

Forecasting Elections

*Nate Silver and the FiveThirtyEight blog:
an effort “to make sense of publicly available
information in a rigorous and disciplined way.”*

A good model should be probabilistic, not deterministic.

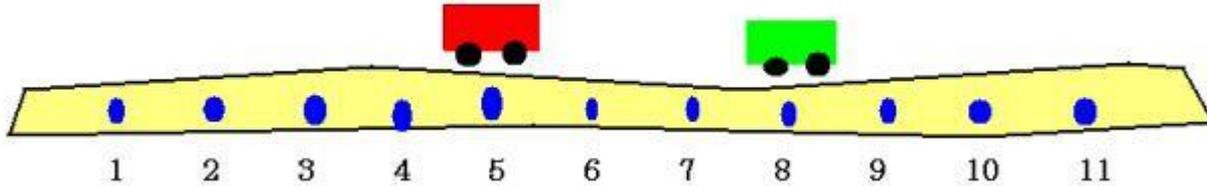
- **probability**: the likelihood of a given outcome *(dynamic)*
- **determinism**: events will happen regardless of what we do *(static - focuses on the outcome rather than the likelihood)*
- **calibration** *(how well has something done in the past?)*

A good model ought to be empirical.

- consistent with the evidence
- must account for variables which might seem insignificant (*registered voter polls vs. likely voter polls*)
- sound basis in theory (*“ideology score” and “median voter theorem”*)

Median voter theorem

Which ice cream truck at the beach will sell more ice cream?



A good model ought to respond sensibly to changes in inputs.

- all new information is relevant
- not all new information will have the same effect
- recent info is more significant (*early field goal vs. late field goal: 59% vs. 83%*)

*A good model ought not change its rules
in midstream.*

- once a system has been calibrated, it should run consistently & only be changed when the data shows that it's becoming less reliable

The Seven-Step System

1. Weight the polling average:
 - a. collect lots of polls
 - b. weight those which:
 - i. are more **recent**
 - ii. have **large sample** size
 - iii. have a good **pollster rating**
 1. transparency
 2. cellphones plus landlines

The Seven-Step System

2. Adjust polling average for accuracy
 - a. likely voters preferred
 - i. tend **Republican**
 - ii. more **accurate**
 - b. “house effects” adjustment
 - i. firms have **established historical trends** (*e.g. ask fans at AT&T Park ‘which team will win?’*)
 - c. trend line adjustment
 - i. changes in some states suggest changes in **adjacent states**
 - ii. works for pres. elections, not much for senate elections

The Seven-Step System

3. State fundamentals

- a. how does a state usually vote?
 - i. therefore polling not necessary
- b. congressional approval ratings
- c. fundraising totals
 - i. independent donations (#, not \$ [b/c diminishing returns])
- d. margin of victory in most recent senate election
- e. candidate ideology score & state partisanship

The Seven-Step System

5. “election day forecast”
 - a. what might change in coming weeks/days?
 - b. historical effects decrease as election nears



The Seven-Step System

6. Estimate margin of error
 - a. not trying to call a race; rather, estimate probability
 - b. uncertainty is larger when:
 - i. more days 'till election
 - ii. fewer polls
 - iii. polls disagree
 - iv. polls don't align with state fundamentals
 - v. more undecided voters
 - vi. race appears lopsided



The Seven-Step System

7. Simulate outcomes & estimate probabilities

