of dichotomous and polytomous models. I will also introduce them to multidimensional item response theory. The course assumes knowledge of basic terminology such as parameter vs. statistic but will be taught at an introductory level.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_18C

8:30 a.m. – 5:00 p.m.

Introduction to Bayesian Methods for Clinical Trial Design and Sample Size Determination

Instructor(s): Matthew A. Psioda and Joseph G. Ibrahim

This course is designed to give statisticians with experience in clinical trials research a

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comprehensive overview of the use of Bayesian methods for trial design and on implementation using standard software. Applications will be demonstrated using R, SAS, or both.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_19C

8:30 a.m. – 5:00 p.m.

Statistical Methods in Finance with R

Instructor(s): Rituparna Sen and Sourish Das

This course is intended for those trained in statistics who are interested in getting into quantitative finance. Starting with a basic description of financial data, applications such as asset pricing, option pricing, credit scoring, and risk management are covered. Codes are provided in R. Prerequisites: Training in probability, including basic descriptive and inferential statistics, regression, multivariate analysis, time-series analysis, and stochastic processes. Basics of statistical learning are desirable. Students should be comfortable with R programming. No prior exposure to finance is required.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_20C

1:00 p.m. – 5:00 p.m.

Statistical and Computational Methods for Microbiome and Metagenomics Data Analysis

Instructor(s): Curtis Huttenhower and Hongzhe Li

Sponsor: Section on Statistics in Genomics and Genetics

We will give detailed presentations on the statistical and computational methods for measuring various important features of the microbiome based on shotgun metagenomic sequencing data and discuss how these features are used as an outcome of an intervention, a mediator of a treatment, and a covariate to be controlled for when studying disease/exposure associations. The statistics underlying some of the most popular tools in microbiome data analysis will be presented.

FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)

Tuesday, August 9

CE_21C

8:00 a.m. – 12:00 p.m.

Best Practices in Project Management and Quality for Statisticians and Data Scientists

Instructor(s): Michiko Wolcott

Sponsor: Section on Statistical Consulting

I present best practices and methodologies to address key challenges in practice quality, project management, and project delivery in applied statistics and data science. We will discuss how project management and delivery relate to the quality of projects, then translate broadly recognized ideas in project management and quality to statistical practice. Participants should bring his/her own case studies to discuss/review.

FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)

CE_22C

8:00 a.m. – 12:00 p.m.

Introduction to Process Mining

Instructor(s): Yoann Valero and Frédéric Bertrand

This course is aimed at introducing the basis of process mining. After explaining the terminology pertaining to processes and event logs, we will teach basic

sequence analysis, process maps, and petri net representations. We will then move to process discovery with an explanation of the heuristics miner algorithm, followed by multiple process model evaluation metrics. Basic knowledge of Lagrange multipliers, and information theory is needed and a good grasp of R is required.

FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)

CE_23C

8:30 a.m. – 5:00 p.m.

Julia for Data Science and Statistical Computing

Instructor(s): Hua Zhou and Josh Day

Sponsor: Section on Statistical Computing

We will introduce the Julia package ecosystem for data science, including data ingestion and cleaning, visualization, out-of-core processing, model fitting, and general analytics. We will then cover statistical computing using Julia. The course begins with a comparison between Julia, R, and Python and continues with a tutorial on using Julia for numerical linear algebra, numerical optimization, parallel/distributed computing, and GPU computing.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

CE_24C

8:30 a.m. – 5:00 p.m.

Spatial Modeling and Visualization Using R-INLA: Applications in Disease Risk Mapping and Species

Instructor(s): Paula Moraga

We will learn how to develop spatial models using the R-INLA package to estimate disease risk, quantify risk factors, and predict species distributions. We will also learn how to create data visualizations such as interactive maps and introduce presentation options such as interactive dashboards and Shiny web applications that facilitate the communication of insights to collaborators and policymakers. Course materials are drawn from Geospatial Health Data: Modeling and Visualization with R-INLA and Shiny (www.paulamoraga.com/book-geospatial/). Participants should be familiar with R and have a working knowledge of generalized linear models.

FEES: M - \$390 (\$530)
NM - \$520 (\$700)
S - \$235 (\$320)

COMPUTER TECHNOLOGY WORKSHOPS



Wednesday,
August 10

CE_25T

8:00 a.m. – 9:45 a.m.

End-to-End Modeling and Machine Learning with SAS Viya for Learners

Instructor: Jacqueline Johnson

Sponsor: SAS Institute

The workshop will demonstrate the use of SAS Visual Analytics and SAS Model Studio within the SAS Viya for Learners platform. Participants will be introduced to several methods to train supervised machine learning models to make better decisions on big data. Topics to be demonstrated include predictive modeling techniques such as linear and logistic regression, decision tree and ensembles of trees such as forest and gradient boosting, neural networks, and support vector machines. Familiarity with predictive modeling techniques is helpful but not necessary.

FEES: \$60 (\$75)

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CE_26T
8:00 a.m. – 9:45 a.m.

Creating Reproducible Reports and Customized Tables with Stata

Instructor: Kristin MacDonald

Sponsor: StataCorp

I will introduce Stata's commands for creating and customizing tables of results and exporting those tables to Word, Excel, LaTeX, PDF, Markdown, HTML, and other formats. I will then demonstrate how to produce complete reports with formatted text, tables of statistical results, graphs, and more. We will see two workflows for creating reports. Knowledge of Stata is helpful but not required.

FEES: \$60 (\$75)

REGISTER EARLY

Register online at
ww2.amstat.org/jsmregistration
or by returning the form
in this guide.

CE_27T
10:00 a.m. – 11:45 a.m.

Clustering with SAS Software

Instructor: David Kessler

Sponsor: SAS Institute

This workshop introduces several clustering methods and approaches to clustering as they are implemented in SAS software, including k-means clustering, Gaussian mixture models, and hierarchical clustering. I illustrate techniques of estimation, model fitting, and scoring and discuss the expectation-maximization, nearest-neighbors, and variational Bayes approaches. Finally, I demonstrate the advantages and limitations of these techniques in different applications. Attendees should have a basic familiarity with estimation.

FEES: \$60 (\$75)

CE_28T
10:00 a.m. – 11:45 a.m.

Survival Analysis of Interval-Censored Event-Time Data in Stata

Instructor: Xiao Yang

Sponsor: StataCorp

I will provide a brief introduction to interval-censored data and demonstrate how to fit parametric survival models and the

semiparametric Cox model for interval-censored data in Stata. How to interpret results and plot the survivor function will be discussed with accompanying examples. Also, a number of examples demonstrating how to graphically evaluate goodness of fit and how to graphically check the proportional-hazards assumption will be presented. No prior knowledge of Stata is required, but basic familiarity with survival analysis will prove useful.

FEES: \$60 (\$75)

CE_29T
1:00 p.m. – 2:45 p.m.

A First Look at the New Edition of *Discovering Business Statistics*

Sponsor: Hawkes Learning

We will highlight key engagement features such as instructional simulations, business application question banks, and chapter projects with real-world connections.

We'll also cover new lesson topics; an additional chapter about time series; new *Discovering the Real World* sections; and up-to-date instructions for TI Calculator, Excel, Minitab, R, Rguroo, SPSS, and JMP.

FEES: \$60 (\$75)

PROFESSIONAL SKILLS DEVELOPMENT



CE_30P
SATURDAY, AUGUST 6
12:00 p.m. – 4:00 p.m.

An Outstanding Supervisor: Leading for Motivation, Innovation, and Retention

Instructor: Shanthi Sethuraman, Eli Lilly and Company

This course will bring to life the foundational concepts for becoming the ideal supervisor. Attendees will gain a deeper understanding of the essential leadership competencies that will empower them to grow a mentee or direct report, thus enabling them to reach their full potential. Additionally, this course will consist of lecture, videos, and interactive panel discussions in which participants will hear from seasoned and successful leaders about how they have learned from their experiences and developed tips and tricks for growing their supervisory skill set. Finally, participants will learn how to measure the right outcomes for enabling sustained growth in this dimension.

FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)

CE_31P
SUNDAY, AUGUST 7
8:00 a.m. – 12:00 p.m.

Navigating Tough Conversations in Statistical Collaboration

Instructors: Julia Sharp and Emily Griffith

Sponsor: Section on Statistical Consulting

In this course, we will build participants' confidence to effectively communicate with clients and customers when challenging topics or situations arise. We will do the following:

- Give and solicit examples of difficult conversations often encountered in statistical collaboration
- Provide suggestions to approach and engage in difficult conversations through multiple interactive activities
- Engage participants in the interactive session and learn from each other through discussion, role-playing, and conversations motivated by participants' questions and recently produced videos portraying difficult conversations between statisticians and their collaborators

FEES: M - \$245 (\$335)
NM - \$320 (\$430)
S - \$150 (\$200)

CE_32P
SUNDAY, AUGUST 7
2:00 p.m. – 4:00 p.m.

Career Development Panel: Networking Like a Pro: A Guided Networking Session

Cosponsor: Committee on Career Development

This is a guided networking social for students and early-career statisticians to practice in a friendly environment. We will have "pro networkers" discuss topics such as introducing yourself confidently, and then allow for practice. During the practice sessions, students and early-career professionals will "rotate" to meet and practice with new people (volunteers from industry, government, and academia).

FREE EVENT



Follow us on
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CAREER SERVICE

The JSM Career Service is not your typical career fair; instead, we offer a recruiting and interviewing facility for employers and career-seekers. Hundreds of recruiters and candidates connect each year.

Proactively search the positions and contact the employers of interest to you through our online messaging service. Employers will arrange interviews with you directly.

To participate, include Career Service registration when you register for JSM. If you have already registered for JSM, you can easily add Career Service registration through our online system at ww2.amstat.org/jsmregistration.

Career Service candidate access includes the following:

- The **Online Employer Search**, including position postings from top statistical employers
- The online **Career Service Message Center**, which allows you to contact employers of interest in advance, on-site, and even after JSM concludes
- The **onsite JSM Career Service**, where you can interview with employers who have scheduled an interview with you

WANT TO PARTICIPATE?

Add Career Service when you register for JSM.

ASA Student Member \$75

Student Nonmember \$100

ASA Member \$150

Nonmember \$225

INTERVIEW WITH EMPLOYERS SUCH AS



www.IntelligenceCareers.gov/NSA



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[ww2.amstat.org/jsmsponsors!](http://ww2.amstat.org/jsmsponsors/)

HOTEL MAP

Marriott Marquis Hotel
901 Massachusetts Avenue, NW

Mt. Vernon Square 7th St.
Convention Center Metro
Green Line • Yellow Line

Walter E. Washington
Convention Center
801 Mt. Vernon Place, NW

Renaissance
Washington DC Hotel
999 9th Street, NW

JSM HOUSING INFORMATION

All hotel rooms are subject to applicable taxes (currently 14.95%). A valid government ID is required at check-in for all government-rate rooms.

The housing deadline is July 6, 2022.

HOTELS

| RATES | SINGLE/ DOUBLE | TRIPLE/ QUAD | US GOVERNMENT- RATE ROOMS |
|--------------------------------------|-------------------|-----------------|------------------------------|
| Marriott Marquis Washington, DC (HQ) | \$249 | \$269/\$289 | \$172 |
| Renaissance Washington, DC | \$249 | \$269/\$289 | \$172 |

ECONOMY HOUSING

Don't need all the extras? If you just need a bed and don't mind sharing a room, there are a few hostels nearby. There is no group block for these options. Please research your options and reserve on your own.

U Street Hostel

1931 13th St. NW, Washington, DC 20009
(202) 892-1122
contact@ustreethostel.com
Reservations: <http://ustreethostel.com>

DC International Hostel 1

1610 7th St. NW, Washington, DC 20001
(202) 621-9344
Reservations: <http://dcinternationalhostel1.hotelsofwashington.com/en>

DC International Hostel 2

1418 9th St. NW, Washington, DC 2000
(202) 518-3160
Reservations: <http://dcinternationalhostel2.hotelsofwashington.com/en>

For conference and housing details, go to ww2.amstat.org/meetings/jsm/2022/housing.cfm.

REGISTRATION

THREE WAYS TO REGISTER



ONLINE

ww2.amstat.org/jsmregistration



MAIL

JSM Registration
732 North Washington St.
Alexandria, VA 22314-1943



FAX

(703) 997-7299
Please fax both sides of form.

Make sure to read the Code of Conduct at www.amstat.org/meetings/code-of-conduct.

PSTAT® AND GSTAT DISCOUNTS ON PROFESSIONAL DEVELOPMENT

Accredited members in good standing with the ASA receive a 20 percent discount on professional development courses and workshops. Eligible members have been emailed a discount code to use at check out.

Contact jsm@amstat.org for further assistance.

PAYMENT

Payment via credit card, check, or money order must accompany registration. We are unable to accept purchase orders. Make your check or money order payable to American Statistical Association in US funds drawn on a US bank. The ASA Federal ID is 53-0204661.

CANCELATIONS/SUBSTITUTIONS/REFUNDS

All cancelations and substitutions must be submitted in writing. Email jsm@amstat.org; fax (703) 997-7299; or write to JSM Registration, ASA, 732 N. Washington St., Alexandria, VA 22314-1943.

WHAT CAN I DO WITH MY REGISTRATION?

| | Conference Registrant | Guest |
|---|--|-------|
| JSM Quick Guide and Conference Bag | ✓ | |
| Technical Sessions | ✓ | |
| Exhibit Hall | ✓ | ✓ |
| Sunday Opening Mixer | ✓ | ✓ |
| Tuesday Night Dance Party | ✓ | ✓ |
| Online access to recorded session content | ✓ <small>(not available to one-day registrants)</small> | |
| JSM Proceedings <i>(available online in early 2023)</i> | ✓ | |

Registration fees for participants (speakers/panelists/discussants/chairs/organizers/poster presenters) are nonrefundable. Substitutions may be made at no penalty.

For general registrations and add-on items:

- Cancelations received by 5:00 p.m. EDT on June 30 incur a cancellation fee of 20 percent of each item canceled.
- Cancelations received by 5:00 p.m. EDT on July 15 incur a cancellation fee of 40 percent of each item canceled.
- Cancellations received after 5:00 p.m. EDT on July 15 will not be refunded.

DISCLAIMER AND WAIVER

The American Statistical Association intends to take photographs and video of this event for use in ASA news and promotional material in print, electronic, and other media, including the ASA website. By participating in this event, you grant the ASA the right to use any image, photograph, voice, or likeness, without limitation, in its promotional materials and publicity efforts without compensation. All media become the property of the ASA. Media may be displayed, distributed, or used by the ASA for any purpose.

REGISTRATION FORM

Register by fax: (703) 997-7299 or mail: 732 N. Washington St., Alexandria, VA 22314-1943. Registrations are not accepted by telephone or email.

First/Given Name _____ Middle Initial _____ Last/Family Name _____ Badge Name (if different than First Name) _____
 Membership(s): (check all that apply) ASA CAS CWS ENAR ICSA IISA IMS ISBA ISI KISS RSS SSC WNAR

Organization _____ Registrant's ASA ID# (if known) _____

Address _____

City _____ State/Province _____ ZIP/Postal Code _____ Country (Non-U.S.) _____

Phone _____ Email _____

Emergency Contact *In case of emergency, list the **name** and **phone number** of the person we should contact (remains confidential).*

CHECK ALL THAT APPLY

- I am a participant (speaker/panelist/discussant/chair/organizer/poster presenter).
- I am a first-time JSM attendee.
- I have a disability that requires special services (attach a statement of your needs).
We cannot guarantee an accommodation that is not made during early registration or regular registration.
- Exclude my information from contact lists managed by the ASA for use by outside entities, including offers for onsite receptions, activities, and giveaways.
- Exclude my name from the conference attendee roster that will appear on the conference website.

MEETING REGISTRATION FEES

All fees are in US dollars (mark the appropriate box).

| | Early May 2-31 | Regular June 1-30 | Late July 1-27 |
|--|--------------------------------|--------------------------------|--------------------------------|
| Member ♦ | <input type="checkbox"/> \$475 | <input type="checkbox"/> \$525 | <input type="checkbox"/> \$580 |
| New ASA Member ♦♦ | <input type="checkbox"/> \$610 | <input type="checkbox"/> \$660 | <input type="checkbox"/> \$715 |
| Nonmember | <input type="checkbox"/> \$700 | <input type="checkbox"/> \$780 | <input type="checkbox"/> \$860 |
| Student Member ♦ | <input type="checkbox"/> \$130 | <input type="checkbox"/> \$130 | <input type="checkbox"/> \$130 |
| K-12 Teacher | <input type="checkbox"/> \$80 | <input type="checkbox"/> \$80 | <input type="checkbox"/> \$80 |
| Senior Member ♦ | <input type="checkbox"/> \$210 | <input type="checkbox"/> \$210 | <input type="checkbox"/> \$210 |
| Developing Country Resident ♦♦♦ | <input type="checkbox"/> \$80 | <input type="checkbox"/> \$80 | <input type="checkbox"/> \$80 |

♦ Must have an active membership in one of the sponsoring societies and indicate it on your registration where asked

♦♦ Includes discounted first-year ASA dues; not available to renewing or recently lapsed members

♦♦♦ Must reside in one of the countries listed at www.amstat.org/ASA/Membership/Countries-Eligible-for-Developing-Country-Membership.aspx

SOCIAL EVENTS

FOR FIRST-TIME ATTENDEES only:

- YES! I will attend the JSM First-Time Attendee Orientation on Sunday, August 7, at 12:30 p.m.

FOR STUDENT MEMBER registrants only:

- YES! I will attend the Student Mixer on Monday, August 8, at 6:00 p.m.

TOTAL REGISTRATION FEES

MEETING REGISTRATION FEES \$ _____

ADD-ONS

TOTAL Roundtable/Speaker Cost \$ _____

TOTAL Career Service Cost \$ _____

TOTAL Professional Development Cost \$ _____

TOTAL Guest Cost \$ _____

TOTAL REGISTRATION + ADD-ONS \$ _____

PAYMENT INFORMATION

(NOTE: We are unable to accept purchase orders as payment.)

- Check or money order enclosed payable to American Statistical Association (US funds on a US Bank)

Credit Card:

- Amex Discover MasterCard VISA

Card Number _____

Expiration Date _____

Security Code _____

Name of Cardholder _____

Cardholder's Signature _____

PROFESSIONAL DEVELOPMENT

Prices are for May 2–June 30/July 1–27

CONTINUING EDUCATION COURSES

| | Member | Nonmember | Student |
|---------------------------|------------------------------------|--------------------------------------|------------------------------------|
| SATURDAY, AUGUST 6 | | | |
| CE_01C | <input type="checkbox"/> \$675/920 | <input type="checkbox"/> \$825/1,120 | <input type="checkbox"/> \$390/530 |
| CE_02C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_03C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_04C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_05C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_06C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |

SUNDAY, AUGUST 7

| | | | |
|--------|------------------------------------|------------------------------------|------------------------------------|
| CE_07C | <input type="checkbox"/> \$245/335 | <input type="checkbox"/> \$320/430 | <input type="checkbox"/> \$150/200 |
| CE_08C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_09C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_10C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_11C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |

MONDAY, AUGUST 8

| | | | |
|--------|------------------------------------|------------------------------------|------------------------------------|
| CE_13C | <input type="checkbox"/> \$245/335 | <input type="checkbox"/> \$320/430 | <input type="checkbox"/> \$150/200 |
| CE_14C | <input type="checkbox"/> \$245/335 | <input type="checkbox"/> \$320/430 | <input type="checkbox"/> \$150/200 |
| CE_15C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_16C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_17C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_18C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_19C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_20C | <input type="checkbox"/> \$245/335 | <input type="checkbox"/> \$320/430 | <input type="checkbox"/> \$150/200 |

TUESDAY, AUGUST 9

| | | | |
|--------|------------------------------------|------------------------------------|------------------------------------|
| CE_21C | <input type="checkbox"/> \$245/335 | <input type="checkbox"/> \$320/430 | <input type="checkbox"/> \$150/200 |
| CE_22C | <input type="checkbox"/> \$245/335 | <input type="checkbox"/> \$320/430 | <input type="checkbox"/> \$150/200 |
| CE_23C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |
| CE_24C | <input type="checkbox"/> \$390/530 | <input type="checkbox"/> \$520/700 | <input type="checkbox"/> \$235/320 |

TOTAL PROFESSIONAL DEVELOPMENT COST \$ _____

COMPUTER TECHNOLOGY WORKSHOPS

\$60 / 75 EACH

WEDNESDAY, AUGUST 10

| | | |
|---------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> CE_25T | <input type="checkbox"/> CE_26T | <input type="checkbox"/> CE_27T |
| <input type="checkbox"/> CE_28T | <input type="checkbox"/> CE_29T | |

PROFESSIONAL SKILLS DEVELOPMENT OFFERINGS

| | Member | Nonmember | Student |
|--|--------|-----------|---------|
|--|--------|-----------|---------|

SATURDAY, AUGUST 6

| | | | |
|--------|------------------------------------|------------------------------------|------------------------------------|
| CE_30P | <input type="checkbox"/> \$245/335 | <input type="checkbox"/> \$320/430 | <input type="checkbox"/> \$150/200 |
|--------|------------------------------------|------------------------------------|------------------------------------|

SUNDAY, AUGUST 7

| | | | |
|--------|------------------------------------|------------------------------------|------------------------------------|
| CE_31P | <input type="checkbox"/> \$245/335 | <input type="checkbox"/> \$320/430 | <input type="checkbox"/> \$150/200 |
| CE_32P | FREE | | |

ACCREDITATION DISCOUNT

Accredited members of the ASA (PStat® or GStat) enjoy a 20% discount on Professional Development offerings.

I am PStat® or GStat accredited by the ASA.

PROFESSIONAL DEVELOPMENT SUBTOTAL

\$ _____

20% accreditation discount

\$ _____

CAREER SERVICE

Applicant Options—Includes online access to job postings.

| | ASA Member | Nonmember |
|------------|--------------------------------|--------------------------------|
| Student | <input type="checkbox"/> \$75 | <input type="checkbox"/> \$100 |
| Nonstudent | <input type="checkbox"/> \$150 | <input type="checkbox"/> \$225 |

TOTAL CAREER SERVICE COST \$ _____

GUEST BADGES \$75 per guest.

Enter names below. Fee includes Sunday Opening Mixer, Tuesday Night Dance Party, and entrance into exhibit hall. Session attendance is not included.

Guest Name _____

Guest Name _____

Guest Name _____

TOTAL GUEST COST \$ _____

ROUNDTABLES AND SPEAKERS WITH LUNCH

A.M. ROUNDTABLES

\$25 each; includes continental breakfast. Indicate your first and second choices by marking 1 and 2.

MONDAY AUGUST 8 **TUESDAY AUGUST 9** **WEDNESDAY AUGUST 10**

ML01____ TL01____ WL01____

ML02____ TL02____ WL02____

ML03____ TL03____ WL04____

ML04____ TL04____

ML05____ TL05____

P.M. ROUNDTABLES

\$50 each; includes meal. Indicate your first and second choices by marking 1 and 2.

SUNDAY AUGUST 7 **MONDAY AUGUST 8** **TUESDAY AUGUST 9** **WEDNESDAY AUGUST 10**

SL01____ ML06____ TL06____ WL05____

ML07____ TL07____ WL06____

ML08____ TL08____ WL07____

ML09____ TL09____ WL08____

ML10____ TL10____ WL09____

ML11____ TL11____ WL10____

ML12____ TL12____ WL12____

ML13____ TL13____ WL13____

ML14____ TL14____ WL14____

ML15____ TL15____ WL15____

ML16____ TL16____ WL16____

ML17____ TL17____ WL17____

ML18____ TL18____

ML19____

MEAL CHOICE: Regular Vegetarian

TOTAL ROUNDTABLES/SPEAKER COST \$ _____

REGISTER TODAY!

Don't miss your chance to participate in the largest gathering of statisticians and data scientists held in North America!

MAY 31

Early registration deadline

JUNE 30

Regular registration deadline

AUGUST 6–11

2022 Joint Statistical Meetings

JSM is held jointly with the:

- *American Statistical Association
- Casualty Actuarial Society
- The Caucus for Women in Statistics
- *International Biometric Society (ENAR and WNAR)
- International Chinese Statistical Association
- International Indian Statistical Association
- *Institute of Mathematical Statistics
- International Society for Bayesian Analysis
- International Statistical Institute
- Korean International Statistical Society
- Royal Statistical Society
- *Statistical Society of Canada

*(*indicates a JSM founding society)*

AUGUST 6–11
2022
WASHINGTON, DC
JSM

Register online at ww2.amstat.org/jsmregistration.

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