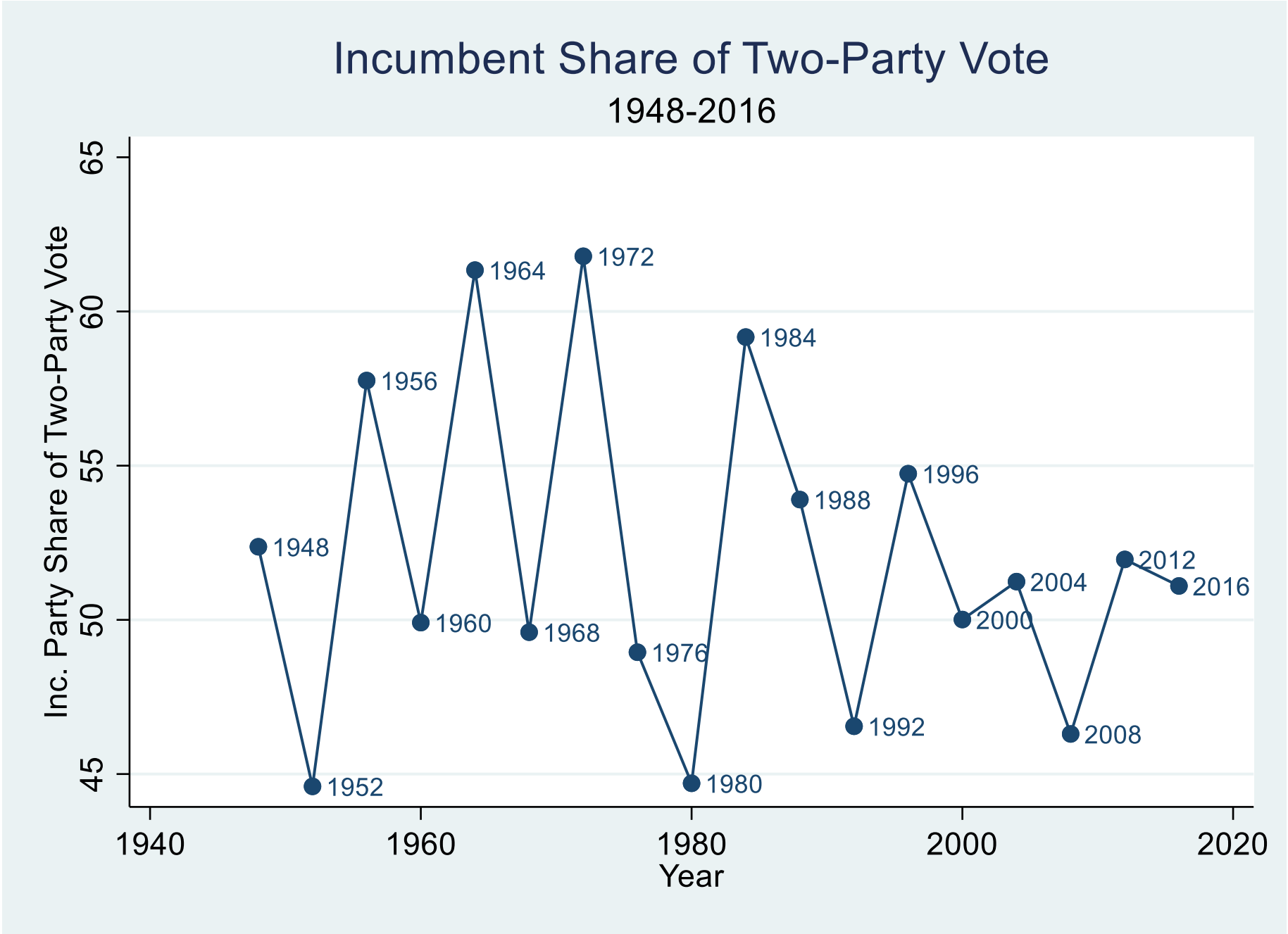
US 2020 Election Forecasting: A Blue Wave

Michael S. Lewis-Beck
University of Iowa

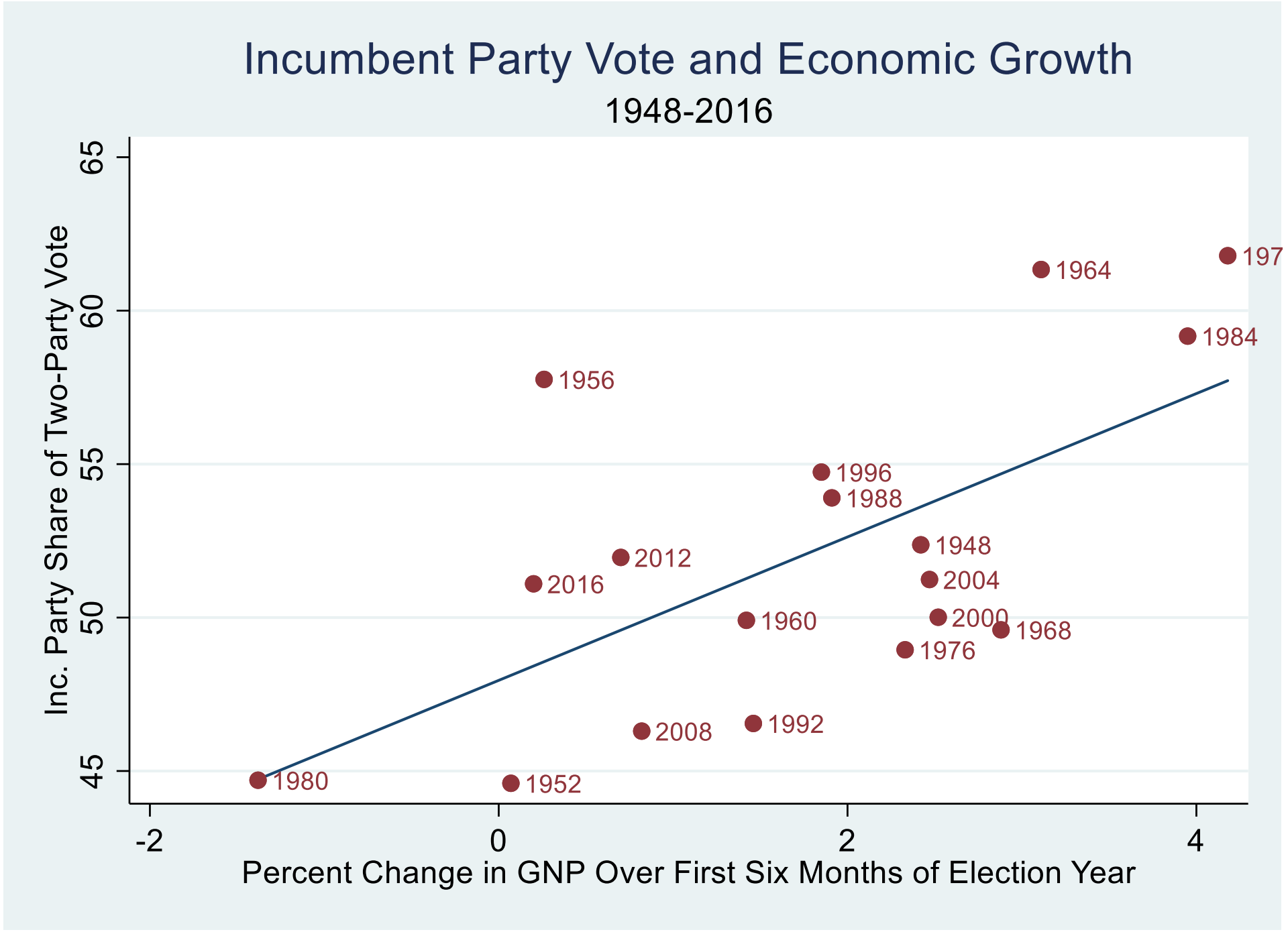
Charles Tien
Hunter College & The Graduate Center, CUNY


Incumbent Share of Two-Party Vote
1948-2016
Inc. Party Share of Two-Party Vote
45
50
55
60
65
1948
1952
1956
1960
1964
1968
1972
1976
1980
1984
1988
1992
1996
2000
2004
2008
2012
2016
1940
1960
1980
2000
2020
Year

Bivariate Economic Forecasting Models

- Dependent variable = incumbent party's percent share of the two-party vote
- Independent variable is measured change in GNP over the first two quarters of the election year
- * = significance at .05, one-tail
- Figures in parentheses are t-scores.
- N = 17, 1948-2016.
- 2020 Forecast based on available data as of 7/27/2020.

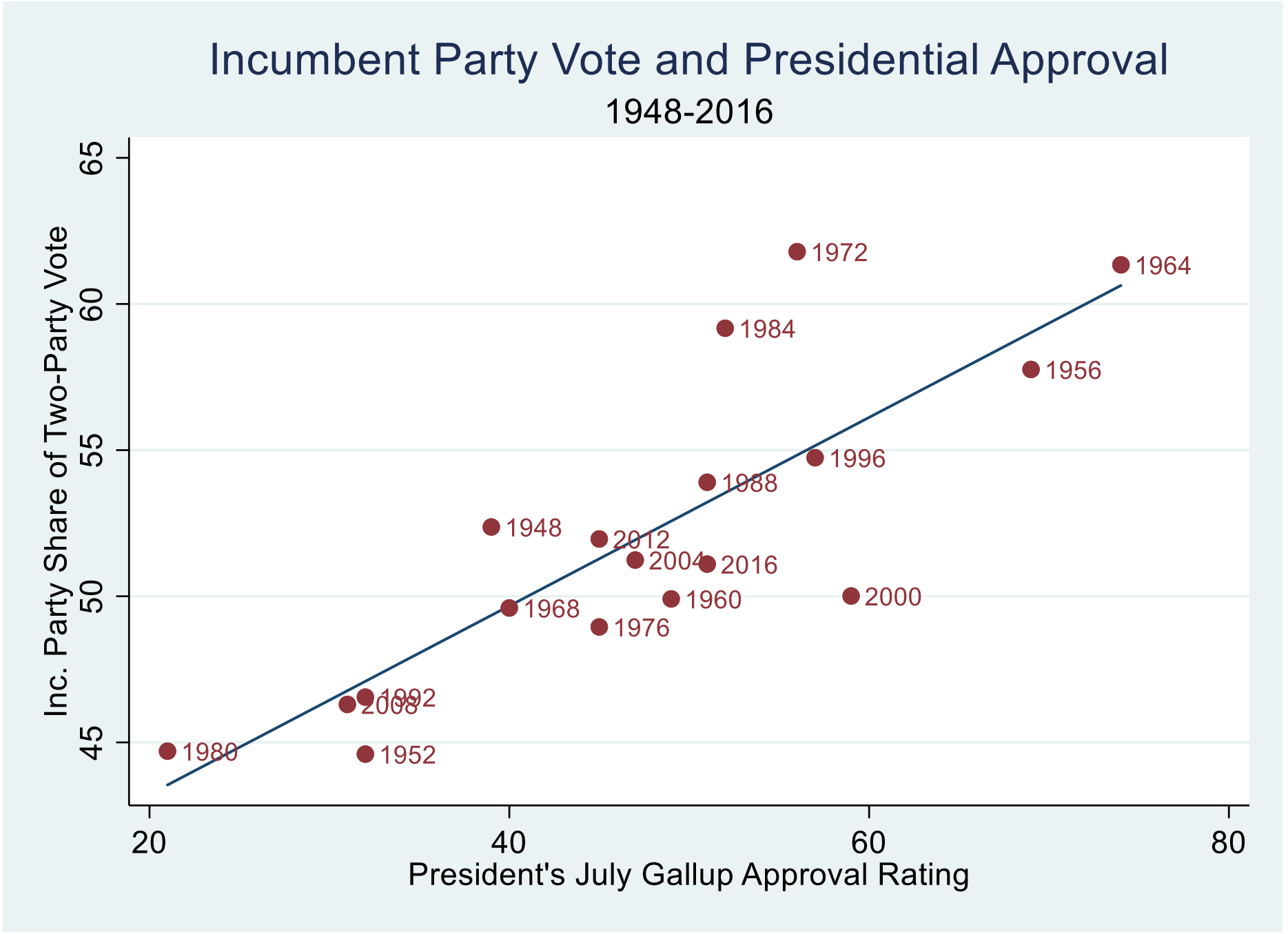
	constant	Coefficient	R2	Root MSE	2020 Forecast
GNP % change	47.95* (30.46)	2.34* (3.30)	.41	4.20	38.26 GNP =-4.14


Incumbent Party Vote and Economic Growth
1948-2016
Inc. Party Share of Two-Party Vote
65
60
55
50
45
1964
197
1984
1956
1996
1988
1948
2012
2004
2016
2000
1960
1968
1976
2008
1992
1980
1952
-2
0
2
4
Percent Change in GNP Over First Six Months of Election Year

Presidential Approval Models

- Dependent variable = incumbent party's percent share of the two-party vote.
- Independent variables are Gallup presidential approval ratings.
- * = significance at .05, one-tail
- Figures in parentheses are t-scores.
- N = 18, 1948-2016.
- 2020 Forecast based on available data as of ?/??/20.

	Const.	Coeff.	R^2, adj R^2	Root MSE	2020 Forecast
July Approval	36.77* (13.58)	0.32* (5.84)	.68 .66	3.08	49.89 Pop=41
May Approval	36.61* (9.55)	0.31* (4.13)	.52	3.79	51.8 Pop=49


Incumbent Party Vote and Presidential Approval
1948-2016
Inc. Party Share of Two-Party Vote
45
50
55
60
65
20
40
60
80
President's July Gallup Approval Rating
1972
1964
1984
1956
1996
1988
1948
2012
2004
2016
1960
2000
1968
1976
1992
2008
1980
1952

2020 Political Economy Forecasting Model

- Popular Vote = 37.50 + .26*PresApproval + 1.18*GNP
  (15.37) (4.73) (2.25)

R-squared = .76 adj. R2 = .73 Root MSE = 2.75 D-W 2.39 N = 18

- PresApproval = Gallup approval measured in July of election year.
- GNP = change over the first two quarters of the election year.
- * = significance at .05, one-tail
- Figures in parentheses are t-scores.
- 2016 Forecast = 51.0
- 2020 Forecast = 43.3
- Forecast based on available data as of 7/27/20:
  PresApproval (July) = 41, GNP = -4.14
- Jan. approval: 44%, Feb: 49%, Mar: 44%, Apr: 43%, May: 49%, Jun: 38%

2020 Political Economy Model Forecast Probability

- Out-of-sample errors.
  - Dropping each year, one at a time;
  - re-estimating the model each time;
  - then making a forecast for each year.
- For example, drop 1948; estimate the coefficients, make the forecast for 1948, calculate the error for 1948. Then do the same for 1952, and then 1956, until each year to 2016 has been forecast.
- There were zero years where the error was greater than 6.7. Our forecast for 2020 is 43.3.
- We construct a 95 percent confidence interval (two-tail) around our point estimate of 43.3, utilizing the RMSE= 2.75 and degrees of freedom = 15: [37.41, 49.6]. This result suggests a 95 percent probability that Trump will lose the popular vote.

Political Economy Forecasting Model Accuracy

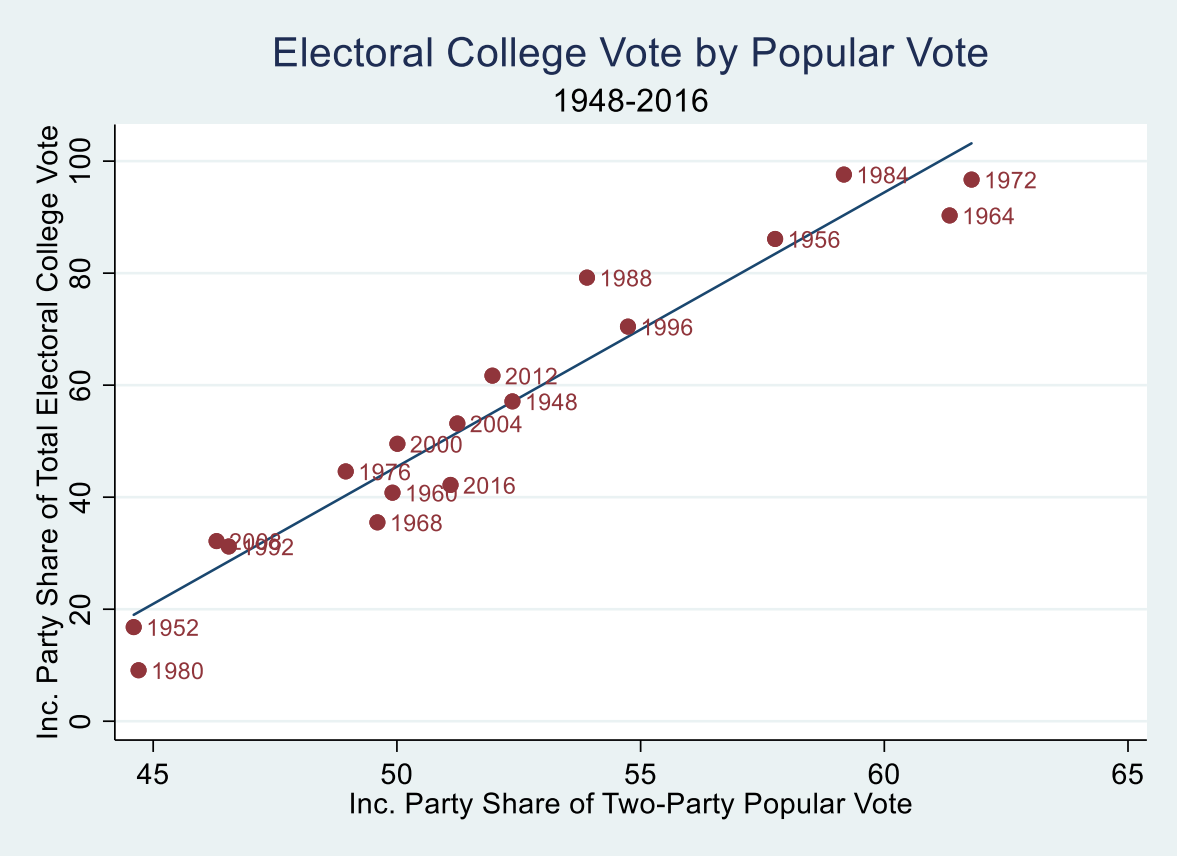
Correct 15/18 years, or 83% of the time.

Correct for the last ten elections since 1980.

Year	Two-party vote	Out-of-sample forecasts	Correct?
1948	52.4	50.4	Yes
1952	44.6	46.3	Yes
1956	57.8	54.2	Yes
1960	49.9	52.3	No
1964	61.3	60.4	Yes
1968	49.6	51.8	No
1972	61.8	55.8	Yes
1976	49.0	52.4	No
1980	44.7	39.1	Yes
1984	59.2	55.0	Yes
1988	53.9	53.2	Yes
1992	46.6	47.8	Yes
1996	54.7	54.7	Yes
2000	50.0	56.8	Yes
2004	51.2	52.9	Yes
2008	46.3	46.7	Yes
2012	52.0	50.0	Yes
2016	51.1	51	Yes

Predicting the Electoral College Vote from the Popular Vote

- EC Vote = -199.42 + 4.90*PopVote
  (-11.64) (14.94) = t-score
- R2=.93 adj R2=.93 N=18 RMSE = 7.14
- EC Vote = percent of Electoral College Vote for incumbent party.
- PopVote = Percent of two-party popular vote for incumbent party
- 2020 ECVote forecast = 86.
  Popular vote of 43.3% gives EC vote forecast of 68 electoral votes for Donald Trump.



House Political Economy Forecasting Model

- Seat Change = -45.53 + .83*PresApproval + 4.89*Income -29.1*Midterm

  (-3.55) (3.47) (2.95) (-4.81)

R-squared = .60, adj. R-squared = .57, Root MSE = 17.85, D-W 1.87, N = 36

- PresApproval = Gallup approval measured in June of election year.
- Income = change Real Disposable Income over the first two quarters of the election year.
- Midterm = 0 for presidential election years, and =1 for Midterm election years
- * = significance at .05, one-tail
- Figures in parentheses are t-scores.
- **2020 Forecast = 32 seat gain for Democrats**
- Forecast made on 7/27/20:
  PresApproval = 38, Income = -3.77, Midterm = 0

Senate Political Economy Forecasting Model

- Seat Change = 2.79 + .13*Pres + .91*Income -2.37*Midterm -.70*SeatsUp
  (1.05) (3.46) (3.35) (-2.44) (-6.42)

R-squared = .69, adj. R-squared = .65, Root MSE = 2.84, D-W 1.86, N = 36

- PresApproval = Gallup approval measured in June of election year.
- Income = change Real Disposable Income over the first two quarters of the election year.
- Midterm = 0 for presidential election years, and =1 for Midterm election years
- SeatsUp = number of seats the president's party has up for reelection.
- * = significance at .05, one-tail.
- Figures in parentheses are t-scores.
- **2020 Forecast = 12 seat gain for Democrats**
- Forecast made on 7/27/16:
  PresApproval = 38, Income = -3.77, Midterm = 0, SeatsUp = 23