News

Madison wrote mystery essays, not Alexander Hamilton: David Wallace



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University of Chicago Statistics Professor David L. Wallace did early work on election predictions and found that James Madison, not Alexander Hamilton, wrote 12 disputed Federalist papers. | Provided photo

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When computers were big as a Volkswagen and far more slow, David L. Wallace used data analysis to solve a historical riddle from the 1780s.

He helped deduce that 12 of the Federalist papers were written by James Madison instead of Alexander Hamilton.

The 1962 finding made headlines across the nation and enthralled both historians and statisticians who followed the case of the mystery-solving computer.

A University of Chicago statistician, Mr. Wallace died Oct. 9 at Montgomery Place in Chicago. He was 88 and had Alzheimer's disease. His field of study uses terms like "quadratic regression" and "correlated deviates." Even as his illness began to progress, he sometimes spoke using statistical terms.

In the early 1960s, he and Harvard University Professor Frederick Mosteller investigated a 175-year-old puzzle about 12 of the Federalist papers.

The essays were published in New York newspapers in the late 1780s to persuade Americans to ratify the new nation's Constitution. Though signed with the nom de plume "Publius," they were written by Hamilton, Madison and John Jay.

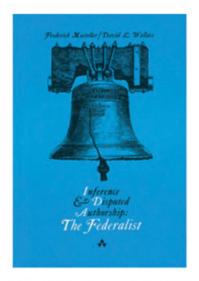
There were 85 in all. Hamilton produced the most, but historians couldn't agree on who wrote a dozen of the documents.



David L. Wallace, statistician. | Provided photo

Mr. Wallace and Mosteller combed the 12 disputed essays for linguistic tics, like Hamilton's frequent use of

"according" and Madison's fondness for the word "also," said a report in the 2017 book, "Nabokov's Favorite Word Is Mauve: What the Numbers Reveal About the Classics, Bestsellers, and Our Own Writing."



With the help of a then high-speed computer at the Massachusetts Institute of Technology, the professors studied patterns involving 30 key words, including "apt," "both," "by," "commonly," "this" "vigor" and "work."

Data analysis showed Madison wrote the 12 mystery essays, they said in their book, "Inference and Disputed Authorship: The Federalist."

In the "Hamilton" song "Non-Stop," Aaron Burr makes a passionate declaration about the source of the Federalist papers. "In the end, they wrote 85 essays in the span of six months," Burr says. "John Jay got sick after writing five.

James Madison wrote 29. Hamilton wrote the other 51!"

Ultimately, Mr. Wallace and his partner said data-crunching might someday help diagnose medical problems or predict the odds of a parolee going "straight." Mosteller even used data analysis to study baseball.

"Our statistical method is far more important to us than who wrote the Federalist papers," they said as they announced their findings in 1962. "We think it is a method with wide application."

Though a computer assisted them, "It was a triumph of the scientists," said Stephen Stigler, a statistics professor at the University of Chicago.

Mr. Wallace is also credited with helping to develop TV election-forecasting in the 1960s. Working with Princeton statistician John Tukey-who coined the term "bit" from binary digit-he used computers to analyze early returns for NBC. Mr. Wallace "was one of the people who sat in the back and as the results came in, he would make a prediction," said University of Chicago Research Professor Ted Karrison.

"They were remarkably successful," said Stigler. "They were making real-time forecasts of elections, models of a type not to be seen elsewhere till 20 years" later. He called Mr. Wallace "one of the best statistical minds of his generation."

Young David grew up in Homestead Park, Pennsylvania. He attended Carnegie Institute of Technology and earned a doctorate at Princeton University.

His steelworker father worried about higher education's practicality, telling one of his son's teachers, "We know he can make a good living at U.S. Steel. Will he be able to make a living as an academic?"

After teaching math at MIT, Mr. Wallace joined the University of Chicago in 1954. He met Anna Mary Adams-who was studying social work-while singing in the Rockefeller Chapel choir. When he died, they'd been married 62 years.

He rose to be chair of the Statistics Department. Students said he stood out for wearing a white lab coat, like a doctor. In his case, it was to ward off chalk dust. The professor retired in 1995.

Mr. Wallace worked as a docent for the Chicago Architecture Foundation, giving tours of skyscrapers. One Christmas, he made a gingerbread house of the John Hancock Center. "I made the gingerbread, but he did the design," said his wife. "He had a great fondness for the John Hancock building."

Many former students and PhD candidates used the same words to describe him: kind, gentle, generous. One mourner remarked that in contrast to some University of Chicago professors, he was remarkably humble.

Mr. Wallace is also survived by his daughters Margaret and Kathryn; son Edward, brother Robert, and three grandchildren. Services have been held.