



Number-Crunching the 2008 Election

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Well, I guess I picked the wrong day to tout the [Intrade](#) futures market.

On Monday, citing the formidable record of Intrade's bettors in calling elections, I [noted](#) their near-certainty that Barack Obama and John McCain would win the New Hampshire primary. The bettors were only half right. As one Lab reader, [Tony](#), observed after the results came in last night, the traders apparently fell victim to the same Obama-is-unstoppable cascade that had journalists and politicians writing off Hillary Clinton's chances.

But the traders did at least realize their mistake even before the polls closed (presumably because some of them were insiders who got hold of the closely guarded exit polls), and Mrs. Clinton's upset victory was obvious on Intrade long before it was proclaimed on television. While the networks' election wizards were still cautioning that the race was too close to call, the graphs at Intrade showed Mr. Obama's shares plummeting while Mrs. Clinton's shares soared.

I still think Intrade is a great time-saving device — it was the quickest way to know who won New Hampshire — but I'm sufficiently chastened by the traders' fallibility to consider alternate tools for analyzing politics. I've sought help from Ian Ayres, an econometrician at Yale Law School and the author of "[Super Crunchers: Why Thinking-by-Numbers Is the New Way to Be Smart.](#)" Here's his guide to political math:

Statistical prediction has a long tradition in political science and law. But powerfully large datasets are for the first time allowing candidates to make predictions about individual voters. In the old days, get-out-the-vote drives might have targeted particular neighborhoods, but today, using dozens of variables concerning demographics and even credit card purchases, political parties are starting to target individual households. We're even beginning to see micro targeting of political messages.

Now the Republican party may predict not only that two neighbors are both leaning toward voting Republican, but that one cares more about the environment and the other cares more about the economy. Segregated messages mean that supporters of the same candidate may develop separate and individualized views of what the candidate stands for. Increasingly, political operatives are able to make individualized predictions about your politics — how you'll vote and what are your hot button concerns.

But it's also possible now for individuals to use the results of data crunching to make their own predictions about politics and government. [Pauline Kim and colleagues](#) have found a statistical algorithm that was able to predict the affirm/reversal votes of Supreme Court Justices more accurately than a panel of 83 experts (for example, in [Chavez v. Martinez](#) it bested two of three experts).

[Ray Fair](#) has been predicting presidential elections for years. In the famous "Fair Model," the incumbent share of the two-party vote is a function of the following variables:

- VOTE = Incumbent share of the two-party presidential vote.
- PARTY = 1 if there is a Democratic incumbent at the time of the election and -1 if there is a Republican incumbent.
- PERSON = 1 if the incumbent is running for election and 0 otherwise.
- DURATION = 0 if the incumbent party has been in power for one term, 1 if the incumbent party has been in power for two consecutive terms, 1.25 if the incumbent party has been in power for three consecutive terms, 1.50 for four consecutive terms, and so on.
- WAR = 1 for the elections of 1920, 1944, and 1948 and 0 otherwise.
- GROWTH = growth rate of real per capita GDP in the first three quarters of the election year (annual rate).
- INFLATION = absolute value of the growth rate of the GDP deflator in the first 15 quarters of the administration (annual rate) except for 1920, 1944, and 1948, where the values are zero.
- GOODNEWS = number of quarters in the first 15 quarters of the administration in which the growth rate of real per capita GDP is greater than 3.2 percent at an annual rate except for 1920, 1944, and 1948, where the values are zero.

You can compare his predicted vote shares with the actual vote shares [here](#).

Fair has [noted](#) that "the 2008 election looks very close." A somewhat pessimistic economic forecast like the current forecast from the US model on this website leads to a modest Democratic victory. A more neutral economic forecast leads to a dead heat—

clearly too close to call. Strong growth with modest inflation would lead to a modest Republican victory. (Remember that the estimated standard error is 2.54 percentage points and that added to the uncertainty of any prediction of VOTE is the uncertainty of the economic forecasts themselves.)

Fair has also created a [prediction tool](#), where you can make predictions about the 2008 election yourself by plugging in your own estimates for growth and inflation between now and the election. (It's not statistical, but here's [a tool](#) to help predict which candidate has substantive positions closest to yours.)

I invite you to use the Fair Model, or any other tool, and post predictions on the 2008 election. For the past year, Intrade has made the Democratic party the favorite to win the White House (at this writing, the market gives a 63-percent chance that a Democrat will triumph in November.) On Election Night, we can see which crowd has more wisdom, the Intrade bettors or Lab readers.