

Update: 17 January 2017

My primary focus this week was in the House and Senate variables used in our data and getting vote coding summaries, primarily focusing the Senate data. At present, the tests I have created to highlight errors in our covariates have not called my attention to anything, but in case we have errors I will seek to continue updating and improving upon these. Further, manually producing summary statistics (rather than using a function to produce a  $\text{\LaTeX}$  table of them with minimal input) for the Ideological Extremism and Party Free Ideal Rate variables produced the resulting mean and standard deviations that we would expect by party. For this reason I will avoid using the function I used to produce the previous summary stat tables going forward.

What I think we ought to discuss at greater length is the discrepancy between past coding methods (either earlier emIRT algorithms employed by William and I, or the 2013 House numbers) and those we are currently getting. In doing so, we should consider what changes we have made leading to the current algorithms. We should especially pay attention to if we want to stick with the present methods for all, modify the base emIRT Only algorithm to better match the results of the 2013 paper for the House and apply this to the Senate, or try other modifications which we have discussed or considered along the way.

Below I include tables with the vote coding summaries for the present Senate emIRT Only algorithm, the Senate emIRT algorithm William and I were working from over the Summer, the House emIRT Only algorithm, the House “Flip Flop Reassignment” algorithm, and the House “Hybrid” algorithm in that order. For each of these I provide tables for all congresses as well as separate tables for Democrat and Republican majority congresses, each of these containing aggregate summary stats. I additionally include a table breaking down the sorting by close and lopsided votes, similar to that found in Table 1 of the 2013 paper.

What I have found is that our current base level algorithm specification is sorting a lower percentage of votes as Party Calls than were the original Senate sorting algorithm or the 2013 House sorting algorithm.

I have nearly completed the House analyses, but in the interest of not producing too overwhelming a memo or sending it out too late for you to have a chance to look at it I will end here. If you would like, I can send these to you before or during our meeting tomorrow.

Table 1: Senate Coding Summary, emIRT Only

Congress	Party Calls	Noncalls	Gray
93	205	737	2
94	230	866	0
95	151	837	1
96	211	674	1
97	218	545	13
98	139	400	1
99	88	546	2
100	128	469	7
101	92	395	1
102	74	382	4
103	62	557	2
104	81	706	4
105	31	433	2
106	57	453	4
107	19	422	2
108	29	467	3
109	43	461	2
110	28	492	3
111	49	552	4
112	28	364	0
Total:	1963	10758	58
Mean:	98.2	537.9	2.9
sd:	71.1	150.0	2.9

Table 17: House Coding Summary, Hybrid

Congress	Party Calls	Noncalls	Grays
93	456	505	5
94	535	581	10
95	534	784	2
96	480	646	3
97	281	422	9
98	364	447	4
99	251	538	5
100	247	549	6
101	256	514	7
102	298	402	104
103	367	434	185
104	501	666	40
105	348	596	45
106	312	548	74
107	241	426	44
108	317	498	67
109	371	466	93
110	482	895	51
111	249	739	48
112	426	973	58

Table 2: Senate Coding Summary, emIRT Only, Democrat Majority Congresses

Congress	Party Calls	Noncalls	Gray
93	205	737	2
94	230	866	0
95	151	837	1
96	211	674	1
100	128	469	7
101	92	395	1
102	74	382	4
103	62	557	2
110	28	492	3
111	49	552	4
112	28	364	0
Total:	1258	6325	25
Mean:	114.4	575.0	2.3
sd:	75.2	179.6	2.1

Table 18: House Coding Summary, Hybrid, Democrat Majority

Congress	Party Calls	Noncalls	Grays
93	456	505	5
94	535	581	10
95	534	784	2
96	480	646	3
97	281	422	9
98	364	447	4
99	251	538	5
100	247	549	6
101	256	514	7
102	298	402	104
103	367	434	185
110	482	895	51
111	249	739	48
Total:	4800	7456	439
Mean:	369.2	573.5	33.8
sd:	114.1	152.3	54.4

Table 3: Senate Coding Summary, emIRT Only, Republican Majority Congresses

Congress	Party Calls	Noncalls	Gray
97	218	545	13
98	139	400	1
99	88	546	2
104	81	706	4
105	31	433	2
106	57	453	4
108	29	467	3
109	43	461	2
Total:	686	4011	31
Mean:	85.8	501.4	3.9
sd:	64.6	97.0	3.8

Table 4: Senate Coding Summary, emIRT Only, Lopsided Votes

	Party Calls	Noncalls	Gray	Total
Lopsided Votes	647	5009	30	5686
Close Votes	1316	5749	28	7093

Table 19: House Coding Summary, Hybrid, Republican Majority

Congress	Party Calls	Noncalls	Grays
104	501	666	40
105	348	596	45
106	312	548	74
107	241	426	44
108	317	498	67
109	371	466	93
112	426	973	58
Total:	2516	4173	421
Mean:	359.4	596.1	60.1
sd:	84.5	184.7	19.2

Table 5: Senate Coding Summary, Old emIRT Only

Congress	Party	Calls	Noncalls	Grays
93		411	726	1
94		456	852	3
95		332	820	4
96		411	642	1
97		464	497	5
98		313	346	4
99		306	432	2
100		355	443	1
101		259	378	1
102		278	270	2
103		395	326	3
104		518	394	7
105		295	314	3
106		376	289	7
107		282	346	5
108		381	294	0
109		323	315	7
110		333	321	3
111		487	206	3
112		275	203	8
Total:		7250	8414	70
Mean:		362.5	420.7	3.5
sd:		76.3	191.8	2.4

Table 6: Senate Coding Summary, Old emIRT Only, Democrat Majority Congresses

Congress	Party Calls	Noncalls	Gray
93	411	726	1
94	456	852	3
95	332	820	4
96	411	642	1
100	355	443	1
101	259	378	1
102	278	270	2
103	395	326	3
110	333	321	3
111	487	206	3
112	275	203	8
Total:	3992	5187	30
Mean:	362.9	471.5	2.7
sd:	75.7	244.3	2.1

Table 7: Senate Coding Summary, Old emIRT Only, Republican Majority Congresses

Congress	Party Calls	Noncalls	Gray
97	464	497	5
98	313	346	4
99	306	432	2
104	518	394	7
105	295	314	3
106	376	289	7
108	381	294	0
109	323	315	7
Total:	2976	2881	35
Mean:	372	360.125	4.4
sd:	81.1	74.5	2.6

Table 8: Senate Coding Summary, Old emIRT Only, Lopsided Votes

	Party Calls	Noncalls	Gray	Total
Lopsided Votes	2054	6540	46	8640
Close Votes	5196	1874	24	7094

Table 9: House Coding Summary, emIRT Only

Congress	Party Calls	Noncalls	Gray
93	451	510	5
94	526	595	5
95	530	787	3
96	470	654	5
97	279	419	14
98	329	462	24
99	250	536	8
100	245	547	10
101	256	514	7
102	257	385	162
103	292	422	272
104	494	656	57
105	336	588	65
106	244	485	205
107	126	299	286
108	257	479	146
109	286	450	194
110	460	920	48
111	209	727	100
112	292	933	232
Total:	6589	11368	1848
Mean:	329.5	568.4	92.4
sd:	116.4	169.2	99.2

Table 10: House Coding Summary, emIRT Only, Democrat Majority Congresses

Congress	Party Calls	Noncalls	Gray
93	451	510	5
94	526	595	5
95	530	787	3
96	470	654	5
97	279	419	14
98	329	462	24
99	250	536	8
100	245	547	10
101	256	514	7
102	257	385	162
103	292	422	272
110	460	920	48
111	209	727	100
Total:	4554	7478	663
Mean:	350.3	575.2	51.0
sd:	118.1	158.3	81.5

Table 11: House Coding Summary, emIRT Only, Republican Majority Congresses

Congress	Party Calls	Noncalls	Gray
104	494	656	57
105	336	588	65
106	244	485	205
107	126	299	286
108	257	479	146
109	286	450	194
112	292	933	232
Total:	2035	3890	1185
Mean:	290.7	555.7	169.3
sd:	110.9	200.6	85.1

Table 12: House Coding Summary, emIRT Only, Lopsided Votes

	Party Calls	Noncalls	Gray	Total
Lopsided Votes	2496	5900	980	9376
Close Votes	4093	5468	868	10429



Table 13: House Coding Summary, Reassign Flip Flop

Congress	Party Calls	Noncalls	Grays
93	451	510	5
94	527	595	4
95	530	788	2
96	469	654	6
97	278	422	12
98	336	469	10
99	249	538	7
100	245	549	8
101	256	515	6
102	304	398	102
103	368	434	184
104	498	681	28
105	356	594	39
106	300	538	96
107	245	423	43
108	314	503	65
109	370	464	96
110	473	899	56
111	243	729	64
112	385	982	90
Total:	7197	11685	923
Mean	359.9	584.3	46.2
sd:	99.7	161.2	48.3

Table 14: House Coding Summary, Reassign Flip Flop, Democrat Majority

Congress	Party Calls	Noncalls	Grays
93	451	510	5
94	527	595	4
95	530	788	2
96	469	654	6
97	278	422	12
98	336	469	10
99	249	538	7
100	245	549	8
101	256	515	6
102	304	398	102
103	368	434	184
110	473	899	56
111	243	729	64
Total:	4729	7500	466
Mean:	363.8	576.9	35.8
sd:	111.8	151.8	54.2

Table 15: House Coding Summary, Reassign Flip Flop, Republican Majority

Congress	Party Calls	Noncalls	Grays
104	498	681	28
105	356	594	39
106	300	538	96
107	245	423	43
108	314	503	65
109	370	464	96
112	385	982	90
Total:	2468	4185	457
Mean:	352.6	597.9	65.3
sd:	79.9	189.5	29.1

Table 16: House Coding Summary, Reassign Flip Flop, Lopsided Votes

	Party Calls	Noncalls	Gray	Total
Lopsided Votes	2810	6068	498	9376
Close Votes	4387	5617	425	10429

Table 20: House Coding Summary, Hybrid, Lopsided Votes

	Party	Calls	Noncalls	Gray	Total
Lopsided Votes		2851	6068	457	9376
Close Votes		4465	5561	403	10429