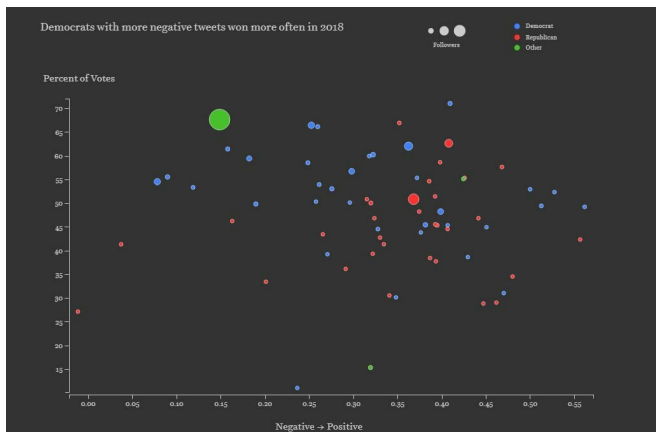


# Democrats who won 2018 midterms were more negative than Republicans on Twitter, research finds

6 March 2019, by Molly Callahan



Credit: Data visualization by Hannah Moore/Northeastern University

It was a mantra first popularized by Michelle Obama in 2016 and echoed again and again by Democratic politicians who vowed to rebuke the negative speech they said their Republican counterparts espoused.

"When they go low, we go high," she said.

Only two years later, the message seems not to have stuck, according to new research from Northeastern University.

Aleszu Bajak, who teaches journalism, and Floris Wu, a Master's student in journalism, analyzed the language in hundreds of thousands of tweets from politicians running for Senate in the lead-up to the 2018 [midterm elections](#).

They [found](#) that the majority of Democrats running in elections posted tweets containing negative language more often than they posted tweets with neutral or positive language. And of those who

used their Twitter accounts to send negative messages, most went on to win their races.

In some cases, the opposite was true for Republicans. Bajak and Wu discovered that Republicans who used positive language more often than not in their tweets won their races.

"In the Twitter data, we found the exact opposite of the mantra that, 'When they go low, we go high,'" says Bajak, who also manages the Media Innovation and Media Advocacy graduate programs in the School of Journalism. "We found that the Democrats who won their elections were more negative in their tweets."

Bajak and Wu collected more than 124,000 tweets from the months leading up to the Nov. 6, 2018 midterms, from 68 verified Democrats, Republicans, and Independents who were running for Senate seats.

Bajak and Wu filtered the tweets through a machine learning program that searched the text for words that were scored with either a negative or positive value and derived an average score for the tweet overall. They used this score to determine whether a tweet, in itself, was negative or positive.

Among the politicians with the highest number of negative tweets is Sen. Bob Casey, a Democrat from Pennsylvania.

On Oct. 3, in response to the Congressional hearing to consider Brett Kavanaugh's appointment to the Supreme Court, Casey tweeted, "President Trump's mocking of Dr. Ford is offensive. Dr. Ford bravely came forward to recount being sexually assaulted. She deserves to be heard and respected, not mocked."

The process can result in [false positives](#) and false negatives, though, so Bajak and Wu combed through the results to address any tweets that had been mislabeled.

"Computers are bad at inferring sarcasm or really any tone at all," Bajak says. "A phrase like 'fired up' often got scored negatively but is actually a positive term."

For example, Democratic Sen. Jon Tester of Montana tweeted, "Missoula is fired up! #mtpol #mtsen" as the caption to a photo at a rally. This [tweet](#) was categorized as negative at first.

Because of the potential for false negatives, Bajak and Wu used a third technique to verify their results. They fed the tweets through a second program that's trained to evaluate a word within its given context. Using this technique, they were able to verify the overall sentiment of the language in a given post, Wu says.

Bajak and Wu found that Democrats who more frequently published tweets containing negative language fared better in their elections, while the opposite was true for Republicans. Specifically, of the 33 Democratic Senate candidates they analyzed, 19 tweeted more negatively than the rest of the field. Of those 19 candidates, 15 went on to win their elections.

Among all the candidates running for [election](#), Sen. Dianne Feinstein of California, Sen. Robert Menendez of New Jersey, and Casey of Pennsylvania posted the highest number of negative tweets. All three are Democrats, and all three won their elections.

On Nov. 2, just days before the election, Feinstein tweeted, "The president is stoking fear about immigrants seeking asylum to score cheap political points. These families are fleeing violence in search of a better life. They are not an urgent national security threat."

On the other end of the spectrum were Sen. Deb Fischer of Nebraska and Sen. Mitt Romney of Utah—both Republicans who won their races and were among the candidates who published the

highest number of positive tweets.

On Oct. 31, the last time Fischer tweeted until after the election, she wrote, "It was a pleasure visiting @CLAAS\_America in Omaha with @RepDonBacon. We had a great tour of the impressive facility and held a roundtable discussion on manufacturing, #agriculture, tax cuts and #broadband. #OnTheRoadinNE".

Bajak and Wu emphasize that it's impossible to say from their data that those 15 Democrats won because they were more negative, or that the Republicans won their seats because they were more positive.

"But it was pretty interesting to see the correlation borne out on Twitter," Bajak says.

Wu, who studied physics and data science before joining the journalism program at Northeastern, says she's constantly checking in on Twitter for interesting trends that, with a little work, might become a story.

In this case, she was exploring tweets from the 2018 midterms. She and Bajak, she says, were interested in the way "people were talking about the election."

"I thought it would be interesting to see the number of positive tweets a candidate had compared to how many votes they got in their state," Wu says.

She and Bajak are considering how they might use the same analytic tools during the 2020 election to analyze tweets as they're posted, rather than retroactively, as they did in this study.

"It would be great to create some sort of real-time tool," Bajak says.

Provided by Northeastern University

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