Update: 13 December 2016

For this week, I got the Senate data compiled and used it to make figures and tables. I allow the figures to account for individual congresses and use the tables to show aggregate results for majority/minority and Democrat/Republican. These are Tables 1-6 and figures 1-3. I further added tables for the emIRT only specification for the House. These are Tables 7 and 8. Additionally, I have restructured the House plots so that they will contain all coefficients and confidence intervals. The new plots for the House are Figures 4-6

What I found when going over the Senate data is that for Democrats, ideological extremism in the emIRT model ranges from approximately -6.5 to approximately 6.5. The other model specifications have this as an entirely negative value. It's likely that this has to do with the bit of code we added to ensure that the ideological scores for Democrats were less than those for Republicans. For this reason, in the tables and figures which have random reassignment of "flip flop" votes or the "hybrid" model specification, ideological extremism is higher for Democrats in increasingly negative values and in increasingly positive values for Republicans. I would need to do far more digging into the data to express with utmost confidence how we ought to interpret Democrat ideological extremism in the emIRT only model.

	Democrat	Republican
$ideological\_extremism$	1.090***	4.682***
	(0.277)	(0.413)
vote_share:pres_vote_share	-35.560	60.472
	(23.978)	(35.042)
responsiveness_noncalls	$0.765^{***}$	0.869***
	(0.041)	(0.040)
vote_share	5.991	-20.610
	(12.028)	(20.857)
pres_vote_share	51.177**	$-46.219^*$
	(15.516)	(21.565)
chair	0.847	$1.981^*$
	(0.711)	(0.815)
south13	-1.715**	$1.441^{*}$
	(0.623)	(0.639)
female	1.978*	0.157
	(0.923)	(1.219)
afam	3.366	$-11.453^*$
	(3.373)	(4.706)
latino	1.316	2.806
	(3.326)	(4.000)
$up\_for\_reelection$	-0.743	-1.509**
	(0.511)	(0.578)
seniority	-0.036	$0.245^{**}$
	(0.073)	(0.090)
freshman	-1.915**	$2.875^{***}$
	(0.714)	(0.848)
retiree	-3.037	0.656
	(3.783)	(4.000)
$best\_committee$	-0.059	0.170
	(0.159)	(0.182)
leader	2.932**	0.811
	(0.889)	(0.861)
$power\_committee$	-0.092	1.396
	(0.969)	(1.040)
(Intercept)	$7.999^{'}$	-0.875
/	(9.166)	(13.353)
$\mathbb{R}^2$	0.541	0.535
$Adj. R^2$	0.533	0.526
Num. obs.	981	902
RMSE	7.389	7.882
*** .0.001 ** .0.01 * .0.05		

<sup>\*\*\*</sup>p < 0.001, \*\*p < 0.01, \*p < 0.05

Table 1: Senate emIRT Party Calls

	Majority Party	Minority Party
ideological_extremism	1.090***	4.682***
G	(0.277)	(0.413)
vote_share:pres_vote_share	-35.560	60.472
•	(23.978)	(35.042)
responsiveness_noncalls	0.765***	0.869***
•	(0.041)	(0.040)
vote_share	$5.991^{'}$	-20.610
	(12.028)	(20.857)
pres_vote_share	51.177**	$-46.219^*$
	(15.516)	(21.565)
chair	0.847	1.981*
	(0.711)	(0.815)
south13	-1.715**	1.441*
	(0.623)	(0.639)
female	1.978*	0.157
	(0.923)	(1.219)
afam	3.366	$-11.453^*$
	(3.373)	(4.706)
latino	1.316	2.806
	(3.326)	(4.000)
$up\_for\_reelection$	-0.743	-1.509**
	(0.511)	(0.578)
seniority	-0.036	$0.245^{**}$
	(0.073)	(0.090)
freshman	$-1.915^{**}$	$2.875^{***}$
	(0.714)	(0.848)
retiree	-3.037	0.656
	(3.783)	(4.000)
best_committee	-0.059	0.170
	(0.159)	(0.182)
leader	2.932**	0.811
	(0.889)	(0.861)
power_committee	-0.092	1.396
4-	(0.969)	(1.040)
(Intercept)	7.999	-0.875
	(9.166)	(13.353)
$\mathbb{R}^2$	0.541	0.535
$Adj. R^2$	0.533	0.526
Num. obs.	981	902
RMSE	7.389	7.882

<sup>\*\*\*</sup>p < 0.001, \*\*p < 0.01, \*p < 0.05

Table 2: Senate emIRT Party Calls

	Democrat	Republican
$ideological\_extremism$	-3.963***	1.047**
	(0.742)	(0.339)
vote_share:pres_vote_share	-6.289	-43.542
	(23.066)	(32.976)
$responsiveness\_noncalls$	0.833***	0.948***
	(0.037)	(0.028)
$vote\_share$	-0.814	28.831
_	(11.574)	(19.634)
$pres\_vote\_share$	34.210*	25.659
_	(14.987)	(20.200)
chair	$-1.845^{**}$	-3.119***
	(0.699)	(0.767)
south13	$-3.968^{***}$	-0.026
	(0.662)	(0.606)
female	-0.389	0.419
	(0.895)	(1.138)
afam	4.232	-8.500
	(3.273)	(4.405)
latino	1.804	-6.779
	(3.238)	(3.770)
$up\_for\_reelection$	-0.602	-0.164
	(0.496)	(0.547)
seniority	-0.015	0.142
	(0.071)	(0.085)
freshman	-0.679	0.479
	(0.697)	(0.807)
retiree	-2.201	1.475
	(3.661)	(3.772)
$best\_committee$	-0.074	0.273
	(0.154)	(0.171)
leader	-1.444	$0.390^{'}$
	(0.867)	(0.814)
power_committee	$0.388^{'}$	1.306
-	(0.940)	(0.980)
(Intercept)	-16.227	-20.011
• /	(9.423)	(12.232)
$\overline{\mathbb{R}^2}$	0.632	0.657
$Adj. R^2$	0.626	0.650
Num. obs.	980	902
RMSE	7.171	7.433
*** $p < 0.001$ , ** $p < 0.01$ , * $p < 0.05$		

<sup>\*\*\*</sup>p < 0.001, \*\*p < 0.01, \*p < 0.05

Table 3: Senate Party Calls, Randomly Reassign Flip Flop Votes

	Majority Party	Minority Party
ideological_extremism	-3.963***	1.047**
	(0.742)	(0.339)
vote_share:pres_vote_share	-6.289	-43.542
	(23.066)	(32.976)
responsiveness_noncalls	0.833***	0.948***
_	(0.037)	(0.028)
vote_share	-0.814	28.831
	(11.574)	(19.634)
pres_vote_share	34.210*	$25.659^{'}$
	(14.987)	(20.200)
chair	-1.845**	-3.119****
	(0.699)	(0.767)
south13	-3.968***	-0.026
	(0.662)	(0.606)
female	-0.389	0.419
	(0.895)	(1.138)
afam	4.232	-8.500
	(3.273)	(4.405)
latino	1.804	-6.779
	(3.238)	(3.770)
$up\_for\_reelection$	-0.602	-0.164
	(0.496)	(0.547)
seniority	-0.015	0.142
	(0.071)	(0.085)
freshman	-0.679	0.479
	(0.697)	(0.807)
retiree	-2.201	1.475
	(3.661)	(3.772)
$best\_committee$	-0.074	0.273
	(0.154)	(0.171)
leader	-1.444	0.390
	(0.867)	(0.814)
$power\_committee$	0.388	1.306
	(0.940)	(0.980)
(Intercept)	-16.227	-20.011
	(9.423)	(12.232)
$\mathbb{R}^2$	0.632	0.657
$Adj. R^2$	0.626	0.650
Num. obs.	980	902
RMSE	7.171	7.433
**** 0.004 ** 0.04 *		

<sup>\*\*\*</sup> p < 0.001, \*\*p < 0.01, \*p < 0.05

Table 4: Senate Party Calls, Randomly Reassign Flip Flop Votes

	Democrat	Republican
ideological_extremism	-3.954***	1.081**
G	(0.743)	(0.349)
vote_share:pres_vote_share	-7.781	-39.437
1	(23.158)	(33.943)
responsiveness_noncalls	0.847***	0.949***
•	(0.037)	(0.029)
vote_share	$0.341^{'}$	27.633
	(11.620)	(20.209)
pres_vote_share	$35.232^{*}$	21.462
-	(15.046)	(20.791)
chair	$-1.811^{*}$	-3.526***
	(0.702)	(0.789)
south13	$-3.967^{***}$	0.090
	(0.664)	(0.623)
female	-0.487	0.973
	(0.899)	(1.171)
afam	4.186	-8.336
	(3.286)	(4.534)
latino	1.450	-6.362
	(3.250)	(3.880)
$up\_for\_reelection$	-0.585	-0.164
	(0.498)	(0.563)
seniority	-0.025	0.194*
	(0.071)	(0.087)
freshman	-0.671	0.824
	(0.700)	(0.831)
retiree	-1.916	1.002
	(3.676)	(3.883)
$best\_committee$	-0.080	0.266
	(0.155)	(0.176)
leader	-1.489	0.322
	(0.870)	(0.838)
$power\_committee$	0.355	1.463
(7	(0.943)	(1.008)
(Intercept)	-18.053	-19.064
	(9.457)	(12.591)
$\mathbb{R}^2$	0.636	0.645
$Adj. R^2$	0.629	0.638
Num. obs.	980	902
RMSE	7.200	7.651

<sup>\*\*\*</sup>p < 0.001, \*\*p < 0.01, \*p < 0.05

Table 5: Senate Party Calls, Hybrid

	Majority Party	Minority Party
ideological_extremism	-3.954***	1.081**
	(0.743)	(0.349)
vote_share:pres_vote_share	-7.781	-39.437
	(23.158)	(33.943)
responsiveness_noncalls	0.847***	0.949***
	(0.037)	(0.029)
vote_share	0.341	27.633
	(11.620)	(20.209)
pres_vote_share	35.232*	21.462
	(15.046)	(20.791)
chair	$-1.811^*$	-3.526***
	(0.702)	(0.789)
south13	$-3.967^{***}$	0.090
	(0.664)	(0.623)
female	-0.487	0.973
	(0.899)	(1.171)
afam	4.186	-8.336
	(3.286)	(4.534)
latino	1.450	-6.362
	(3.250)	(3.880)
up_for_reelection	-0.585	-0.164
	(0.498)	(0.563)
seniority	-0.025	0.194*
	(0.071)	(0.087)
freshman	-0.671	0.824
	(0.700)	(0.831)
retiree	-1.916	1.002
	(3.676)	(3.883)
$best\_committee$	-0.080	0.266
	(0.155)	(0.176)
leader	-1.489	0.322
	(0.870)	(0.838)
$power\_committee$	0.355	1.463
	(0.943)	(1.008)
(Intercept)	-18.053	-19.064
	(9.457)	(12.591)
$\mathbb{R}^2$	0.636	0.645
$Adj. R^2$	0.629	0.638
Num. obs.	980	902
RMSE	7.200	7.651

<sup>\*\*\*</sup>p < 0.001, \*\*p < 0.01, \*p < 0.05

Table 6: Senate Party Calls, Hybrid

	Dem 97	Dem 102	Dem 107	Rep 97	Rep 102	Rep 107
(Intercept)	-4.94	46.05*	68.98***	-26.09***	-50.72***	52.85***
	(5.46)	(21.36)	(6.70)	(7.26)	(11.86)	(4.38)
$new\_ideological\_extremism$	1.50***	13.77***	7.68***	8.80***	$6.48^{***}$	3.52***
	(0.42)	(2.28)	(0.82)	(0.63)	(1.19)	(0.51)
$new\_pfrate100$	1.02***	1.01***	$0.65^{***}$	$0.60^{***}$	1.12***	$0.32^{***}$
	(0.05)	(0.13)	(0.06)	(0.05)	(0.09)	(0.02)
$dpres\_pct$	$0.11^{**}$	$0.11^{*}$	-0.05	-0.06	-0.12	-0.13***
	(0.04)	(0.05)	(0.04)	(0.05)	(0.07)	(0.02)
south.x	-4.15***	-4.86***	1.10	-1.50	$2.54^{*}$	$-0.95^{**}$
	(0.84)	(0.87)	(0.96)	(0.92)	(1.04)	(0.33)
votepct.x	-0.04	-0.05	0.01	0.08*	0.00	-0.04**
	(0.03)	(0.03)	(0.04)	(0.04)	(0.03)	(0.02)
female.x	-0.74	0.37	-0.76	-2.40	0.08	-1.28**
	(1.81)	(1.36)	(0.92)	(1.56)	(1.92)	(0.48)
afam.x	1.85	-2.29	0.31		0.34	1.88
	(1.83)	(1.75)	(1.29)		(5.17)	(2.16)
latino.x	2.38	2.51	-0.11	2.63	-5.27	1.61
	(2.56)	(2.12)	(1.39)	(4.46)	(5.38)	(0.87)
seniority.x	-0.08	0.11	$-0.24^{*}$	0.13	0.18	-0.04
	(0.11)	(0.11)	(0.10)	(0.13)	(0.14)	(0.05)
freshman.x	-0.66	0.63	0.68	$4.01^{***}$	1.99	-0.03
	(1.27)	(1.33)	(1.50)	(1.04)	(1.55)	(0.47)
retiree	0.08	0.62	-0.23	1.27	-0.34	-1.00
	(1.45)	(1.03)	(1.89)	(1.46)	(1.02)	(0.64)
bestgrosswart	0.09	0.10	$0.16^{*}$	0.09	-0.04	$0.08^{*}$
	(0.08)	(0.09)	(0.08)	(0.07)	(0.11)	(0.04)
leader.x	3.60	-1.92	1.72	0.81	-1.16	0.24
	(2.54)	(2.25)	(1.81)	(1.89)	(1.93)	(0.73)
power.x	1.75	1.23	-1.58	-3.11**	0.05	0.17
	(0.95)	(1.03)	(1.00)	(1.05)	(1.22)	(0.37)
chair.x	2.38	0.90	4.53		-0.11	0.37
	(1.34)	(1.52)	(5.17)		(5.09)	(0.53)
$R^2$	0.82	0.79	0.63	0.75	0.74	0.69
$Adj. R^2$	0.81	0.78	0.60	0.73	0.71	0.67
Num. obs.	229	261	207	185	159	211
RMSE	4.78	5.50	4.75	4.36	4.94	1.89

<sup>\*\*\*</sup>p < 0.001, \*\*p < 0.01, \*p < 0.05

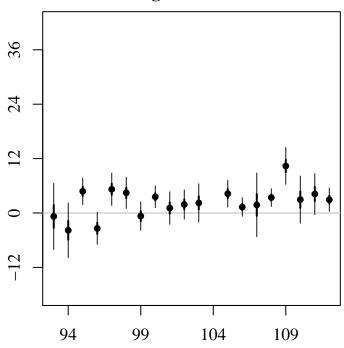
Table 7: Who Heeds Table 3, emIRT House Party Calls

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Democrat	Republican
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(Intercept)	16.10***	$-4.42^*$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(2.20)	(2.19)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$new\_ideological\_extremism$	3.65***	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.21)	(0.25)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$new_pfrate100$		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.02)	(0.02)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$dpres\_pct$		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.01)	(0.02)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	south.x		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		(0.27)	(0.30)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	votepct.x		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.01)	(0.01)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	female.x	$0.80^{*}$	-1.44**
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.38)	(0.52)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	afam.x	0.32	-2.06
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		(0.45)	(2.67)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	latino.x	-0.62	0.63
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		(0.55)	(1.07)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	seniority.x	-0.10**	-0.09
retiree		(0.03)	(0.05)
retiree $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	freshman.x	0.13	0.72
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		(0.36)	(0.41)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	retiree	-0.87	-0.44
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.49)	(0.54)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	bestgrosswart	$0.07^{*}$	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		(0.03)	(0.03)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	leader.x	0.95	1.20
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		(0.66)	(0.67)
$\begin{array}{cccc} chair.x & 2.69^{***} & 2.76^{***} \\ \hline & (0.50) & (0.71) \\ \hline R^2 & 0.69 & 0.58 \\ Adj. \ R^2 & 0.69 & 0.58 \\ Num. \ obs. & 3982 & 3140 \\ \end{array}$	power.x	1.13***	-0.35
$\begin{array}{cccc} chair.x & 2.69^{***} & 2.76^{***} \\ \hline & (0.50) & (0.71) \\ \hline R^2 & 0.69 & 0.58 \\ Adj. \ R^2 & 0.69 & 0.58 \\ Num. \ obs. & 3982 & 3140 \\ \end{array}$		(0.31)	(0.37)
$\begin{array}{cccc} R^2 & 0.69 & 0.58 \\ Adj. \ R^2 & 0.69 & 0.58 \\ Num. \ obs. & 3982 & 3140 \end{array}$	chair.x	2.69***	2.76***
Adj. R² 0.69 0.58   Num. obs. 3982 3140		(0.50)	(0.71)
Num. obs. 3982 3140	$\mathbb{R}^2$	0.69	0.58
	$Adj. R^2$	0.69	0.58
RMSE 6.71 7.01	Num. obs.	3982	3140
	RMSE	6.71	7.01

<sup>\*\*\*</sup>p < 0.001, \*\*p < 0.01, \*p < 0.05

Table 8: Aggregate Results, emIRT House Party Calls

Figure 1: Figure 2 - Senate em<br/>IRT Only



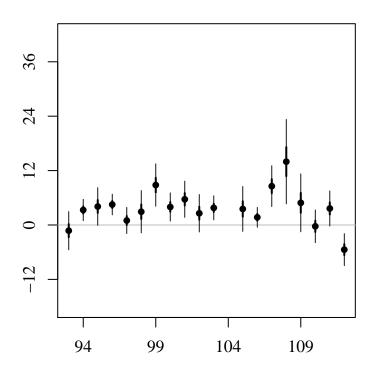
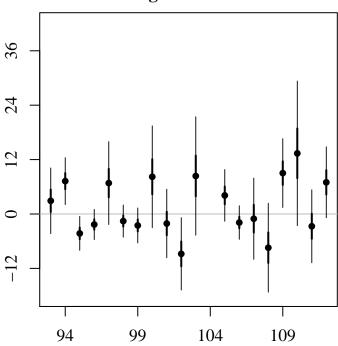


Figure 2: Figure 2 - Senate Randomly Reassign Flip Flop Votes



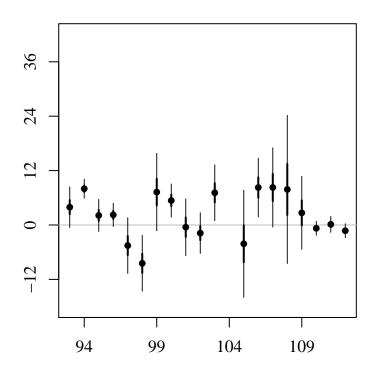
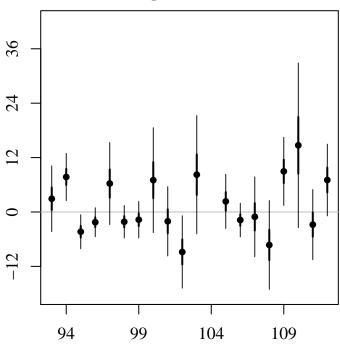


Figure 3: Figure 2 - Senate Hybrid



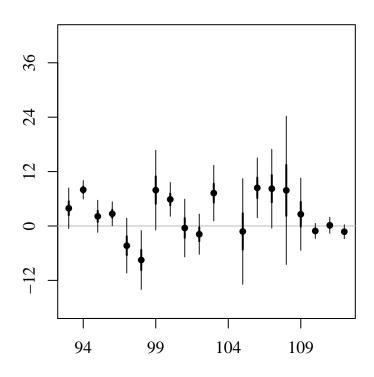
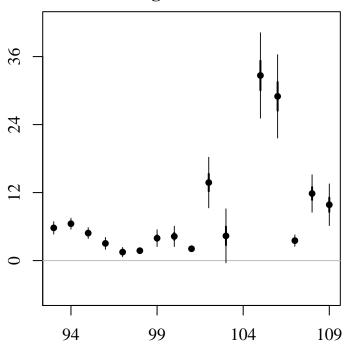


Figure 4: Figure 2 - House em<br/>IRT Only



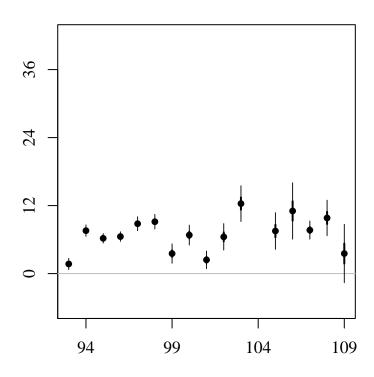
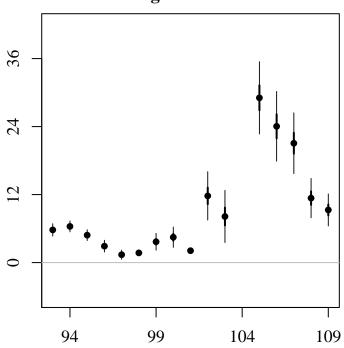


Figure 5: Figure 2 - House Randomly Reassign Flip Flop Votes



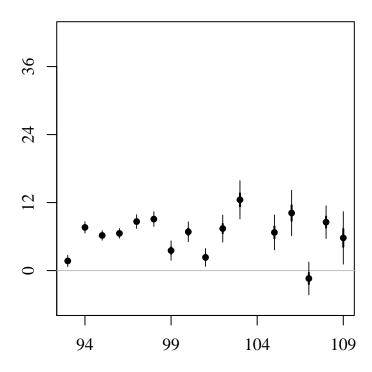


Figure 6: Figure 2 - House Hybrid

