

## **Ideological Characteristics of Congressional Leaders**

### **Online Appendix: Robustness Checks**

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This appendix presents a series of robustness checks of the results presented in the paper, with the primary focus being the use of W-NOMINATE ideology estimates instead of the DW-NOMINATE scores used in the main text of the paper. The results of these tests generally mirror those presented and discussed in the main text. Table A presents tests of the “middleman hypothesis,” analyzing leaders’ absolute distances from the party medians using members’ W-NOMINATE scores from the previous Congress. Table B presents the same tests except excludes members who were no longer members of Congress when the leadership election took place (i.e. “dropouts”). Tables C and D present analogous tests of the “directional hypothesis,” analyzing leaders’ signed distances from the party medians. Tables E-H present tests analogous to those presented in Tables A-D, except that we simulate the distributions of  $T_{middleman}$  and  $T_{directional}$  from only among the pool of leadership candidates. Finally, Tables I-L present tests analogous to those presented in Tables A-D, except that we calculate the ideological distance (either absolute or signed) between the party median and the slate of candidates for each leadership contest.

The table below summarizes the information presented in the tables.

<b><u>Table</u></b>	<b><u>Hypothesis</u></b>	<b><u>Sample</u></b>	<b><u>Distributions</u></b>	<b><u>Simulation Pool</u></b>
A	Middleman	Dropouts Included	Elected Leaders	Full Chamber
B	Middleman	Dropouts Excluded	Elected Leaders	Full Chamber
C	Directional	Dropouts Included	Elected Leaders	Full Chamber
D	Directional	Dropouts Excluded	Elected Leaders	Full Chamber
E	Middleman	Dropouts Included	Elected Leaders	Candidate Pool
F	Middleman	Dropouts Excluded	Elected Leaders	Candidate Pool
G	Directional	Dropouts Included	Elected Leaders	Candidate Pool
H	Directional	Dropouts Excluded	Elected Leaders	Candidate Pool
I	Middleman	Dropouts Included	Candidates	Full Chamber
J	Middleman	Dropouts Excluded	Candidates	Full Chamber
K	Directional	Dropouts Included	Candidates	Full Chamber
L	Directional	Dropouts Excluded	Candidates	Full Chamber

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**Table A: Testing the “Middleman” Hypothesis (Elected Leaders)**

	House		Senate	
	Democrats	Republicans	Democrats	Republicans
All Races	.125 ( $< .001$ )	.136 (.080)	.130 (.110)	.141 (.072)
Speaker	.140 (.079)	.084 (.044)	—	—
Leaders	.131 (.098)	.199 (.090)	.084 (.044)	.070 (.015)
Whip	.116 (.001)	.136 (.280)	.138 (.137)	.139 (.231)
Other Offices	.113 (.013)	.144 (.309)	.168 (.045)	.173 (.554)

Note: Cell entries show observed values of  $T_{middleman}$  — the average absolute distance of elected leaders from party median. P-values from Monte Carlo simulations of leaders from full party membership in parentheses.

**Table B: Testing the “Middleman” Hypothesis (Elected Leaders) – Excluding Dropouts**

	House		Senate	
	Democrats	Republicans	Democrats	Republicans
All Races	.163 (<.001)	.199 (<.001)	.225 (.156)	.254 (.003)
Speaker	.140 (.079)	.139 (.039)	—	—
Leader	.131 (.038)	.238 (.178)	.110 (.004)	.201 (.003)
Whip	.116 (.001)	.254 (.120)	.303 (.632)	.242 (.006)
Other Offices	.113 (.013)	.172 (.007)	.083 (.238)	.294 (.244)

Note: Cell entries show observed values of  $T_{middleman}$  — the average absolute distance of elected leaders from party median. P-values from Monte Carlo simulations of leaders from full party membership in parentheses.

**Table C: Testing the “Directional” Hypothesis (Elected Leaders)**

	House		Senate	
	<u>Democrats</u>	<u>Republicans</u>	<u>Democrats</u>	<u>Republicans</u>
All Races	-.089 (.004)	.079 (.001)	-.063 (.061)	.044 (.458)
Speaker	-.125 (.064)	.059 (.412)	—	—
Leader	-.087 (.144)	.122 (.023)	-.045 (.402)	.025 (.646)
Whip	-.085 (.109)	.115 (.025)	-.080 (.088)	.036 (.528)
Other Offices	-.062 (.378)	.049 (.139)	.045 (.741)	.060 (.178)

Note: Cell entries show observed values of  $T_{directional}$  — the average signed distance of elected leaders from party median in table. P-values from Monte Carlo simulations of leaders from full party membership in parentheses.

**Table D: Testing the “Directional” Hypothesis (Elected Leaders) – Excluding Dropouts**

	House		Senate	
	<u>Dem. Reps</u>	<u>Rep. Reps</u>	<u>Dem. Sens</u>	<u>Rep Sens</u>
All Races	-.089 (.003)	.169 (.084)	-.048 (.577)	.129 (.288)
Speaker	-.125 (.064)	.139 (.519)	—	—
Leader	-.087 (.089)	.235 (.099)	.003 (.976)	.127 (.449)
Whip	-.085 (.089)	.245 (.010)	-.086 (.400)	.117 (.479)
Other Offices	-.062 (.111)	.116 (.142)	.083 (.780)	.136 (.280)

Note: Cell entries show observed values of  $T_{directional}$  — the average signed distance of elected leaders from party median in table. P-values from Monte Carlo simulations of leaders from full party membership in parentheses.

**Table E: Testing the “Middleman” Hypothesis (Candidates Only)**

	House		Senate	
All Races	.144 (.496)		.216 (.789)	
Leaders	.140 (.574)		.090 (.657)	
Majority Leader	.170 (.628)		.128 (.627)	
Minority Leader	.102 (.498)		.033 (.750)	
Whip	.190 (.586)		.096 (.397)	
Other Offices	.144 (.496)		.216 (.788)	
	House		Senate	
	<u>Democrats</u>	<u>Republicans</u>	<u>Democrats</u>	<u>Republicans</u>
All Races	.149 (.415)	.142 (.570)	.116 (.167)	.229 (.820)
Leaders	.203 (.750)	.061 (.312)	.072 (.167)	.102 (.875)
Majority Leader	.230 (.686)	.081 (.625)	.101 (.336)	.141 (.875)
Minority Leader	.163 (1)	.041 (.499)	.043 (.500)	-.023 (1)
Whip	.187 (.541)	.194 (.736)	.239 (.500)	.060 (.292)
Other Offices	.149 (.541)	.142 (.481)	.227 (.749)	.225 (.809)

Note: Cell entries show observed values of  $T_{middleman}$  — the average absolute distance of elected leaders from party median. P-values from Monte Carlo simulations of leaders from announced candidates in parentheses.

**Table F: Testing the “Middleman” Hypothesis (Candidates Only) – Excluding Dropouts**

	House		Senate	
All Races	.140 (.450)		.214 (.759)	
Leader	.132 (.529)		.081 (.539)	
Whip	.185 (.542)		.088 (.229)	
Other Offices	.133 (.423)		.256 (.759)	
	House		Senate	
	Democrats	Republicans	Democrats	Republicans
All Races	.140 (.373)	.141 (.551)	.108 (.082)	.141 (.551)
Leader	.192 (.737)	.058 (.312)	.054 (.166)	.057 (.312)
Whip	.175 (.292)	.194 (.764)	.216 (1)	.194 (.764)
Other Offices	.106 (.333)	.143 (.530)	.161 (.502)	.241 (.771)

Note: Cell entries show observed values of  $T_{middleman}$  — the average absolute distance of elected leaders from party median. P-values from Monte Carlo simulations of leaders from announced candidates in parentheses.



**Table G: Testing the “Directional” Hypothesis (Candidates Only)**

	House		Senate	
	<u>Democrats</u>	<u>Republicans</u>	<u>Democrats</u>	<u>Republicans</u>
All Races	.115 (.062)	.007 (.446)	.075 (.417)	.065 (.186)
Leaders	-.178 (.031)	.061 (.657)	-.072 (.667)	.086 (.124)
Majority Leader	.188 (.187)	.081 (.437)	-.101 (.333)	.141 (.124)
Minority Leader	.163 (.251)	.415 (.751)	-.043 (1)	-.023 (.499)
Whip	.187 (.181)	.194 (.166)	-.239 (.500)	.063 (.208)
Other Offices	.062 (.656)	.049 (.517)	.083 (.500)	.063 (.310)

Note: Cell entries show observed values of  $T_{directional}$  — the average signed distance of elected leaders from party median in table. P-values from Monte Carlo simulations of leaders from announced candidates only in parentheses.

**Table H: Testing the “Directional” Hypothesis (Candidates Only) – Excluding Dropouts**

	House		Senate	
	<u>Dem. Reps</u>	<u>Rep. Reps</u>	<u>Dem. Sens</u>	<u>Rep Sens</u>
All Races	-.104 (.061)	.062 (.447)	-.055 (.500)	.062 (.211)
Leader	-.167 (.046)	.057 (.657)	-.054 (1)	.083 (.125)
Whip	-.175 (.181)	.194 (.169)	-.216 (.500)	.056 (.330)
Other Offices	-.053 (.650)	.045 (.517)	.106 (1)	.160 (.336)

Note: Cell entries show observed values of  $T_{directional}$  — the average signed distance of elected leaders from party median in table. P-values from Monte Carlo simulations of leaders from announced candidates only in parentheses.

**Table I: Testing the “Middleman” Hypothesis (Candidate Averages)**

	House		Senate	
All Races	.141 (.002)		.196 (.010)	
Leaders	.134 (.137)		.089 (<.001)	
Whip	.195 (.762)		.103 (.009)	
Other Offices	.133 (.003)		.241 (.325)	
	House		Senate	
	<u>Democrats</u>	<u>Republicans</u>	<u>Democrats</u>	<u>Republicans</u>
All Races	.150 (.010)	.137 (.100)	.132 (.265)	.204 (.014)
Leaders	.174 (.358)	.094 (.149)	.103 (.165)	.080 (<.001)
Whip	.200 (.657)	.189 (.732)	.213 (.746)	.078 (.146)
Other Offices	.123 (.001)	.137 (.108)	.128 (.352)	.245 (.500)

Note: Cell entries show observed values of  $T_{middleman}$  — the average absolute distance of elected leaders from party median. P-values from Monte Carlo simulations of candidate pool average ideology from full party membership in parentheses.

**Table J: Testing the “Middleman” Hypothesis (Candidate Averages) – Excluding Dropouts**

	House		Senate	
All Races	.145 (.010)		.199 (.008)	
Leader	.138 (.153)		.088 (<.001)	
Whip	.199 (.756)		.104 (.008)	
Other Offices	.136 (.005)		.245 (.301)	
	House		Senate	
	Democrats	Republicans	Democrats	Republicans
All Races	.151 (.010)	.142 (.128)	.132 (.236)	.208 (.011)
Leader	.179 (.376)	.097 (.156)	.101 (.154)	.080 (<.001)
Whip	.198 (.613)	.202 (.763)	.213 (.727)	.080 (.002)
Other Offices	.124 (.001)	.141 (.128)	.128 (.328)	.249 (.320)

Note: Cell entries show observed values of  $T_{middleman}$  — the average absolute distance of elected leaders from party median. P-values from Monte Carlo simulations of candidate pool average ideology from full party membership in parentheses.

**Table K: Testing the “Directional” Hypothesis (Candidate Averages)**

	House		Senate	
	<u>Democrats</u>	<u>Republicans</u>	<u>Democrats</u>	<u>Republicans</u>
All Races	-.060 (.079)	.067 (.001)	-.034 (.616)	-.003 (.956)
Leaders	.001 (.993)	.084 (.141)	-.033 (.678)	.009 (.950)
Whip	-.091 (.171)	.186 (.014)	-.025 (.858)	-.021 (.829)
Other Offices	-.070 (.131)	.052 (.026)	-.045 (.748)	-.001 (.978)

Note: Cell entries show observed values of  $T_{directional}$  — the average signed distance of elected leaders from party median in table. P-values from Monte Carlo simulations of candidate pool average ideology from full party membership in parentheses.

**Table L: Testing the “Directional” Hypothesis (Candidate Averages) – Excluding Dropouts**

	House		Senate	
	<u>Dem. Reps</u>	<u>Rep. Reps</u>	<u>Dem. Sens</u>	<u>Rep Sens</u>
All Races	-0.055 (.117)	.078 (< .001)	-0.018 (.805)	0.013 (.796)
Leader	-0.006 (.936)	.091 (.119)	-0.023 (.776)	.036 (.810)
Whip	-0.085 (.207)	.200 (.012)	-0.003 (.989)	.002 (.987)
Other Offices	-0.063 (.197)	.063 (.006)	-0.023 (.907)	.011 (.842)

Note: Cell entries show observed values of  $T_{directional}$  — the average signed distance of elected leaders from party median in table. P-values from Monte Carlo simulations of candidate pool average ideology from full party membership in parentheses.