

Editor's Letter

Sam Behseta,
Executive Editor



Dear Readers,

In this issue of *CHANCE*, **Tim Keyes** highlights some of the shortfalls of statistical models frequently used in financial risk management, chiefly the role that the misuse of these models might have played in the current economic downturn. In addition to providing a crash course on such pivotal terms as return on equity, value at risk, collateralized debt obligations, and securitization, Keyes introduces us to the probabilistic components involved in the calculation of these measures. That financial data are quite volatile and continuously affected by a large number of hidden parameters—allowing for the accumulation of various sources of error—would necessitate a rigorous examination of their reliability. Keyes' prescription for financial modelers consists of examining the quality of the data they feed into their models, monitoring the validity of their models' assumptions along with appreciating the risks associated with violating them, and establishing closer ties with statistical associations such as the ASA.

Kristen Lampe proposes a new paradigm for the fair ranking of high hands in poker when wild cards are included in the stack. Through a series of engaging combinatorial arguments, Lampe calculates the probability of hands such as straight flush and four of a kind for the games of Wild Card and Deuces Wild.

Benjamin Alamar and **Keith Goldner** provide a statistical framework for measuring the impact of offensive linemen in the overall performance of NFL teams. The authors rely on data collected from individual offensive linemen throughout the 2010 NFL season. By developing metrics such as Time in Pocket, and through using random effects models for constructing survival functions for each of the offensive linemen positions, the probability that an individual lineman can hold a defensive block is estimated.

With the aid of a logistic regression model, **Fernando Mata** and **Sarah Watts** estimate the probability of favored horse betting using data from thoroughbred races in the British Isles. A series of predictors, including the racing ground's condition, time of day the race took place, whether the race was handicapped, type of race, and surface of the track are taken into account. The authors recommend placing bets on horses that are not handicapped and competing with a small number of other runners.

Following his 1988 *CHANCE* article, **Mervyn Stone** details the courteous relationship between Florence Nightingale and her statistical mentor, Adolf Quetelet. The most striking episode in their brief but intense interaction, in my reading, is the ideological conflict arising from Nightingale's fatalist point of view, interpreting all terrestrial occurrences as predetermined by God, as opposed to the pure scientific approach of

tabulating social statistics by the Belgian intellectual, specifically in his highly influential book *Physique Sociale*.

In this installment of *O Privacy, Where Art Thou?* **Saki Kinney** and **Alan Karr** offer guidelines for researchers interested in accessing restricted data from public agencies. The article is a helpful resource to all scholars seeking information from the government, as it discusses the subtleties associated with important phases in which access can be acquired: proposal preparation, estimation of costs involving data acquisition, and the limitations of the post-analysis publication.

In his debut *A Statistician Reads the Sports Pages* column, **Shane Jensen** looks into the controversial topic of the salaries and performances of general managers in baseball. Using a simple linear fit and its residuals, the salaries of the general managers are contrasted against the number of wins of their respected clubs during the 2004–2009 period and the general managers are ranked in terms of their above or below average performances.

Also in this issue of *CHANCE*, we are launching *Ethics and Statistics*, a new column by **Andrew Gelman**, and reinstating *Book Reviews*, this time by **Christian Robert**.

Being at the forefront of statistical research for the last two decades, Gelman would be the right person to seek guidance in matters related to ethical issues that constantly come up in the cross-disciplinary work of statisticians, as well as in the application of statistical methods by nonstatisticians.

The first book review in *CHANCE*, written by Miron Straf, appeared in the premiere issue of this magazine in the winter of 1988, under then book editor Michael Meyer. That piece is a review of a Jackie Collins novel, fittingly titled *Chances*. Book Reviews remained a fixture of *CHANCE*—mostly written by Stanley Wasserman—until the early 2000s. It is a joy to witness the column's revival in the capable hands of Christian Robert, an author of eight superb statistical volumes.

In *Visual Revelations*, **Howard Wainer** and **Lawrence Hubert** look into the delicate matter of false positives and false negatives associated with the case of psychiatrists' predicting whether there is a high probability that defendants in criminal cases would commit acts of violence in the future. Wainer and Hubert give a thought-provoking argument as to why one should practice extreme caution prior to passing judgment on the quality of the predictions made by the involved psychiatrists.

Finally, it is my pleasure to introduce two new *CHANCE* editors: **Shojaeddin Chenouri** from the University of Waterloo in Ontario, Canada, and **Babak Shahbaba**, from the University of California at Irvine.

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