Silver, Nate (b. 1978)

by Linda Rapp

Statistical analyst Nate Silver first came to wide public attention in 2008, when he correctly predicted the outcome of the presidential election in 49 out of 50 states and also forecast accurate results for all of the 35 races for the United States Senate. He achieved a similar rate of success in 2012, that time getting the call of the vote for president right in every state.

Nathaniel Silver is the son of Brian Silver, a professor of political science at Michigan State University, and Sally Silver, a community activist. He was born in East Lansing on January 13, 1978.

Nate Silver. Photograph by Randy Stewart. Image appears under the Creative Commons Attribution-Share Alike 2.0 Generic license.

Sally Silver described her son to Patricia Montemurri of the *Detroit Free Press* as a "very precocious youngster who quickly became an avid reader but even sooner showed an uncanny aptitude for mathematics. By the age of four, he could perform multiplication of double-digit numbers in his head" and had also grasped the concept of negative numbers.

"My parents have always supported me tremendously," Nate Silver told Montemurri. "There was an emphasis on education and intellectual exploration. It was a household that had good values."

The Silvers encouraged their son to pursue whatever interested him most, and this proved to include baseball. When his father took him to games at iconic Tiger Stadium in Detroit in 1984, he was swept up in the magic of that championship season and became a devoted fan of the team.

Like many a Michigan child, Silver put a Tigers pennant on his bedroom wall. Unlike most six-year-old sports fans anywhere, he also began compiling statistics on his favorite team.

Silver participated in youth baseball in East Lansing, but he realized that hitting was not his forte, and so he developed a strategy of trying to get as many walks as possible so that he could use his speed to steal or take extra bases to make the greatest contribution to his team.

Although Silver did not become a star on the diamond, he shone on the debate team, leading his high school to victory in the state competition in his junior year and to a first runner-up finish the next. His

extensive preparation and thorough command of facts earned him an individual first prize in the John S. Kight scholarship contest in 1996.

Silver went on to the University of Chicago, where he earned a degree in economics in 2000. He spent his junior year abroad, at the London School of Economics.

Upon graduation, he took a job with the consultancy firm KPMG, but the work did not engage him.

Bored with his job, he earned extra money--up to six figures one year--playing on-line poker but gave it up when the odds said that it was time. "For a while, there was a lot of money to be made, but you kind of eliminate one sucker at a time until finally you're the sucker," he explained to Adam Sternbergh of *New York* magazine.

Silver had maintained his love of baseball and his fascination with its statistics. While many baseball fans are conversant with current performance numbers and can spout historical records, Silver took statistics in a different direction, namely using the accumulated information to predict the future performance of players and teams. While he was not the first to attempt a predictive model, the one that he developed was the most sophisticated.

Silver named his system PECOTA ("player empirical comparison and optimization test algorithm") and in 2002 sold it to and went to work for Baseball Prospectus, an enterprise described by Sternbergh as "a loosely organized think tank that, in the last ten years [i.e., as of 2008], has revolutionized the interpretation of baseball stats. . . . [and] has a reputation in sports-media circles for being unfailingly rigorous, occasionally arrogant, and almost always correct."

An example of PECOTA's efficacy was a 2008 prediction of success for the Tampa Bay Rays, which Sternbergh described as "bold, even amusing, given that the Rays were [then] arguably the worst team in baseball. . . . [having] finished last in all but one season of their ten-year existence." The Rays wound up as the American League champions.

In 2008 Silver also became interested in another area of prediction, namely the forecasting of results of political elections. According to Ruth Scurr of *The Guardian*, he conceived of starting a web site to do just that while waiting out a flight delay at the New Orleans airport. He soon launched the political blog FiveThirtyEight--the name chosen for the number of votes in the electoral college--which he licensed to the *New York Times* in 2010.

In formulating the system for his predictions Silver found inspiration in the work of Thomas Bayes, an English mathematician, and, in particular, in Bayes's "An Essay toward Solving a Problem in the Doctrine of Chances" (1763, published posthumously), which Silver described to Scurr as "a statement--expressed both mathematically and philosophically--about how we learn about the universe: that we learn it through approximation, getting closer and closer to the truth as we gather more evidence."

He further noted that "[m]uch of the most thoughtful work I have found on the use and abuse of statistical models, and on the proper role of prediction, comes from people in the medical profession. . . . You can

quite easily get away with a stupid model if you are a political scientist, but in medicine as in war, stupid models kill people. It has a sobering effect."

Silver achieved a high degree of accuracy in forecasting the outcome of the 2008 presidential election, naming the eventual winner in all but one of the fifty states. He also successfully predicted the victor in all thirty-five senatorial races.

With success came celebrity, and, with that, the curiosity of the public about his private life.

Silver had come out to his parents after his third year at college and had thereafter been candid about his homosexuality, but he had not been an activist for glbtq rights. When asked in 2008 by Japhy Grant of *Queerty* what he thought of having "become something of a gay icon or at least object of affection," Silver replied, "I've started to notice it a little bit, although so far it seems like I'm more a subject of geek affection than gay affection."

By 2012 Silver had spoken out in favor of marriage equality but still eschewed an activist role. In an interview with Aaron Hicklin of *Out*, Silver stated, "For me, I think that the most important distinguishing characteristic is that I'm independent-minded. I'm sure that being gay encouraged independent-mindedness, but that same independent-mindedness makes me a little skeptical of parts of gay culture, I suppose."

Silver did not specify which aspects those were, but he cited having seen a set of flagpoles in Boystown in Chicago honoring gay Americans, including one for Keith Haring, identified as a "gay American artist," and wondering "Why isn't he just an American artist?" (The question seems rather disingenuous, given the location and purpose of the monument.)

Although Silver did not wish to be known as a "gay statistician," some Internet commentators made an issue of his sexuality during the acrimonious 2012 presidential campaign.

In the ugliest attack on him, right-wing blogger Dean Chambers wrote that "Nate Silver is a man of very small stature, a thin and effeminate man with a soft-sounding voice that sounds almost exactly like the 'Mr. New Castrati' voice used by Rush Limbaugh on his program. In fact, Silver could easily be the poster child for the New Castrati in both image and sound. Nate Silver, like most liberal and leftist celebrities and favorites, might be of average intelligence but is surely not the genius he's made out to be. His political analyses are average at best and his projections, at least this year, are extremely biased in favor of the Democrats."

Silver told Jocelyn Noveck of the *Boston Globe* that he found such homophobic comments "disturbing. . . . [and] a little shocking."

Silver faced other criticism, some from conservative commentators annoyed that he had never predicted that Mitt Romney had more than a 41 percent chance of winning the election, and some from people who wanted him to disclose the precise formula that he uses to make his predictions.

In 2012 Silver published a best-selling book, *The Signal and the Noise: Why So Many Predictions Fail--but Some Don't*, which Scurr described as "a lucid explanation of how to think probabilistically," but those who were seeking a specific theorem would not find it there.

In a *New York Times* article published a few days before the November 2012 election, Silver called his polling average "the simplest possible one: I've just averaged together all the polls of likely voters in the FiveThirtyEight database, applying no other weighting or 'secret sauce.'" He stated that polls of likely voters were more indicative than polls of registered voters.

Such an explanation, however, is more than a little disingenuous, for Silver does not just average polls, he subjects the various state and national polls to rigorous analysis, and discounts polls that have a history of error or bias.

While not revealing the recipe for any "secret sauce," Silver noted in the same article that "[t]he FiveThirtyEight forecast explicitly accounts for the possibility that the polls are biased toward Mr. Obama--but it also accounts for the chance that the polls are biased against him" and also that "our method adjusted for the tendency of registered-voter polls to be biased toward Democrats by shifting them in Mr. Romney's direction."

He went on to state, "I am aware . . . of the possibility that adding complexity to a model can make it worse. The technical term for this is 'overfitting': that by adding layers to a model, you make it too rigid, molding it such that it perfectly 'predicts' the past, but is incompetent at forecasting the future. I think there is a place for complexity--the universe is a complicated thing--but it needs to be applied with the knowledge that our ability to understand it is constrained by our human shortcomings."

During the campaign, Silver's predictions helped preserve the sanity and optimism of supporters of President Obama's re-election. Even as some polls veered in the direction of Mitt Romney's election and some Republican pundits confidently predicted an easy victory for Romney, Silver kept crunching numbers that indicated a high probability of a solid win for the President.

As the voting results from the states in the presidential election were tallied in 2012, Silver's predictions proved true in all fifty states, prompting Rachel Maddow of MSNBC to ask during the news coverage, "You know who won the election tonight? Nate Silver."

In addition to predicting the outcome of presidential and senatorial elections, Silver has also tracked the public sentiment regarding same-sex marriage. In a 2013 review of the data, Silver concluded that at some point in 2010 or 2011, support for marriage equality began to outweigh opposition to it. He concluded that this phenomenon reflects a steady gain in support for same-sex marriage rather than there having been any one event that propelled it.

Silver attributes the current slight majority opinion in favor of marriage equality largely to a generational shift, with younger Americans gradually replacing older ones in the electorate. In addition, however, some voters have also changed their opinion to favor same-sex marriage while fewer have done the reverse. "As a

rule of thumb," he wrote, "perhaps about half of the increase in support for same sex-marriage is attributable to generational turnover, while the other half is because of the net change in opinion among Americans who have remained in the electorate."

In 2013 Silver left the *New York Times* to join ESPN. He will continue to be the editor-in-chief of FiveThirtyEight but will expand its scope. "What I've done now for politics at FiveThirtyEight is an approach that we think is applicable in lots of areas," he told Tom McCarthy of *The Guardian*. "It's not going to be just a politics site or just a sports site, there's lots of potential in business and economics, and weather, health, education, technology, culture. It's really more of a horizontal approach."

Silver will also be a political analyst for ABC News, which, along with ESPN, is part of the Disney corporation.

Bibliography

Clifford, Stephanie. "Math Whiz Finds Fame with Voting Predictions." *International Herald Tribune* (November 11, 2008): Finance, 13.

Grant, Japhy. "Nate Silver on African-Americans, Prop. 8 and Being a Hero to Gays & Geeks Everywhere." *Queerty* (November 21, 2008): http://www.queerty.com/exclusive-nate-silver-on-african-americans-prop-8-and-being-a-hero-to-gays-and-geeks-everywhere-20081121

Hicklin, Aaron. "Nate Silver: Person of the Year." *Out* (December 18, 2012): http://www.out.com/news-opinion/2012/12/18/nate-silver-person-year?page=0,0
.

Kain, Erik. "Even Polls Are Part of the Culture War Now." *Mother Jones* (November 5, 2012): http://www.motherjones.com/mojo/2012/11/nate-silver-polls-cuture-war.

McCarthy, Tom. "Nate Silver Quits New York Times to Take up 'Dream Job' at ESPN." *The Guardian* (London) (July 22. 2013): http://www.theguardian.com/media/2013/jul/22/nate-silver-quits-new-york-times-espn.

Montemurri, Patricia. "Mich. Native Silver Shows Election Predictions Not Magic, But Math." *Detroit Free Press* (November 11, 2012): A1.

Noveck, Jocelyn. "He Called It, and Now Silver's a Pop-culture Star." *Boston Globe* (November 9, 2012): http://www.boston.com/ae/media/2012/11/09/called-and-now-silver-pop-culture-star/mCvj8YuK9uFMQVjsMrN/story.html.

Scurr, Ruth. "The Man Who Called It Right." *The Guardian* (London) (November 10, 2012: 7.

Silver, Nate. "How Opinion on Same-Sex Marriage Is Changing, and What It Means." *New York Times* (March 26, 2013): http://fivethirtyeight.blogs.nytimes.com/2013/03/26/how-opinion-on-same-sex-marriage-is-changing-and-what-it-means/.

_____. "Simple Case for Saying That Obama Is Favored." *New York Times* (November 3, 2012): A13.

Sternbergh, Adam. "The Spreadsheet Psychic." *New York* 41.37 (October 20, 2008: 44-52.

About the Author

Linda Rapp teaches French and Spanish at the University of Michigan-Dearborn. She freelances as a writer, tutor, and translator. She is Assistant to the General Editor of www.glbtq.com.