

ONLINE APPENDIX FOR VOTER ID LAWS AND THE SUPPRESSION OF MINORITY VOTES

Democrats Only

One concern is that differentially low racial and ethnic minority turnout in states with strict voter ID laws may be driven less by strict voter identification laws themselves and more by the political conditions in the states that pass these laws. We further test this concern by looking at the effect of voter ID laws among Democrats only. If minority turnout is especially low in certain states only because Republicans are dominant in these states, then we should find that all Democrats –white and non-white alike – turnout at especially low rates in these states. On the other hand, if we find that voter ID laws depress the participation of racial and ethnic minority Democrats more than they impact the turnout of white Democrats, then the effects cannot be due to the dominance of Republicans in voter ID states. If the racialized pattern persists when we only look at Democrats, we can conclude that there is a clear racial effect of voter ID laws.

This is exactly what we find. Re-running the analysis with Democrats only Table 1 shows that that Latino, Asian American, and multi-racial American turnout is significantly more likely to be depressed by voter ID laws than white turnout.

Table 1: The Racial Impact of Strict Voter ID Laws Among Democrats

	(1) General Election Turnout	(2) Primary Election Turnout	(3) General Election Turnout	(4) Primary Election Turnout
VOTER ID LAW				
Strict Voter ID Required	-0.0176 (0.158)	-0.0825 (0.176)	-0.184 (0.170)	-0.414** (0.131)
Strict Voter ID * Black	-0.100 (0.120)	-0.328* (0.146)		
Strict Voter ID * Latino	-0.480** (0.112)	-0.432** (0.118)		
Strict Voter ID * Asian	-0.770+ (0.436)	-0.767+ (0.441)		
Strict Voter ID * Mixed Race	-0.409* (0.208)	-0.351 (0.301)		
Strict Voter ID * White			0.169 (0.116)	0.336** (0.113)
DEMOGRAPHICS				
Black	-0.114 (0.0765)	-0.0854 (0.0734)		
Latino	-0.196* (0.0809)	-0.170+ (0.102)		
Asian	-0.499** (0.139)	-0.235 (0.152)		
Mixed Race	0.0365 (0.118)	-0.000412 (0.108)		
White			0.110+ (0.0585)	0.0896 (0.0553)
Foreign Born	-0.353** (0.0770)	-0.270** (0.0947)	-0.426** (0.0734)	-0.303** (0.106)
First Generation	-0.109 (0.0678)	-0.0423 (0.0655)	-0.173** (0.0641)	-0.0687 (0.0682)
Age	0.0303** (0.00170)	0.0374** (0.00188)	0.0307** (0.00173)	0.0375** (0.00183)
Education	0.174** (0.0122)	0.182** (0.0104)	0.174** (0.0119)	0.183** (0.0103)
Income	0.0430** (0.00647)	0.0362** (0.00577)	0.0424** (0.00646)	0.0361** (0.00578)
Gender: Male	0.109** (0.0336)	0.169** (0.0378)	0.109** (0.0333)	0.170** (0.0376)
Married	-0.0193 (0.0332)	-0.113** (0.0311)	-0.0226 (0.0337)	-0.115** (0.0316)
Have Children	-0.270** (0.0409)	-0.246** (0.0363)	-0.268** (0.0398)	-0.246** (0.0361)
Union Member	0.331** (0.0384)	0.252** (0.0416)	0.333** (0.0383)	0.253** (0.0420)
Unemployed	0.00739 (0.0746)	-0.0854 (0.0783)	0.00741 (0.0749)	-0.0868 (0.0786)
Own Home	0.274** (0.0393)	0.290** (0.0517)	0.271** (0.0392)	0.289** (0.0516)
Protestant	-0.0357 (0.0433)	0.0144 (0.0370)	-0.0243 (0.0425)	0.0173 (0.0395)
Catholic	-0.0292 (0.0647)	-0.0127 (0.0698)	-0.0440 (0.0535)	-0.0238 (0.0619)
Jewish	-0.0260 (0.114)	-0.130 (0.124)	-0.00439 (0.116)	-0.125 (0.123)
Atheist	0.342** (0.111)	0.227** (0.0642)	0.347** (0.108)	0.228** (0.0642)
STATE ELECTORAL LAWS				
Registration Deadline	-0.00857 (0.00710)	0.00470 (0.00844)	-0.00868 (0.00706)	0.00463 (0.00840)
Early Voting	-0.176 (0.158)	0.166 (0.206)	-0.186 (0.164)	0.159 (0.208)
Vote by Mail	0.0531 (0.246)	0.845** (0.211)	0.0503 (0.247)	0.842** (0.208)
No Excuse Absentee Voting	0.355** (0.137)	0.214+ (0.117)	0.359* (0.142)	0.217+ (0.118)
ELECTORAL COMPETITION				
First Year of Strict Law	0.258 (0.211)	0.296 (0.195)	0.216 (0.192)	0.283 (0.194)
Presidential Election Year	0.924** (0.120)	0.0837 (0.150)	0.920** (0.120)	0.0836 (0.151)
Gubernatorial Election Year	0.259* (0.121)	0.362* (0.156)	0.257* (0.123)	0.362* (0.157)
Senate Election Year	0.144 (0.101)	-0.0976 (0.0945)	0.143 (0.101)	-0.0974 (0.0943)
State Margin of Victory	-1.064* (0.500)	0.115 (0.896)	-1.103* (0.502)	0.102 (0.905)
Constant	-1.437** (0.284)	-4.015** (0.313)	-1.544** (0.272)	-4.106** (0.306)
<i>N</i>	60987	54072	60987	54072
Pseudo <i>R</i> ²	0.1172	0.1276	0.1161	0.1274

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Models include year fixed effects.

Political Effects – More Racial Resentment and Anti-Immigrant Sentiment among Voters

We also examined the political effects of voter identification laws in a slightly different way. If we are concerned about the well-being of racial and ethnic minority voters, we might want to look specifically at how these laws affect the mix of views on race and immigration that are present at the polls. In particular, we might want to know if strict voter identification laws are associated with an increase in the share of voters with more racially resentful views or an increase in the share of voters with more anti-immigrant views.

To assess those links in alternate tests we added interactions between racial resentment and immigration attitudes and strict voter identification laws to the basic regression model in Table 2 in the main text. Racial resentment was a scale measured with two questions that are the standard for assessing racial resentment - “Blacks should work their way up without any favors” and” “Generations of slavery and discrimination have created conditions that make it difficult for Blacks to work their way out of the lower class” (Kinder and Sanders 1994). Immigration views combined questions on whether or not the US government should “allow the police to question anyone they think may be in the country illegally,” “increase the number of border patrols”, and “grant legal status to illegal immigrants who have held jobs and paid taxes.” Both scales were alpha factor scores.

While the CCES only asked about race and immigration in two years, we nevertheless find significant interactions for both sets of views. As Table Two below demonstrates, Americans with racially resentful attitudes and those with more negative views of immigrants were substantially more likely to turnout in primaries in states with strict voter identification laws than in other states, all else equal. The result is that the share of voters with anti-immigrant and anti-minority views grows substantially when strict voter identification laws are in place.

Table 2: The Political Impact of Strict ID Laws: Skewing Views on Race and Immigrants

	(1) Primary Election Turnout	(2) Primary Election Turnout
VOTER ID LAW		
Strict Voter ID Required	-0.188 (0.165)	0.0844 (0.134)
Strict Voter ID * Resentment	0.126** (0.0351)	
Strict Voter ID * Immigrant Views		-0.363** (0.127)
VIEWS ON RACE AND IMMIGRANTS		
Resentment	-0.0349* (0.0174)	
Immigrant Views		-0.365** (0.0379)
DEMOGRAPHICS		
Black	-0.293** (0.0652)	-0.251** (0.0617)
Latino	-0.271** (0.0957)	-0.226* (0.0914)
Asian	-0.291* (0.128)	-0.355** (0.128)
Mixed Race	-0.0292 (0.105)	-0.0469 (0.108)
Foreign Born	-0.223* (0.0984)	-0.307** (0.112)
First Generation	-0.0263 (0.0517)	-0.0302 (0.0517)
Age	0.0339** (0.00147)	0.0325** (0.00151)
Education	0.139** (0.00994)	0.161** (0.0105)
Income	0.0241** (0.00551)	0.0224** (0.00643)
Gender: Male	0.247** (0.0268)	0.235** (0.0263)
Married	0.0101 (0.0224)	0.0256 (0.0273)
Have Children	-0.203** (0.0346)	-0.184** (0.0347)
Union Member	0.131** (0.0322)	0.125** (0.0283)
Unemployed	-0.112* (0.0517)	-0.136** (0.0501)
Own Home	0.326** (0.0405)	0.367** (0.0425)
Protestant	0.273** (0.0379)	0.237** (0.0485)
Catholic	0.104 (0.0662)	0.0886 (0.0709)
Jewish	0.00187 (0.0972)	-0.0195 (0.106)
Atheist	0.193** (0.0541)	0.0322 (0.0933)
STATE ELECTORAL LAWS		
Registration Deadline	0.00400 (0.00733)	-0.00677 (0.0106)
Early Voting	0.139 (0.214)	0.194 (0.206)
Vote by Mail	0.922** (0.237)	0.943** (0.213)
No Excuse Absentee Voting	0.301* (0.141)	0.218 ⁺ (0.113)
ELECTORAL COMPETITION		
First Year of Strict Law	0.321 ⁺ (0.166)	0.397* (0.201)
Presidential Election Year	0.350* (0.136)	0.231 (0.142)
Gubernatorial Election Year	0.347* (0.152)	0.280 ⁺ (0.155)
Senate Election Year	0.00819 (0.0574)	0.216 ⁺ (0.120)
State Margin of Victory	0.124 (0.948)	-0.350 (1.000)
Constant	-3.996** (0.253)	-3.574** (0.276)
N	102894	84146
PseudoR ²	0.1036	0.1128

Standard errors in parentheses

⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Models include year fixed effects.

Effects of Strict Photo ID Laws in General Elections

In our original tests, we found less pronounced political effects for voter ID laws in general elections than in primary elections. However, when we single out the strictest voter ID laws – those that require photo identification and do not allow other non-photo forms of identification – we see some signs those on the left are most negatively affected in general elections. Specifically, as can be seen in Table 3, liberals are particularly disadvantaged by strict PHOTO voter ID laws in general elections. We find no interaction effect for party identification in these elections.

Table 3: The Political Effects in General Elections with Strict Photo ID Laws

	(1) General Election Turnout	(2) General Election Turnout
VOTER ID LAW		
Strict Photo ID Required	-0.281 ⁺ (0.159)	-0.411** (0.155)
Strict Photo ID * Party ID	0.0228 (0.0163)	
Strict Photo ID * Ideology		0.0672* (0.0295)
POLITICAL LEANING		
Party ID (High = Rep)	0.0187** (0.00571)	
Ideology (High = Con)		0.0597** (0.0106)
DEMOGRAPHICS		
Black	-0.105* (0.0465)	-0.114** (0.0397)
Latino	-0.260** (0.0718)	-0.255** (0.0721)
Asian	-0.358** (0.0883)	-0.379** (0.0877)
Mixed Race	-0.0242 (0.0765)	-0.0214 (0.0704)
Foreign Born	-0.424** (0.0420)	-0.430** (0.0415)
First Generation	-0.0119 (0.0354)	-0.00698 (0.0353)
Age	0.0259** (0.00140)	0.0260** (0.00138)
Education	0.110** (0.0110)	0.120** (0.0108)
Income	0.0441** (0.00590)	0.0453** (0.00583)
Gender: Male	0.151** (0.0195)	0.155** (0.0196)
Married	0.112** (0.0217)	0.106** (0.0232)
Have Children	-0.120** (0.0409)	-0.141** (0.0408)
Union Member	0.182** (0.0270)	0.193** (0.0271)
Unemployed	-0.0939* (0.0436)	-0.102* (0.0444)
Own Home	0.280** (0.0536)	0.279** (0.0525)
Protestant	0.180 ⁺ (0.0923)	0.166 ⁺ (0.0906)
Catholic	0.0924 (0.0879)	0.0774 (0.0864)
Jewish	0.0755 (0.115)	0.0875 (0.116)
Atheist	0.412** (0.109)	0.428** (0.108)
STATE ELECTORAL LAWS		
Registration Deadline	-0.00429 (0.00881)	-0.00419 (0.00857)
Early Voting -0.238	-0.240 (0.212)	(0.208)
Vote by Mail	-0.302 (0.486)	-0.290 (0.480)
No Excuse Absentee Voting	0.443** (0.168)	0.447** (0.165)
ELECTORAL COMPETITION		
Presidential Election Year	1.132** (0.0952)	1.139** (0.0952)
Gubernatorial Election Year	0.223 (0.148)	0.227 (0.147)
Senate Election Year	-0.0397 (0.120)	-0.0395 (0.116)
State Margin of Victory	-1.138 (0.693)	-1.110 (0.677)
Southern State	-0.476 (0.310)	-0.458 (0.308)
Constant	-1.558** (0.323)	-1.749** (0.315)
N	130347	132581
Pseudo R ²	0.0982	0.1009

Standard errors in parentheses

⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Additional Political Controls

To help ensure that the relationships we have identified in the main tables are accurate, we performed a series of robustness checks. First, we added a range of different independent variables to the model that might be related to turnout. In particular, to further control for the competitiveness of the election and different aspects of mobilization, we tested several different measures of state and district campaign spending, whether or not there was an open seat in the respondent's house district, whether or not there was an open seat in the Senate contest in the state, whether or not there was an open seat in the gubernatorial election, and finally whether or not each respondent indicated they had been contacted or mobilized by one of the campaigns. As can be seen in Table 4a, none of these variables altered the basic conclusions of our analysis. After they are included in the regression model, strict ID laws still differentially impact turnout.

Table 4 (a): The Racial Impact of Strict Voter ID Laws with Additional Political Controls

	(1) General Election Turnout	(2) Primary Election Turnout
VOTER ID LAW		
Strict Voter ID Law	-0.0854 (0.123)	0.0406 (0.144)
Strict Voter ID * Black	-0.132 (0.0981)	-0.434** (0.127)
Strict Voter ID * Latino	-0.286* (0.117)	-0.356** (0.0952)
Strict Voter ID * Asian	-0.162 (0.227)	-0.611* (0.271)
Strict Voter ID * Mixed Race	-0.186 (0.147)	-0.285 (0.180)
DEMOGRAPHICS		
Black	-0.158** (0.0490)	-0.0709 (0.0724)
Latino	-0.377** (0.0840)	-0.247** (0.0542)
Asian	-0.408** (0.132)	-0.286 (0.175)
Mixed Race	0.00794 (0.0684)	-0.0162 (0.100)
Foreign Born	-0.462** (0.0599)	-0.314** (0.0740)
First Generation	-0.104** (0.0350)	-0.0497 (0.0416)
Age	0.0301** (0.00126)	0.0340** (0.00130)
Education	0.169** (0.0123)	0.149** (0.00724)
Income	0.0431** (0.00320)	0.0260** (0.00367)
Gender: Male	0.186** (0.0246)	0.203** (0.0244)
Married	0.0851** (0.0194)	0.0254 (0.0231)
Have Children	-0.207** (0.0283)	-0.179** (0.0284)
Union Member	0.195** (0.0264)	0.132** (0.0252)
Unemployed	-0.112* (0.0493)	-0.144** (0.0508)
Own Home	0.365** (0.0291)	0.349** (0.0333)
Protestant	0.208** (0.0305)	0.249** (0.0301)
Catholic	0.109* (0.0461)	0.139** (0.0415)
Jewish	0.0681 (0.0893)	0.0863 (0.0829)
Atheist	0.403** (0.105)	0.190** (0.0477)
STATE ELECTORAL LAWS		
Registration Deadline	-0.00167 (0.00479)	0.00812 (0.00614)
Early Voting	-0.190 (0.172)	-0.151 (0.162)
Vote by Mail	-0.125 (0.209)	0.757** (0.200)
No Excuse Absentee Voting	0.319* (0.157)	0.355* (0.139)
ELECTORAL COMPETITION		
First Year of Strict Law	0.211 (0.162)	0.290* (0.135)
Presidential Election Year	0.830** (0.0901)	0.231+ (0.131)
Gubernatorial Election Year	0.226* (0.0924)	0.357** (0.112)
Senate Election Year	0.156+ (0.0842)	-0.0714 (0.0765)
State Margin of Victory	-1.368** (0.453)	-0.151 (0.616)
State Spending	7.02e-10** (1.61e-10)	1.62e-09** (1.93e-10)
Democratic Control of the House	-0.0982 (0.118)	0.116 (0.134)
Democratic Control of the Senate	0.0102 (0.124)	0.0295 (0.140)
Democratic Share of the Population	0.915* (0.456)	-1.707* (0.803)
Democratic Governor	0.112 (0.0966)	0.00953 (0.0994)
Constant	-2.140** (0.351)	-3.231** (0.539)
N	160970	141801
Pseudo R ²	0.1299	0.1147

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Models include year fixed effects.

Additional Demographic Controls

Likewise, to ensure we had not missed individual characteristics that might impact turnout, in alternate tests, we augmented the basic regression model with measures for years living in the current residence, church attendance, religiosity, being born again, and several different variants of education and income. A sampling of these variables are added to the regression in Table 4b. Again, the inclusion of these new control variables did little to alter our basic conclusions about voter ID laws.

Table 4 (b): The Racial Impact of Strict Voter ID Laws with Additional Demographic Controls

	(1) General Election Turnout	(2) Primary Election Turnout
VOTER ID LAW		
Strict Voter ID Law	-0.0346 (0.114)	0.0121 (0.136)
Strict Voter ID Law * Black	-0.112 (0.116)	-0.387** (0.115)
Strict Voter ID Law * Latino	-0.311** (0.109)	-0.473** (0.123)
Strict Voter ID Law * Asian	-0.248 (0.197)	-0.740** (0.260)
Strict Voter ID Law * Mixed Race	-0.142 (0.178)	-0.346* (0.165)
DEMOGRAPHICS		
Black	-0.0576 (0.0654)	-0.0630 (0.0600)
Latino	-0.186** (0.0578)	-0.0526 (0.0899)
Asian	-0.319** (0.119)	-0.143 (0.121)
Mixed Race	0.00785 (0.0706)	0.00626 (0.102)
Foreign Born	-0.471** (0.0667)	-0.289** (0.0803)
First Generation	-0.0886* (0.0389)	-0.0227 (0.0510)
Age	0.0258** (0.00112)	0.0283** (0.00138)
Education	0.124** (0.00858)	0.0950** (0.00726)
Income	0.0369** (0.00437)	0.0180** (0.00485)
Gender: Male	0.0628** (0.0223)	0.0938** (0.0248)
Married	0.0729** (0.0216)	-0.00299 (0.0232)
Have Children	-0.204** (0.0269)	-0.206** (0.0279)
Union Member	0.161** (0.0306)	0.105** (0.0320)
Unemployed	-0.0453 (0.0516)	-0.0933+ (0.0519)
Own Home	0.377** (0.0330)	0.330** (0.0422)
Protestant	0.116** (0.0296)	0.0862** (0.0313)
Catholic	0.0879* (0.0374)	0.00607 (0.0521)
Jewish	0.0763 (0.0809)	0.0177 (0.0799)
Atheist	0.305** (0.102)	0.155** (0.0472)
Church Attendance	-0.0654** (0.0116)	-0.104** (0.0110)
Born Again	-0.0151 (0.0382)	-0.0411 (0.0334)
Religious Importance	0.0614** (0.0159)	0.0409** (0.0143)
News Interest	-0.355** (0.0134)	-0.440** (0.0195)
STATE ELECTORAL LAWS		
Registration Deadline	-0.00525 (0.00440)	0.00226 (0.00828)
Early Voting	-0.0258 (0.0994)	0.147 (0.200)
Vote by Mail	0.516** (0.139)	0.862** (0.210)
No Excuse Absentee Voting	0.333** (0.0626)	0.268* (0.111)
ELECTORAL COMPETITION		
First Year of Strict Law	0.0804 (0.154)	0.324* (0.146)
Presidential Election Year	0.994** (0.0805)	0.371** (0.120)
Gubernatorial Election Year	0.321** (0.0828)	0.327** (0.128)
Senate Election Year	0.121+ (0.0644)	-0.0681 (0.0720)
State Margin of Victory	0.0361 (0.361)	0.247 (0.901)
Constant	-0.732** (0.174)	-2.249** (0.280)
<i>N</i>	144230	146190
Pseudo <i>R</i> ²	0.1545	0.1291

Standard errors in parentheses
+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$
Note: Models include year fixed effects.

Controlling for the South

Given the South's history of racially discriminatory voter disenfranchisement, we repeated all of the analysis with an additional control for residence in the South or not. As demonstrated by Table 5, this had no appreciably impact on the main effect of voter ID laws on minority turnout.

Table 5 (a): The Racial Impact of Strict Voter ID Laws Controlling for the South

	(1) General Election Turnout	(2) Primary Election Turnout
VOTER ID LAW		
Strict Voter ID Law	-0.100 (0.162)	-0.00518 (0.141)
Strict Voter ID * Black	-0.113 (0.0987)	-0.388** (0.124)
Strict Voter ID * Latino	-0.391** (0.119)	-0.449** (0.122)
Strict Voter ID * Asian	-0.220 (0.210)	-0.627* (0.245)
Strict Voter ID * Mixed Race	-0.226 (0.143)	-0.303 ⁺ (0.179)
DEMOGRAPHICS		
Black	-0.174** (0.0600)	-0.0926 (0.0613)
Latino	-0.288** (0.0812)	-0.148 ⁺ (0.0827)
Asian	-0.370** (0.107)	-0.257* (0.119)
Mixed Race	0.0393 (0.0644)	0.00359 (0.101)
Foreign Born	-0.428** (0.0587)	-0.294** (0.0803)
First Generation	-0.0661* (0.0324)	-0.0290 (0.0487)
Age	0.0297** (0.00140)	0.0338** (0.00138)
Education	0.163** (0.0116)	0.145** (0.00791)
Income	0.0420** (0.00453)	0.0262** (0.00489)
Gender: Male	0.177** (0.0256)	0.194** (0.0245)
Married	0.0740** (0.0198)	0.0268 (0.0222)
Have Children	-0.199** (0.0265)	-0.178** (0.0285)
Union Member	0.243** (0.0313)	0.134** (0.0313)
Unemployed	-0.0989* (0.0485)	-0.137** (0.0503)
Own Home	0.347** (0.0314)	0.338** (0.0392)
Protestant	0.194** (0.0305)	0.243** (0.0323)
Catholic	0.123* (0.0480)	0.0937 (0.0575)
Jewish	0.130 (0.0910)	0.0523 (0.0849)
Atheist	0.402** (0.0993)	0.180** (0.0491)
STATE ELECTORAL LAWS		
Registration Deadline	-0.00887 (0.00812)	0.00407 (0.00768)
Early Voting	-0.201 (0.170)	0.168 (0.193)
Vote by Mail	0.0756 (0.267)	0.832** (0.219)
No Excuse Absentee Voting	0.388* (0.165)	0.270* (0.127)
ELECTORAL COMPETITION		
First Year of Strict Law	0.215 (0.190)	0.324* (0.144)
Presidential Election Year	0.924** (0.114)	0.338** (0.124)
Gubernatorial Election Year	0.308** (0.119)	0.325* (0.133)
Senate Election Year	0.117 (0.0947)	-0.0561 (0.0694)
State Margin of Victory	-1.111* (0.550)	0.181 (0.882)
Southern State	0.00523 (0.122)	-0.0876 (0.126)
Constant	-1.546** (0.290)	-4.002** (0.268)
<i>N</i>	167396	146548
Pseudo <i>R</i> ²	0.1234	0.1067

Standard errors in parentheses

⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Models include year fixed effects.

Assessing the Uniqueness of the South

To further investigate the role of region, we repeated the main analysis separately on Southern and non-Southern states. Interesting, as we see in table 5b the effects of voter ID laws in the South were often similar to their effects in the non-South. At least in terms of race, strict voter ID laws matter in both the South and the non-South.

Table 5 (b): The Racial Impact of Strict Voter ID Laws in the South versus non-South

	(1) General Election Turnout SOUTH ONLY	(2) General Election Turnout NON-SOUTH	(3) Primary Election Turnout SOUTH ONLY	(4) Primary Election Turnout NON-SOUTH
VOTER ID LAW				
Strict Voter ID Law	-0.119* (0.0522)	-0.134 (0.183)	-0.0979 (0.0668)	0.00242 (0.189)
Strict Voter ID * Black	-0.175+ (0.101)	-0.0149 (0.139)	-0.123 (0.0794)	-0.519** (0.161)
Strict Voter ID * Latino	-0.547** (0.0863)	-0.371** (0.116)	-0.953** (0.0894)	-0.403** (0.118)
Strict Voter ID * Asian	-0.953** (0.200)	-0.0679 (0.191)	-0.637+ (0.373)	-0.568* (0.278)
Strict Voter ID * Mixed Race	-0.0264 (0.121)	-0.266 (0.180)	-0.363 (0.282)	-0.257* (0.130)
DEMOGRAPHICS				
Black	0.000515 (0.0472)	-0.253** (0.0745)	-0.156* (0.0750)	-0.0564 (0.0853)
Latino	-0.00267 (0.0931)	-0.323** (0.0674)	-0.161 (0.126)	-0.152+ (0.0918)
Asian	-0.215 (0.210)	-0.382** (0.125)	-0.571+ (0.309)	-0.238+ (0.141)
Mixed Race	-0.131 (0.0914)	0.0739 (0.0737)	-0.363* (0.182)	0.0667 (0.101)
Foreign Born	-0.430** (0.137)	-0.431** (0.0598)	-0.334 (0.227)	-0.266** (0.0793)
First Generation	0.00893 (0.0821)	-0.0736* (0.0354)	0.0906 (0.105)	-0.0484 (0.0474)
Age	0.0342** (0.00230)	0.0287** (0.00160)	0.0362** (0.00187)	0.0332** (0.00160)
Education	0.185** (0.0158)	0.158** (0.0130)	0.143** (0.0144)	0.147** (0.00924)
Income	0.0534** (0.00619)	0.0391** (0.00533)	0.0315** (0.00586)	0.0252** (0.00587)
Gender: Male	0.177** (0.0344)	0.179** (0.0307)	0.168** (0.0352)	0.203** (0.0298)
Married	0.00341 (0.0392)	0.0969** (0.0240)	0.0319 (0.0370)	0.0232 (0.0273)
Have Children	-0.172** (0.0433)	-0.209** (0.0307)	-0.126** (0.0409)	-0.194** (0.0334)
Union Member	0.107* (0.0454)	0.276** (0.0332)	0.0421 (0.0735)	0.159** (0.0337)
Unemployed	-0.0403 (0.0980)	-0.103+ (0.0581)	-0.120 (0.137)	-0.143** (0.0495)
Own Home	0.453** (0.0369)	0.315** (0.0356)	0.391** (0.0821)	0.323** (0.0442)
Protestant	0.213** (0.0374)	0.189** (0.0350)	0.290** (0.0781)	0.228** (0.0299)
Catholic	0.156* (0.0728)	0.0992+ (0.0545)	0.113+ (0.0602)	0.103 (0.0683)
Jewish	-0.0979 (0.216)	0.222** (0.0678)	-0.0977 (0.157)	0.115 (0.0904)
Atheist	0.577** (0.194)	0.359** (0.106)	0.0149 (0.156)	0.215** (0.0514)
STATE ELECTORAL LAWS				
Registration Deadline	-0.000512 (0.00704)	-0.0110 (0.00898)	-0.00333 (0.00700)	0.00457 (0.00895)
Early Voting	0.284 (0.220)	-0.235 (0.165)	-0.359* (0.170)	0.265 (0.225)
Vote by Mail	0 (.)	0.0220 (0.284)	0 (.)	0.893** (0.230)
No Excuse Absentee Voting	-0.0606 (0.138)	0.465** (0.161)	0.423** (0.137)	0.252+ (0.141)
ELECTORAL COMPETITION				
First Year of Strict Law	0.230 (0.177)	0.247 (0.229)	0.533** (0.116)	0.240 (0.161)
Presidential Election Year	0.787** (0.101)	1.002** (0.165)	0.399+ (0.222)	0.331* (0.148)
Gubernatorial Election Year	0.210* (0.0824)	0.403** (0.155)	0.305+ (0.177)	0.359* (0.169)
Senate Election Year	0.0540 (0.0871)	0.176 (0.123)	-0.000548 (0.0940)	-0.0658 (0.0883)
State Margin of Victory	0.0118 (0.363)	-1.825* (0.746)	-0.00951 (0.337)	0.109 (1.272)
Constant	-2.298** (0.405)	-1.399** (0.312)	-3.790** (0.403)	-4.026** (0.324)
<i>N</i>	37753	129643	33250	113298
Pseudo <i>R</i> ²	0.1272	0.1271	0.1133	0.1067

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Models include year fixed effects.

There were, however, some signs that the political consequences of voter ID laws were more pronounced in the South. As Table 5c indicates, voter ID laws skewed turnout toward the political right in primaries in both the South and the non-South but in general elections we only see significant and substantial political effects in the South.

Table 5 (c): The Political Effects of Strict Photo Voter ID in the South versus non-South

	(1) General Election Turnout SOUTH ONLY	(2) General Election Turnout NON-SOUTH	(3) Primary Election Turnout SOUTH ONLY	(4) Primary Election Turnout NON-SOUTH	(5) General Election Turnout SOUTH ONLY	(6) General Election Turnout NON-SOUTH	(7) Primary Election Turnout SOUTH ONLY	(8) Primary Election Turnout NON-SOUTH
VOTER ID LAW								
Strict Voter ID Law	-0.505** (0.129)	-0.132 (0.247)	-1.049** (0.149)	-0.453 (0.279)	-0.331** (0.0741)	-0.138 (0.214)	-0.517** (0.0693)	-0.270 (0.237)
Strict Voter ID * Party ID					0.0317** (0.0102)	-0.00426 (0.00854)	0.0861** (0.0247)	0.0536** (0.0201)
Strict Voter ID * Ideology	0.0950** (0.0290)	-0.00886 (0.0243)	0.262** (0.0535)	0.120** (0.0427)				
POLITICAL LEANING								
Party ID (High = Rep)					0.0297** (0.0108)	0.0246** (0.00678)	0.0392+ (0.0237)	0.0260* (0.0132)
Ideology (High = Con)	0.0889** (0.0232)	0.0576** (0.0154)	0.107* (0.0468)	0.0766* (0.0300)				
DEMOGRAPHICS								
Black	0.00724 (0.0386)	-0.237** (0.0636)	-0.107* (0.0540)	-0.123 (0.0796)	0.0577 (0.0490)	-0.225** (0.0702)	-0.0262 (0.0500)	-0.0868 (0.0827)
Latino	-0.0380 (0.0990)	-0.361** (0.0719)	-0.210* (0.0945)	-0.194* (0.0946)	-0.0164 (0.101)	-0.364** (0.0790)	-0.205* (0.0917)	-0.176+ (0.0959)
Asian	-0.321 (0.200)	-0.389** (0.121)	-0.641* (0.134)	-0.277* (0.134)	-0.435* (0.200)	-0.352** (0.122)	-0.753** (0.262)	-0.266+ (0.144)
Mixed Race	-0.108 (0.0770)	0.0401 (0.0720)	-0.396* (0.158)	0.0320 (0.0982)	-0.0485 (0.107)	0.0313 (0.0699)	-0.356* (0.155)	0.0197 (0.0923)
Foreign Born	-0.417** (0.134)	-0.423** (0.0608)	-0.319 (0.221)	-0.259** (0.0802)	-0.434** (0.138)	-0.420** (0.0660)	-0.325 (0.216)	-0.241** (0.0802)
firstgen	0.0201 (0.0786)	-0.0735* (0.0356)	0.0952 (0.102)	-0.0495 (0.0485)	0.0218 (0.0880)	-0.0625 (0.0397)	0.101 (0.104)	-0.0514 (0.0496)
Age	0.0335** (0.00235)	0.0285** (0.00159)	0.0356** (0.00185)	0.0329** (0.00163)	0.0343** (0.00239)	0.0280** (0.00164)	0.0360** (0.00186)	0.0328** (0.00159)
Education	0.191** (0.0161)	0.162** (0.0128)	0.152** (0.0134)	0.153** (0.00986)	0.175** (0.0161)	0.153** (0.0136)	0.142** (0.0145)	0.144** (0.00919)
Income	0.0519** (0.00636)	0.0387** (0.00529)	0.0300** (0.00571)	0.0246** (0.00600)	0.0532** (0.00631)	0.0369** (0.00543)	0.0289** (0.00554)	0.0231** (0.00629)
Gender: Male	0.161** (0.0353)	0.169** (0.0304)	0.146** (0.0313)	0.181** (0.0281)	0.156** (0.0357)	0.148** (0.0294)	0.143** (0.0324)	0.174** (0.0282)
Married	-0.0202 (0.0387)	0.0858** (0.0228)	0.00264 (0.0393)	0.00184 (0.0257)	-0.00266 (0.0370)	0.0841** (0.0246)	0.0165 (0.0371)	0.00681 (0.0276)
Have Children	-0.183** (0.0449)	-0.216** (0.0298)	-0.137** (0.0414)	-0.204** (0.0336)	-0.180** (0.0387)	-0.197** (0.0305)	-0.138** (0.0433)	-0.193** (0.0341)
Union Member	0.121** (0.0444)	0.284** (0.0320)	0.0561 (0.0710)	0.174** (0.0318)	0.102* (0.0483)	0.279** (0.0324)	0.0632 (0.0728)	0.178** (0.0316)
Unemployed	-0.0437 (0.0963)	-0.0987+ (0.0572)	-0.123 (0.136)	-0.143** (0.0490)	-0.0342 (0.0904)	-0.0756 (0.0579)	-0.121 (0.135)	-0.133** (0.0489)
Own Home	0.449** (0.0374)	0.308** (0.0355)	0.385** (0.0825)	0.317** (0.0449)	0.443** (0.0388)	0.304** (0.0350)	0.391** (0.0777)	0.322** (0.0461)
Protestant	0.175** (0.0396)	0.166** (0.0345)	0.230** (0.0712)	0.180** (0.0290)	0.186** (0.0382)	0.161** (0.0361)	0.247** (0.0683)	0.184** (0.0295)
Catholic	0.135* (0.0666)	0.0840 (0.0547)	0.0806 (0.0599)	0.0733 (0.0666)	0.143* (0.0686)	0.0840 (0.0557)	0.0882 (0.0584)	0.0814 (0.0686)
Jewish	-0.0581 (0.199)	0.231** (0.0683)	-0.0709 (0.152)	0.126 (0.0912)	-0.0798 (0.206)	0.213** (0.0699)	-0.0483 (0.151)	0.127 (0.0908)
Atheist	0.664** (0.188)	0.400** (0.111)	0.124 (0.152)	0.282** (0.0585)	0.622** (0.198)	0.373** (0.113)	0.0744 (0.158)	0.245** (0.0536)
STATE ELECTORAL LAWS								
Registration Deadline	-0.000639 (0.00716)	-0.0113 (0.00903)	-0.00346 (0.00685)	0.00460 (0.00903)	-0.000704 (0.00753)	-0.0112 (0.00929)	-0.00301 (0.00681)	0.00480 (0.00902)
Early Voting	0.276 (0.220)	-0.231 (0.166)	-0.380* (0.171)	0.260 (0.227)	0.287 (0.225)	-0.236 (0.167)	-0.365* (0.176)	0.271 (0.228)
Vote by Mail	0 (.)	0.0265 (0.282)	0 (.)	0.883** (0.230)	0 (.)	0.00665 (0.281)	0 (.)	0.893** (0.230)
No Excuse Absentee Voting	-0.0552 (0.138)	0.463** (0.162)	0.444** (0.140)	0.258+ (0.143)	-0.0598 (0.145)	0.465** (0.164)	0.429** (0.143)	0.245+ (0.145)
ELECTORAL COMPETITION								
First Year of Strict Law	0.221 (0.178)	0.210 (0.220)	0.541** (0.117)	0.193 (0.168)	0.250 (0.197)	0.206 (0.223)	0.560** (0.118)	0.185 (0.169)
Presidential Election Year	0.791** (0.103)	1.002** (0.163)	0.399+ (0.225)	0.337* (0.147)	0.782** (0.106)	0.976** (0.165)	0.388* (0.222)	0.320* (0.146)
Gubernatorial Election Year	0.211* (0.0828)	0.398** (0.153)	0.301+ (0.179)	0.361* (0.169)	0.211* (0.0849)	0.396* (0.154)	0.297+ (0.179)	0.359* (0.168)
Senate Election Year	0.0562 (0.0864)	0.174 (0.122)	-0.00535 (0.0947)	-0.0703 (0.0881)	0.0573 (0.0876)	0.171 (0.126)	-0.0126 (0.0933)	-0.0741 (0.0877)
State Margin of Victory	-0.00834 (0.379)	-1.795* (0.743)	-0.0152 (0.323)	0.114 (1.272)	0.0159 (0.372)	-1.843* (0.758)	-0.0102 (0.352)	0.124 (1.275)
Constant	-2.514** (0.376)	-1.549** (0.313)	-4.063** (0.468)	-4.216** (0.340)	-2.344** (0.419)	-1.351** (0.330)	-3.874** (0.448)	-4.029** (0.331)
N	37635	129221	33233	113250	36970	126904	32523	110774
Pseudo R ²	0.1279	0.1270	0.1164	0.1076	0.1249	0.1202	0.1140	0.1042

Standard errors in parentheses
+ p < 0.10, * p < 0.05, ** p < 0.01
Note: Models include year fixed effects.

State and Year Fixed Effects

In another critical test, we shifted to an analysis that incorporated both state and year fixed effects. By adding dummy variables for every state and every year, we essentially control away all of the features that are unique to each state and each election year. If a state was more Republican or more anti-minority in ways that we did not measure or in ways that are not measurable at all, that difference was soaked up with the fixed effects. In the end, the fixed effects model should tell us how turnout differs from the norm in each individual state when voter ID laws are enacted and thus should get us closer to an estimate of the change due specifically to implementation of voter identification laws. This “difference-in-differences” design is among the most rigorous ways to examine panel data.

The fixed effects analysis which is displayed in Table 6 tells essentially the story as our other analysis. Racial and ethnic minorities and liberals and Democrats are especially hurt by strict voter identification laws.

Table 6: The Impact of Strict Voter ID Laws: State Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)
	General Election Turnout	Primary Election Turnout	General Election Turnout	Primary Election Turnout	Primary Election Turnout	Primary Election Turnout
VOTER ID LAW						
Strict Voter ID Law	0.109** (0.00754)	0.0677** (0.0105)	0.100** (0.00884)	0.0309** (0.0118)	0.0108 (0.0118)	-0.0217 (0.0138)
Strict Voter ID * Black	-0.00497 (0.00841)	-0.0432** (0.00985)				
Strict Voter ID * Latino	-0.0446** (0.0133)	-0.0556** (0.0157)				
Strict Voter ID * Asian	0.0161 (0.0345)	-0.00137 (0.0400)				
Strict Voter ID * Mixed Race	-0.0263 (0.0223)	-0.0367 (0.0258)				
Strict Voter ID * White			0.00799 (0.00661)	0.0359** (0.00775)		
Strict Voter ID * Party ID					0.0115** (0.00139)	
Strict Voter ID * Ideology						0.0240** (0.00277)
POLITICAL LEANING						
Party ID (High = Rep)					0.00711** (0.000628)	
Ideology (High = Con)						0.0175** (0.00123)
DEMOGRAPHICS						
Black	-0.0242** (0.00386)	-0.0351** (0.00475)			-0.0245** (0.00450)	-0.0344** (0.00427)
Latino	-0.0501** (0.00472)	-0.0565** (0.00593)			-0.0574** (0.00573)	-0.0592** (0.00561)
Asian	-0.0951** (0.0105)	-0.0803** (0.0125)			-0.0786** (0.0123)	-0.0809** (0.0119)
Mixed Race	-0.00434 (0.00858)	-0.0100 (0.0101)			-0.0148 (0.00954)	-0.0135 (0.00933)
White			0.0260** (0.00279)	0.0295** (0.00343)		
Foreign	-0.0797** (0.00510)	-0.0648** (0.00621)	-0.0919** (0.00497)	-0.0757** (0.00604)	-0.0636** (0.00630)	-0.0646** (0.00620)
First Generation	-0.0139** (0.00375)	-0.00483 (0.00455)	-0.0217** (0.00365)	-0.0114* (0.00444)	-0.00483 (0.00461)	-0.00473 (0.00454)
Age	0.00490** (0.0000751)	0.00753** (0.0000922)	0.00499** (0.0000746)	0.00762** (0.0000916)	0.00748** (0.0000936)	0.00742** (0.0000922)
Education	0.0231** (0.000721)	0.0316** (0.000874)	0.0230** (0.000722)	0.0317** (0.000873)	0.0318** (0.000888)	0.0336** (0.000880)
Income	0.00616** (0.000292)	0.00464** (0.000357)	0.00619** (0.000292)	0.00471** (0.000357)	0.00420** (0.000363)	0.00447** (0.000357)
Gender: Male	0.0334** (0.00199)	0.0408** (0.00243)	0.0335** (0.00199)	0.0414** (0.00242)	0.0350** (0.00247)	0.0350** (0.00244)
Married	0.0175** (0.00226)	0.0155** (0.00275)	0.0174** (0.00225)	0.0160** (0.00275)	0.0114** (0.00280)	0.0104** (0.00276)
Have Children	-0.0287** (0.00271)	-0.0321** (0.00311)	-0.0286** (0.00271)	-0.0326** (0.00310)	-0.0326** (0.00316)	-0.0346** (0.00311)
Union Member	0.0254** (0.00243)	0.0221** (0.00307)	0.0257** (0.00243)	0.0223** (0.00307)	0.0259** (0.00312)	0.0255** (0.00307)
Unemployed	-0.0129** (0.00428)	-0.0172** (0.00501)	-0.0127** (0.00428)	-0.0173** (0.00501)	-0.0164** (0.00511)	-0.0180** (0.00500)
Own Home	0.0844** (0.00267)	0.0827** (0.00326)	0.0841** (0.00267)	0.0833** (0.00325)	0.0831** (0.00331)	0.0813** (0.00325)
Protestant	0.0315** (0.00260)	0.0528** (0.00296)	0.0318** (0.00260)	0.0523** (0.00295)	0.0437** (0.00305)	0.0398** (0.00303)
Catholic	0.0102** (0.00307)	0.0220** (0.00349)	0.00804** (0.00304)	0.0200** (0.00345)	0.0171** (0.00356)	0.0135** (0.00352)
Jewish	0.00994 (0.00683)	0.0193* (0.00774)	0.0120+ (0.00683)	0.0214** (0.00774)	0.0248** (0.00782)	0.0221** (0.00773)
Atheist	0.0611** (0.00640)	0.0450** (0.00727)	0.0613** (0.00640)	0.0456** (0.00727)	0.0549** (0.00735)	0.0616** (0.00731)
STATE ELECTORAL LAWS						
Registration Deadline	0.0000524 (0.000257)	-0.00131** (0.000318)	0.0000501 (0.000257)	-0.00131** (0.000319)	-0.00130** (0.000323)	-0.00128** (0.000318)
Early Voting	0.00649 (0.0156)	0.127** (0.0219)	0.00671 (0.0156)	0.128** (0.0219)	0.132** (0.0222)	0.127** (0.0219)
Vote by Mail	-0.0777** (0.0217)	0.137** (0.0277)	-0.0769** (0.0217)	0.137** (0.0277)	0.141** (0.0280)	0.136** (0.0277)
No Excuse Absentee Voting	-0.137** (0.00945)	-0.0528** (0.0120)	-0.137** (0.00945)	-0.0532** (0.0120)	-0.0537** (0.0122)	-0.0524** (0.0120)
ELECTORAL COMPETITION						
First Year of Strict Law	0.00869 (0.00714)	0.0135 (0.00864)	0.00831 (0.00714)	0.0139 (0.00864)	0.0131 (0.00875)	0.0131 (0.00862)
Presidential Election Year	0.137** (0.00378)	0.0731** (0.00449)	0.137** (0.00379)	0.0728** (0.00449)	0.0730** (0.00455)	0.0722** (0.00448)
Gubernatorial Election Year	0.0143** (0.00293)	0.0403** (0.00358)	0.0142** (0.00293)	0.0403** (0.00358)	0.0408** (0.00363)	0.0405** (0.00358)
Senate Election Year	0.00472* (0.00224)	0.00150 (0.00277)	0.00462* (0.00225)	0.00142 (0.00277)	0.000763 (0.00281)	0.00121 (0.00277)
State Margin of Victory	-0.387** (0.0266)	0.0512 (0.0512)	-0.388** (0.0266)	0.0517 (0.0512)	0.0489 (0.0518)	0.0576 (0.0511)
Constant	0.327** (0.0130)	-0.354** (0.0177)	0.298** (0.0130)	-0.390** (0.0177)	-0.366** (0.0181)	-0.396** (0.0180)
N	167524	146683	167524	146683	143431	146618
adj. R ²	0.116	0.131	0.115	0.131	0.130	0.134

Standard errors in parentheses
+ p < 0.10, * p < 0.05, ** p < 0.01

Are Political Effects Driven Entirely by Race?

To see whether or not the political effects of voter ID laws in our main analysis are driven entirely by the differentially low turnout of racial and ethnic minorities, we re-ran our main analysis adding racial interactions to the political regression models in Table 3 in the main text. As illustrated by Table 7 below, it appears that the political effects of strict ID laws are not driven entirely by lower turnout among racial and ethnic minorities. When we add the racial interactions to the model, the political interactions are reduced in size but remain significant.

Table 7: The Racial and Political Effects of Strict Photo Voter ID Laws in Primary Elections

	(1) Primary Election Turnout	(2) Primary Election Turnout
VOTER ID LAW		
Strict Voter ID Law	-0.380 (0.260)	-0.158 (0.201)
Strict Voter ID * Black	-0.340** (0.125)	-0.280+ (0.147)
Strict Voter ID * Latino	-0.425** (0.122)	-0.391** (0.130)
Strict Voter ID * Asian	-0.611* (0.250)	-0.530* (0.211)
Strict Voter ID * Mixed Race	-0.291 (0.177)	-0.244 (0.178)
Strict Voter ID * Party ID		0.0409+ (0.0211)
Strict Voter ID * Ideology	0.119* (0.0470)	
POLITICAL LEANING		
Party ID (High = Rep)		0.0312** (0.0121)
Ideology (High = Con)	0.0859** (0.0269)	
DEMOGRAPHICS		
Black	-0.0731 (0.0691)	-0.0404 (0.0732)
Latino	-0.128 (0.0849)	-0.117 (0.0880)
Asian	-0.248* (0.117)	-0.254* (0.128)
Mixed Race	0.0132 (0.0996)	0.00247 (0.0957)
Foreign Born	-0.293** (0.0792)	-0.282** (0.0781)
First Generation	-0.0275 (0.0493)	-0.0275 (0.0511)
Age	0.0334** (0.00140)	0.0334** (0.00137)
Education	0.153** (0.00820)	0.143** (0.00775)
Income	0.0257** (0.00505)	0.0242** (0.00524)
Gender: Male	0.172** (0.0230)	0.166** (0.0232)
Married	0.00489 (0.0215)	0.0121 (0.0227)
Have Children	-0.189** (0.0284)	-0.181** (0.0285)
Union Member	0.157** (0.0315)	0.161** (0.0314)
Unemployed	-0.140** (0.0496)	-0.133** (0.0490)
Own Home	0.328** (0.0405)	0.333** (0.0410)
Protestant	0.188** (0.0330)	0.195** (0.0337)
Catholic	0.0650 (0.0565)	0.0735 (0.0582)
Jewish	0.0688 (0.0849)	0.0725 (0.0836)
Atheist	0.254** (0.0531)	0.214** (0.0502)
STATE ELECTORAL LAWS		
Registration Deadline	0.00245 (0.00823)	0.00264 (0.00823)
Early Voting	0.161 (0.196)	0.171 (0.197)
Vote by Mail	0.849** (0.209)	0.858** (0.209)
No Excuse Absentee Voting	0.252* (0.109)	0.240* (0.111)
ELECTORAL COMPETITION		
First Year of Strict Law	0.301* (0.148)	0.298* (0.151)
Presidential Election Year	0.344** (0.120)	0.328** (0.119)
Gubernatorial Election Year	0.330* (0.129)	0.327* (0.128)
Senate Election Year	-0.0592 (0.0702)	-0.0643 (0.0698)
State Margin of Victory	0.259 (0.890)	0.273 (0.891)
Constant	-4.218** (0.294)	-4.026** (0.280)
<i>N</i>	146483	143297
Pseudo <i>R</i> ²	0.1082	0.1050

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Models include year fixed effects.