

Editor's Letter

Sam Behseta,
Executive Editor



Dear Readers,

It is my great pleasure to serve as the new executive editor of *CHANCE*.

As articulated in their first editorial letter, Stephen Fienberg and William Eddy founded this magazine on a simple premise: "*CHANCE* is intended to entertain and to inform. We hope to bring you articles and columns that will stimulate your thinking on innovative uses of statistics." Some 24 years and seven editors later, I cannot think of a better way to delineate the primary mission of *CHANCE*.

In my view, the magazine will serve the statistical community—as well as its diverse readership outside the statistical world—more effectively by adhering to the original concept its founders envisioned. Realizing this objective, however, will remain nontrivial. As Fienberg put it in an interview with Howard Wainer for the 20th anniversary issue of *CHANCE*, "The difficult thing, as every *CHANCE* editor knows, is to get authors who can write about such topics without using equations and lots of technical jargon."

To set an agenda for *CHANCE*, one can simply draw inspiration from the variety of invigorating topics that have been covered in this magazine: the life and work of R. A. Fisher and Harold Jeffreys, expert witnesses and the courts, teacher evaluations and student grades, statistical history of the AIDS epidemic, memories of election night predictions, the hot hand in ice hockey, the use of statistical evidence in allegations of exam cheating, racial profiling, counter-terrorism, voting irregularities in Palm Beach, sex differences and traffic fatalities, evaluating agreement and disagreement among movie reviewers, fasting during Ramadan and traffic accidents in Turkey, the difficulty of faking data, anatomy of a jury challenge, and the Torah codes, among the others.

I would like to express my gratitude to the former executive editor, Michael Larsen. *CHANCE* benefited greatly from his vision, resulting in highly engaging articles. The good news is he will stay around as an advisory editor.

Speaking of the editorial board, I am pleased to welcome two new editors: Scott Evans of Harvard's School of Public Health and Aleksandra Slavkovic of Penn State, who is embarking on a new column titled "O' Privacy, Where Art Thou? Mapping the Landscape of Data Confidentiality."

We open this issue with **Stephen Stigler's** article about Galton's visualization of the Bayes' theorem. Those familiar with Stigler's extensive work on the history of statistics know his every article is a treat. He introduces us to Galton's schematic presentation of the now well-known Bayesian normal model with a normal conjugate prior. As demonstrated in the article, Galton's 1877 machine was capable, quite amazingly, of generating the posterior normal distribution out of the normal-normal model.

Howard Wainer takes a momentary break from the popular Visual Revelations column to give a statistician's reading of the

highly sensitive discourse around the implementation of value-added models (VAM) in K–12 teachers' evaluations. Wainer's critique of the VAM scheme revolves around three arguments: the role of the counterfactual on causal inference, the problem of reading too much into test results, and the ever-present challenge of handling missing data.

Also in this issue, **David Rockoff** and **Philip Yates** take a fresh look at Joe DiMaggio's monumental hitting streak during the 1941 season by inquiring about how one would go about quantifying the rarity of such an event. The authors make the point that it is more meaningful to rephrase this objective in a grander context: What is the probability that any player, not just DiMaggio, can ever reach the 56-hitting mark?

Robert Burks provides an interesting combinatorial argument for the joy of mixing jellybeans to create exciting new flavors, followed by proposing a simple procedure for assessing the distribution of jellybeans.

Harry Davis, **Hershey Friedman**, and **Jiangming Ye** revisit an ancient sampling problem of establishing a standard volume for eggs. Amid the familiar flaws of using the mean as the measure of centrality, they argue that the ancient approach of averaging the volume of two eggs—a large one and a small one—does well, especially when the underlying distribution of all eggs is assumed to be normal.

Michael Wenz and **Joren Skugrud** develop a probit model to study the effect of a critical decision in football: following a touchdown by a kick—one extra point—or adopting the riskier strategy of going for a two-point play.

Stephen Marks and **Gary Smith** present an engaging overview of the two-child paradox: In a family with two children, given that one of the children is a girl, what is the probability that the other child is also a girl? Two popular answers are a half and a third, hence a paradox. It turns out there will remain no ambiguities if the problem is tackled by the Bayes' theorem.

Hongmei Liu, **Jay Parker**, and **Wei Sun** employ a stratified single-stage sampling design to estimate the mis-shelving rate of books at the library of the University of Illinois at Chicago.

Milton W. Loyer and **Gene D. Sprechini** raise a deceptively simple question: Can the overall probability of an event be larger or smaller than the sum of its individual probabilities? They motivate the solution using two examples: the statistical problem of estimating the proportion of fruit having some defect and the problem of calculating the probability of getting a hit from two baseball players with unequal batting averages.

Finally, I would like to invite you to visit the magazine's redesigned website at <http://chance.amstat.org>. The empowered functionality of the site is largely due to the creative work of staff members in the Communications Department at the American Statistical Association.

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