

Forecasting House Seats from Generic Congressional Polls: The 2010 Midterm Election

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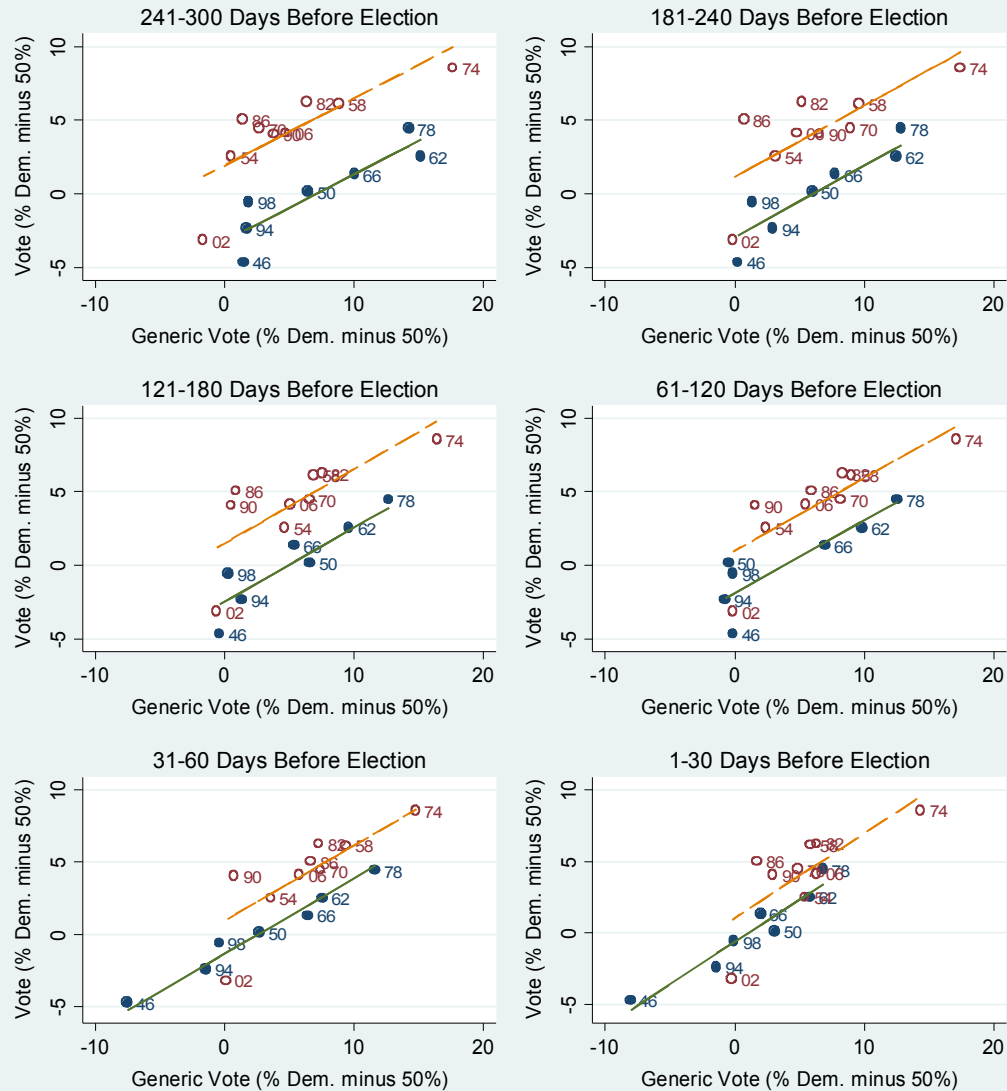
The Model

- Building on successful prediction of the 2006 House seat division:
 - Predict the midterm vote division from generic poll result and party of the president.
 - Forecast winner of each House race with statistical models for open seat and incumbent races.
 - Incorporate uncertainty with 1000 simulations.

The Model: Step 1

- Predict the midterm vote division:
 - As the election approaches, poll respondents increasingly take into account the party of the president when reporting their generic “vote.”

The Model: Step 1



The Model: Step 1

- Predict the midterm vote division:
 - Forecasts from these two variables are about equally predictive regardless of when in the election year the generic poll results are measured.

The Model: Step 1

Table 4. CAMPAIGN DYNAMICS OVER VARYING TIME INTERVALS. Predicting Midterm Congressional Vote from the Generic Ballot Poll Results at different times plus Presidential Party, 16 midterm elections 1946-2006

	Dependent Variable = Democratic % of Actual Two-Party Vote in November, minus 50%					
	(18)	(19)	(20)	(21)	(22)	(23)
	241-300	181-240	121-180	61-120	31-60	1-30
	Days Out (Feb.)	Days Out (April)	Days Out (June)	Days Out (August)	Days Out (Sept.)	Days Out (Oct.)
Generic Poll Results (% Dem. minus 50%)	0.46*** (0.08)	0.49*** (0.10)	0.50*** (0.10)	0.50*** (0.09)	0.52*** (0.07)	0.59*** (0.10)
Current Presidential Party (R=-1, D=+1)	-2.58*** (0.46)	-2.04** (0.49)	-1.99*** (0.49)	-1.44** (0.46)	-1.15** (0.40)	-0.82 (0.50)
Intercept	-0.66 (0.68)	-0.92 (0.79)	-0.50 (0.73)	-0.46 (0.64)	-0.19 (0.51)	0.20 (0.56)
Adj. R ²	.77	.73	.73	.77	.83	.77
Root MSE	1.79	1.94	1.94	1.77	1.51	1.77

Note: Generic poll results and the vote are measured as the Democratic percent of the two-party vote minus 50 percent. Equation 18 is a repeat of equation 13 in Table 3.

* $p < .05$, ** $p < .01$, *** $p < .001$

The Model: Step 1

- Predict the midterm vote division:
 - The pooled generic polls conducted 121-180 days in advance of the 2010 election show a very close division—49.1% Democratic and 50.9% Republican.
 - Once you take into account the “out-party” drift, our election forecast is that the Democrats will win 47.1% of the two-party vote and the Republicans the remaining 52.9%.

The Model: Step 2

- Translate the vote into seats:
 - For each simulated value of the national vote, we need to simulate the outcome in 435 congressional districts.
 - We use different equations for open and incumbent seats.

The Model: Step 2

- Translate the vote into seats:

– Open seats:

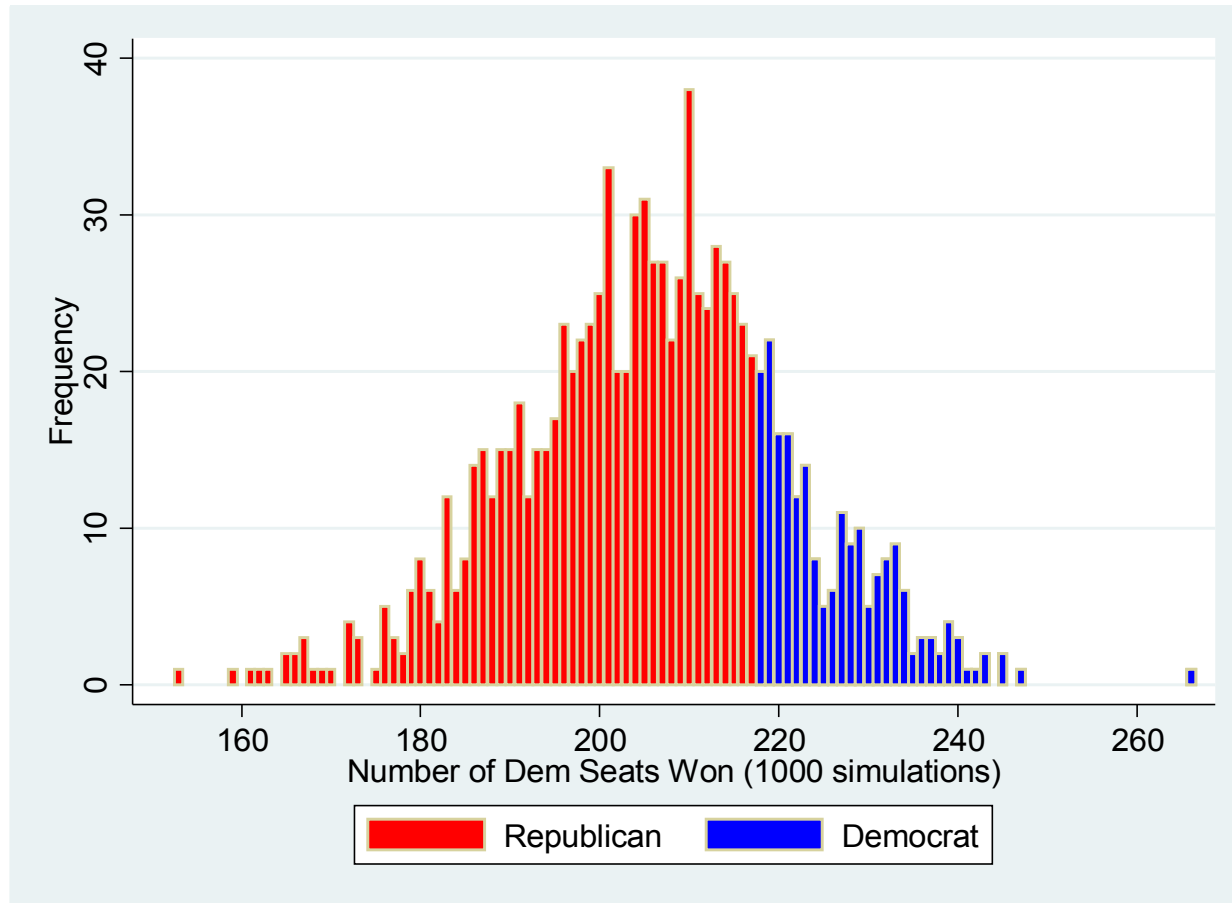
$$D_{jk} = -3.92 + 0.82 \%Obama_k + P + e_j + u_{k_open}$$

– Incumbent seats:

$$D_{jk} = -5.79 + 0.98 Dem\ Vote\ (2008)_k + 3.85 Frosh_k + P + e_j + u_{k_incumbent}$$

Where constants are adjusted to neutralize the 2008 vote swing and where P is the specific national vote prediction measured with error (e_j) around it.

Results

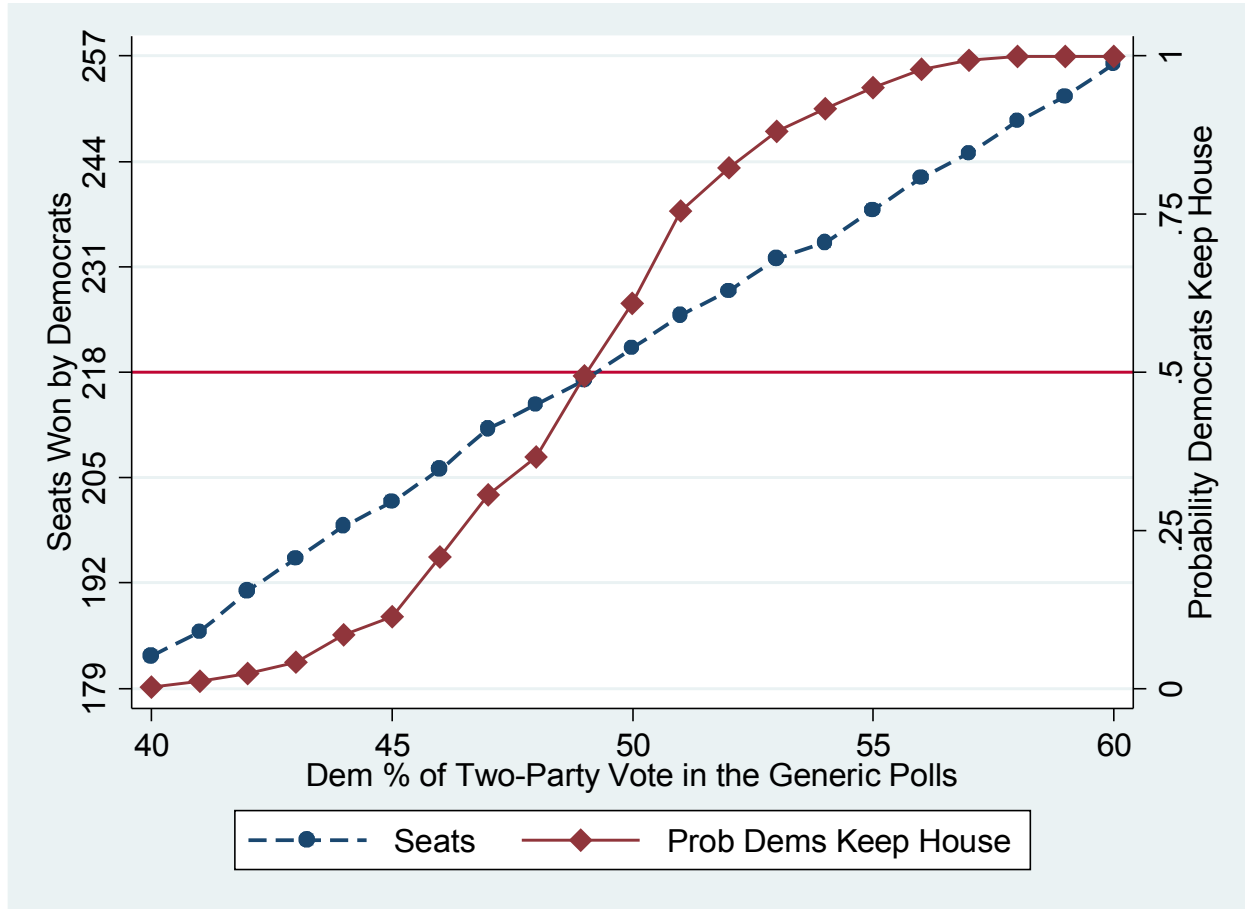


The Republicans win the majority of seats in 79% of the trials. On average, the Republicans win 229 seats, twenty-three more than the Democrats and eleven more than the 218 needed for a majority. But the simulations yield considerable variation, with a 95 percent confidence interval of 176 to 236.

Note of Caution

- Applying our model of the vote to 2010 assumes that the forces at work in 2010 are unchanged from past midterm elections.
 - “Out-party” trend was not evident in first six months of election year.
 - Has picked-up since then.
 - Seat estimate for the 61 to 120 days out interval is about the same as the estimate for the 121 to 180 days out interval reported here.

Forecasting from October Polls



Conclusion

- At this point, it looks like Republicans have reason to be very optimistic about their electoral prospects in November.