

Statistical Significance Competition

The Scientific and Public Affairs Advisory Committee (SPAAC) of the American Statistical Association (ASA) holds a '*Statistical Significance*' competition annually at the Joint Statistical Meeting (JSM) for SPEED session authors. The goal of the competition is to encourage authors to think about the contributions of their work to society. A '*Statistical Significance*' piece provides the explicit connection to contribution of statistics to society.

Participation

To be eligible, participants must be accepted to present in a JSM SPEED session, which of course requires submission by the standard JSM deadline following the standard procedures. Deadline dates are subject to change each year depending on the calendar and other requirements of JSM and the ASA.

In addition, participants must (i) notify the competition organizers of their plans to participate via an email that must include the presenting author's name, the presentation title, and the abstract number assigned at the time of submission sent to the person indicated on the competition website; (ii) submit a pdf of their one-page statistical significance piece to the competition organizer, the Monday prior to JSM.

Statistical Significance Piece

A *Statistical Significance* piece is a short, one-page illustration of the value of statistics to society within the context of the research problem discussed in the presentation. The objective is to illustrate to a lay person how the statistical solution to the problem discussed in the SPEED presentation would help form decisions that improve our society in specific areas such as health, agriculture, economy, education, manufacturing, medicine, etc.

This specific piece should be clearly written to convey the beneficial role of statistics in a concise and unambiguous manner. The *Statistical Significance* piece should be visually appealing and accessible to a lay audience. The most effective *Statistical Significance* pieces are simple in exposition, enlightening, and fun to read. See <http://www.amstat.org/policy/statsig.cfm> for examples.

There are no explicit rules about the size of the *Statistical Significance* piece. It must be large enough that it can be reviewed by the judges. It must be presented along with their SPEED presentation but there are no explicit rules about how it should be presented. In the past, participants have taken different approaches to presenting the piece. Some people have created an 8 in. x 11 in. handout. Others have posted an 8 in. x 11 in. page alongside their poster and a few participants have posted a somewhat larger significance piece in the range of 11 in. x 14 in. or so. The *Statistical Significance* piece should not be the size of a poster.

Judging

A panel of judges appointed by the SPAAC will evaluate the statistical significance piece using the following criteria:

Criteria	Details
Presence of a <i>Statistical Significance</i> Piece	Posters without a <i>Statistical Significance</i> piece will be disqualified.
Quality of the <i>Statistical Significance</i> Piece	Pieces will be evaluated for relevance, connection to the presentation, clarity of their demonstration of the value of statistics to society, novelty of their argument, accessibility to a lay audience, and visual appeal.
Technical Content	Pieces will be evaluated on the novelty of the statistical methods or applications, clarity of the technical presentation, accuracy of results, and appropriateness of methods for the given data or problem.
Layman Literacy	Pieces will be evaluated on their accessibility to a broad audience and accuracy of language used.
Spatial Layout	Pieces will be evaluated on the layout of content and the ease with which it can be read and interpreted.
Graphics/Art	Pieces will be evaluated on the utility of graphics for concise presentation and illuminating the results, the ease at which graphics can be read, and the neatness and utility of any other artwork on the piece.

The criteria of Technical Content, Layman Literacy, Spatial Layout, and Graphics/Art are given equal weight and Quality of the Statistical Significance Piece is given double that weight. However, judges assess all of the criteria and then make holistic scores that are used to rank submissions and select a winner.

Competition Winner

The winner will be notified via email shortly after JSM and will receive a cash prize (\$300 as of 2021) and a certificate. Some years, additional submissions are recognized with an honorable mention; the authors of these posters receive a certificate. All participants will be notified of the winner's name and presentation title shortly after JSM.