

## Online Supplemental Appendix

**Table SA1: State Primary Election Types**

<i>Primary Type</i>	<i>Who Can Vote</i>	<i>States</i>	
Open	All voters can select to participate in any party primary	Alabama Arkansas Georgia Hawaii Michigan Minnesota Mississippi Missouri	Montana N. Dakota S. Carolina Texas Vermont Virginia Wisconsin
Semi-Open	Partisans can vote in any partisan primary, but must publicly declare their ballot choice; ballot selection may be regarded as registration with the corresponding party	Illinois Indiana Iowa	Ohio Tennessee Wyoming
Semi-Closed	Registered partisans can participate; parties can decide to allow unaffiliated/undeclared voters can participate; rival partisans cannot	Alaska Connecticut Idaho N. Carolina	Oklahoma S. Dakota Utah
Closed	Only registered partisans can participate	Delaware Florida Kentucky Maryland Nevada	New Mexico New York Oregon Pennsylvania
Non-partisan	All candidates are presented to all voters	California Louisiana*	Nebraska** Washington
Open to Unaffiliated	Unaffiliated/undeclared voters can participate in any party primary, but registered voters are restricted only to their party's primary	Arizona Colorado Kansas Maine Massachusetts	New Hampshire New Jersey Rhode Island West Virginia

*Source: National Conference of State Legislatures (2018)*

\*Louisiana has a similar electoral set-up, whereby if a candidate receives more than 50 percent of the vote in the "primary," no "general election" is required

\*\*All officials are elected on a non-partisan basis in Nebraska; thus all candidates appear on the same non-partisan ballot

<b>Table SA2: Variable Descriptions</b>		
<b>Variable</b>	<b>Coding</b>	<b>Source</b>
<b><u># of female/male candidates</u></b>	# of female/male candidates running in district elections	2018 SLERs
<b><u>Primary Outcome</u></b>	If the candidate won or lost in the primary election, coded 1 if the candidate won and 0 otherwise	2018 SLERs
<b><u>General Vote Share</u></b>	The vote share of the candidate. States where no general election contest was held because the candidate was unopposed are coded as 100.	2018 SLERs
<b><u>Closed</u></b>	Coded as 1 if the district has a closed primary, 0 otherwise	National Conference of State Legislatures ( <a href="http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx">http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx</a> )
<b><u>Semiclosed</u></b>	Coded as 1 if the district has a semi-closed primary, 0 otherwise	National Conference of State Legislatures ( <a href="http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx">http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx</a> )
<b><u>Semiopen</u></b>	Coded as 1 if the district has a semi-open primary, 0 otherwise	National Conference of State Legislatures ( <a href="http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx">http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx</a> )
<b><u>Open</u></b>	Coded as 1 if the district has an open primary, 0 otherwise. *Open is omitted in the regressions to serve as the category of reference	National Conference of State Legislatures ( <a href="http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx">http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx</a> )
<b><u>Nonpartisan</u></b>	Coded 1 if the district has a non-partisan primary, 0 otherwise	National Conference of State Legislatures ( <a href="http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx">http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx</a> )
<b><u>Open to Unaffiliated</u></b>	Coded as 1 if the district has an open primary which allows unaffiliated to vote in the party primary of their choice, 0 otherwise	National Conference of State Legislatures ( <a href="http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx">http://www.ncsl.org/research/elections-and-campaigns/primary-types.aspx</a> )

<b><u>Female Labor</u></b>	Coded as the percentage women 18 to 65 who are available to work as a percent of the total civilian non-institutionalized population in the district.	US Census Bureau, American Community Survey, S0101: Age and Sex
<b><u>% African American</u></b>	Coded as the percentage of the district's population ages 18 and older who identify as African American.	US Census Bureau, American Community Survey, B01001B: Sex and Age (Black or African American Alone)
<b><u>% Hispanic/Latino</u></b>	Coded as the percentage of the district's population ages 18 and older who identify as Hispanic/Latino.	US Census Bureau, American Community Survey, B01001I: Sex and Age (Hispanic or Latino)
<b><u>Upper Chamber</u></b>	Coded 1 if district for state's upper chamber, coded 0 if district for state's lower chamber	2018 SLERs
<b><u>Prior General</u></b>	Measured as the percentage of the total vote garnered in the previous general election by the legislator currently holding the seat for which the candidate is running.	2018 SLERs
<b><u>Prior General Election Uncontested</u></b>	Coded as -1 if seat the candidate is running for was held previously by an uncontested Republican, as 1 if seat previously held by an uncontested Democrat, and 0 otherwise.	2018 SLERs
<b><u>Democrat</u></b>	Coded 1 if the candidate is a member of the Democratic Party, 0 otherwise	2018 SLERs
<b><u>Democrat Proportion</u></b>	Measured as the percentage of the total vote the Democratic candidate garnered in the previous general election for the seat which the candidate is currently running.	2018 SLERs
<b><u>District Size</u></b>	Coded as the size of the district's population – calculated as (population numerator / (number of seats in a chamber)) * state population. In thousands.	2018 SLERs

<b><u>Incumbent Present</u></b>	Codes 1 if the current seat holder is running in the election, 0 otherwise	2018 SLERs
<b><u>Multimember</u></b>	Coded 1 if the district elects multiple members, 0 otherwise.	2018 SLERs
<b><u>Female Total</u></b>	# of female candidates who ran in the district primary elections	2018 SLERs
<b><u>Male Total</u></b>	# of male candidates who ran in the district primary elections	2018 SLERs

**Table SA3: Women Candidate Success and State Primary Type (by chamber)**

	Upper chamber	Lower chamber
<i>Semiclosed</i>	0.08 (0.15)	0.11 (0.14)
<i>Semiopen</i>	0.03 (0.20)	-0.16 (0.16)
<i>Closed</i>	0.18 (0.14)	0.05 (0.15)
<i>Open to Unaffiliated</i>	0.13 (0.14)	-0.02 (0.13)
<i>Nonpartisan</i>	0.28 (0.22)	0.28 (0.39)
<i>Female Labor</i>	0.00 (0.02)	0.01 (0.01)
<i>% African American</i>	0.01 (0.01)	<b>0.01** (0.00)</b>
<i>% Hispanic/Latino</i>	0.00 (0.01)	0.00 (0.00)
<i>Prior General</i>	<b>-0.01** (0.00)</b>	<b>0.00*** (0.00)</b>
<i>Multimember</i>	omitted	0.37 (0.25)
<i>District size</i>	0.00 (0.00)	0.00 (0.00)
<i>Incumbent Present</i>	-0.45 (0.09)	0.00 (0.00)
<i>Prior General Election Uncontested</i>	-0.03 (0.17)	<b>-0.42* (0.05)</b>
<i>Democrat</i>	0.26 (0.16)	-0.14 (0.08)
<i>Dem Proportion</i>	0.00 (0.00)	0.00 (0.08)
<i>Dem x Dem Prop</i>	0.00 (0.00)	0.00 (0.00)
<i>Constant</i>	0.14 (1.14)	0.00 (0.00)
Observations	729	2726

**Note:** Estimates for poisson models for the # of female and male candidates (estimated separately). Standard errors, clustered by state, in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

While the effect of incumbency is specified in the main analysis via the **incumbent present** variable. Yet, the gender of the incumbent is worth further investigation. Male incumbents could reduce the probability of a woman (or even another man) running in the primary. Yet they also could reduce the probability of a woman winning the primary. A female candidate defeating an entrenched male incumbent could impact their probability of winning in the general election contest, as generally an incumbent losing their primary election is associated with something larger at play in the district (e.g. a scandal or negative public opinion of the party). However, if a female incumbent is present, this could substantially increase the likelihood that a female candidate is a) in the primary contest, and b) that they will win their primary. As such we seek to distinguish the gender of the incumbents in supplemental analysis below, **Table SA4**, to investigate potential endogeneity in the process we are modeling.

**Table SA4: Candidate Success and State Primary Type (with incumbent IV by gender)**

	Men	Women
<i>Semiclosed</i>	0.09 (0.08)	0.10 (0.13)
<i>Semiopen</i>	0.02 (0.10)	-0.12 (0.15)
<i>Closed</i>	-0.10 (0.08)	0.08 (0.12)
<i>Open to Unaffiliated</i>	<b>-0.17** (0.08)</b>	0.04 (0.12)
<i>Nonpartisan</i>	<b>-0.30* (0.16)</b>	0.30 (0.20)
<i>Female Labor</i>	0.00 (0.01)	0.01 (0.01)
<i>% African American</i>	<b>0.00** (0.00)</b>	<b>0.01** (0.00)</b>
<i>% Hispanic/Latino</i>	0.00 (0.00)	0.00 (0.00)
<i>Upper Chamber</i>	-0.06 (0.05)	-0.05 (0.06)
<i>Prior General</i>	<b>0.00*** (0.00)</b>	<b>0.00*** (0.00)</b>
<i>Multimember</i>	0.03 (0.11)	<b>0.31** (0.14)</b>
<i>District Size</i>	0.00* (0.00)	0.00 (0.00)
<i>Male Incumbent Present</i>	<b>-0.34*** (0.03)</b>	<b>-0.54*** (0.05)</b>
<i>Female Incumbent Present</i>	<b>-0.49*** (0.04)</b>	<b>-0.23*** (0.05)</b>
<i>Prior General Election Uncontested</i>	-0.02 (0.05)	-0.11 (0.07)
<i>Democrat</i>	0.01 (0.05)	0.02 (0.07)
<i>Dem Proportion</i>	0.00 (0.00)	0.00 (0.00)
<i>Dem x Dem Prop</i>	0.00 (0.00)	0.00 (0.00)

<i>Constant</i>	<b>1.09*** (0.33)</b>	-0.43 (0.48)
Observations	3455	3455

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**Note:** Estimates for poisson models for the # of female and male candidates (estimated separately).  
Standard errors, clustered by state, in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

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**Table SA5: Women Candidate Success and State Primary Type (By party)**

	<b>Republicans</b>	<b>Democrats</b>
<i>Semiclosed</i>	<b>0.24* (0.14)</b>	-0.04 (0.14)
<i>Semiopen</i>	-0.01 (0.16)	-0.22 (0.18)
<i>Closed</i>	0.07 (0.15)	0.08 (0.14)
<i>Open to Unaffiliated</i>	0.11 (0.13)	-0.03 (0.13)
<i>Nonpartisan</i>	0.04 (0.27)	0.37 (0.23)
<i>Female Labor</i>	0.01 (0.01)	0.02 (0.01)
<i>% African American</i>	0.01 (0.00)	0.00 (0.00)
<i>% Hispanic/Latino</i>	0.00 (0.00)	0.00 (0.00)
<i>Upper Chamber</i>	-0.07 (0.09)	0.00 (0.08)
<i>Prior General</i>	<b>-0.01*** (0.00)</b>	<b>0.00** (0.00)</b>
<i>Multimember</i>	<b>0.52*** (0.20)</b>	<b>0.32* (0.18)</b>
<i>District Size</i>	<b>0.00* (0.00)</b>	0.00 (0.00)
<i>Incumbent Present</i>	<b>-0.39*** (0.06)</b>	<b>-0.45*** (0.06)</b>
<i>Prior General Election Uncontested</i>	-0.11 (0.11)	-0.14 (0.10)
<i>Dem Proportion</i>	0.00 (0.00)	0.00 (0.00)
<i>Constant</i>	-0.21 (0.70)	-0.59 (0.63)
Observations	1642	1813

**Note:** Estimates for poisson models for the # of female and male candidates (estimated separately). Standard errors, clustered by state, in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1