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The Signal and the Noise: Why So Many Predictions Fail—but Some Don't

By Nate Silver
Book Review by Scott McInturff

The Signal and the Noise: Why So Many Predictions Fail — but Some Don't by Nate Silver is a book every actuary who is interested in forecasting should read. If Silver were writing about fly casting, rather than forecasting, upon finishing his book the reader would want to immediately hand-tie a fly, wade into a wide river and cast a line repeatedly in hopes of using newly learned methods to hook a whopper lurking at the bottom of a deep pool. After reading this book you will most certainly be using some new techniques in your next foray into forecasting.

Not only is Silver's book entertaining, it is informative. This is an archetypal introductory text on forecasting that is worth the time spent reading it. Filling his narrative with anecdotes and examples, novice and expert forecaster alike will enjoy reading Silver's proclamations concerning the approaches and pitfalls of political, financial, geological and social forecasting. Your forecasting toolbox will be expanded by reading Silver's book.

Silver has been a forecaster in many disparate arenas. He won more than $400,000 as a late night clandestine on-line gambler, using Bayesian logic to know when to hold 'em and know when to fold 'em. He used his love of baseball and knowledge of statistics to develop a superior commercially viable forecasting system to evaluate baseball players by de-emphasizing performance measures that rely on luck and focusing on those that gauge skill. Silver gained his greatest celebrity by accurately predicting the outcomes of the 2008 elections at national and state levels through his blog FiveThirtyEight. He then repeated this accomplishment after his book was published in the 2012 election cycle.

Though there's an undercurrent of hubris in his writing, this is not a chest-thumping autobiography. While he'd be forgiven if he boasted, Silver downplays his personal forecasting successes, omitting key details of the accuracy with which he predicted the outcomes of the 2008 political elec-

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tions. He knows it is not his accomplishments that make taking time to read his book worthwhile. This book is a gem because Silver is able to describe in detail, citing example after example, how forecasting should be approached and completed. This is a classic textbook on forecasting that is masquerading as an engaging best seller.

Each chapter in Silver's book is chock full of forecasting tips. While it is easy to get caught up in his storytelling, the lessons on how to forecast are impossible to miss. Subheadings, lists, italics, and bolded words are all used to make sure that the reader doesn't mistake this informative textbook for a fast moving novel. Any actuary with an aptitude for forecasting will expand his or her toolbox by reading the entire text.

Silver's secret to forecasting success is a very Bayesian one. He always couches his forecasts based on his assessment of the probability of their being accurate. Not only does he clearly describe Bayes' theorem and give examples of how it is used, he implores all forecasters to think probabilistically every time they forecast. Because forecasts are dynamic predictions, Silver advises that every prediction be revised as new information becomes available. He states that the biggest trap in forecasting is holding a position when information has changed and gives examples of political pundits who make a living by refusing to budge from a position even when it has eroded.

The book's chapters are easily managed as each stands on its own and contains many useful forecasting nuggets that are not to be missed. The book as a whole is heavily researched. The Notes section alone spans 56 pages. Silver uses footnotes not only to reference all his source material, but also to make interesting and insightful comments on points he had made in the various chapters. One certainly would become bogged down if one attempted to read every one of Silver's footnotes as it was encountered in the text. However, the footnote section should not be skipped when the reader finishes the final chapter. I have never found a book with a more interesting and informative footnotes section than in Silver's offering.

Though it is a poor cousin to the Notes section, the Index, at only 20 pages, is highly useful. It is complete enough to allow the reader to readily use Silver's book as an invaluable forecasting reference guide for years to come.

If you are interested in forecasting, I encourage you to read The Signal and The Noise by Nate Silver. If it doesn't make you a better forecaster, it may at a minimum make you a better Texas Hold 'em player. It certainly will give you a better appreciation for the uses of forecasting in everyday life and the knowledge of how to forecast using some of the best basic techniques available. If you take the time to read it, I can almost guarantee that like the novice fisher exposed to a well written text on fly casting, you'll be searching for a quiet place to practice the art of forecasting. ▼