

08 March 2017

1 Overview

At our previous meeting we decided to do the following:

- Conduct additional analyses using fixed effects and separating out aggregate results by party and majority status
- Check variables, especially the vote share and presidential vote share
- Include past tables and figures in the weekly update to allow us to review them together more easily

I have done these things and include the results below. It should be noted that what previously appeared to be an interesting trend amongst Republicans in the House Majority in the DV/IV plots resulted from the fact that the plots of majority and minority party points were plotted together and overlapped in many cases. I apologize for not previously working to account for this and in future instances which I do such dense plots I will reduce the opacity of points so the resulting plots are not similarly misleading. The Senate fixed effects models put the sign on presidential vote share in the same direction across the board.

I further demonstrate the variable's integrity by showing plots of it against Democratic presidential vote share (which we also have in our data). I do this for all observations and for observations broken down by party. I then show a summary table of the two party vote share variable for all Senators and decomposed by party. Note: the particularly low Democratic presidential vote shares come from the electoral routing of George McGovern in Southern states, results which I verified with outside sources. Since it is above 0.50 for all Senators (as would be expected), I remain confident that it is correctly coded. I did find that we had a few Senators missing the best committee variable (though not other committee variables) and one with no party free responsiveness variable. I have added the relevant values for the best committee based on the other data we had and have dropped the Senator with no party free responsiveness from all analyses. I also found that there were members of the House that had missing values in our main DV and IVs that we were not previously including in our 'drop' variable, which I have corrected.

During the course of the week Alan pointed out that we had Senators coded as freshmen beyond their first Congress. This was because we had been counting them as freshmen for their first three Congresses. I have changed the freshman variable to instead reflect only the first Congress which a Senator is present with a separate variable covering the time of their first Senate term length. Because of this change, Senate tables and figures which included this variable have been recreated, though substantively I have not noticed any meaningful changes to the results from this.

If there are any tables or figures from past weekly updates you would like to see included in this file please let me know and I will update it to include them.

2 New Tables and Figures

2.1 New Models

Table 1: Senate Inter Party Fixed Effects Models

| | Democrats | Republicans | Majority | Minority |
|----------------------------------|--------------------|--------------------|--------------------|-------------------|
| ideological_extremism | 2.88*** (0.69) | 4.00*** (0.75) | 1.80** (0.64) | 3.93*** (0.97) |
| pfrate100 | 0.37*** (0.05) | 0.25*** (0.05) | 0.37*** (0.05) | 0.18* (0.07) |
| vote_share | 2.52 (2.49) | -5.42 (2.94) | 2.27 (2.65) | -2.05 (3.65) |
| pres_vote_share | 27.46*** (4.11) | 8.66 (5.46) | 30.65*** (5.85) | 13.92* (5.87) |
| freshman | 0.71 (0.48) | 0.98* (0.46) | 0.77 (0.46) | 0.78 (0.76) |
| retiree | 0.25 (0.83) | 0.88 (0.83) | 0.36 (0.99) | 0.75 (0.91) |
| best_committee | 0.14 (0.12) | 0.11 (0.16) | 0.29 (0.15) | 0.36* (0.18) |
| up_for_reelection | -0.55* (0.27) | -1.55*** (0.34) | -1.02*** (0.28) | -1.04** (0.37) |
| power_committee | -0.48 (0.70) | -0.22 (0.98) | -1.26 (0.89) | -0.45 (1.01) |
| leader | 0.87 (0.47) | 1.46* (0.62) | 1.39 (0.78) | 1.31 (0.80) |
| chair | 0.38 (0.64) | 0.65 (0.71) | -0.57 (0.56) | |
| Num. obs. | 1042 | 951 | 1052 | 843 |
| R ² (full model) | 0.89 | 0.91 | 0.92 | 0.94 |
| R ² (proj model) | 0.26 | 0.19 | 0.31 | 0.17 |
| Adj. R ² (full model) | 0.87 | 0.88 | 0.89 | 0.91 |
| Adj. R ² (proj model) | 0.09 | -0.02 | 0.02 | -0.21 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 2: Senate Intra Party Fixed Effects Models

| | Democrats | | Republicans | |
|----------------------------------|--------------------|-------------------|-------------------|--------------------|
| | Southern | Others | Gingrich Senators | Others |
| ideological_extremism | 10.78*** (2.64) | 2.05*** (0.56) | 2.11 (1.52) | 4.01*** (0.88) |
| pfrate100 | 0.05 (0.14) | 0.37*** (0.06) | 0.11 (0.11) | 0.27*** (0.06) |
| vote_share | 1.32 (3.41) | 5.16 (2.87) | -0.74 (4.45) | -6.78 (3.52) |
| pres_vote_share | 21.64 (11.42) | 12.74* (5.61) | 0.13 (6.74) | 11.00 (6.36) |
| freshman | 0.77 (0.82) | 1.06* (0.51) | -0.41 (0.85) | 1.53** (0.58) |
| retiree | -2.88 (2.10) | 0.87 (0.64) | 1.41 (1.04) | 0.77 (0.94) |
| best_committee | 0.49 (0.32) | 0.04 (0.12) | 0.29 (0.29) | 0.06 (0.18) |
| up_for_reelection | -0.42 (0.71) | -0.45 (0.28) | -0.64 (0.54) | -1.81*** (0.40) |
| power_committee | -2.11 (2.19) | -0.10 (0.67) | -0.84 (1.18) | 0.13 (1.16) |
| leader | 2.73 (2.27) | 0.79 (0.50) | 1.02 (0.86) | 1.51* (0.73) |
| chair | 1.77 (1.55) | 0.29 (0.60) | -1.16 (0.94) | 0.75 (0.83) |
| Num. obs. | 246 | 796 | 188 | 763 |
| R ² (full model) | 0.91 | 0.87 | 0.66 | 0.91 |
| R ² (proj model) | 0.30 | 0.22 | 0.12 | 0.21 |
| Adj. R ² (full model) | 0.87 | 0.84 | 0.50 | 0.88 |
| Adj. R ² (proj model) | 0.01 | 0.03 | -0.31 | 0.00 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 3: Senate Party & Majority Status Models

| | Democrats | | Republicans | |
|-----------------------|--------------------|--------------------|---------------------|--------------------|
| | Majority | Minority | Majority | Minority |
| ideological_extremism | 1.07* (0.46) | 5.56*** (0.79) | 7.56*** (0.45) | 8.31*** (0.51) |
| chair | 0.10 (0.60) | | -1.35 (0.76) | |
| pfrate100 | 0.86*** (0.03) | 0.65*** (0.07) | 0.64*** (0.04) | 0.66*** (0.05) |
| pres_vote_share | 23.93*** (2.38) | 20.49*** (5.51) | -15.18*** (3.37) | -12.65* (4.98) |
| south | -1.98** (0.61) | -1.21 (1.10) | -1.54* (0.68) | 2.80** (0.88) |
| power_committee | -0.36 (0.81) | -2.29 (1.57) | 1.03 (1.05) | -0.90 (1.43) |
| vote_share | -3.68 (2.31) | -7.10 (4.21) | 10.31** (3.24) | 21.20*** (4.24) |
| female | 0.60 (0.83) | 2.59 (1.43) | -0.76 (1.20) | 2.38 (1.89) |
| afam | 2.80 (3.59) | -3.08 (4.36) | | -9.46* (4.71) |
| latino | -0.04 (1.94) | 9.17 (7.44) | 10.24** (3.22) | 3.85 (4.02) |
| up_for_reelection | -0.49 (0.45) | -0.73 (0.85) | -1.61** (0.62) | -1.65* (0.82) |
| seniority | 0.04 (0.07) | 0.14 (0.09) | 0.35*** (0.10) | -0.01 (0.11) |
| freshman | 0.77 (0.71) | 0.98 (1.77) | 0.39 (0.93) | 0.37 (1.32) |
| retiree | 2.46** (0.93) | 1.12 (1.86) | 0.92 (1.31) | 3.55* (1.38) |
| best_committee | 0.17 (0.13) | 0.53* (0.25) | -0.41* (0.17) | 0.27 (0.24) |
| leader | 0.79 (0.77) | 4.84** (1.47) | 0.95 (0.95) | 0.71 (1.15) |
| (Intercept) | 1.98 (3.03) | 15.49* (6.14) | 36.90*** (3.96) | 14.28* (5.61) |
| R ² | 0.79 | 0.59 | 0.68 | 0.65 |
| Adj. R ² | 0.78 | 0.57 | 0.67 | 0.64 |
| Num. obs. | 623 | 370 | 429 | 473 |
| RMSE | 5.01 | 7.23 | 5.45 | 7.88 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 4: House Inter Party Fixed Effects Models

| | Democrats | Republicans | Majority | Minority |
|----------------------------------|-------------------|-------------------|-------------------|-------------------|
| ideological_extremism | 2.66*** (0.30) | 1.03*** (0.29) | 1.25*** (0.28) | 2.35*** (0.25) |
| pfrate100 | 0.21*** (0.04) | -0.00 (0.03) | 0.14*** (0.04) | 0.13*** (0.04) |
| pres_vote_pct | 0.03 (0.02) | -0.00 (0.03) | -0.01 (0.03) | 0.06 (0.03) |
| vote_pct | 0.01 (0.01) | -0.00 (0.01) | 0.00 (0.01) | 0.01 (0.01) |
| freshman | 0.51 (0.27) | 0.49 (0.29) | 0.91*** (0.27) | 0.01 (0.36) |
| bestgrosswart | 0.01 (0.03) | 0.01 (0.03) | 0.01 (0.03) | -0.01 (0.03) |
| leader | 0.23 (0.54) | 1.60** (0.58) | 0.75 (0.44) | 1.34 (0.81) |
| power | 0.18 (0.45) | -0.34 (0.46) | 0.64 (0.39) | -0.26 (0.50) |
| chair | 0.58 (0.66) | 1.65* (0.66) | 0.91 (0.56) | |
| Num. obs. | 4746 | 3798 | 4902 | 3642 |
| R ² (full model) | 0.91 | 0.90 | 0.94 | 0.91 |
| R ² (proj model) | 0.08 | 0.03 | 0.06 | 0.07 |
| Adj. R ² (full model) | 0.88 | 0.87 | 0.91 | 0.88 |
| Adj. R ² (proj model) | -0.14 | -0.26 | -0.32 | -0.32 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 5: House Intra Party Fixed Effects Models

| | Southern Democrats | Other Democrats |
|----------------------------------|--------------------|-------------------|
| ideological_extremism | 3.18*** (0.61) | 1.83*** (0.30) |
| pfrate100 | 0.34*** (0.07) | 0.11* (0.05) |
| pres_vote_pct | 0.10 (0.05) | 0.01 (0.03) |
| vote_pct | 0.01 (0.01) | 0.01 (0.01) |
| freshman | 1.07 (0.58) | 0.02 (0.28) |
| bestgrosswart | 0.01 (0.08) | 0.01 (0.03) |
| leader | 0.86 (1.12) | -0.12 (0.66) |
| power | 0.79 (1.06) | -0.39 (0.34) |
| chair | 2.06 (1.44) | 0.21 (0.46) |
| Num. obs. | 1370 | 3376 |
| R ² (full model) | 0.93 | 0.86 |
| R ² (proj model) | 0.14 | 0.04 |
| Adj. R ² (full model) | 0.91 | 0.82 |
| Adj. R ² (proj model) | -0.10 | -0.18 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 6: House Party & Majority Status Models

| | Democrats | | Republicans | |
|-----------------------|--------------------|--------------------|--------------------|--------------------|
| | Majority | Minority | Majority | Minority |
| ideological_extremism | 9.44*** (0.21) | 5.50*** (0.28) | 0.90*** (0.16) | 10.22*** (0.24) |
| pfrate100 | 0.72*** (0.02) | 0.46*** (0.03) | 0.12*** (0.02) | 0.59*** (0.03) |
| pres_vote_pct | 0.07*** (0.01) | 0.34*** (0.02) | 0.27*** (0.02) | 0.04 (0.02) |
| south | -0.89** (0.34) | -3.27*** (0.48) | 1.18*** (0.28) | 1.42*** (0.38) |
| vote_pct | -0.05*** (0.01) | -0.11*** (0.02) | -0.05*** (0.01) | -0.06*** (0.01) |
| female | -0.05 (0.48) | 1.36** (0.48) | -0.87* (0.44) | -0.28 (0.69) |
| afam | -1.43* (0.58) | -0.72 (0.64) | 0.70 (1.85) | 8.61 (5.25) |
| latino | 3.57*** (0.70) | -0.32 (0.68) | 0.95 (0.79) | 0.16 (1.60) |
| seniority | 0.13*** (0.04) | 0.01 (0.05) | -0.15*** (0.04) | -0.26*** (0.06) |
| freshman | -0.31 (0.41) | -0.49 (0.65) | 1.92*** (0.39) | -1.02* (0.51) |
| bestgrosswart | -0.06* (0.02) | 0.14*** (0.03) | -0.11*** (0.02) | -0.37*** (0.03) |
| leader | 2.31** (0.79) | 2.30** (0.83) | 2.78*** (0.68) | 2.49** (0.81) |
| power | 1.92*** (0.32) | -0.01 (0.49) | 2.32*** (0.30) | 2.18*** (0.43) |
| chair | 1.15* (0.53) | | 2.02*** (0.48) | |
| (Intercept) | 18.71*** (2.03) | 28.81*** (2.63) | 69.10*** (1.66) | 30.05*** (2.76) |
| R ² | 0.69 | 0.54 | 0.28 | 0.54 |
| Adj. R ² | 0.69 | 0.53 | 0.27 | 0.54 |
| Num. obs. | 3323 | 1423 | 1579 | 2219 |
| RMSE | 7.19 | 6.74 | 4.82 | 7.41 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

2.2 New Plots

Figure 1: Senate IV/IV Plot, Majority Democrats

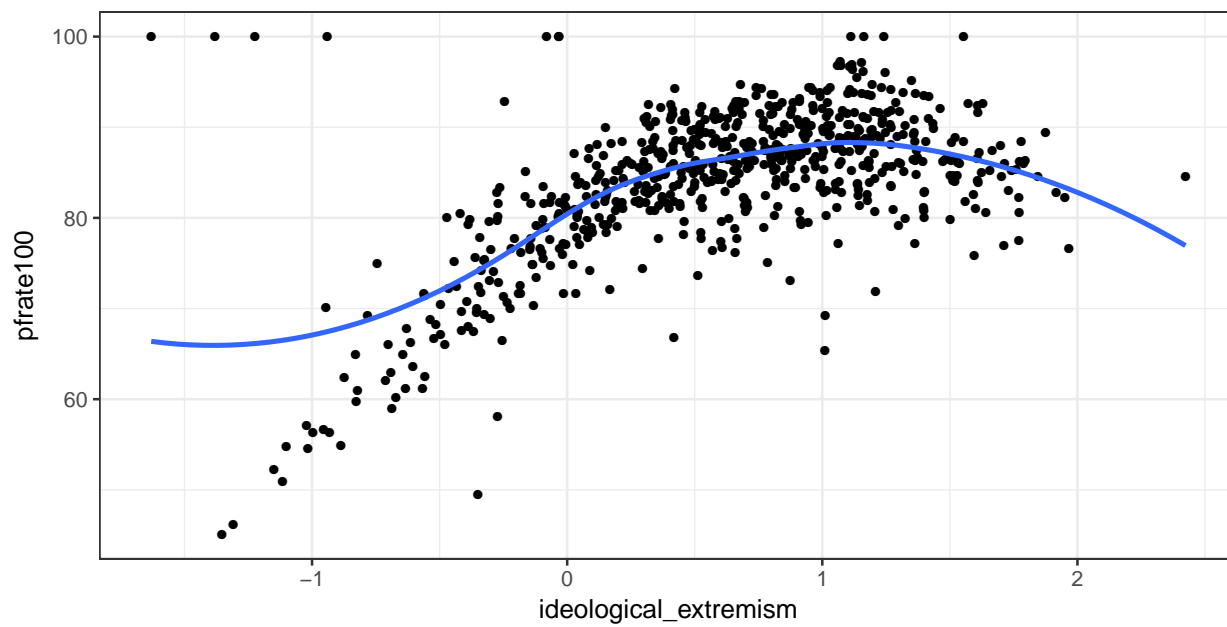


Figure 2: Senate DV/IV Plot, Majority Democrats

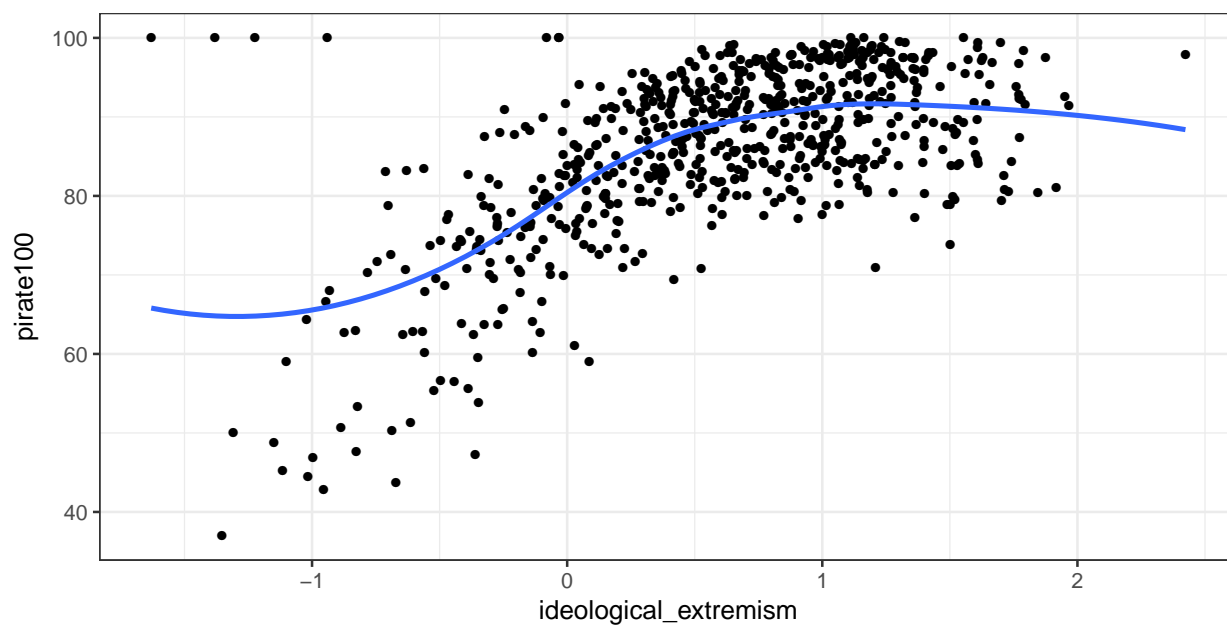


Figure 3: Senate IV/IV Plot, Majority Democrats, South/Other

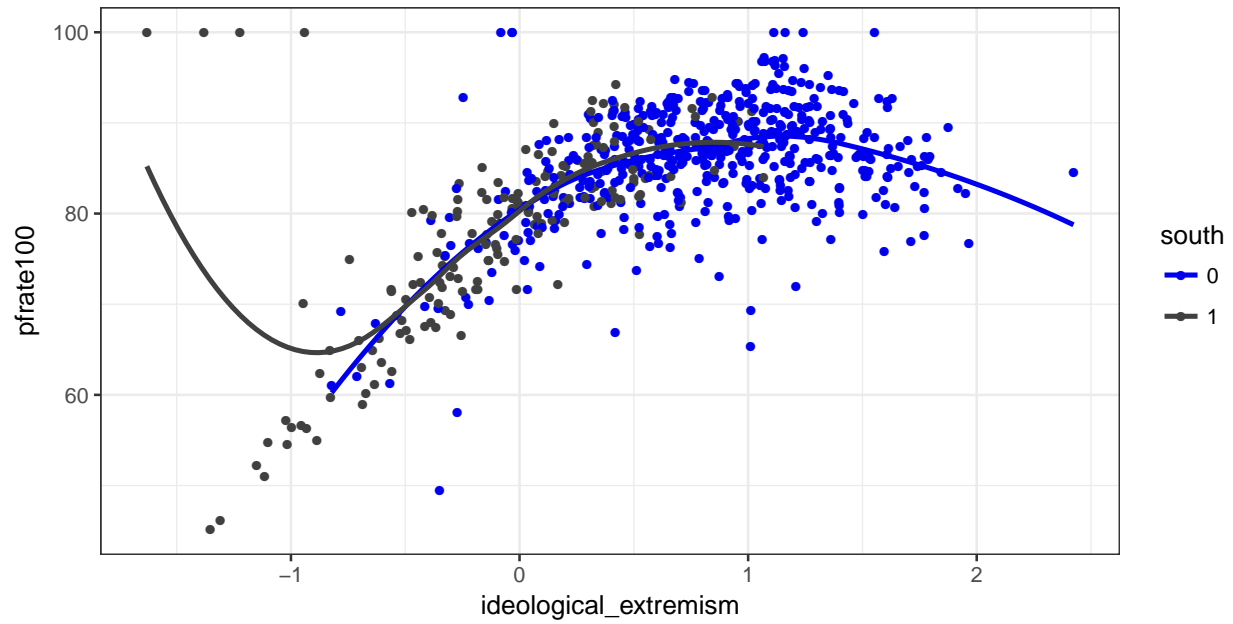


Figure 4: Senate DV/IV Plot, Majority Democrats, South/Other

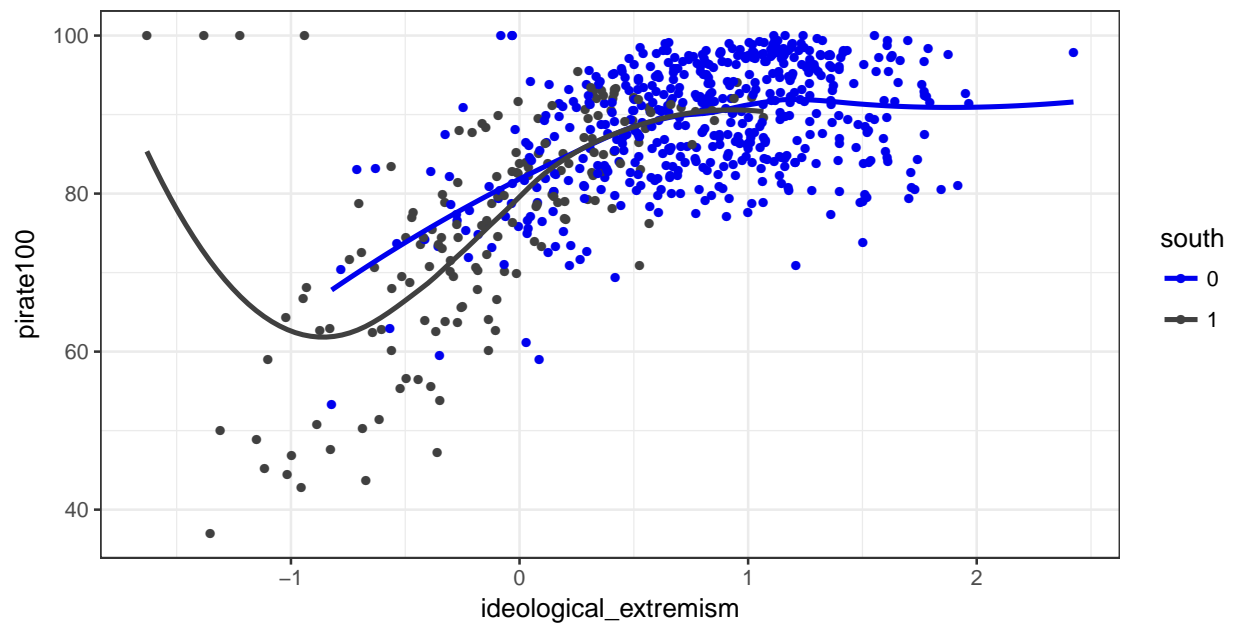


Figure 5: Senate IV/IV Plot, Minority Democrats

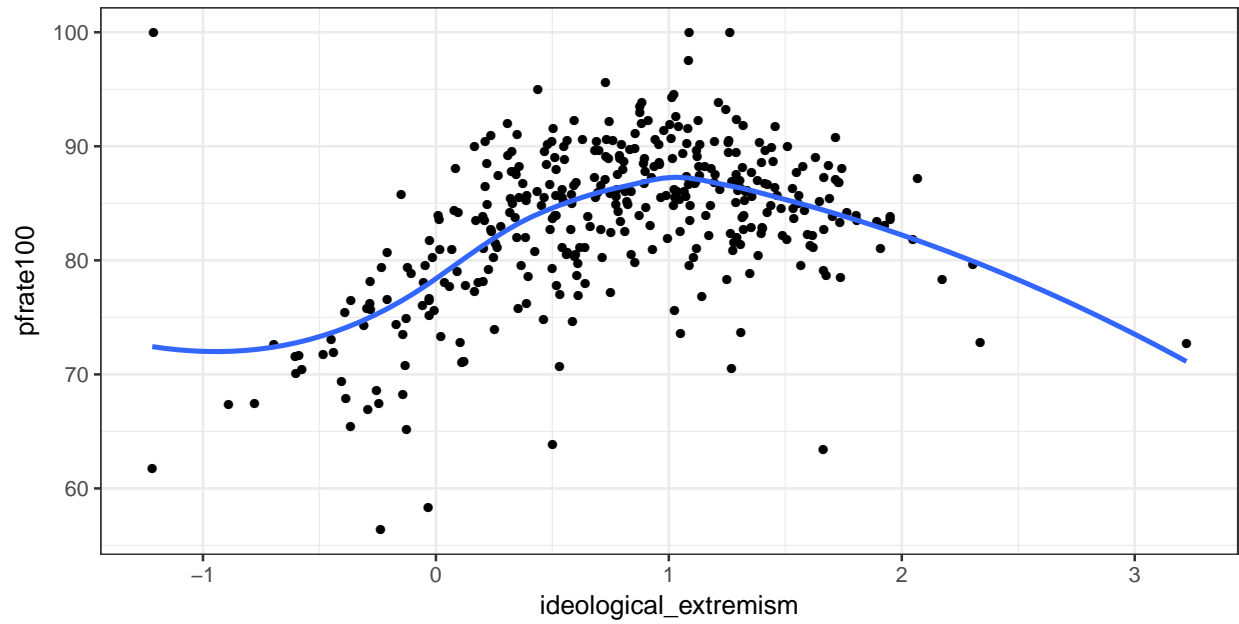


Figure 6: Senate DV/IV Plot, Minority Democrats

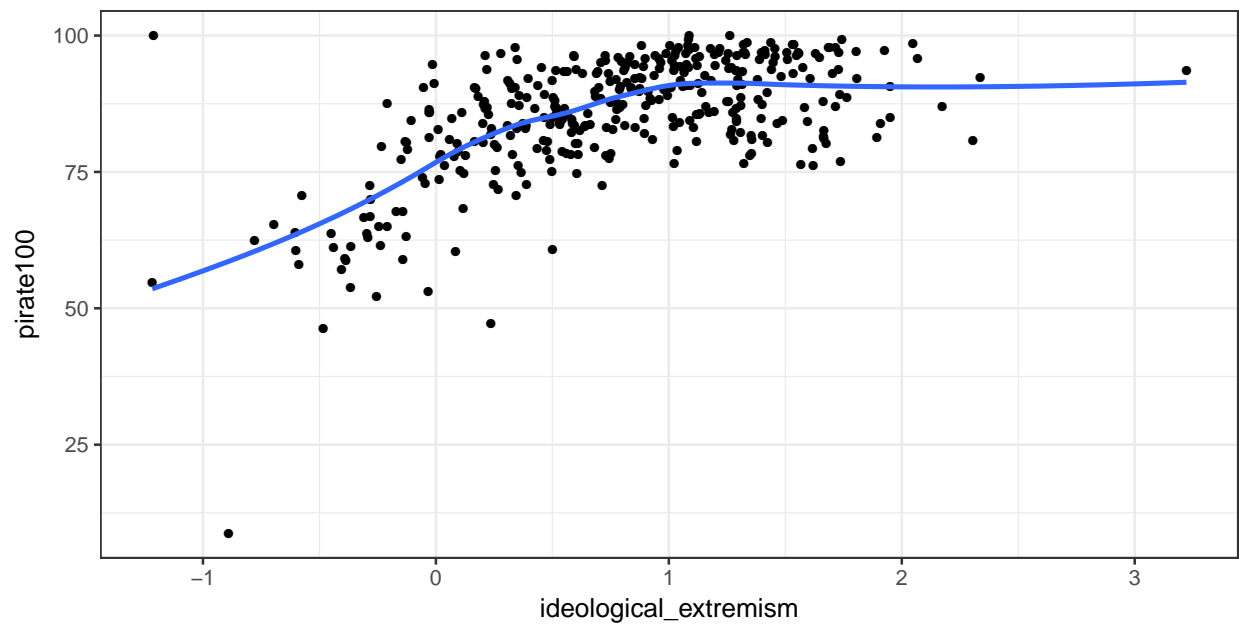


Figure 7: Senate IV/IV Plot, Minority Democrats, South/Other

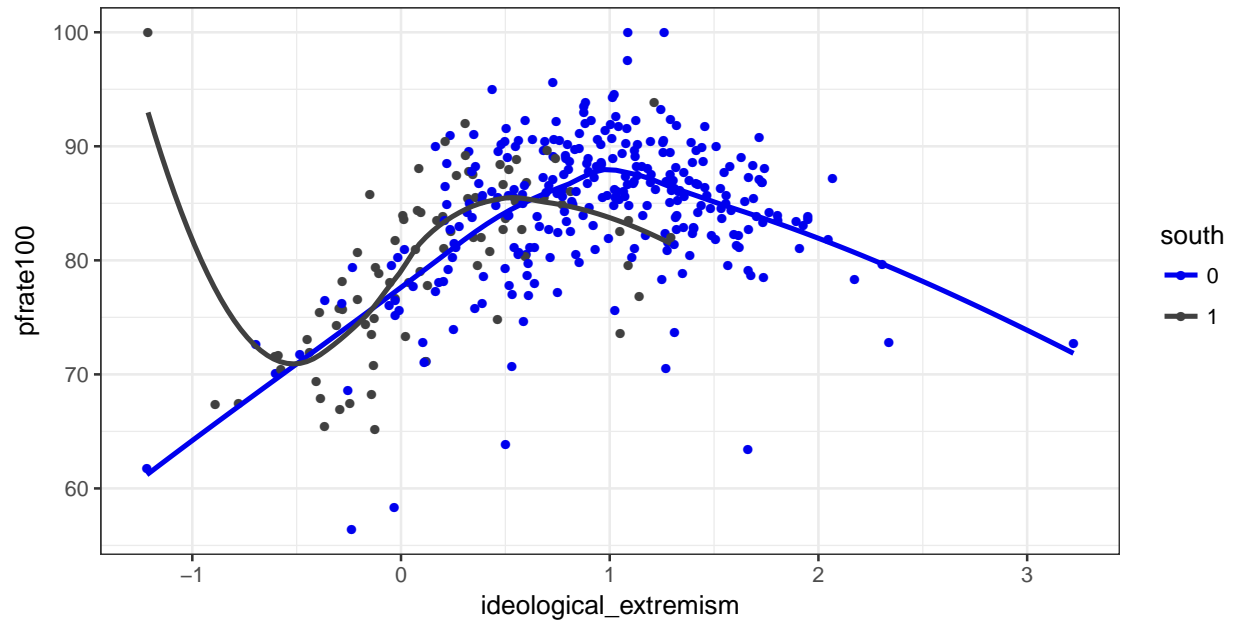


Figure 8: Senate DV/IV Plot, Minority Democrats, South/Other

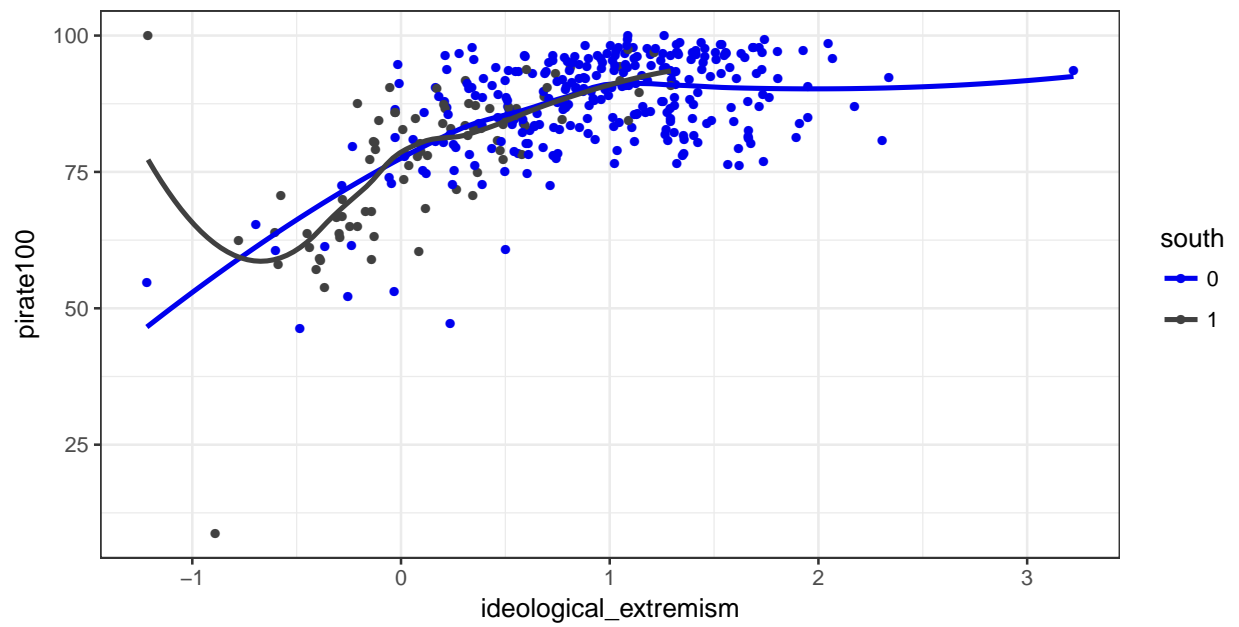


Figure 9: Senate IV/IV Plot, Majority Republicans

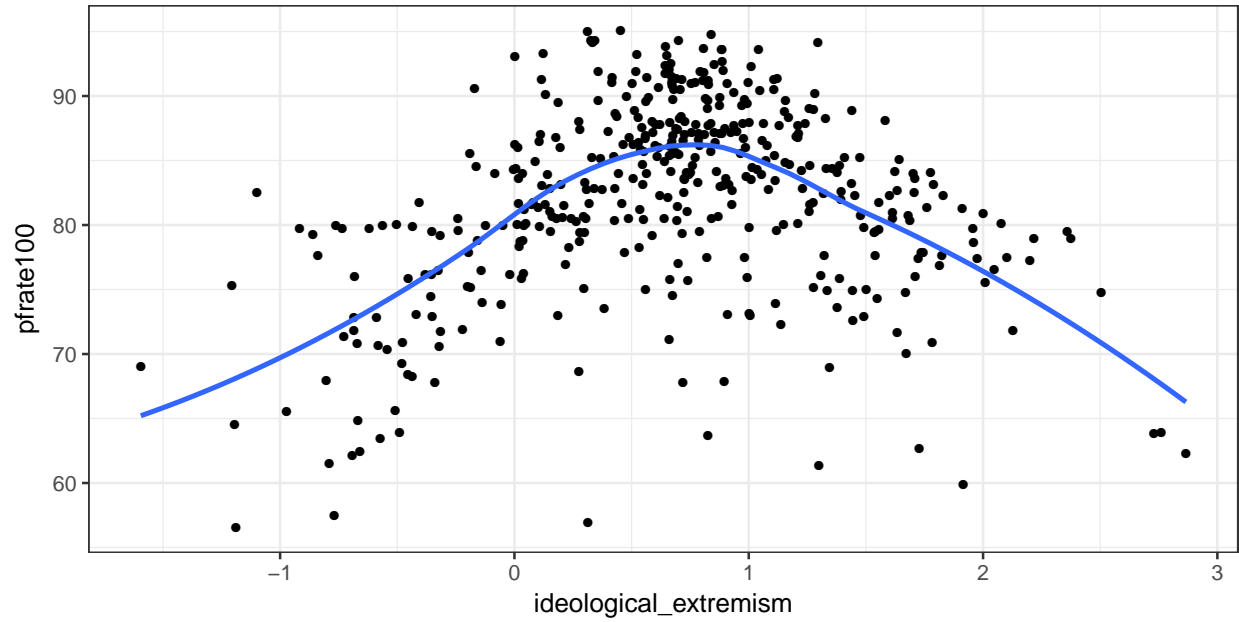


Figure 10: Senate DV/IV Plot, Majority Republicans

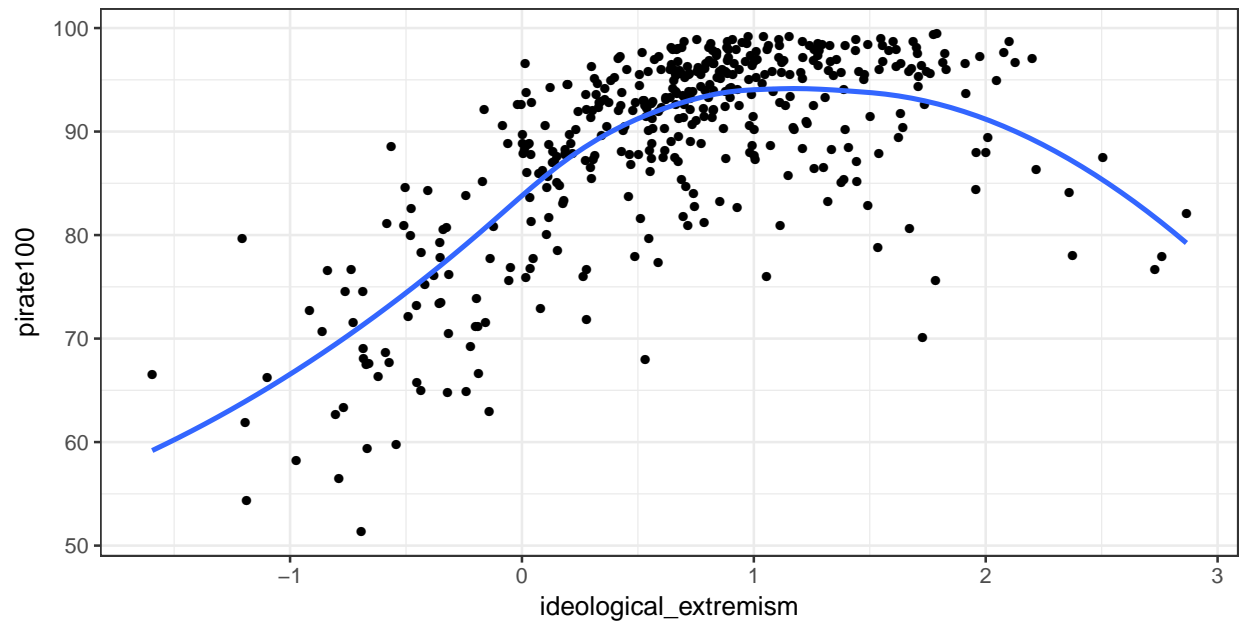


Figure 11: Senate IV/IV Plot, Majority Republicans, Gingrich/Other

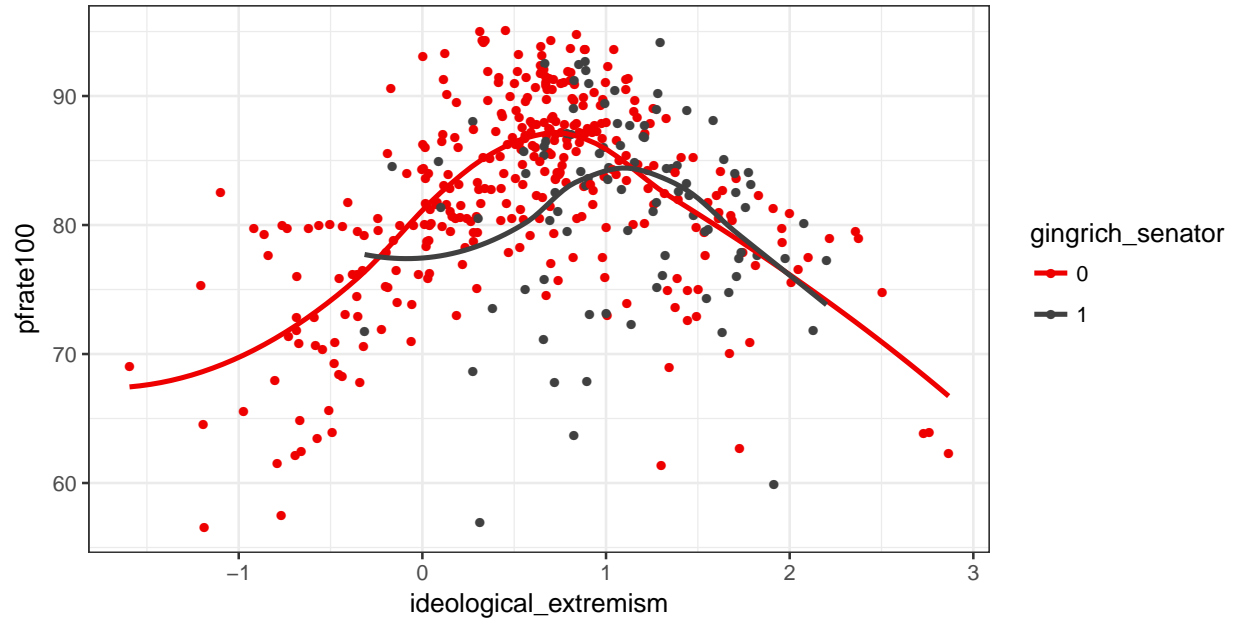


Figure 12: Senate DV/IV Plot, Majority Republicans, Gingrich/Other

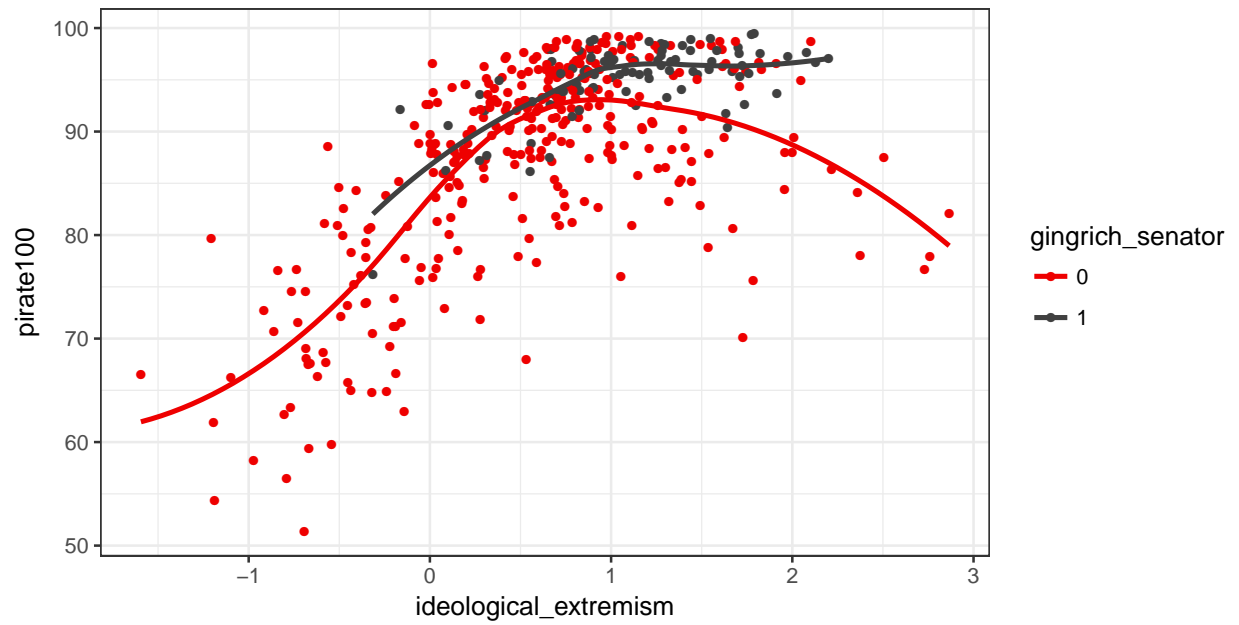


Figure 13: Senate IV/IV Plot, Minority Republicans

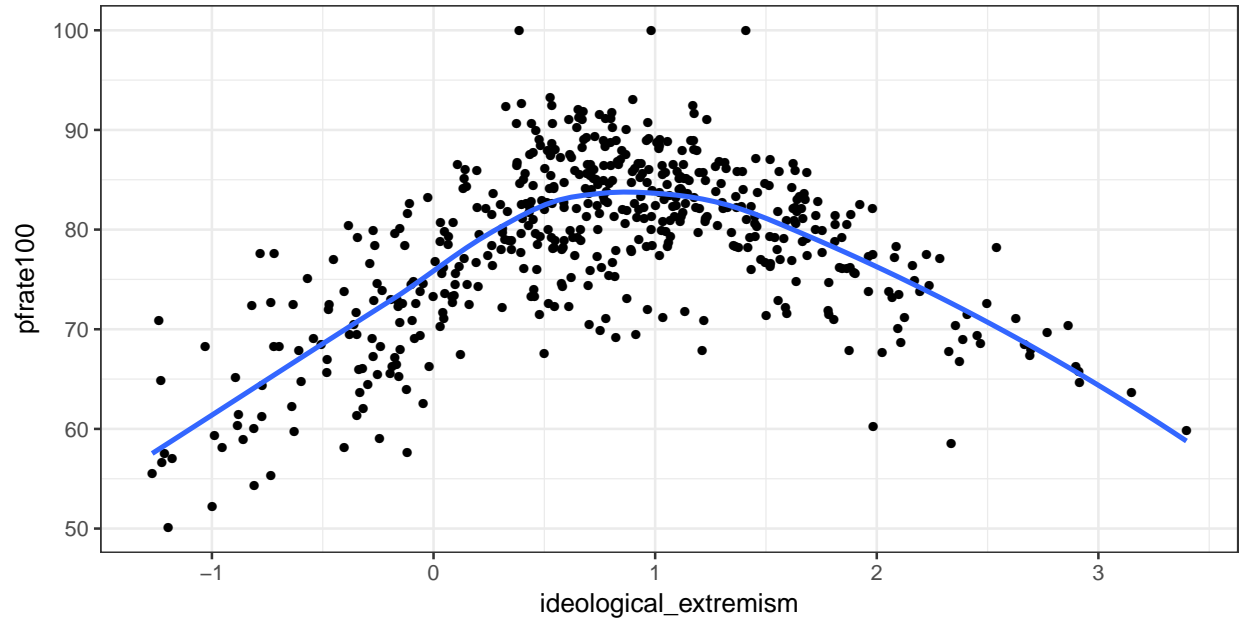


Figure 14: Senate DV/IV Plot, Minority Republicans

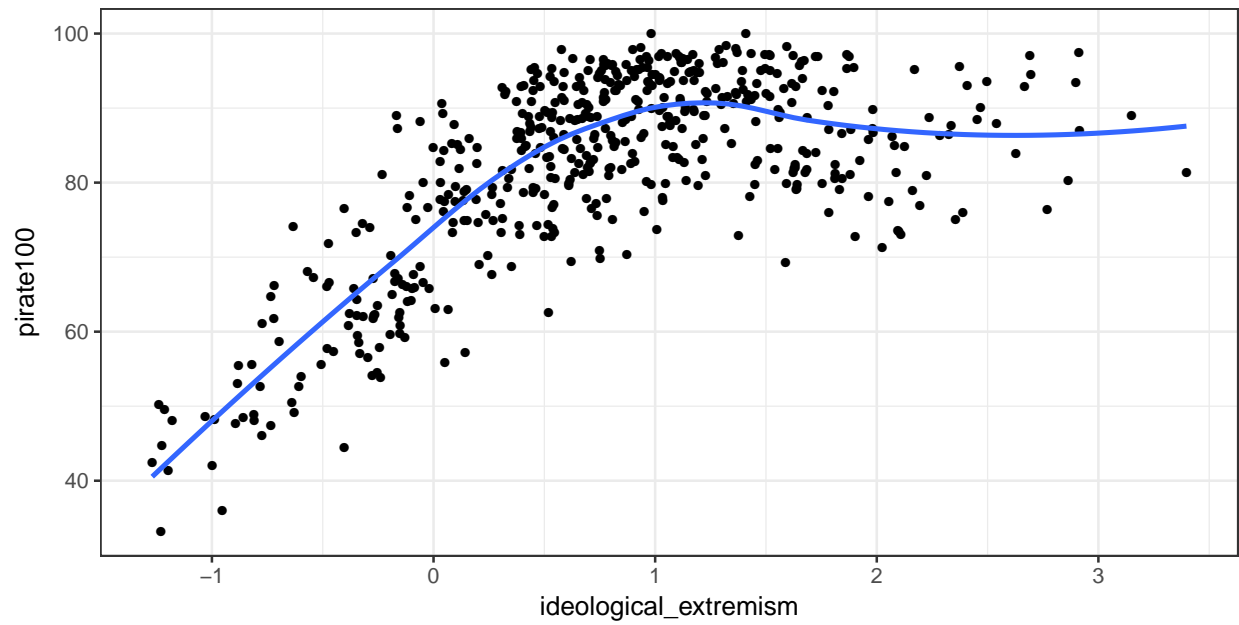


Figure 15: Senate IV/IV Plot, Minority Republicans, Gingrich/Other

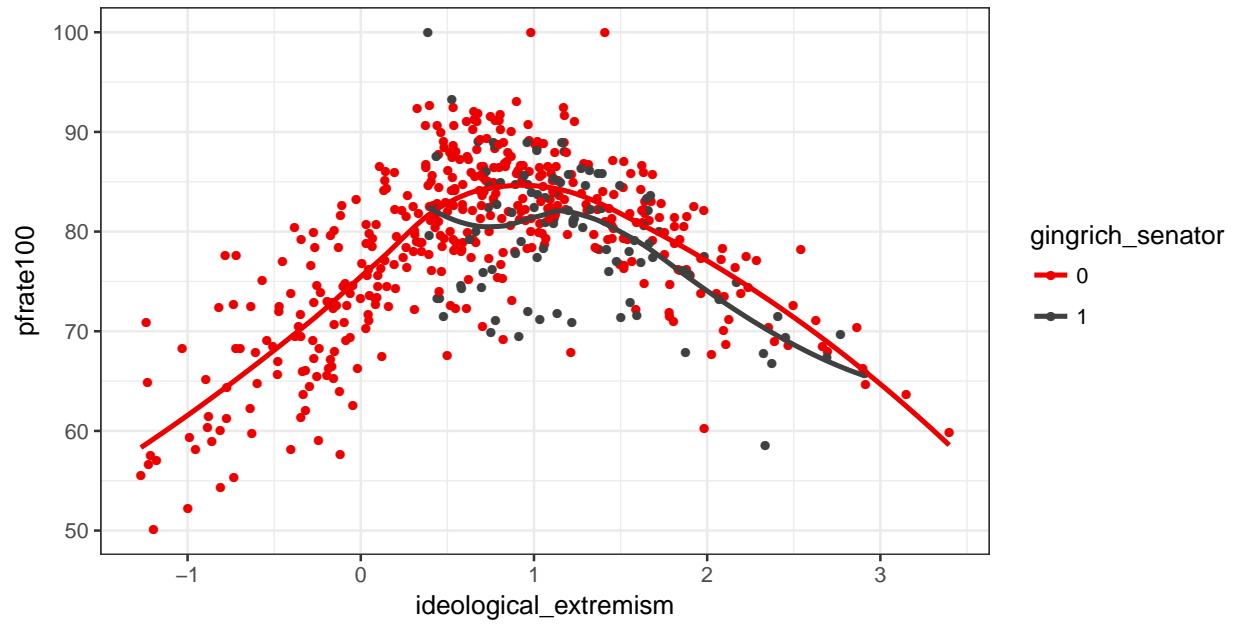


Figure 16: Senate DV/IV Plot, Minority Republicans, Gingrich/Other

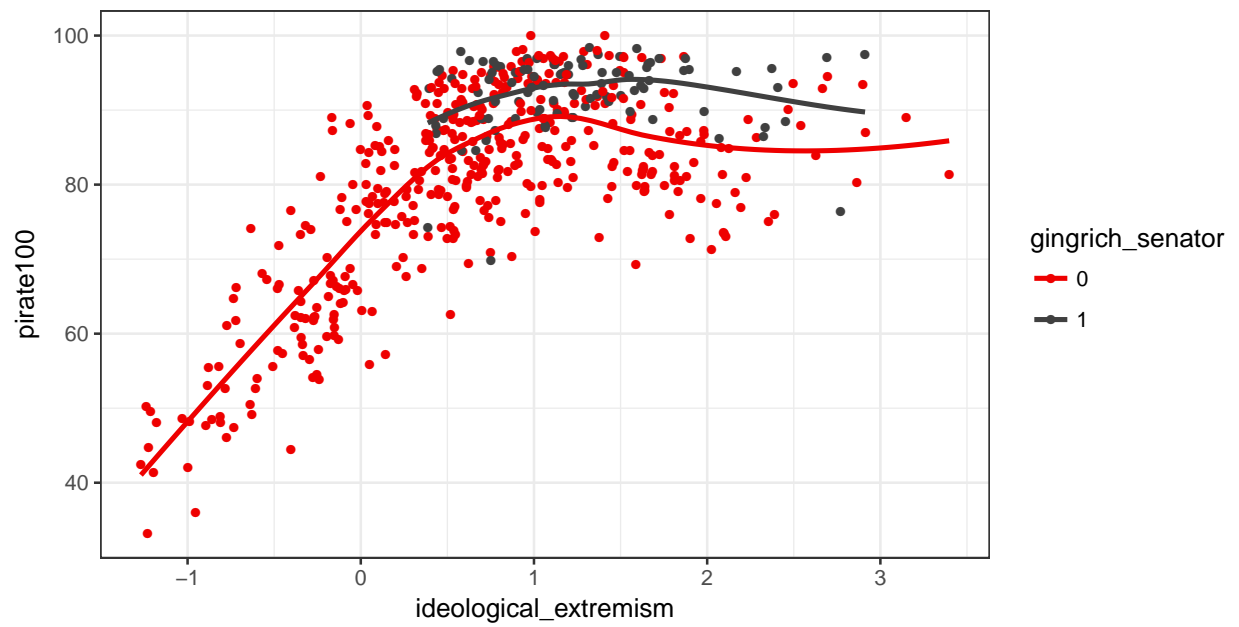


Figure 17: House IV/IV Plot, Majority Democrats

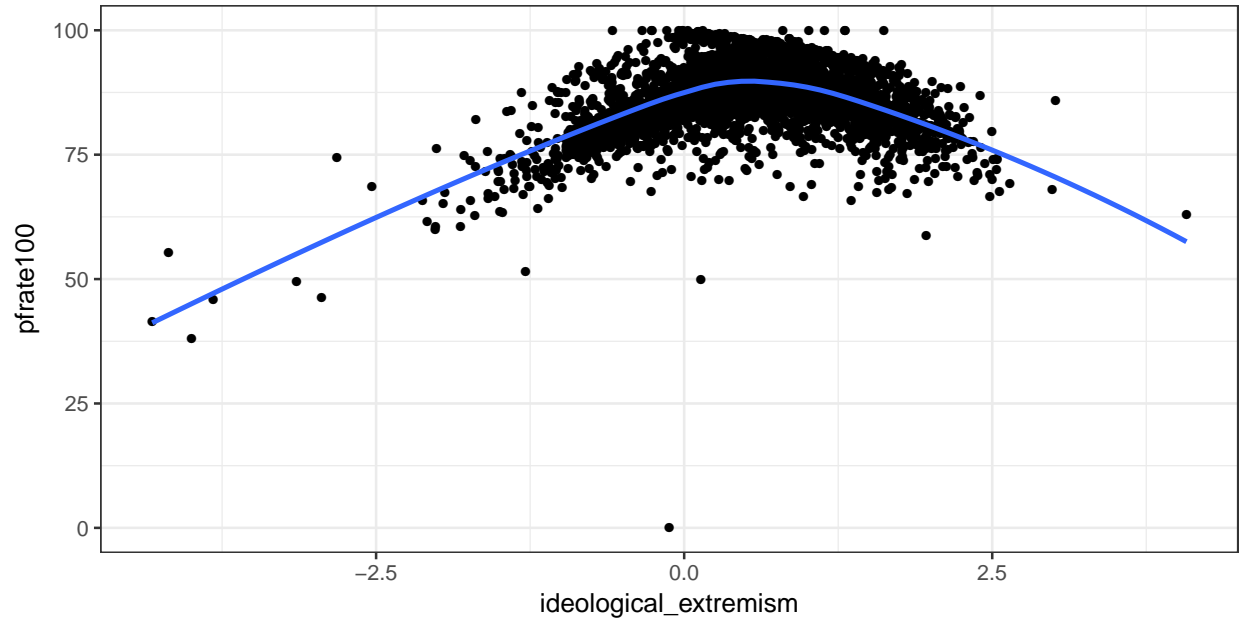


Figure 18: House DV/IV Plot, Majority Democrats

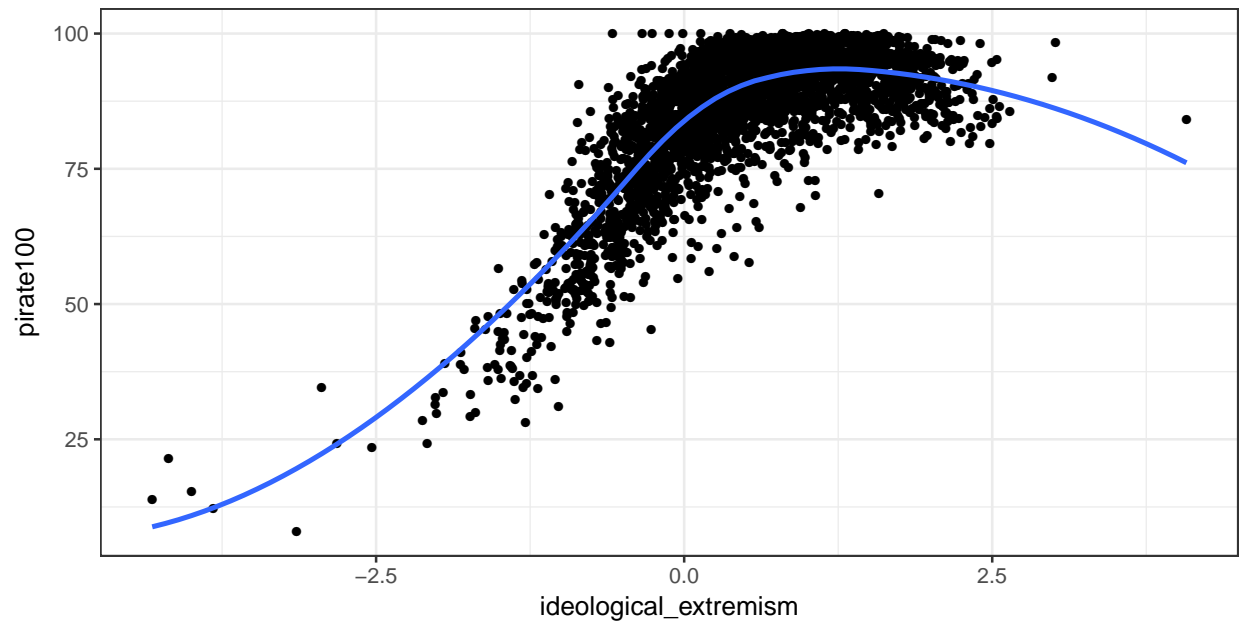


Figure 19: House IV/IV Plot, Majority Democrats, South/Other

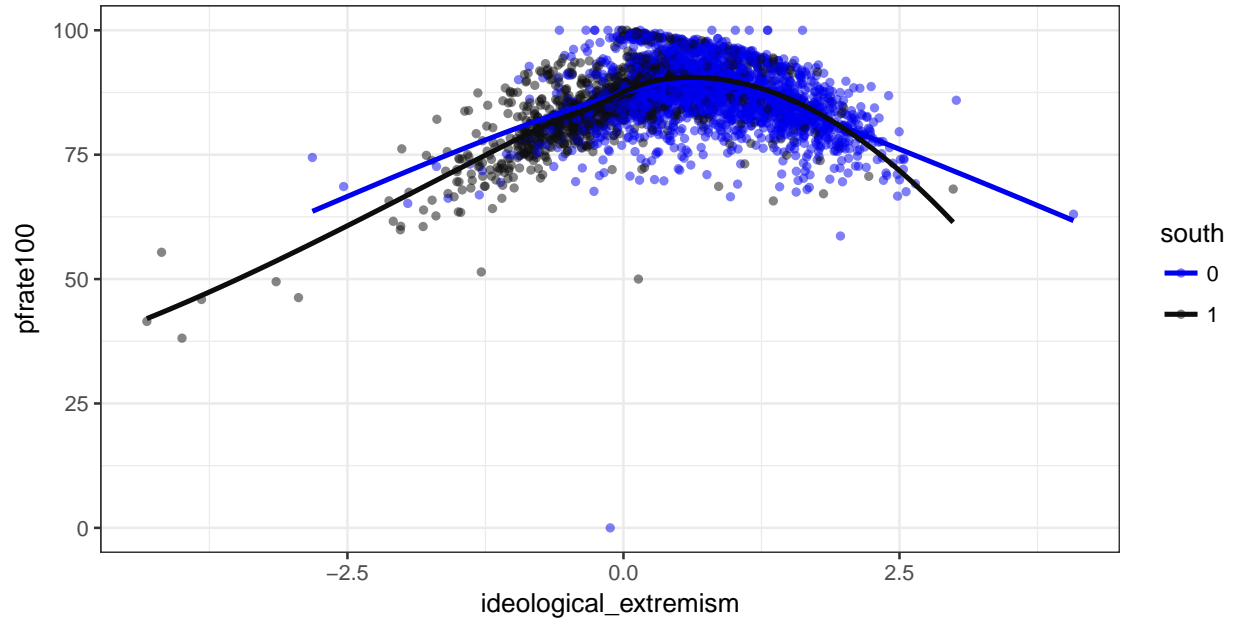


Figure 20: House DV/IV Plot, Majority Democrats, South/Other

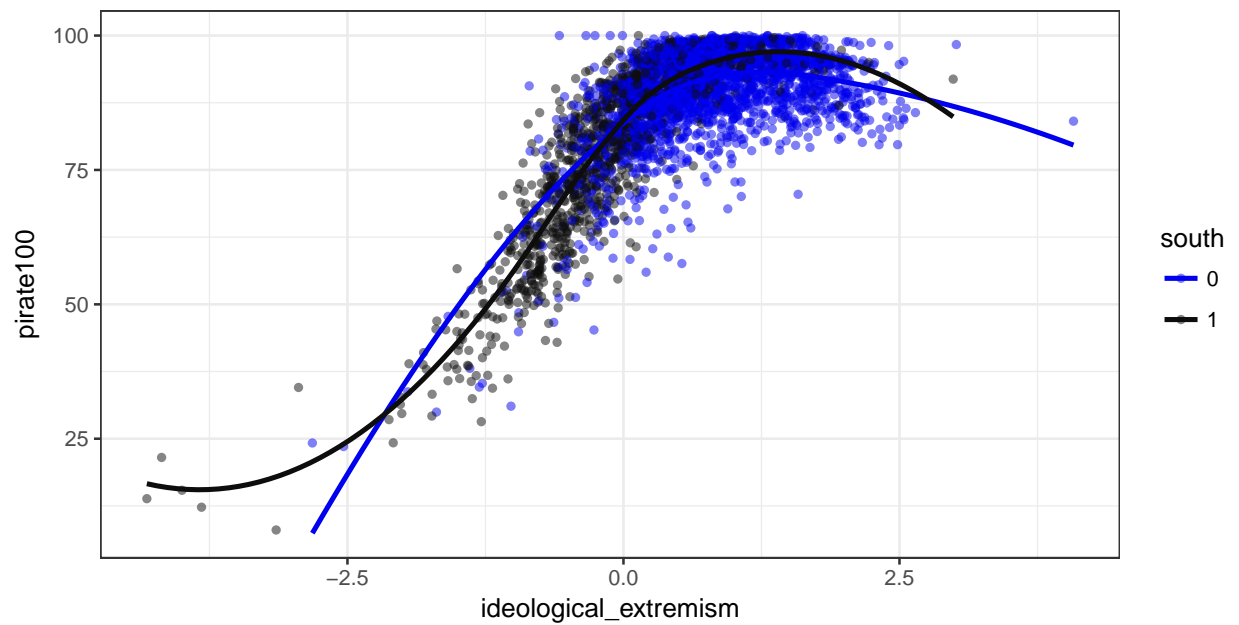


Figure 21: House IV/IV Plot, Minority Democrats

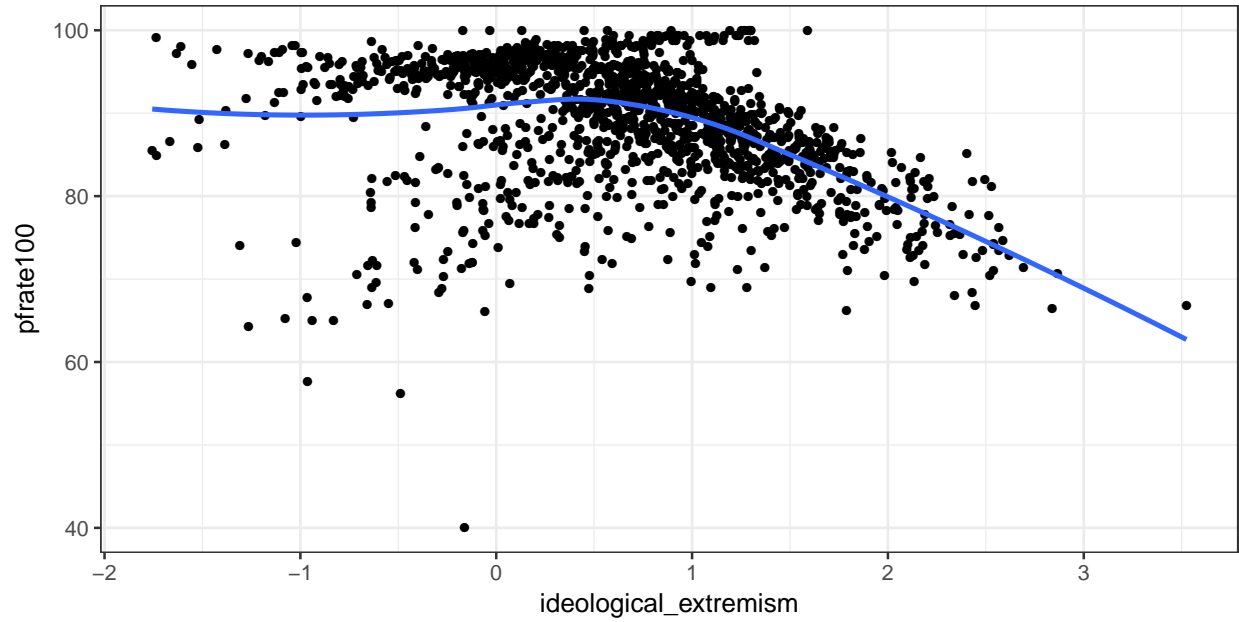


Figure 22: House DV/IV Plot, Minority Democrats

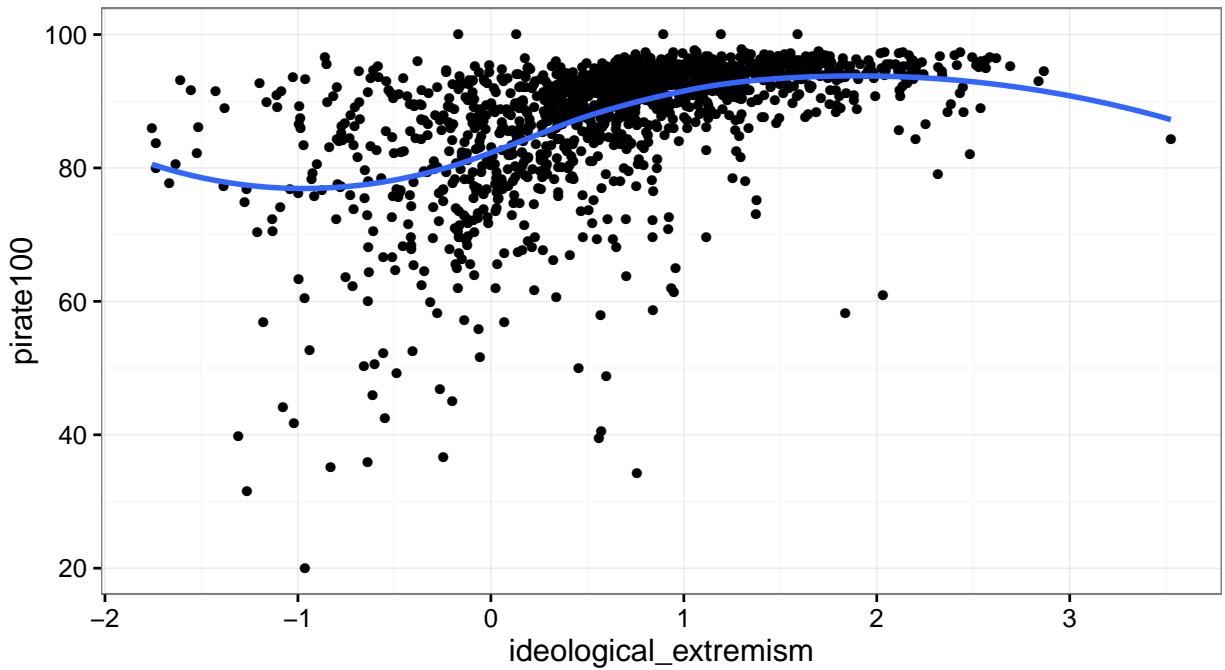


Figure 23: House IV/IV Plot, Minority Democrats, South/Other

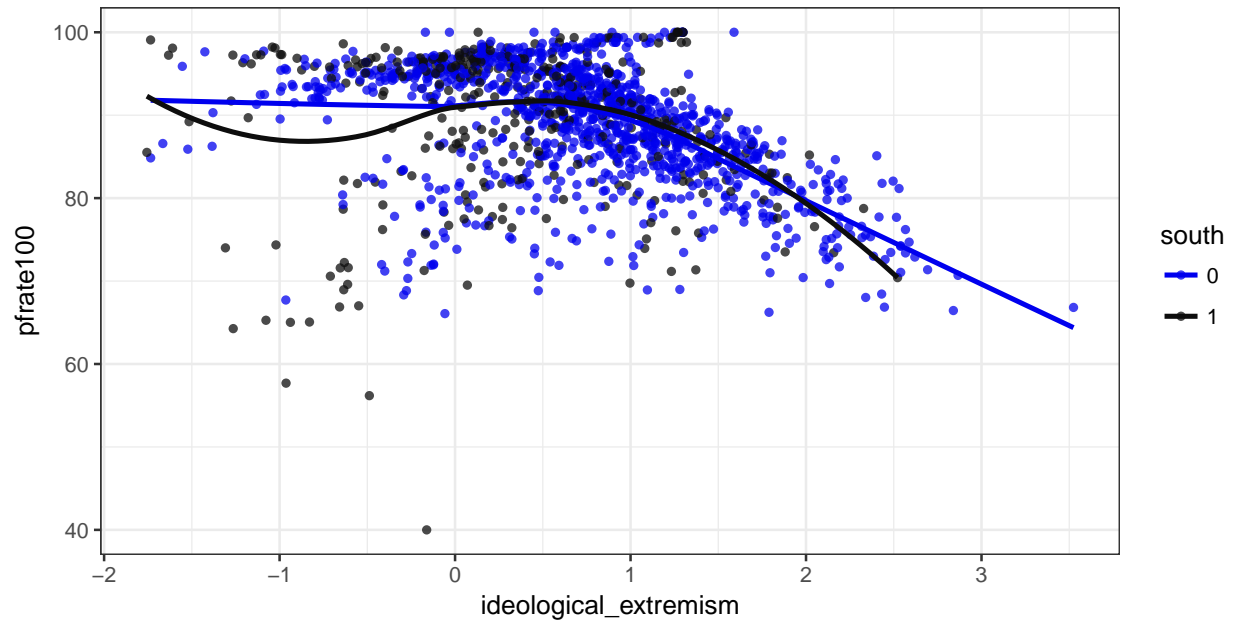


Figure 24: House DV/IV Plot, Minority Democrats, South/Other

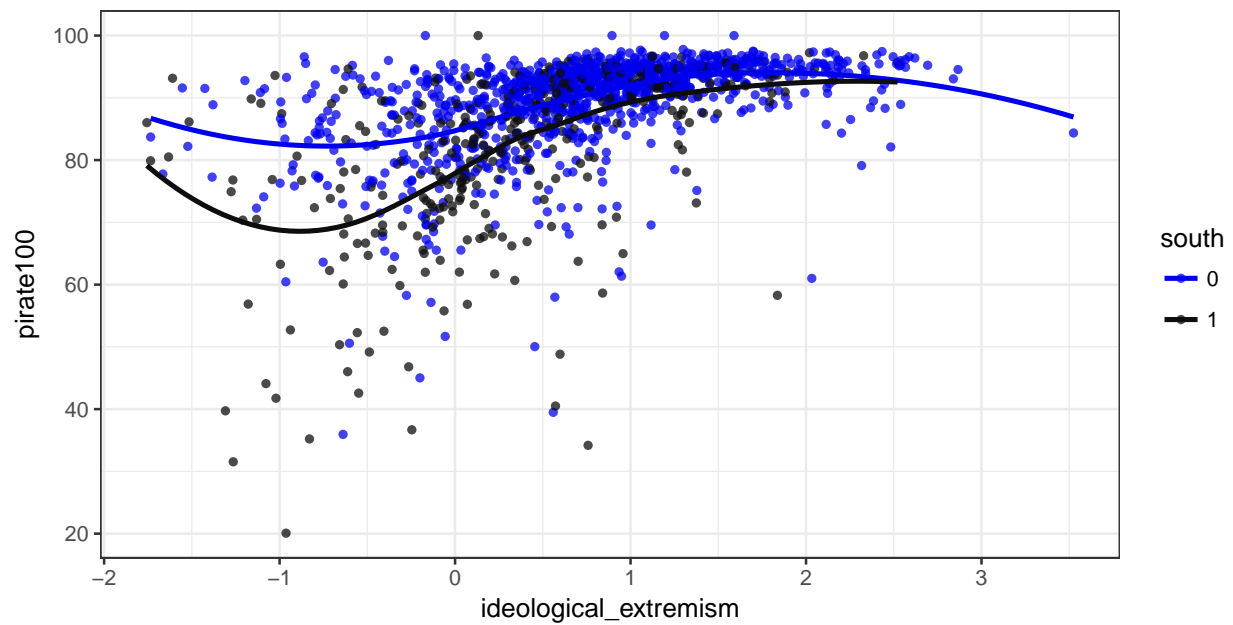


Figure 25: House IV/IV Plot, Majority Republicans

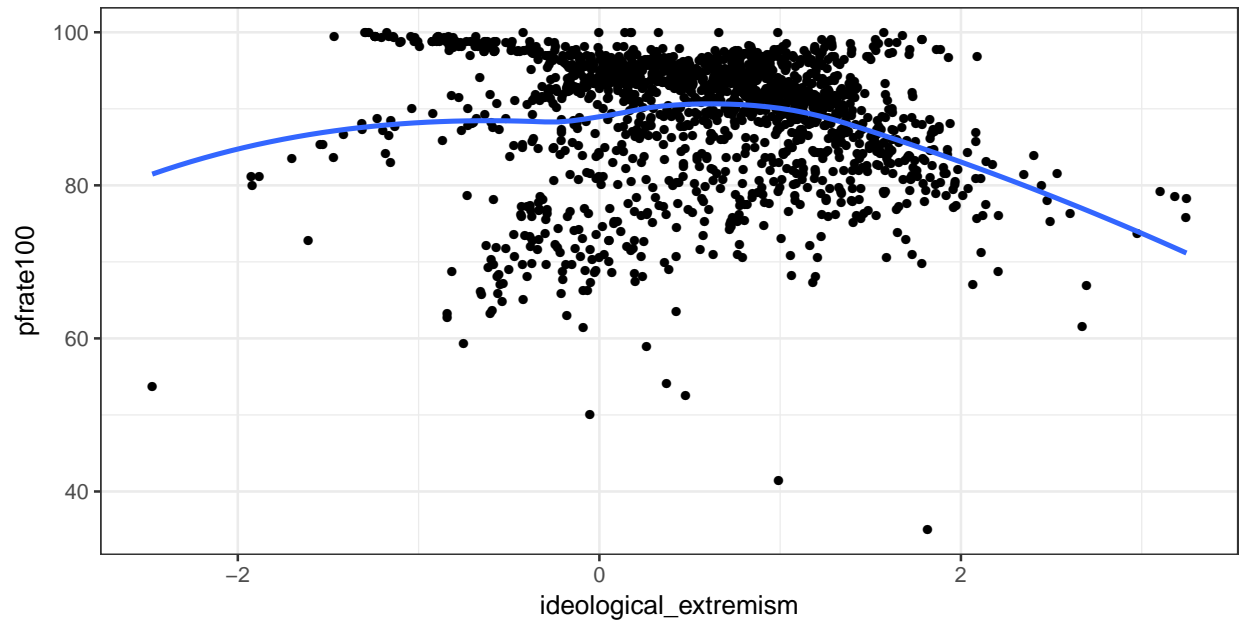


Figure 26: House DV/IV Plot, Majority Republicans

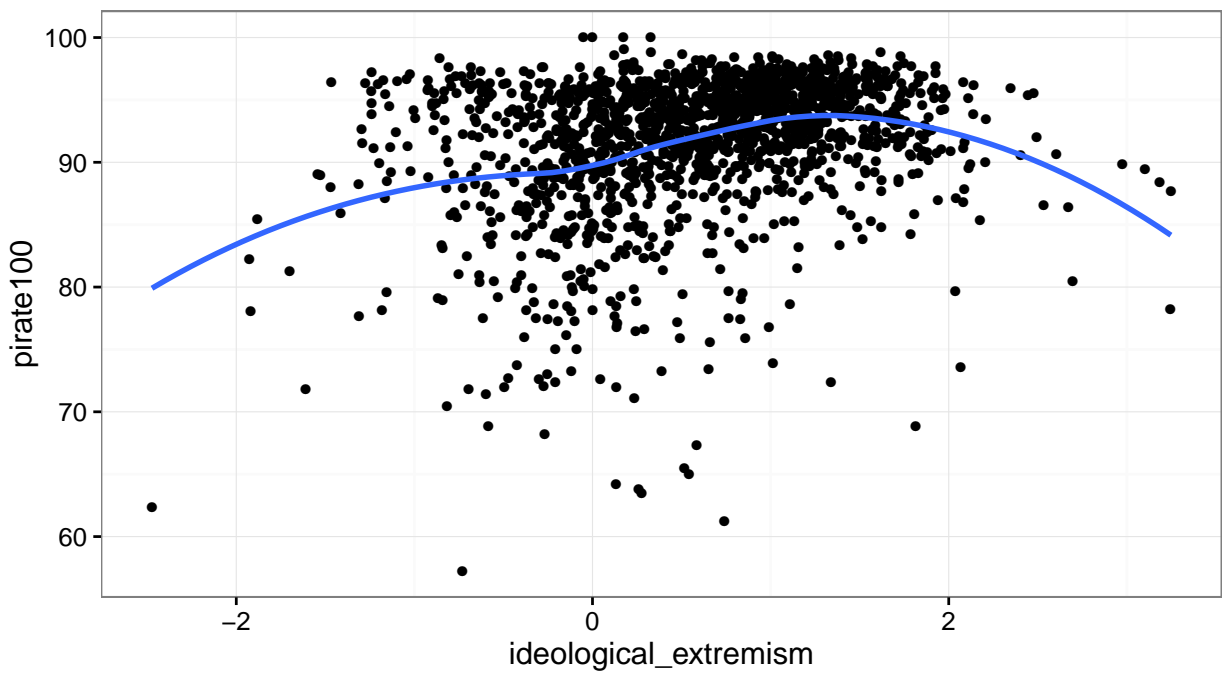


Figure 27: House IV/IV Plot, Minority Republicans

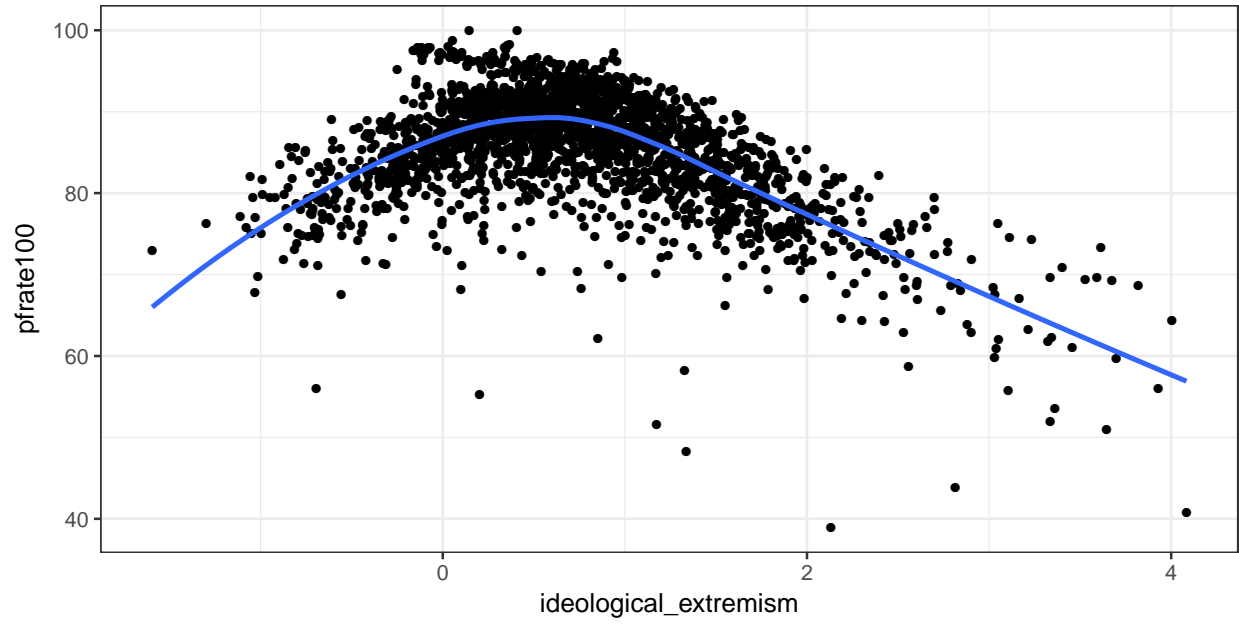
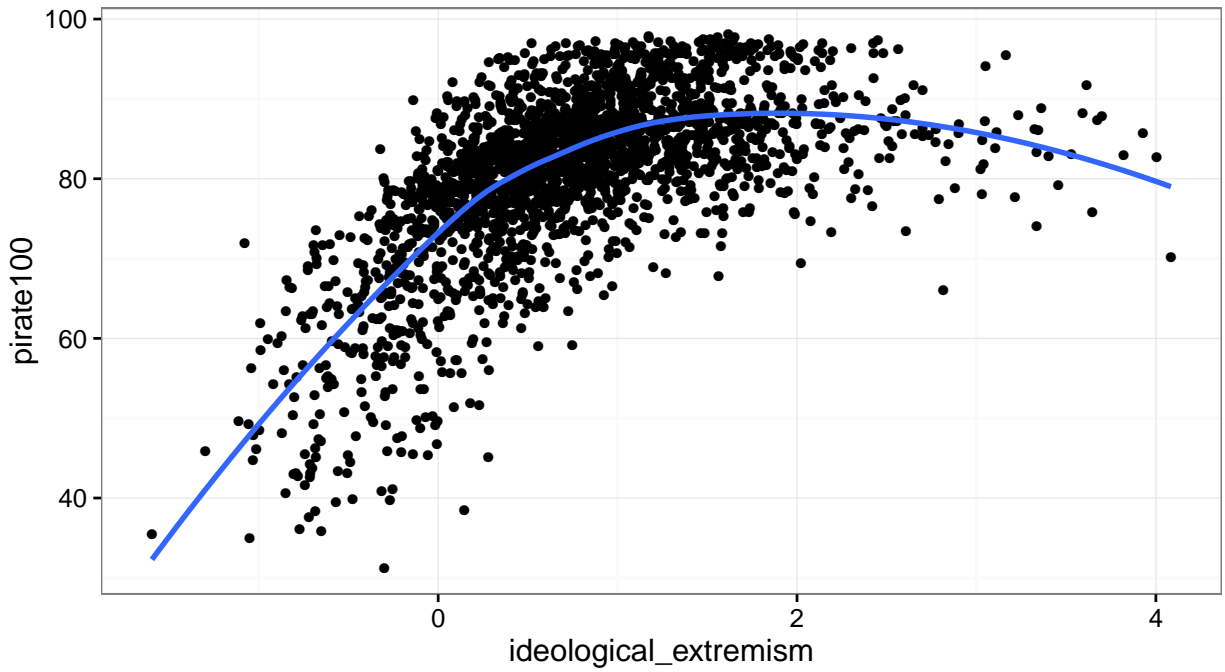


Figure 28: House DV/IV Plot, Minority Republicans



2.3 Variable Checks

Figure 29: Presidential Vote Share and Democratic Presidential Vote Share: All

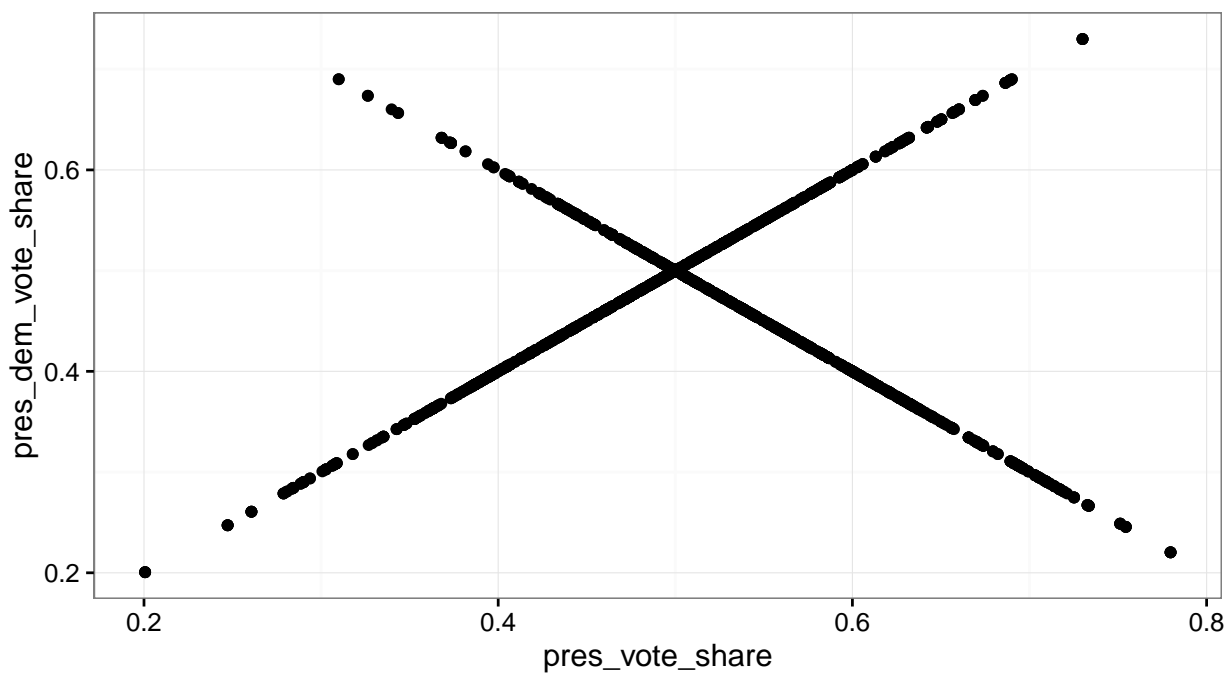


Figure 30: Presidential Vote Share and Democratic Presidential Vote Share: Democrats

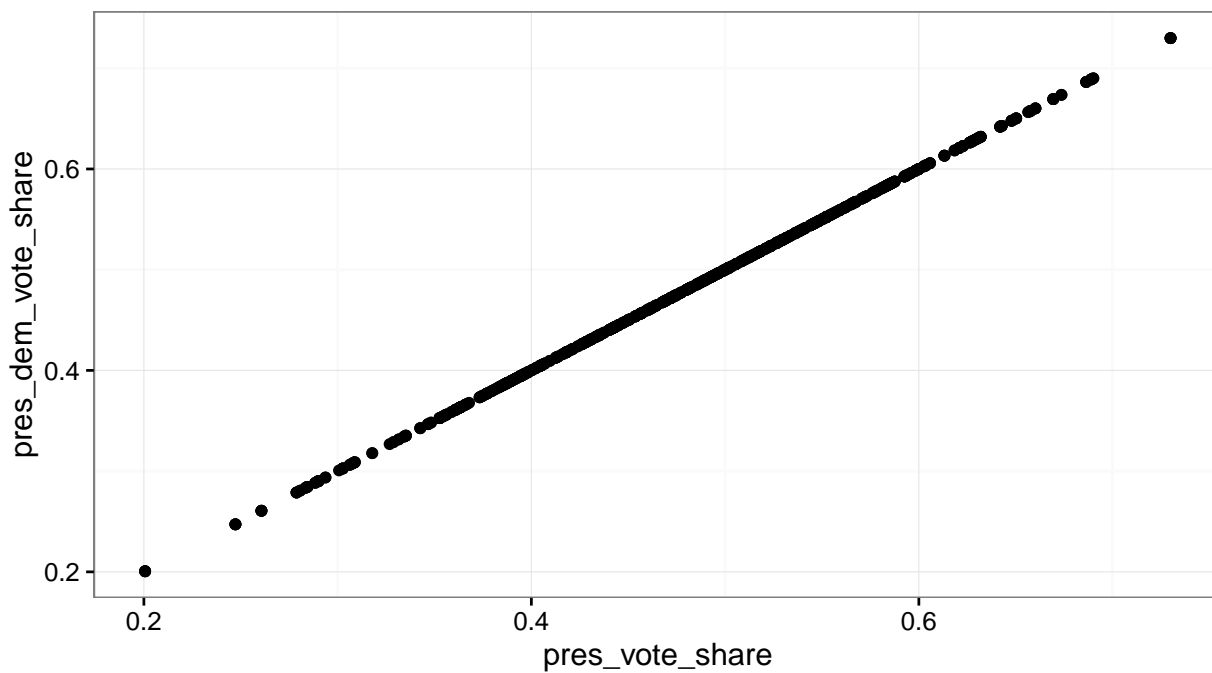
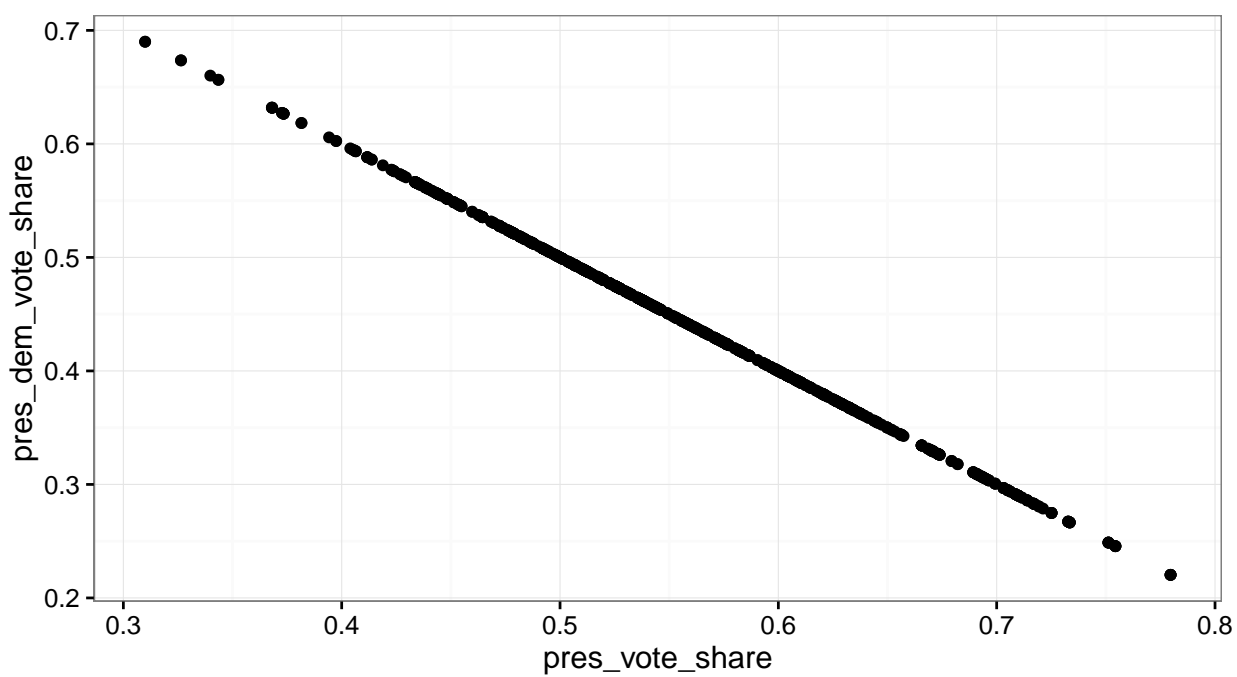


Figure 31: Presidential Vote Share and Democratic Presidential Vote Share: Republicans



3 Past Tables and Figures to Include in Paper

3.1 Senate

Table 7: Senate Variable Summaries

| Statistic | N | Mean | St. Dev. | Min | Max |
|------------------------|-------|------------|------------|--------|---------|
| congress | 1,993 | 102.511 | 5.771 | 93 | 112 |
| icpsrLegis | 1,993 | 18,808.510 | 13,984.900 | 52 | 95,407 |
| class | 1,993 | 2.012 | 0.819 | 1 | 3 |
| maj | 1,993 | 0.552 | 0.488 | 0.000 | 1.000 |
| pres_vote_share | 1,993 | 0.521 | 0.097 | 0.201 | 0.780 |
| pres_dem_vote_share | 1,993 | 0.462 | 0.092 | 0.201 | 0.730 |
| vote_share | 1,993 | 0.612 | 0.099 | 0.500 | 1.000 |
| south | 1,993 | 0.260 | 0.439 | 0 | 1 |
| south11 | 1,993 | 0.220 | 0.414 | 0 | 1 |
| south13 | 1,993 | 0.260 | 0.439 | 0 | 1 |
| south17 | 1,993 | 0.339 | 0.473 | 0 | 1 |
| south_dem | 1,993 | 0.123 | 0.329 | 0 | 1 |
| leader | 1,993 | 0.099 | 0.299 | 0 | 1 |
| chair | 1,993 | 0.183 | 0.386 | 0 | 1 |
| best_committee | 1,993 | 12.277 | 2.740 | 0 | 15 |
| power_committee | 1,993 | 0.727 | 0.446 | 0 | 1 |
| up_for_reelection | 1,993 | 0.333 | 0.471 | 0 | 1 |
| freshman | 1,993 | 0.114 | 0.318 | 0 | 1 |
| superfreshman | 1,993 | 0.003 | 0.050 | 0 | 1 |
| seniority | 1,993 | 6.254 | 4.618 | 1 | 26 |
| senate_seniority | 1,993 | 2.424 | 1.527 | 1 | 9 |
| retiree | 1,993 | 0.059 | 0.235 | 0 | 1 |
| first_term | 1,993 | 0.356 | 0.479 | 0 | 1 |
| afam | 1,993 | 0.004 | 0.063 | 0 | 1 |
| female | 1,993 | 0.067 | 0.250 | 0 | 1 |
| latino | 1,993 | 0.008 | 0.086 | 0 | 1 |
| gingrich_senator | 1,993 | 0.094 | 0.292 | 0 | 1 |
| votes | 1,993 | 733.147 | 199.048 | 5 | 1,311 |
| drop | 1,993 | 0.000 | 0.000 | 0 | 0 |
| party_free_ideal_point | 1,993 | 0.002 | 1.000 | -3.222 | 3.397 |
| pirate100 | 1,993 | 85.491 | 11.438 | 8.777 | 100.000 |
| pfrate100 | 1,993 | 82.035 | 8.164 | 45.106 | 100.000 |
| ideological_extremism | 1,993 | 0.689 | 0.724 | -1.630 | 3.397 |

Table 8: Senate Variable Summaries, Democrats

| Statistic | N | Mean | St. Dev. | Min | Max |
|------------------------|-------|------------|------------|--------|---------|
| congress | 1,042 | 102.262 | 5.886 | 93 | 112 |
| icpsrLegis | 1,042 | 17,125.290 | 12,528.160 | 660 | 94,910 |
| class | 1,042 | 1.964 | 0.844 | 1 | 3 |
| maj | 1,042 | 0.633 | 0.473 | 0.000 | 1.000 |
| pres_vote_share | 1,042 | 0.484 | 0.093 | 0.201 | 0.730 |
| pres_dem_vote_share | 1,042 | 0.484 | 0.093 | 0.201 | 0.730 |
| vote_share | 1,042 | 0.619 | 0.102 | 0.500 | 1.000 |
| south | 1,042 | 0.236 | 0.425 | 0 | 1 |
| south11 | 1,042 | 0.211 | 0.408 | 0 | 1 |
| south13 | 1,042 | 0.236 | 0.425 | 0 | 1 |
| south17 | 1,042 | 0.340 | 0.474 | 0 | 1 |
| south_dem | 1,042 | 0.236 | 0.425 | 0 | 1 |
| leader | 1,042 | 0.083 | 0.277 | 0 | 1 |
| chair | 1,042 | 0.208 | 0.406 | 0 | 1 |
| best_committee | 1,042 | 12.257 | 2.780 | 0 | 15 |
| power_committee | 1,042 | 0.729 | 0.445 | 0 | 1 |
| up_for_reelection | 1,042 | 0.334 | 0.472 | 0 | 1 |
| freshman | 1,042 | 0.105 | 0.306 | 0 | 1 |
| superfreshman | 1,042 | 0.003 | 0.054 | 0 | 1 |
| seniority | 1,042 | 6.781 | 4.940 | 1 | 26 |
| senate_seniority | 1,042 | 2.597 | 1.636 | 1 | 9 |
| retiree | 1,042 | 0.051 | 0.220 | 0 | 1 |
| first_term | 1,042 | 0.328 | 0.470 | 0 | 1 |
| afam | 1,042 | 0.005 | 0.069 | 0 | 1 |
| female | 1,042 | 0.084 | 0.278 | 0 | 1 |
| latino | 1,042 | 0.008 | 0.087 | 0 | 1 |
| gingrich_senator | 1,042 | 0.000 | 0.000 | 0 | 0 |
| votes | 1,042 | 740.120 | 208.038 | 5 | 1,311 |
| drop | 1,042 | 0.000 | 0.000 | 0 | 0 |
| party_free_ideal_point | 1,042 | -0.657 | 0.657 | -3.222 | 1.630 |
| pirate100 | 1,042 | 85.776 | 10.886 | 8.777 | 100.000 |
| pfrate100 | 1,042 | 83.760 | 7.862 | 45.106 | 100.000 |
| ideological_extremism | 1,042 | 0.657 | 0.657 | -1.630 | 3.222 |

Table 9: Senate Variable Summaries, Republicans

| Statistic | N | Mean | St. Dev. | Min | Max |
|------------------------|-----|------------|------------|--------|---------|
| congress | 951 | 102.784 | 5.633 | 93 | 112 |
| icpsrLegis | 951 | 20,652.800 | 15,218.180 | 52 | 95,407 |
| class | 951 | 2.064 | 0.787 | 1 | 3 |
| ma.j | 951 | 0.464 | 0.489 | 0.000 | 1.000 |
| pres_vote_share | 951 | 0.562 | 0.085 | 0.310 | 0.780 |
| pres_dem_vote_share | 951 | 0.438 | 0.085 | 0.220 | 0.690 |
| vote_share | 951 | 0.605 | 0.094 | 0.500 | 1.000 |
| south | 951 | 0.286 | 0.452 | 0 | 1 |
| south11 | 951 | 0.229 | 0.421 | 0 | 1 |
| south13 | 951 | 0.286 | 0.452 | 0 | 1 |
| south17 | 951 | 0.338 | 0.473 | 0 | 1 |
| south_dem | 951 | 0.000 | 0.000 | 0 | 0 |
| leader | 951 | 0.117 | 0.321 | 0 | 1 |
| chair | 951 | 0.155 | 0.362 | 0 | 1 |
| best_committee | 951 | 12.300 | 2.697 | 0 | 15 |
| power_committee | 951 | 0.723 | 0.448 | 0 | 1 |
| up_for_reelection | 951 | 0.332 | 0.471 | 0 | 1 |
| freshman | 951 | 0.124 | 0.330 | 0 | 1 |
| superfreshman | 951 | 0.002 | 0.046 | 0 | 1 |
| seniority | 951 | 5.677 | 4.163 | 1 | 24 |
| senate_seniority | 951 | 2.234 | 1.373 | 1 | 8 |
| retiree | 951 | 0.067 | 0.251 | 0 | 1 |
| first_term | 951 | 0.386 | 0.487 | 0 | 1 |
| afam | 951 | 0.003 | 0.056 | 0 | 1 |
| female | 951 | 0.048 | 0.215 | 0 | 1 |
| latino | 951 | 0.007 | 0.086 | 0 | 1 |
| gingrich_senator | 951 | 0.198 | 0.398 | 0 | 1 |
| votes | 951 | 725.506 | 188.520 | 40 | 1,291 |
| drop | 951 | 0.000 | 0.000 | 0 | 0 |
| party_free_ideal_point | 951 | 0.725 | 0.789 | -1.595 | 3.397 |
| pirate100 | 951 | 85.180 | 12.011 | 33.232 | 100.000 |
| pfrate100 | 951 | 80.144 | 8.073 | 50.070 | 100.000 |
| ideological_extremism | 951 | 0.725 | 0.789 | -1.595 | 3.397 |

Table 10: Senate Sorting Algorithm Coefficient Signs

| | (-) Ideal | (+) Ideal |
|-----------|-----------|-----------|
| (-) Party | 0.33 | 0.16 |
| (+) Party | 0.23 | 0.28 |

Figure 32: Senate Party Calls by Congress

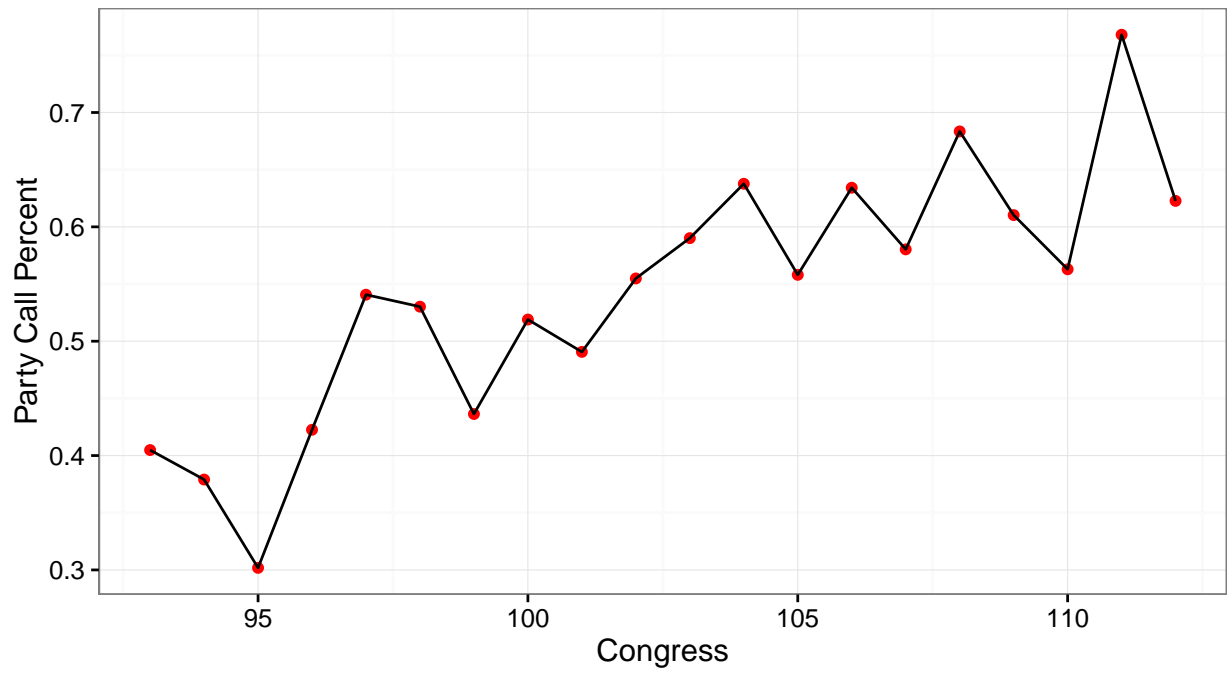


Figure 33: Senate Ideological Extremism Coefficient Plot, Majority

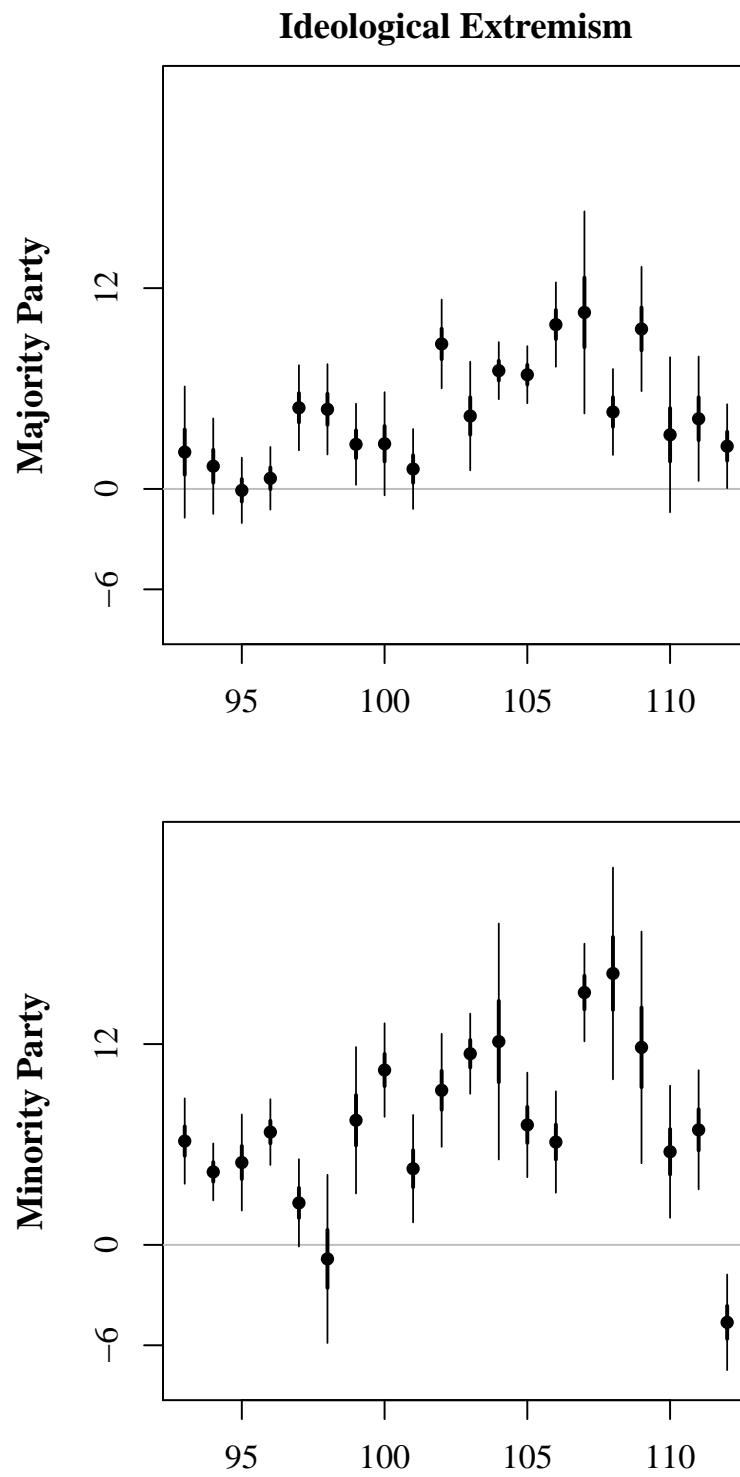


Figure 34: Senate Ideological Extremism Coefficient Plot, Party

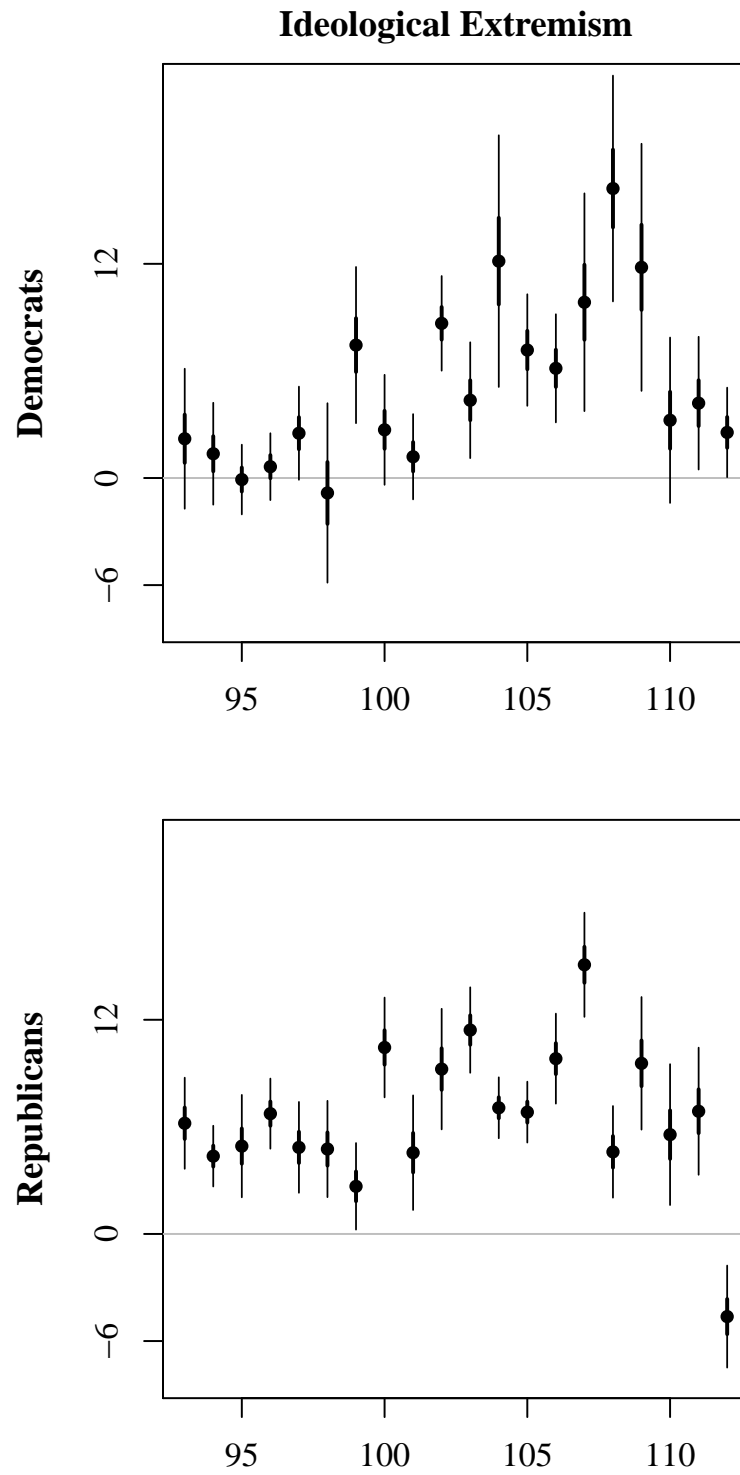


Figure 35: Senate Ideological Extremism Coefficient Plot, Election Proximity

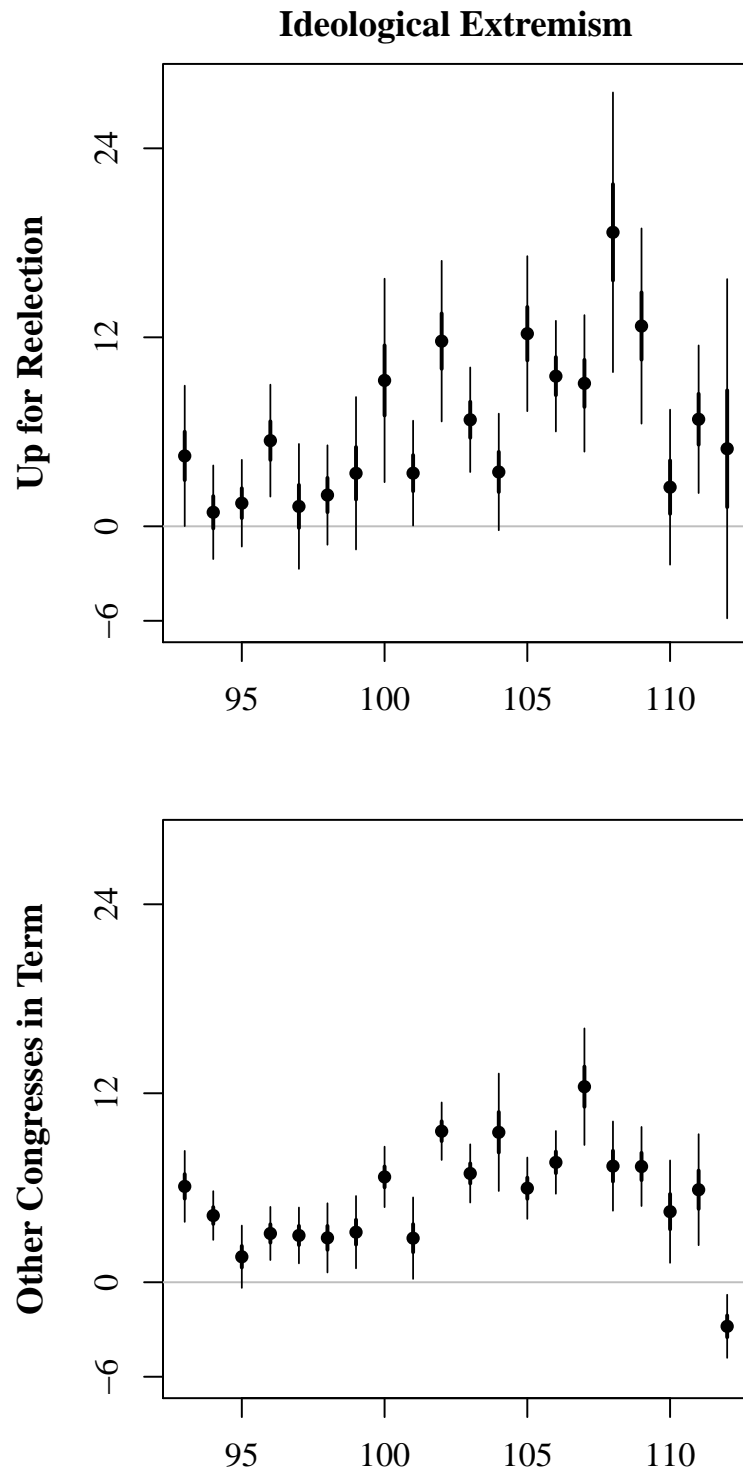


Table 11: Senate Aggregate Regression Models

| | Democrats | Republicans | Majority | Minority |
|-----------------------|----------------------|-----------------------|----------------------|---------------------|
| ideological_extremism | 3.136*** (0.409) | 7.792*** (0.357) | 4.708*** (0.315) | 7.949*** (0.400) |
| chair | 0.852 (0.543) | 3.626*** (0.700) | -0.017 (0.517) | |
| pfrate100 | 0.759*** (0.030) | 0.742*** (0.031) | 0.702*** (0.025) | 0.702*** (0.035) |
| pres_vote_share | 23.381*** (2.399) | -13.374*** (3.082) | 18.213*** (1.970) | 0.566 (3.187) |
| south | -1.690** (0.557) | 0.872 (0.578) | 0.054 (0.427) | 1.085 (0.622) |
| power_committee | -0.855 (0.772) | -0.325 (0.924) | -0.052 (0.719) | -1.468 (1.064) |
| vote_share | -5.257* (2.161) | 14.914*** (2.802) | -1.178 (2.066) | 7.599* (2.958) |
| female | 1.690* (0.730) | 0.451 (1.132) | 0.532 (0.758) | 4.256*** (1.113) |
| afam | -1.164 (2.789) | -10.789* (4.278) | 1.531 (4.184) | -5.519 (3.219) |
| latino | 1.814 (2.198) | 7.264** (2.779) | 4.781* (1.878) | 6.253 (3.506) |
| up_for_reelection | -0.630 (0.426) | -1.436** (0.538) | -0.951* (0.411) | -1.204* (0.603) |
| seniority | 0.041 (0.052) | -0.024 (0.072) | 0.077 (0.060) | 0.118 (0.070) |
| freshman | 0.769 (0.708) | 0.358 (0.842) | 0.600 (0.631) | 0.996 (1.032) |
| retiree | 1.599 (0.897) | 2.290* (0.997) | 1.816* (0.850) | 2.575* (1.110) |
| best_committee | 0.237 (0.124) | 0.008 (0.154) | 0.027 (0.118) | 0.373* (0.174) |
| leader | 2.218** (0.712) | 0.910 (0.776) | 1.441* (0.661) | 1.940* (0.899) |
| (Intercept) | 9.447** (2.906) | 18.182*** (3.489) | 16.365*** (2.644) | 10.799** (4.009) |
| R ² | 0.689 | 0.641 | 0.684 | 0.615 |
| Adj. R ² | 0.684 | 0.635 | 0.679 | 0.608 |
| Num. obs. | 1042 | 951 | 1052 | 843 |
| RMSE | 6.118 | 7.255 | 5.865 | 7.749 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 12: Senate Intra Party Division Models

| | Democrats | | Republicans | |
|-----------------------|----------------------|----------------------|----------------------|---------------------|
| | Southern | Others | Gingrich Senators | Others |
| ideological_extremism | 4.519*** (1.154) | 2.629*** (0.409) | 3.012*** (0.645) | 6.526*** (0.401) |
| south | | | 0.020 (0.707) | 1.011 (0.661) |
| pfrate100 | 0.850*** (0.065) | 0.634*** (0.035) | 0.244*** (0.050) | 0.827*** (0.034) |
| pres_vote_share | 26.709*** (5.097) | 22.988*** (2.641) | 0.574 (4.618) | -5.288 (3.425) |
| vote_share | -2.777 (3.714) | -3.334 (2.827) | 2.376 (3.508) | 9.541** (3.208) |
| latino | | 2.774 (1.968) | 2.907 (2.520) | 3.419 (3.613) |
| female | 0.215 (1.988) | 2.476*** (0.735) | | 1.921 (1.120) |
| up_for_reelection | -1.548 (1.073) | -0.343 (0.432) | -0.466 (0.698) | -1.785** (0.585) |
| seniority | -0.295* (0.140) | 0.136* (0.054) | -0.264 (0.178) | 0.139 (0.075) |
| freshman | 2.037 (1.768) | 0.699 (0.725) | -0.198 (0.967) | 0.141 (0.968) |
| retiree | 1.653 (2.255) | 1.935* (0.924) | 2.811 (1.609) | 2.406* (1.049) |
| best_committee | 0.575 (0.307) | 0.132 (0.129) | 0.081 (0.182) | 0.044 (0.177) |
| leader | 5.755* (2.307) | 1.792** (0.694) | 1.892 (1.127) | 0.965 (0.836) |
| power_committee | 0.722 (2.107) | -1.360 (0.779) | 1.075 (1.119) | -1.242 (1.058) |
| chair | 3.093* (1.400) | 0.581 (0.555) | 1.291 (1.113) | 3.690*** (0.739) |
| afam | | -1.012 (2.493) | | -7.873 (4.193) |
| (Intercept) | -6.288 (6.586) | 20.478*** (3.184) | 67.769*** (5.039) | 8.912* (3.890) |
| R ² | 0.728 | 0.571 | 0.236 | 0.678 |
| Adj. R ² | 0.713 | 0.563 | 0.174 | 0.671 |
| Num. obs. | 246 | 796 | 188 | 763 |
| RMSE | 7.334 | 5.445 | 4.067 | 7.090 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

3.2 House

Table 13:

| Statistic | N | Mean | St. Dev. | Min | Max |
|--------------------------|-------|------------|-----------|--------|---------|
| congress | 8,544 | 102.546 | 5.787 | 93 | 112 |
| icpsrLegis | 8,544 | 18,470.740 | 9,043.958 | 62 | 99,342 |
| state_cd | 8,544 | 2,455.331 | 1,433.201 | 101 | 5,001 |
| cd | 8,544 | 9.837 | 9.760 | 1 | 53 |
| dem | 8,544 | 0.555 | 0.497 | 0 | 1 |
| majority | 8,544 | 0.574 | 0.495 | 0 | 1 |
| female | 8,544 | 0.094 | 0.292 | 0 | 1 |
| afam | 8,544 | 0.063 | 0.244 | 0 | 1 |
| latino | 8,544 | 0.035 | 0.183 | 0 | 1 |
| votepct | 8,544 | 68.266 | 13.793 | 36 | 100 |
| speaker | 8,544 | 0.002 | 0.042 | 0 | 1 |
| chair | 8,544 | 0.051 | 0.219 | 0 | 1 |
| subchr | 8,544 | 0.250 | 0.433 | 0 | 1 |
| power | 8,544 | 0.255 | 0.436 | 0 | 1 |
| seniority | 8,544 | 5.331 | 4.054 | 1 | 29 |
| maj_leader | 8,544 | 0.017 | 0.130 | 0 | 1 |
| min_leader | 8,544 | 0.019 | 0.137 | 0 | 1 |
| south | 8,544 | 0.296 | 0.456 | 0 | 1 |
| les | 8,544 | 1.008 | 1.595 | 0.000 | 18.686 |
| drop | 8,544 | 0.000 | 0.000 | 0 | 0 |
| freshman | 8,544 | 0.156 | 0.363 | 0 | 1 |
| leader | 8,544 | 0.036 | 0.187 | 0 | 1 |
| fips | 8,544 | 28.080 | 15.537 | 1 | 56 |
| state_alphabetical_order | 8,544 | 24.455 | 14.349 | 1 | 50 |
| dpres | 8,544 | 48.834 | 13.950 | 13.170 | 96.060 |
| pres_votepct | 8,544 | 56.562 | 12.365 | 16.310 | 96.060 |
| bestgrosswart | 8,544 | 13.822 | 6.376 | 0 | 22 |
| party_free_ideal_point | 8,544 | -0.004 | 1.003 | -4.076 | 9.347 |
| pirate100 | 8,544 | 85.800 | 11.478 | 8.021 | 100.000 |
| pfrate100 | 8,544 | 86.955 | 7.507 | 0.000 | 100.000 |
| ideological_extremism | 8,544 | 0.603 | 0.802 | -4.317 | 9.347 |

Table 16: House Sorting Algorithm Coefficient Signs

| | (-) Ideal | (+) Ideal |
|-----------|-----------|-----------|
| (-) Party | 0.38 | 0.15 |
| (+) Party | 0.17 | 0.30 |

Table 14:

| Statistic | N | Mean | St. Dev. | Min | Max |
|--------------------------|-------|------------|-----------|--------|---------|
| congress | 4,746 | 102.059 | 5.785 | 93 | 112 |
| icpsrLegis | 4,746 | 17,626.680 | 8,603.223 | 62 | 95,415 |
| state_cd | 4,746 | 2,476.726 | 1,422.596 | 102 | 5,001 |
| cd | 4,746 | 9.596 | 9.070 | 1 | 53 |
| dem | 4,746 | 1.000 | 0.000 | 1 | 1 |
| majority | 4,746 | 0.700 | 0.458 | 0 | 1 |
| female | 4,746 | 0.114 | 0.317 | 0 | 1 |
| afam | 4,746 | 0.112 | 0.316 | 0 | 1 |
| latino | 4,746 | 0.050 | 0.217 | 0 | 1 |
| votepct | 4,746 | 70.230 | 14.571 | 36 | 100 |
| speaker | 4,746 | 0.002 | 0.041 | 0 | 1 |
| chair | 4,746 | 0.062 | 0.240 | 0 | 1 |
| subchr | 4,746 | 0.321 | 0.467 | 0 | 1 |
| power | 4,746 | 0.257 | 0.437 | 0 | 1 |
| seniority | 4,746 | 5.752 | 4.376 | 1 | 29 |
| maj_leader | 4,746 | 0.019 | 0.136 | 0 | 1 |
| min_leader | 4,746 | 0.015 | 0.122 | 0 | 1 |
| south | 4,746 | 0.289 | 0.453 | 0 | 1 |
| les | 4,746 | 1.113 | 1.702 | 0.000 | 18.686 |
| drop | 4,746 | 0.000 | 0.000 | 0 | 0 |
| freshman | 4,746 | 0.140 | 0.347 | 0 | 1 |
| leader | 4,746 | 0.034 | 0.182 | 0 | 1 |
| fips | 4,746 | 28.318 | 15.433 | 1 | 56 |
| state_alphabetical_order | 4,746 | 24.671 | 14.239 | 1 | 50 |
| dpres | 4,746 | 54.871 | 14.495 | 16.310 | 96.060 |
| pres_votepct | 4,746 | 54.846 | 14.503 | 16.310 | 96.060 |
| bestgrosswart | 4,746 | 13.832 | 6.398 | 0 | 22 |
| party_free_ideal_point | 4,746 | -0.546 | 0.809 | -4.076 | 4.317 |
| pirate100 | 4,746 | 86.290 | 12.110 | 8.021 | 100.000 |
| pfrate100 | 4,746 | 86.996 | 7.214 | 0.000 | 100.000 |
| ideological_extremism | 4,746 | 0.546 | 0.809 | -4.317 | 4.076 |

Table 15:

| Statistic | N | Mean | St. Dev. | Min | Max |
|--------------------------|-------|------------|-----------|--------|---------|
| congress | 3,798 | 103.154 | 5.732 | 93 | 112 |
| icpsrLegis | 3,798 | 19,525.480 | 9,462.085 | 226 | 99,342 |
| state_cd | 3,798 | 2,428.596 | 1,446.085 | 101 | 5,001 |
| cd | 3,798 | 10.139 | 10.553 | 1 | 52 |
| dem | 3,798 | 0.000 | 0.000 | 0 | 0 |
| majority | 3,798 | 0.416 | 0.493 | 0 | 1 |
| female | 3,798 | 0.069 | 0.254 | 0 | 1 |
| afam | 3,798 | 0.002 | 0.049 | 0 | 1 |
| latino | 3,798 | 0.016 | 0.126 | 0 | 1 |
| votepct | 3,798 | 65.812 | 12.324 | 37 | 100 |
| speaker | 3,798 | 0.002 | 0.043 | 0 | 1 |
| chair | 3,798 | 0.037 | 0.189 | 0 | 1 |
| subchr | 3,798 | 0.161 | 0.367 | 0 | 1 |
| power | 3,798 | 0.251 | 0.434 | 0 | 1 |
| seniority | 3,798 | 4.805 | 3.543 | 1 | 21 |
| maj_leader | 3,798 | 0.015 | 0.121 | 0 | 1 |
| min_leader | 3,798 | 0.024 | 0.153 | 0 | 1 |
| south | 3,798 | 0.304 | 0.460 | 0 | 1 |
| les | 3,798 | 0.876 | 1.439 | 0.000 | 17.547 |
| drop | 3,798 | 0.000 | 0.000 | 0 | 0 |
| freshman | 3,798 | 0.176 | 0.381 | 0 | 1 |
| leader | 3,798 | 0.039 | 0.193 | 0 | 1 |
| fips | 3,798 | 27.783 | 15.662 | 1 | 56 |
| state_alphabetical_order | 3,798 | 24.185 | 14.482 | 1 | 50 |
| dpres | 3,798 | 41.290 | 8.534 | 13.170 | 76.530 |
| pres_votepct | 3,798 | 58.707 | 8.537 | 23.470 | 86.830 |
| bestgrosswart | 3,798 | 13.810 | 6.349 | 0 | 22 |
| party_free_ideal_point | 3,798 | 0.674 | 0.786 | -2.473 | 9.347 |
| pirate100 | 3,798 | 85.186 | 10.605 | 31.276 | 100.000 |
| pfrate100 | 3,798 | 86.904 | 7.858 | 28.302 | 100.000 |
| ideological_extremism | 3,798 | 0.674 | 0.786 | -2.473 | 9.347 |

Figure 36: House Party Calls by Congress

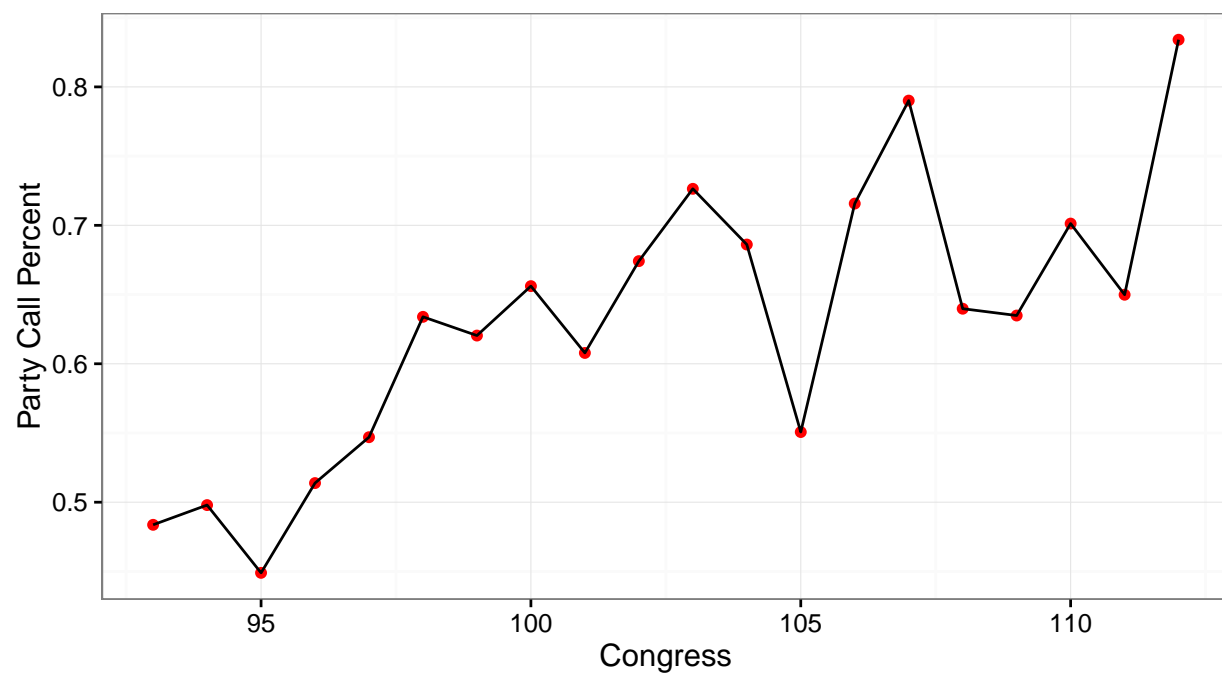


Figure 37: House Ideological Extremism Coefficient Plot, Majority

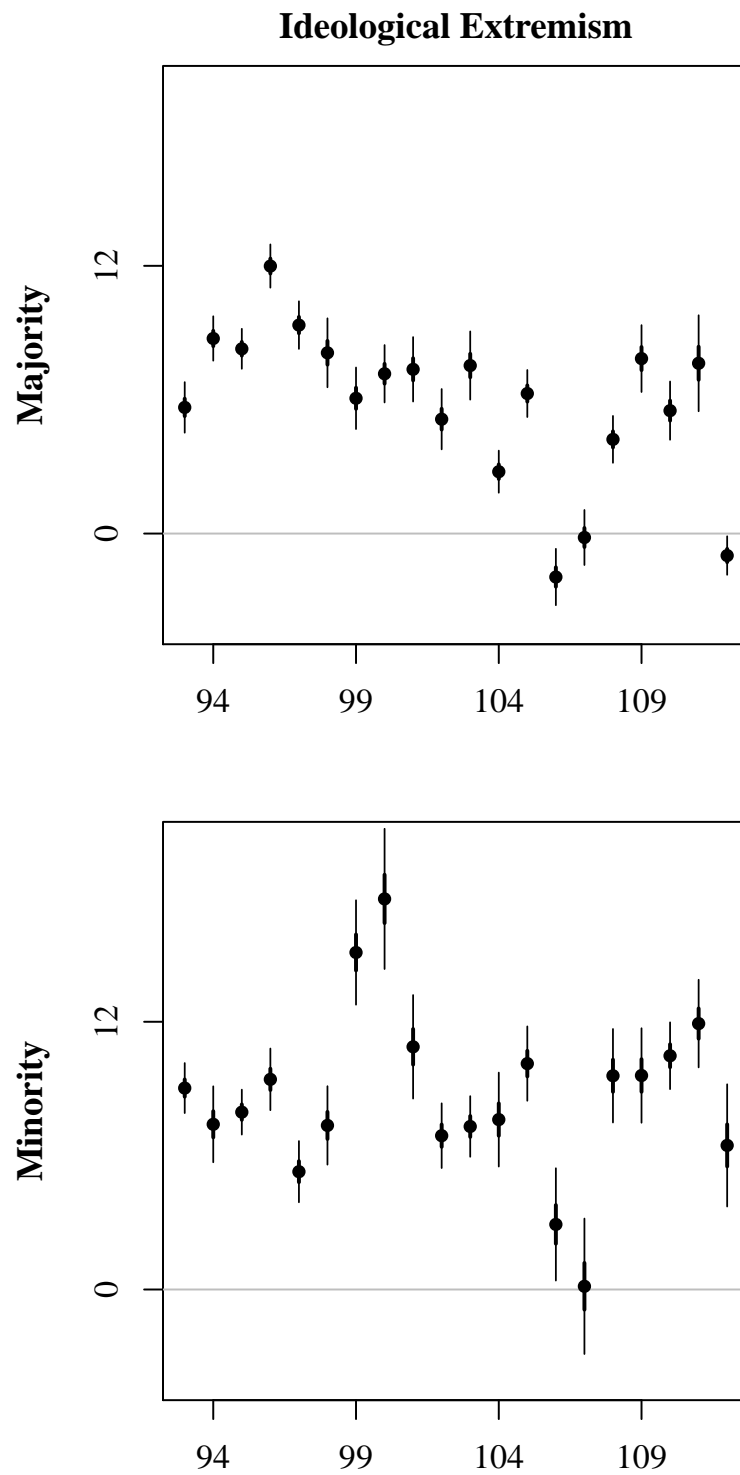


Figure 38: House Ideological Extremism Coefficient Plot, Party

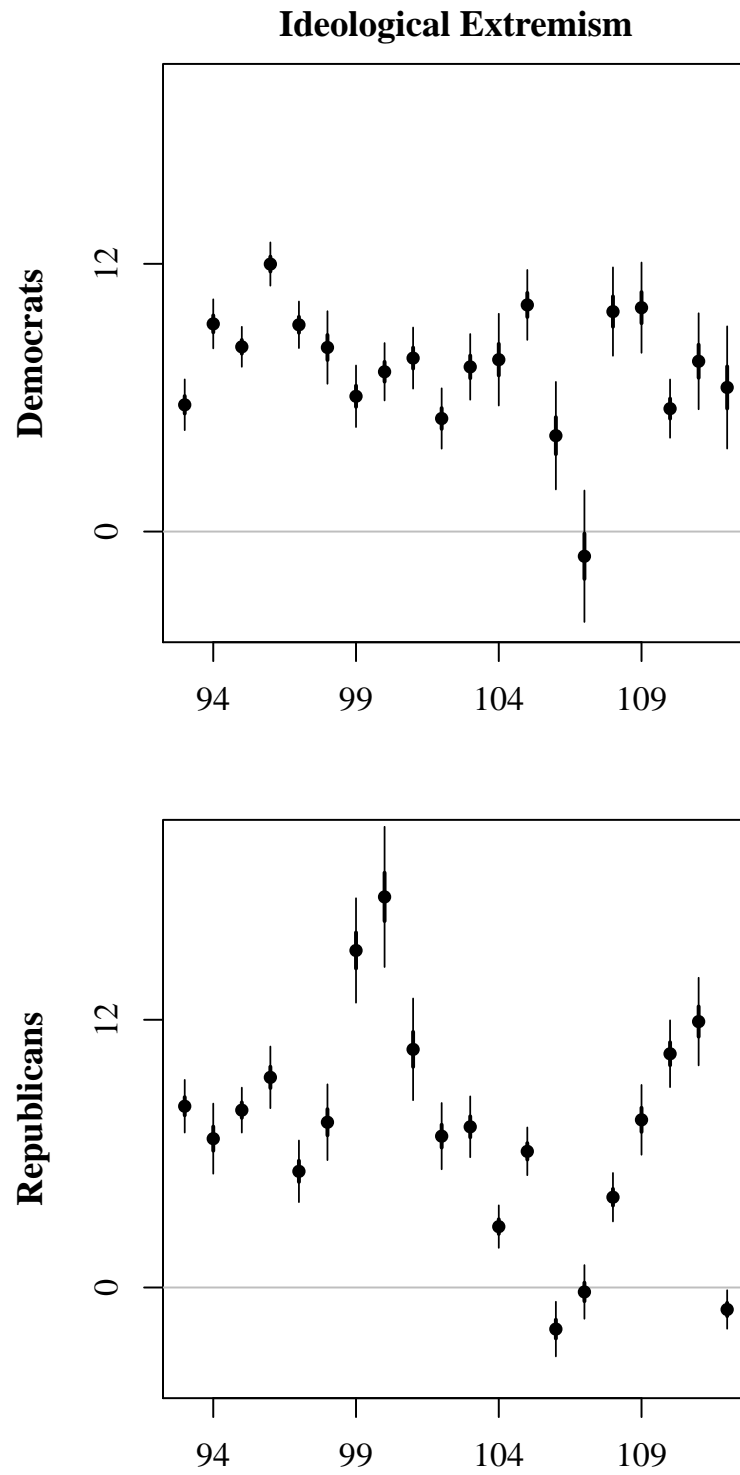


Table 17: House Aggregate Regression Models

| | Democrats | Republicans | Majority | Minority |
|-----------------------|--------------------|--------------------|--------------------|--------------------|
| ideological_extremism | 8.34*** (0.17) | 5.84*** (0.21) | 6.64*** (0.16) | 8.73*** (0.20) |
| pfrate100 | 0.64*** (0.02) | 0.41*** (0.02) | 0.52*** (0.01) | 0.63*** (0.02) |
| pres_vote_pct | 0.09*** (0.01) | -0.09*** (0.02) | 0.20*** (0.01) | 0.16*** (0.02) |
| south | -2.43*** (0.28) | 3.63*** (0.34) | -1.65*** (0.25) | -0.36 (0.31) |
| vote_pct | -0.04*** (0.01) | -0.00 (0.01) | -0.09*** (0.01) | -0.06*** (0.01) |
| female | 0.53 (0.35) | -0.08 (0.57) | -0.13 (0.40) | 2.13*** (0.44) |
| afam | -0.52 (0.44) | 5.01 (2.97) | -3.04*** (0.53) | 3.24*** (0.61) |
| latino | 1.73*** (0.51) | 2.41* (1.15) | 2.83*** (0.63) | 3.02*** (0.70) |
| seniority | 0.05 (0.03) | -0.33*** (0.05) | 0.02 (0.03) | 0.00 (0.04) |
| freshman | -0.07 (0.36) | 1.00* (0.46) | 0.28 (0.35) | -0.39 (0.44) |
| bestgrosswart | -0.04* (0.02) | -0.24*** (0.03) | -0.17*** (0.02) | -0.16*** (0.02) |
| leader | 1.96** (0.60) | 2.80*** (0.76) | 2.62*** (0.65) | 1.79** (0.65) |
| power | 1.82*** (0.28) | 2.95*** (0.37) | 3.02*** (0.27) | 1.06** (0.36) |
| chair | 2.49*** (0.50) | 9.85*** (0.80) | 1.85*** (0.44) | |
| (Intercept) | 24.00*** (1.58) | 53.04*** (2.21) | 36.42*** (1.49) | 17.78*** (2.05) |
| R ² | 0.63 | 0.30 | 0.57 | 0.48 |
| Adj. R ² | 0.63 | 0.30 | 0.56 | 0.48 |
| Num. obs. | 4746 | 3798 | 4902 | 3642 |
| RMSE | 7.36 | 8.87 | 7.55 | 8.01 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 18: Minozzi Volden (2013) Table 3 Replication

| Congress: | Democrats | | | Republicans | | |
|-----------------------|--------------------|--------------------|-------------------|-------------------|--------------------|---------------------|
| | 97 | 102 | 107 | 97 | 102 | 107 |
| ideological_extremism | 9.27*** (0.53) | 5.07*** (0.69) | -1.11 (1.50) | 5.21*** (0.71) | 6.78*** (0.76) | -0.20 (0.61) |
| pfrate100 | 1.03*** (0.07) | 0.67*** (0.08) | 1.11** (0.36) | 0.50*** (0.08) | 0.48*** (0.08) | 0.35** (0.11) |
| pres_vote_pct | 0.15** (0.05) | 0.14** (0.05) | 0.22*** (0.06) | 0.23*** (0.07) | 0.21* (0.08) | 0.18*** (0.03) |
| south | -4.20*** (1.02) | -1.31 (0.80) | -3.13* (1.28) | 1.53 (1.19) | 0.07 (1.22) | 1.75*** (0.52) |
| vote_pct | -0.08* (0.03) | -0.03 (0.03) | -0.04 (0.05) | 0.05 (0.05) | -0.00 (0.03) | -0.03 (0.02) |
| female | 0.05 (2.06) | -1.58 (1.22) | 2.44* (1.21) | -4.21* (2.00) | -1.87 (2.25) | -1.39 (0.83) |
| afam | -2.56 (2.12) | -1.98 (1.58) | -1.43 (1.73) | | 3.95 (6.14) | -3.54 (3.57) |
| latino | 4.02 (2.91) | 2.79 (1.90) | 0.69 (1.89) | -1.28 (5.75) | 3.26 (6.35) | 0.79 (1.50) |
| seniority | 0.08 (0.12) | 0.07 (0.10) | -0.11 (0.13) | -0.02 (0.17) | -0.71*** (0.15) | -0.17* (0.08) |
| freshman | -1.25 (1.43) | 0.01 (1.19) | -0.13 (2.02) | 3.45* (1.34) | 3.76* (1.77) | 0.59 (0.78) |
| bestgrosswart | 0.09 (0.08) | -0.06 (0.08) | 0.25* (0.10) | 0.11 (0.09) | 0.11 (0.11) | 0.17** (0.05) |
| leader | 7.02* (2.87) | 2.00 (1.95) | 0.56 (2.42) | 0.38 (2.42) | 4.26 (2.24) | 3.17* (1.23) |
| power | 1.09 (1.02) | 1.44 (0.90) | -1.23 (1.31) | -1.37 (1.35) | -0.03 (1.41) | -0.21 (0.63) |
| chair | 2.61 (1.52) | 1.31 (1.35) | | | | 1.30 (0.91) |
| (Intercept) | -18.03** (6.71) | 25.29*** (7.32) | -33.70 (35.43) | 11.17 (8.06) | 23.11** (8.49) | 47.81*** (10.27) |
| R ² | 0.82 | 0.65 | 0.36 | 0.54 | 0.61 | 0.52 |
| Adj. R ² | 0.80 | 0.64 | 0.31 | 0.50 | 0.58 | 0.49 |
| Num. obs. | 233 | 263 | 209 | 187 | 162 | 217 |
| RMSE | 5.47 | 4.97 | 6.39 | 5.62 | 5.86 | 3.26 |

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$