Appendix for "Incumbency Status and Candidate Responsiveness to Voters in Two-Stage Elections Beginning with a Primary"

Kevin K. Banda* kevin.banda@ttu.edu
Thomas M. Carsey† carsey@unc.edu
John Curiel‡ jcuriel@live.unc.edu

Results Using All Cases

In Table A, we present the results of the model references in footnote 11 in the main body of our paper. The specification of this model is identical to that of the one presented in Table 2 of the main paper. In that model, we removed cases in which the ideology of a candidate was calculated using a number of respondents at or below the tenth percentile of the count for a given group (Democratic primary voters, Republican primary voters, and general election-only voters). We do not use any such constraints here. As is shown by the parameter estimates in Table A and the key marginal effects plotted in Figure A, our decision to remove some cases due to small sample size concerns does not matter from a substantive perspective.

*Department of Political Science, Texas Tech University
†Department of Political Science, University of North Carolina at Chapel Hill

Table A: The Effects of the Ideologies of Primary Voters and General Election-Only Voters on Candidate Ideology: Full Sample

	Coef.	SE
Primary voters ideology	0.416*	(0.075)
Primary × incumbent	-0.429*	(0.052)
General only voters ideology	-0.096	(0.066)
General × incumbent	0.084	(0.115)
Candidate is an incumbent	1.143*	(0.365)
Candidate is a Democrat	-1.683*	(0.104)
Candidate is female	-0.113*	(0.042)
Open seat election	-0.026	(0.046)
Senate election	0.041	(0.053)
Intercept	-0.143	(0.338)
Random Intercepts		
σ^2_{State}	0.125	(0.027)
$\sigma^2_{Contest}$	0.088	(0.041)
BIC	3,327.373	
N	1,689	

Note: cell entries are estimated coefficients from a multilevel linear regression model with random intercepts estimated for states and contests. Standard errors are reported in parentheses.
* $p \leq 0.05$.

Robustness Checks

It is possible that the results presented in the main text of the paper could be confounded if other characteristics of candidates and elections further condition the effects of primary and general election-only voters on candidates' own ideological positions. We focus on three possibilities. First, we consider the primary election victory status of candidates. This is potentially important because it is possible that the kind of candidate who succeeds in primary elections behaves differently than do losing candidates. Second, we consider the possibility that candidates running unopposed in their primaries may behave differently due

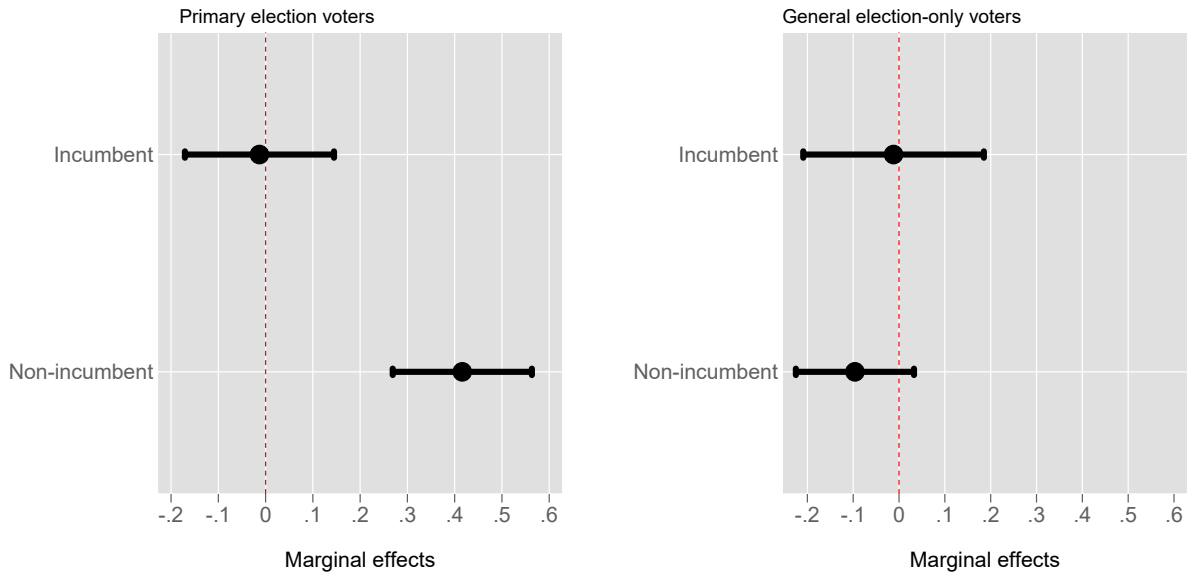

Figure A: Marginal effect of primary voters' and general election-only voters' ideology on candidate ideology among incumbents and non-incumbents. Generated by the estimates reported in Table A.

to a lack of electoral pressure in the first stage of the election. Perhaps these candidates will focus more on the preferences of general election-only voters. Last, the type of office being contested may matter. It is possible that candidates running in Senate elections behave different than do those contesting House seats because the former is typically viewed as being a more valuable office. Additionally, it may be the case that Senate seats attract a different — and perhaps "better" — kind of candidate relative to House seats.

We report a series of models in Table B that seek to test the degree to which our initial results are robust to these three possibilities. More specifically, we observe how primary victory status, whether or not a primary election was contested by at least one other candidate, and how the type of office being contested conditions the effects of the ideological preferences of primary and general election-only voters on candidate ideology. We include these

Table B: The Conditioning Effects of Winning the Primary, Contested Primaries, and Office Type on Ideological Responsiveness among Incumbent and Non-incumbent Candidates

	Primary winner		Primary contested		Office type	
	Coef.	SE	Coef.	SE	Coef.	SE
Primary voters ideology	0.353*	(0.087)	0.534*	(0.110)	0.404*	(0.085)
General only voters ideology	0.086	(0.088)	-0.160	(0.206)	-0.035	(0.074)
Primary × incumbent	-0.506*	(0.185)	-0.469*	(0.099)	-0.391*	(0.059)
Primary × winner	0.107	(0.060)				
Primary × Senate					-0.086	(0.080)
Primary × contested			-0.170*	(0.087)		
General × incumbent	0.320	(0.487)	0.116	(0.247)	0.046	(0.134)
General × winner	-0.222	(0.148)				
General × Senate					0.960*	(0.385)
General × contested			0.203	(0.218)		
Incumbent × winner	0.439	(1.610)				
Incumbent × Senate					1.463	(2.815)
Incumbent × contested			-0.285	(1.057)		
Primary × incumbent × winner	0.079	(0.198)				
Primary × incumbent × Senate					-0.014	(0.200)
Primary × incumbent × contested			0.056	(0.132)		
General × incumbent × winner	-0.195	(0.516)				
General × incumbent × Senate					-0.468	(0.923)
General × incumbent × contested			-0.017	(0.322)		
Candidate is an incumbent	0.614	(1.508)	1.281	(0.855)	1.123*	(0.422)
Primary election winner	0.222	(0.513)				
Primary is contested			0.108	(0.784)		
Senate election	0.033	(0.052)	0.024	(0.052)	-2.690*	(1.249)
Candidate is a Democrat	-1.692*	(0.116)	-1.676*	(0.117)	-1.722*	(0.117)
Open seat election	-0.017	(0.047)	-0.039	(0.047)	-0.027	(0.048)
Candidate is female	-0.101*	(0.046)	-0.105*	(0.046)	-0.100*	(0.046)
Intercept	-0.467	(0.405)	-0.485	(0.785)	-0.292	(0.380)
Random Intercepts						
σ^2_{State}	0.043	(0.033)	0.044	(0.033)	0.035	(0.036)
$\sigma^2_{Contest}$	0.090	(0.045)	0.092	(0.044)	0.099	(0.041)
BIC	2,824.490		2,820.174		2,823.579	
N	1,430		1,430		1,430	

Note: cell entries are estimated coefficients from a multilevel linear regression model with random intercepts estimated for states and contests. Standard errors are reported in parentheses.
* $p \leq 0.05$.

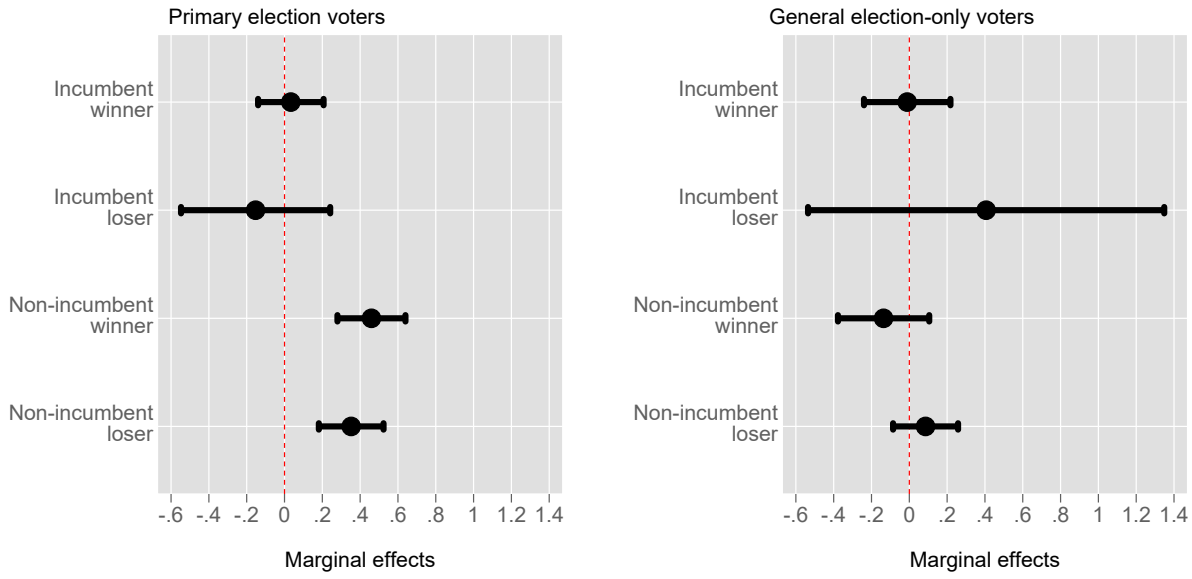

Figure B: The marginal effects of voters' ideologies on candidates' ideologies as conditioned by incumbency and primary election victory. Generated using the results of the "primary winner" model in Table B.

new variables in each model and interact them with the ideological preferences of both sets of voters, with the incumbent indicator, and with both. Thus each model contains three-way interaction terms. Because of this, we focus on the marginal effects of interest — those of the primary and general election-only voters' ideologies at each value of the conditioning variables — rather than the raw estimated coefficients.

Figure B presents our findings regarding whether or not a candidate won their primary.[1] These results are congruent with our initial findings; Incumbents, regardless of whether or not they eventually won their primary, do not respond to the ideological preferences of primary or general election-only voters. Non-incumbents, on the other hand, respond to the preferences of primary voters no matter whether or not they won their primaries. Among those who

[1]In our data, about 92% of incumbents won their primary elections; only 33% of non-incumbents won their primaries.

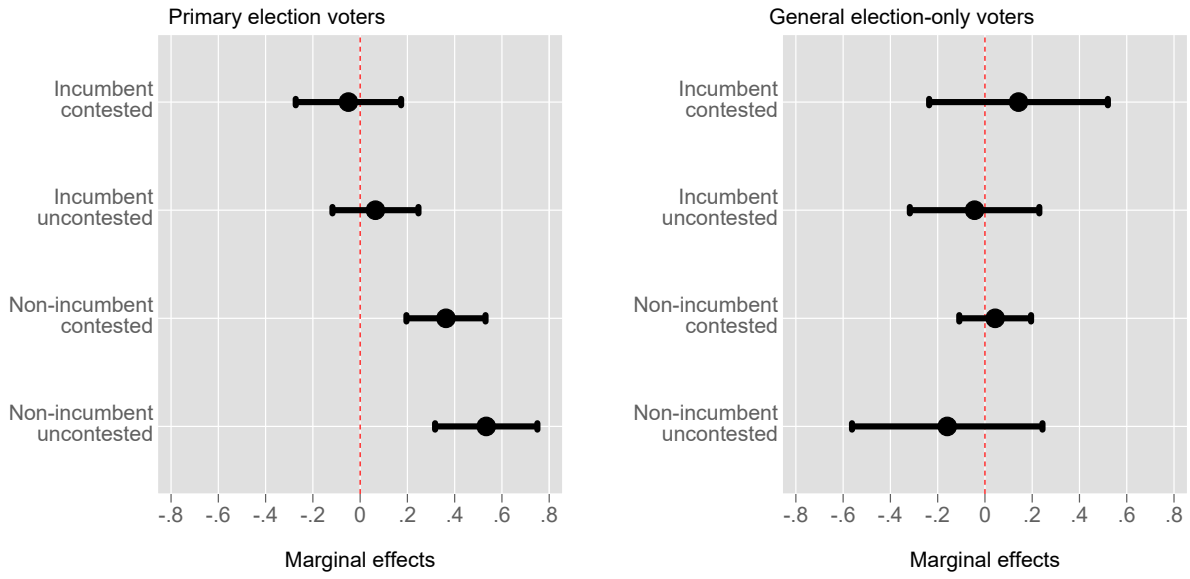

Figure C: The marginal effects of voters' ideologies on candidates' ideologies as conditioned by incumbency and whether or not the primary was contested. Generated using the results of the "primary contested" model in Table B.

lost their primary, a one unit increase in ideological conservatism among primary voters on average leads to a 0.35 unit increase in a candidate's level of ideological conservatism. Among those who won their primaries, this increase is equal to about 0.46 units. These two effects are not statistically significantly different from each other. As was the case in our initial analysis, non-incumbents appear to be unresponsive to the ideological preferences of general election-only voters regardless of whether or not they won their primary.

Figure C shows the marginal effects of primary and general election-only voters on candidate ideology across incumbency status and whether or not a given candidate's primary election was contested.[2] Once again, the only marginal effects that differ significantly ($p \leq 0.05$) from zero are those for the ideological preferences of primary voters among non-

[2]About 35% of incumbents and 88% of non-incumbents faced contested elections in these data.

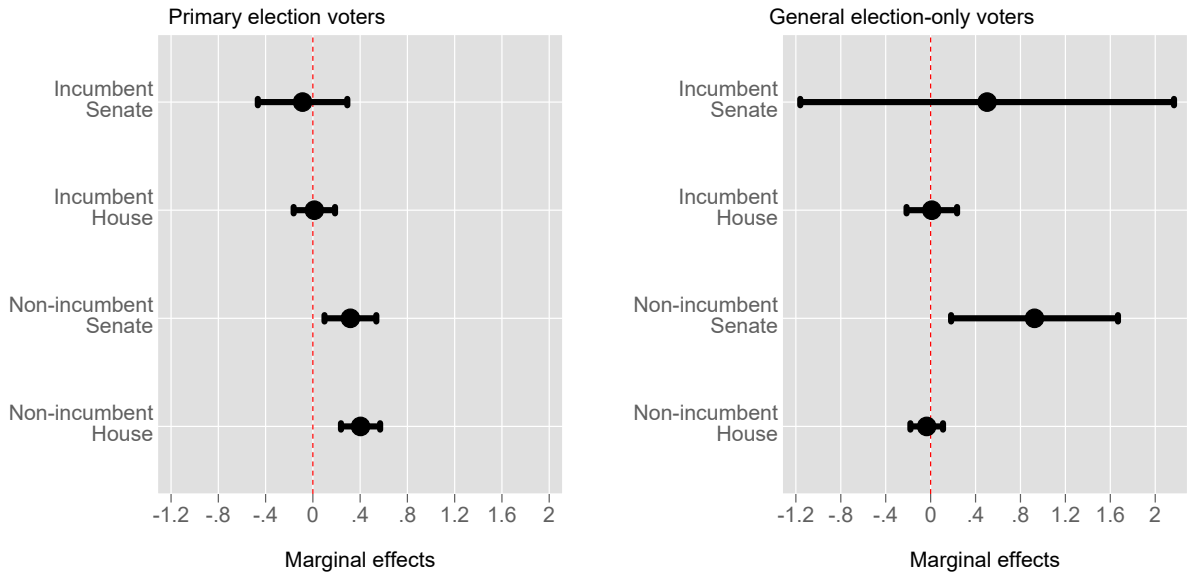

Figure D: The marginal effects of voters' ideologies on candidates' ideologies as conditioned by incumbency and office type. Generated using the results of the "office type" model in Table B.

incumbents regardless of whether or not their primaries were contested. Non-incumbents who do and do not face contested primaries become on average about 0.36 and 0.53 units more conservative, respectively, when their primary voters become one unit more conservative. Again, this difference is not statistically significant.

The marginal effects of primary and general election-only voters' ideological preferences on candidate ideology as conditioned by incumbency and office type are plotted in Figure D.[3] The effects of primary voters' preferences are positive and significant ($p \leq 0.05$) for non-incumbents involved in both House and Senate elections. When primary voters become one unit more conservative, non-incumbents running for a House seat become about 0.4 units more conservative, while those running for Senate elections become around 0.32 units

[3]As should be expected given the nature of these data, most of the candidates in our analysis ran for the U.S. House; only 7% of incumbent and 16% of non-incumbent candidates ran for Senate seats.

more conservative. The difference between these two values is not statistically significant. Incumbent candidates do not appear to respond to the ideological preferences of voters in their primary elections. Turning next to candidate responsiveness to general election-only voters, we observe that only non-incumbents who are contesting Senate elections appear to systematically alter their ideological positions in response to the preferences of this set of voters; a one unit increase in ideological conservatism among general election-only voters on average leads non-incumbent Senate candidates to become about 0.93 units more conservative. This is the only instance in which we find that candidates of any kind are responsive to the ideologies of general election-only voters.