

# **ASA Press Kit**

## **Table of Contents**

- ASA Fast Facts**
- History of the ASA**
- Sections of the ASA**
- ASA Publications**
- Statistical Significance Data Sheets**
- ASA Media Experts List**
- A Brief History of the ASA Annual Meetings**

## ASA FAST FACTS

The American Statistical Association (ASA), a scientific and educational society founded in Boston in 1839, is the world's largest community of statisticians and the second-oldest, continuously operating professional society in the United States.

Since its inception, 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.

The ASA mission is to promote excellence in the application of statistical science across the wealth of human endeavor, specifically to:

- Support excellence in statistical practice, research, journals and meetings
- Work for the improvement of statistical education at all levels
- Promote the proper application of statistics
- Anticipate and meet member needs
- Use the discipline of statistics to enhance human welfare
- Seek opportunities to advance the statistics profession

### Membership

Today, the ASA serves nearly 19,000 members throughout the world. In government, academia and the private sector, ASA members apply their expertise to diverse and vital areas that include the following:

- Research in medical areas such as AIDS
- Environmental risk assessment
- Developing new therapeutic drugs
- Exploring space
- Quality assurance in industry
- Examining social issues such as the homeless and poor
- Analytic research on current business problems and economic forecasting
- Setting standards for statistics used at all levels of government
- Promoting and developing statistical education for the public and profession
- Expanding methods and use of computers and graphics to advance the science of statistics

### Organizational Structure

The ASA is organized into sections, chapters and committees. Chapters are arranged geographically, representing 72 areas across the United States and Canada. Sections are subject-area and industry-area interest groups covering 28 sub-disciplines. The ASA has more than 60 committees coordinating meetings, publications, education, careers and special-interest topics involving statisticians.

### Key Activities

**Meetings** – The ASA sponsors meetings and workshops around the United States, including the Joint Statistical Meetings (JSM) and many smaller, more specialized regional meetings.

**Publications** – The ASA publishes scholarly journals, general interest magazines, statistical research guides, informational brochures, membership information and books of interest to statisticians.

**Education** – The ASA sponsors educational programs and meetings to enrich statistical knowledge and is an active participant in K–12 education initiatives involving statistics and mathematics.

**Career Services** – The ASA helps in all aspects of career planning, placement and enhancement through information, salary surveys, online job ads and career development tools.

**Awards, Scholarships and Other Honors** – The ASA acknowledges and recognizes members who have made outstanding contributions to statistics or the association by sponsoring awards, honors and fellowships.

**Accreditation** – Established in 2010, the ASA’s accreditation program is modeled after programs in Australia, Canada and the United Kingdom. Accreditation is a portfolio-based credential that is renewable every five years. Accreditation is voluntary; applicants seek accreditation because they believe the credential is worthwhile to them, but it is not a requirement for practice.

**Advocacy** – The ASA, through its science policy department, conducts a variety of activities to raise the profile of statistics in policymaking discussions and advocate on matters of interest to statisticians.

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## HISTORY OF THE ASA

The phrase “timing is everything” rings true for the American Statistical Association (ASA), which was formed in November 1839 in Boston—a city that was burgeoning with educational and technical professional opportunities. Back then, annual dues cost \$2, and notable figures who joined the society included U.S. President Martin Van Buren and Minister to France Lewis Cass. In a then male-dominated environment, Florence Nightingale—well-known for her contributions to the medical field—also became a member and was recognized for using statistical analysis techniques in her data-collection efforts benefiting public health and welfare.

What started with just five founders soon began to attract hundreds of members who were elected, not simply granted voluntary membership. With ties to statistical work of the U.S. government, particularly the U.S. Census Bureau, a movement was led by then-ASA President Francis A. Walker (1883–1897) to expand the association’s roots nationwide. ASA leadership chose to drop the exclusive “by invitation only” membership requirement to attract a larger, more diverse group of members and opened the doors for professionals from a variety of fields and business sectors.

The organization began publishing the *Journal of the American Statistical Association (JASA)* in 1888, when its mission was solidified and membership was growing. And in 1908, the ASA conducted its annual meeting in Atlantic City, New Jersey—stepping away from the traditional stronghold of Boston.

After World War I, statistical work in government and business boomed, and between 1920–1943, chapters developed in Detroit; Chicago; Cleveland; San Francisco; Los Angeles; Pittsburgh; Philadelphia; Washington, DC; Albany, New York; Austin, Texas; and at universities across the U.S. The very first biostatistics program was started at The Johns Hopkins University in 1918, and, in 1927, a statistics lab was established at Iowa State University.

Recognizing the power of reaching statistics professionals in a variety of disciplines and across geographic borders, the ASA adopted a resolution in 1924 declaring its support to open scientific meetings to scientists from all countries.

In turning 100 in 1939, the ASA celebrated with an all-time-high membership of 3,000. The age of information began to flourish, and to meet the thirst for knowledge, the ASA expanded its publication portfolio with *The American Statistician* in 1947. Following World War II, advances in science and technology led to the establishment of ASA sections that would focus on specific business interests such as engineering, economics, social sciences and education. While the U.S. saw civil unrest and social uprisings in the 1960s and 70s, the ASA continued to find new ways to educate members and the public about scientific developments through newsletters, magazines and more journals.

Fast forward to the present day, and the ASA’s membership exceeds 19,000 professionals in academia, government, research and business. It consists of more than 70 chapters, nearly 30 sections, 17 journals and six yearly conferences. Throughout all the growth and changes, the ASA’s goal remains the same: *to promote the practice and profession of statistics.*

## SECTIONS OF THE ASA

[ASA sections](#) are groups developed to further the objectives of the association in a field of statistical method, theory or application. These sections are subject-area and/or industry-area related and cover many sub-disciplines. The scope of each section is sufficiently broad to represent active professional interests of a substantial segment of the association.

## ASA PUBLICATIONS

### Journals

#### [\*Journal of the American Statistical Association\*](#)

Established in 1888 and published quarterly in March, June, September and December, the *Journal of the American Statistical Association (JASA)* has long been considered the premier journal of statistical science. Articles focus on statistical applications; theory and methods in economic, social, physical, engineering and health sciences; and new methods of statistical education. Important books contributing to statistical advancement are reviewed in *JASA*.

#### [\*The American Statistician\*](#)

*The American Statistician* contains timely, general-interest articles about current national and international statistical problems and programs, organized into the following sections: Statistical Practice, General Topics, Teacher's Corner, History Corner, Interdisciplinary, Statistical Computing and Graphics, Reviews of Books and Teaching Materials and Letters to the Editor.

#### [\*Journal of Business & Economic Statistics\*](#)

*JBES* publishes a range of articles, primarily applied statistical analyses of microeconomic-, macroeconomic-, forecasting-, business- and finance-related topics. More general papers in statistics, econometrics, computation, simulation or graphics are also appropriate if immediately applicable to the journal's general topics of interest. Articles published in *JBES* contain significant results, high-quality methodological content and excellent exposition. They also usually include a substantive empirical application.

#### [\*Statistics in Biopharmaceutical Research\*](#)

*Statistics in Biopharmaceutical Research (SBR)* publishes articles that focus on the needs of researchers and applied statisticians in biopharmaceutical industries; academic biostatisticians from schools of medicine, veterinary medicine, public health and pharmacy; statisticians and quantitative analysts working in regulatory agencies (e.g., U.S. Food and Drug Administration and its counterpart in other countries); statisticians with an interest in adopting methodology presented in this journal to their own fields; and nonstatisticians with an interest in applying statistical methods to biopharmaceutical problems.

#### [\*Journal of Statistics Education\*](#)

The *Journal of Statistics Education* is an online-only journal that includes articles focusing on improving statistics education at all levels, including elementary, secondary, post-secondary, postgraduate, continuing and workplace. *JSE* is for anyone who teaches statistics, as well as those interested in research on statistical and probabilistic reasoning.

### [Statistics and Public Policy](#)

Established in 2013 and produced electronically, *Statistics and Public Policy (SPP)* publishes papers that apply strong statistical methodology to problems in the realm of public policy and/or relevant political science. Articles may address international, national or local policy questions, and the emphasis is on the application rather than methodological novelty.

## **Joint Publications**

### [Significance](#)

The ASA and Royal Statistical Society published their first joint issue of *Significance*, a magazine about statistics and data in the real world, in September 2010. *Significance* is a high-quality publication directed to statisticians and the public interested in statistics and the analysis and use of data. The quarterly magazine uses nonstatistical language to communicate and demonstrate, in an entertaining and thought-provoking way, the practical use of statistics in all walks of life and how statistics benefits society.

### [CHANCE](#)

Jointly published by the ASA and Springer-Verlag, *CHANCE* is a magazine about statistics and the use of statistics in society. It is intended for everyone who has an interest in the analysis of data. *CHANCE* features articles that showcase the use of statistical methods and ideas in the social, biological, physical and medical sciences. It also presents material about statistical computing and graphical presentation of data.

### [Journal of Agricultural, Biological and Environmental Statistics](#)

Published jointly with the International Biometric Society, the purpose of *JABES* is to contribute to the development and use of statistical methods in the agricultural sciences, biological sciences (including biotechnology) and environmental sciences (including those dealing with natural resources). Articles are of immediate and practical value to applied researchers and statistical consultants in these fields.

### [Journal of Educational and Behavioral Statistics](#)

*JEBS* is an outlet for papers that develop original statistical methods useful for the applied statistician working in educational or behavioral research. In addition, critical reviews of current practice, tutorial presentations of less well-known methods and novel applications of already known methods are published. Published quarterly, *JEBS* is a joint publication of the American Educational Research Association and the American Statistical Association.

### [Journal of Quantitative Analysis in Sports](#)

A partnership between the ASA and Berkeley Electronic Press (bepress), *JQAS* is a forum for scholars on the cutting edge of research in quantitative sports analysis. ASA members have free online access to the publication.

### [Journal of Nonparametric Statistics](#)

*JNPS* provides a medium for the publication of research and survey work in nonparametric statistics and related areas. Both the theory and application of nonparametric statistics are covered in *JNPS*.

### [Statistics Surveys](#)

*Statistics Surveys* is a unique, online-only journal available to everyone at no cost. It is a partnership between the ASA, Institute of Mathematical Statistics, Bernoulli Society and Statistical Society of Canada. The journal publishes survey articles in theoretical, computational and applied statistics. The style of articles may range from reviews of recent research to graduate textbook exposition.

### [Statistical Analysis and Data Mining](#)

*Statistical Analysis and Data Mining* addresses the broad area of data analysis, including data mining algorithms, statistical approaches and practical applications. Topics include problems involving massive and complex data sets, solutions using innovative data mining algorithms and/or novel statistical approaches and the objective evaluation of analyses and solutions. The journal is a useful resource to those solving practical problems, at the same time enabling them to benefit from ideas developed in other domains.

### [Journal of Statistical Software](#)

Established in 1996, the *Journal of Statistical Software* publishes articles, book reviews, code snippets and software reviews. The contents are freely available online. For both articles and code snippets, the source code is published along with the paper.

### [Technometrics](#)

Published jointly with the American Society for Quality, the mission of *Technometrics* is to contribute to the development and use of statistical methods in the physical, chemical and engineering sciences, as well as quality control and industrial systems. *Technometrics* publishes papers that describe new statistical techniques; illustrate innovative application of known statistical methods; or review methods, issues or philosophy in a particular area of statistics or science when such papers are consistent with the journal's objective.

### [Journal of Computational and Graphical Statistics](#)

The purpose of *JCGS* is to improve and extend the use of computational and graphical methods in statistics and data analysis. Established in 1992, this journal contains cutting-edge research, data, surveys and more on numerical graphical displays and methods and perception. Articles are written for readers who have a strong background in statistics, but are not necessarily experts in computing. Published quarterly, *JCGS* is jointly published by the American Statistical Association, the Institute of Mathematical Statistics and the Interface Foundation of North America.

### [SIAM/ASA Journal on Uncertainty Quantification](#)

The *SIAM/ASA Journal on Uncertainty Quantification* publishes research articles presenting significant mathematical, statistical, algorithmic and application advances in uncertainty quantification, defined as the interface of complex modeling of processes and data, especially characterizations of the uncertainties inherent in the use of such models. The journal also focuses on related fields such as sensitivity analysis, model validation, model calibration, data assimilation and code verification.

### [Journal of Survey Statistics and Methodology](#)

The *Journal of Survey Statistics and Methodology* publishes cutting-edge scholarly articles about statistical and methodological issues for sample surveys, censuses, administrative record systems and other related data. It aims to be the flagship journal for research on survey statistics and methodology.

### **Other Publications**

#### ***Amstat News***

*Amstat News* is the monthly membership magazine of the American Statistical Association, containing news and notices of the ASA, its chapters, its sections and its members. Other features include announcements, calendars of upcoming meetings and notices of employment opportunities in statistics.



## **ASA MEDIA EXPERTS**

The American Statistical Association (ASA) maintains a database of members with expertise in fields of statistical application who have volunteered to serve as information sources for the media. *The individuals on the list speak as experts in their respective fields, not as ASA spokespersons.*

We have provided a topic list that will help you easily find a statistician with experience in a specific field of science; you can link to an individual's bio and contact information from the topic list. Please note that these members are not subject experts, but have expertise in the statistical aspects of the noted topics. Many on the list possess experience working with the media. Everyone on the media experts list can be relied on as a resource for quotes, interviews and background information.

To date, the ASA's media experts have been interviewed by and quoted in *The New York Times*, *Wall Street Journal* and many science publications. They also have been featured on television and radio interviews.

The list of experts by topic is followed by an alphabetical list with bios and contact information. You can view or download the experts list at [www.amstat.org/asa/files/pdfs/PR-MediaExperts.pdf](http://www.amstat.org/asa/files/pdfs/PR-MediaExperts.pdf).

If you need a resource in an area not included on the list, please call (703) 684-1221 or email [publicrelations@amstat.org](mailto:publicrelations@amstat.org).

## ASA STATISTICAL SIGNIFICANCE SERIES

The American Statistical Association's Statistical Significance series—found at [www.amstat.org/ASA/Science-Policy-and-Advocacy/Statistical-Significance-Series](http://www.amstat.org/ASA/Science-Policy-and-Advocacy/Statistical-Significance-Series) and developed jointly by ASA sections, the Scientific and Public Affairs (SPA) Committee and ASA staff—highlights the important contributions statisticians make to our global society—from health care and the economy to national security and the environment.

Learn how statisticians affect many areas of our everyday lives:

### **Statistics Informs Energy Policy**

Statisticians provide policymakers with a range of information that covers energy production, consumption, imports, exports, inventories, prices and environmental effects. They also provide projections for future activities and analyses of the possible effects of changes in technology, regulations and tax policies. Statistical analyses based on high-quality data promote sound policymaking, efficient markets and public understanding of energy and its place in the economy and environment.

### **Statistics Aids in Drug and Device Development**

Any drug, device or vaccine legally sold in the United States must go through a rigorous process of approval and oversight. Statisticians are vital at all stages to get safe, effective drugs and devices to market quickly and to monitor them thereafter. Contained herein are examples illustrating just a few of the uses of statistics for the approval of drugs, biologics and devices.

### **Statistics Informs Health Policy**

Statisticians design studies and analyze and interpret data that empower health policy stakeholders to draw conclusions and make decisions about the most effective and efficient treatments, caregivers, health care systems and health care policies. Statisticians contribute to providing more and better information for a spectrum of decision-makers—those at the kitchen table and those in the private sector, government, hospitals and doctors' offices.

### **Statistics Improves Health Care**

Statisticians are vital to all forms of health care, from developing treatments to examining regimens for preventing and detecting disease. To deal with the complexity of the human body and its interactions with its surroundings, statisticians collaborate with health care researchers to extract information from data, leading to treatments and information that reach the public more quickly.

### **Statistics Powers Competitiveness**

Efficiency, Efficiency, Efficiency: Statisticians have developed powerful analytical tools that allow one to extract robust conclusions from data samples. As a result, industry, agriculture and pharmaceutical companies have improved their productivity and competitiveness immensely.

### **Statistics Monitors the Environment**

The environment is an enormously complex system. There are endless variables, along with randomness, natural variations and complicated interactions. Statisticians are essential to sorting through this complexity and uncertainty. Working with scientists from many disciplines, statisticians identify and quantify trends and influences to make projections.

### **Statistics Improves Security and Defense**

Statisticians have developed powerful analysis tools that help keep our nation safe. In national security and defense, not only do these tools help prevent major attacks, but they also handle cyber defense, biosurveillance, military research, military force structure and environmental research.

### **Statistical Science Aiding Sports**

Sports statistics such as a batting average don't involve the scientific discipline of statistics at all, but are merely numbers determined by simple arithmetic. Statistics in the sense of the scientific discipline of collecting, analyzing and understanding data can yield powerful insights and advantages for those who employ it for sports of any kind. The use of statistical science in sports is still in its early stages, but showing its power and utility, especially with ever-increasing amounts of data.

### **Statistical Science Improving Agriculture**

Agriculture is central to our economy, health, environment and security. Farmers, producers and distributors are under constant pressure to improve yield, provide safe food, ensure nutrition and contain costs. Statistical science and statisticians are vital to addressing each of these challenges.

### **Statistics Plays an Important Role in Transportation**

With profound effects on communities, safety, public health and the economy, transportation policy in the public and private sectors relies on statistical science—from the collection of data to their analysis and understanding to the evaluation of options to the eventual decision-making. Gaining an understanding of where, when and how people travel and how, when and where commodities are transported is challenging given the diversity of our society and economy, and this is only the first step in planning transportation infrastructure and services. Statistical science is also instrumental in formulating effective safety protocols, determining cost-benefit trade-offs and allocating resources while reducing pollution and congestion.

## **A BRIEF HISTORY OF THE ASA ANNUAL MEETINGS**

*From the Inaugural Meeting in 1839 to the Joint Statistical Meetings*

- **Early Meetings.** The inaugural annual meeting of the newly formed American Statistical Society (as it was briefly called at its establishment in 1839) was held in Boston February 5, 1840. Attendance at this meeting was 10. No presentations were made, but one was made at a meeting held in April 1840. Meetings continued to be held in Boston through the early 1900s.
- **Outside Boston.** Scheduling meetings outside Boston and in conjunction with other societies was part of an attempt to make the association more national. The 71st annual meeting in 1909 in New York was held in conjunction with nine other associations and featured four presentations over several days.
- **Increased Activity.** For two decades (through 1928), the ASA annual meeting, with one exception, was held in December for two to four days. The 90th meeting in 1928 had 17 sessions with multiple competing time slots each day. From 1929 through 1948, the ASA held 18 meetings. By 1937, there were 38 presentations.
- **Allied Meetings.** In 1935, the ASA combined with several associations with which it often met to form the Allied Social Sciences Association. This association's first sponsored meeting, called the Allied Meetings, was held in 1936 in Chicago. The ASA held its annual meeting with this group once every three years until 1974.
- **Joint Meetings.** With the formation of the Institute of Mathematical Statistics in 1935 and the International Biometric Society in 1948, meetings with only statistical societies, called "Joint Meetings," were initiated, and the ASA held its annual meetings with these groups in the years it did not meet with the allied group.
- **Joint Statistical Meetings.** Since 1974, when the Joint Statistical Meetings (JSM) formally were organized, the ASA has continually held its annual meeting with this group. Today, JSM has more than 2,500 sessions over a six-day period and more than 6,000 attendees.