Political poll science

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Don't think you can trust just any political polling data you see predicting our next president?

Neither did a team at the University of Illinois Urbana-Champaign and Southern Illinois University Edwardsville.

Computer science Professor Sheldon H. Jacobson, of the Urbana-Champaign campus, and a team of computer science and political science students from both universities have created a mathematical model combining several polling results to estimate the winner based on the electoral votes in each state.

After the 2000 presidential election fiasco (remember those dimpled chads?) Jacobson's team discovered that there weren't many mathematical models for predicting the results of those all-important electoral votes.

The solution: Jacobson's team developed a mathematical methodology using statistical models called Bayesian estimators and an algorithm that combines several different sets of polling data (They use Rasmussen, Quinipac and Survey USA polling results) to determine the probability that each candidate will win each state. The website of their results (http://election08.cs.uiuc.edu/methodology.html) shows a U.S. map with state-by-state predictions, and several statistical scenarios based on swing voters: What are the chances of an Obama win if 10 percent of current swing voters decide to vote for him? What if 5 percent of those elusive voters go for McCain?

The site is updated when new polls become available, so Missouri's current results (Jacobson's model predicts a 98 percent chance of McCain carrying the Show-Me state) could shift in a week, or even a few days.

Of course, Jacobson admits, his method is only as reliable as the polls he uses, but precedent is on his side.

"We ran the numbers in the 2004 election and realized we showed a very strong probability for President Bush even though national numbers suggested Senator Kerry," Jacobson says.

Though the site just went public this summer, Jacobson's model has been receiving quite a bit of recent attention. He's gotten calls from NPR, the Wall Street Journal and countless students working on political science projects. He hopes to eventually update the site every day, he said. Currently, his team updates sporadically, usually late at night.
Until then, it's still safe to look at even the most complicated predictors with some skepticism.

— BY AMANDA PALLESCHI

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