For the Abramowitz data:

Modeling

I ran both backwards and stepwise regressions with the variables Term, Popularity, and GDP growth. Both models had significant F (backwards: <0.0001, stepwise <0.001).

I ran it again as an all possible regressions model, and the full model had the highest R2 (0.9174), adjusted R2 (0.8899), and lowest C(p) (4.0000) and MSE (3.93688). Press was minimized with the full model (102.22565)

The regression equation is:

Incumbent Vote = 45.05936 – 4.69089(Term) + 0.17855(Popularity) + 2.13891(GDPgrowth)

VIF were all less than 10, and Durbin-Watson’s D was not significant. Residuals were normally distributed.

Diagnostics

There were no influential data points.

Cook’s D was large for one observation, but not influential. Rstudent was large for one observation, but still not influential.

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Prediction

I found real data for the 2000 and 2004 elections. The regression equation worked well for prediction.

2000: Actual IV = 50.3% Prediction CI (48.8883, 59.2632)

2004: Actual IV = 51.2% Prediction CI (49.7814, 59.5460)

The largest predictor of Incumbent Vote seems to be Term. It seems the incumbent has a good chance of holding the WH if the current term has not been 8 years or longer.