

Online Appendix for: Obstacles to estimating voter ID laws' effect on turnout

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Table A.1: Percentage of CCES Respondents Who Do Not Match a Voter Registration Record by Race and Year

Racial Group	Year of Survey:				
	2006	2008	2010	2012	2014
All	31.7	11.2	9.7	20.5	29.9
White	29.9	10	7.5	17.7	26.7
Black	38.3	12.9	20.1	24.3	37.1
Hispanic	35.3	15.9	14.5	31.7	42.4
Asian	25.3	16	9.6	41.5	51.7
Native American	27.9	11.9	13.7	23.5	29.4
Mixed	37.2	19.1	12.7	23	34
Other	35.9	16.4	12.6	25.4	27.6
Middle Eastern	44.6	40.7	4.1	59.5	33.9

Note: Observations weighted by sample weight.

1 Appendix

Table A.2: Estimated CCES General Election Turnout by State and Year

State	2006	2008	2010	2012	2014
Alabama	59.3 (3.1) N = 314	74.6 (3.2) N = 316	55.7 (3.2) N = 557	74.7 (3.8) N = 575	62.1 (4.1) N = 406
Alaska	80.5 (5.3) N = 82	81.5 (5.6) N = 62	62.5 (7.8) N = 117	87.0 (4.8) N = 101	82.2 (7.2) N = 73
Arizona	.8 (.4) N = 467	75.4 (2.3) N = 668	69.5 (2.2) N = 1308	88.7 (1.4) N = 1161	73.4 (2.3) N = 945
Arkansas	0 (0) N = 194	74.1 (3.4) N = 337	68.1 (3.7) N = 412	82.0 (3.1) N = 399	86.0 (2.2) N = 299
California	82.3 (1.0) N = 2095	83.5 (1.0) N = 2201	74.4 (1.1) N = 4503	84.8 (1.0) N = 3788	74.1 (1.1) N = 3333
Colorado	86.6 (2.1) N = 376	83.9 (2.3) N = 450	70.7 (2.5) N = 901	90.4 (1.4) N = 841	85.3 (2.1) N = 691
Connecticut	60.4 (3.8) N = 215	75.8 (2.8) N = 371	74.3 (2.7) N = 656	76.1 (2.8) N = 473	83.4 (2.2) N = 397
Delaware	78.5 (5.1) N = 84	82.4 (5.0) N = 104	75.6 (4.8) N = 190	87.1 (3.2) N = 192	60.3 (5.6) N = 132
Florida	80.5 (1.2) N = 1593	78.4 (1.4) N = 1804	64.7 (1.3) N = 3785	84.2 (1.3) N = 3008	77.6 (1.3) N = 2497
Georgia	74.4 (1.8) N = 812	81.2 (1.9) N = 718	62.0 (2.1) N = 1489	80.6 (2.2) N = 1345	69.6 (2.4) N = 1038
Hawaii	77.9 (6.1) N = 64	77.7 (5.8) N = 62	75.8 (5.1) N = 144	91.5 (3.3) N = 135	87.7 (4.8) N = 105

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State	2006	2008	2010	2012	2014
Idaho	73.0 (4.1) N = 173	86.2 (3.2) N = 148	65.6 (4.4) N = 246	86.6 (3.6) N = 275	84.3 (3.7) N = 161
Illinois	82.9 (1.4) N = 1074	81.3 (1.8) N = 991	63.2 (1.7) N = 2149	84.2 (1.5) N = 1602	76.8 (1.6) N = 1478
Indiana	68.0 (2.2) N = 623	85.5 (2.1) N = 631	42.7 (2.3) N = 1035	88.9 (1.7) N = 824	60.3 (2.5) N = 767
Iowa	79.6 (3.0) N = 255	88.6 (2.1) N = 391	67.9 (3.2) N = 528	90.0 (1.9) N = 517	83.0 (3.1) N = 382
Kansas	.3 (.3) N = 345	86.2 (2.5) N = 355	68.0 (3.5) N = 488	87.6 (1.9) N = 555	83.9 (2.9) N = 335
Kentucky	78.8 (2.6) N = 335	76.8 (2.6) N = 392	61.2 (3.0) N = 658	77.9 (2.8) N = 667	71.2 (3.1) N = 459
Louisiana	62.4 (3.5) N = 251	80.0 (3.0) N = 331	60.7 (3.4) N = 551	82.3 (2.8) N = 541	73.5 (3.9) N = 373
Maine	15.5 (3.2) N = 167	80.7 (3.3) N = 216	62.0 (5.1) N = 308	91.6 (1.9) N = 330	82.5 (4.2) N = 209
Maryland	58.9 (2.5) N = 500	82.2 (2.7) N = 431	66.4 (2.7) N = 859	87.7 (1.6) N = 826	77.8 (2.5) N = 625
Massachusetts	.3 (.3) N = 268	82.6 (2.1) N = 470	59.5 (2.9) N = 903	79.3 (1.9) N = 887	81.5 (2.0) N = 718
Michigan	85.2 (1.3) N = 1054	80.9 (1.9) N = 925	53.0 (2.0) N = 1664	85.6 (1.4) N = 1451	73.5 (1.9) N = 1227
Minnesota	92.9 (1.4) N = 469	86.5 (2.3) N = 515	61.8 (3.1) N = 804	91.0 (1.1) N = 823	84.9 (1.7) N = 709
Mississippi	30.0 (4.4) N = 132	35.9 (3.6) N = 235	38.9 (4.5) N = 342	79.8 (4.1) N = 347	57.6 (4.8) N = 249
Missouri	83.8 (1.8) N = 582	82.5 (2.0) N = 731	57.6 (2.4) N = 1100	88.4 (1.5) N = 969	63.4 (2.7) N = 726
Montana	0 (0) N = 91	79.1 (3.8) N = 164	61.1 (8.4) N = 136	92.4 (2.2) N = 200	87.9 (3.0) N = 134
Nebraska	72.3 (4.9) N = 129	72.7 (4.3) N = 207	42.4 (6.1) N = 139	90.5 (2.0) N = 455	74.8 (3.7) N = 260
Nevada	83.4 (2.7) N = 262	81.9 (2.7) N = 345	76.8 (3.1) N = 534	87.0 (2.0) N = 517	67.8 (4.2) N = 378
New Hampshire	29.5 (5.3) N = 100	82.9 (3.3) N = 192	70.7 (4.7) N = 303	91.4 (1.8) N = 284	85.0 (3.0) N = 187
New Jersey	64.7 (2.3) N = 567	81.2 (2.1) N = 718	43.5 (2.4) N = 1237	77.5 (1.8) N = 1125	71.3 (2.1) N = 926
New Mexico	78.7 (3.3) N = 220	79.9 (3.2) N = 222	72.6 (4.6) N = 363	84.5 (2.8) N = 357	80.9 (3.6) N = 270
New York	75.9 (1.5) N = 1180	72.7 (1.6) N = 1418	61.7 (1.6) N = 2402	83.1 (1.2) N = 2109	68.4 (1.6) N = 1866
North Carolina	67.2 (2.2) N = 661	84.0 (1.6) N = 807	59.2 (2.2) N = 1290	85.6 (1.3) N = 1341	72.6 (2.0) N = 1085
North Dakota	25.5 (17.5) N = 8	73.2 (6.7) N = 83	61.4 (8.2) N = 101	92.2 (3.6) N = 71	82.8 (5.3) N = 67
Ohio	85.9 (1.3) N = 1084	84.8 (1.4) N = 1168	67.9 (1.8) N = 2117	87.1 (1.3) N = 1638	73.1 (1.8) N = 1546
Oklahoma	72.1 (3.6) N = 245	81.6 (3.0) N = 369	63.2 (3.8) N = 466	80.5 (2.7) N = 506	66.2 (4.6) N = 306
Oregon	.3 (.2) N = 498	81.0 (2.6) N = 504	78.6 (2.9) N = 689	90.4 (1.4) N = 945	90.0 (1.3) N = 684
Pennsylvania	81.9 (1.4) N = 1094	79.3 (1.4) N = 1563	64.7 (1.6) N = 2292	86.8 (1.3) N = 1725	74.6 (1.4) N = 1663

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State	2006	2008	2010	2012	2014
Rhode Island	38.8 (6.5) N = 72	87.2 (4.7) N = 88	63.7 (6.7) N = 167	89.0 (3.5) N = 195	75.5 (5.6) N = 125
South Carolina	71.6 (2.9) N = 335	75.3 (2.7) N = 370	58.0 (3.3) N = 573	78.9 (2.6) N = 720	74.8 (2.6) N = 512
South Dakota	88.2 (3.6) N = 88	83.0 (4.0) N = 115	63.1 (8.3) N = 132	88.7 (3.2) N = 131	69.0 (8.0) N = 97
Tennessee	49.8 (2.7) N = 428	79.5 (2.2) N = 550	50.8 (2.8) N = 833	82.4 (2.4) N = 836	65.4 (3.0) N = 647
Texas	25.1 (1.1) N = 1923	76.0 (1.3) N = 1733	53.3 (1.4) N = 3208	80.3 (1.5) N = 2746	71.9 (1.6) N = 2199
Utah	.2 (.2) N = 226	77.8 (3.8) N = 232	57.8 (4.4) N = 302	90.7 (1.7) N = 410	73.8 (3.3) N = 281
Vermont	53.0 (7.9) N = 50	84.3 (4.0) N = 91	56.1 (9.0) N = 82	87.5 (5.2) N = 122	72.0 (6.2) N = 84
Virginia	.2 (.2) N = 492	.1 (.1) N = 671	N = 0	89.5 (1.3) N = 1212	69.8 (2.5) N = 897
Washington	87.0 (1.5) N = 782	83.5 (2.1) N = 731	75.4 (2.2) N = 1153	90.5 (1.5) N = 1168	74.8 (2.4) N = 885
West Virginia	0 (0) N = 196	77.9 (3.1) N = 214	64.3 (4.8) N = 272	77.1 (4.5) N = 271	72.0 (4.2) N = 224
Wisconsin	3.3 (2.6) N = 30	87.3 (1.6) N = 584	69.9 (2.6) N = 900	88.9 (1.8) N = 933	82.9 (2.1) N = 771
Wyoming	0 (0) N = 54	87.2 (5.1) N = 47	68.5 (11.4) N = 73	81.6 (8.4) N = 105	88.5 (4.6) N = 57

Note: Turnout Measured as Hajnal, Lajevardi, and Nielson do in Table 1: using sample weights, dropping respondents who self-classify as being unregistered, and dropping respondents who do not match to a voter file record. Dark grey cells denote state-years coded as being the first year of a strict voter ID law. Light grey cells denote state-years coded as having a strict voter ID law, but it is not the first year of the law. Standard errors reported in parentheses.

Table A.3: Estimated CCES Primary Election Turnout by State and Year

State	2008	2010	2012	2014
Alabama	52.6 (3.4) N = 331	43.3 (3.0) N = 562	34.7 (3.3) N = 575	40.3 (4.2) N = 406
Alaska	67.6 (6.3) N = 67	57.1 (7.6) N = 117	48.0 (6.6) N = 101	71.3 (8.9) N = 73
Arizona	50.3 (2.4) N = 715	47.4 (2.1) N = 1331	49.7 (2.4) N = 1161	54.0 (2.5) N = 945
Arkansas	51.5 (3.5) N = 343	34.2 (3.3) N = 414	42.2 (4.8) N = 399	38.0 (4.1) N = 299
California	66.3 (1.3) N = 2275	56.0 (1.2) N = 4608	54.8 (1.4) N = 3788	54.1 (1.3) N = 3333
Colorado	29.4 (2.5) N = 471	41.8 (2.5) N = 925	28.6 (2.2) N = 841	37.3 (2.6) N = 691
Connecticut	29.9 (2.5) N = 398	32.2 (2.7) N = 671	26.2 (2.8) N = 473	16.4 (2.7) N = 397
Delaware	44.2 (5.2) N = 107	40.5 (5.8) N = 193	27.2 (4.1) N = 192	15.8 (3.7) N = 132
Florida	49.0 (1.4) N = 1883	40.9 (1.2) N = 3910	42.9 (1.5) N = 3008	40.3 (1.5) N = 2497
Georgia	54.1 (2.3) N = 742	34.7 (1.9) N = 1519	36.6 (2.2) N = 1345	34.1 (2.3) N = 1038
Hawaii	42.6 (6.9) N = 71	58.7 (6.5) N = 146	69.2 (6.1) N = 135	73.9 (6.2) N = 105
Idaho	34.0 (5.0) N = 155	33.6 (5.0) N = 252	39.1 (4.4) N = 275	45.1 (5.8) N = 161
Illinois	51.3 (2.0) N = 1016	38.7 (1.6) N = 2202	42.7 (1.8) N = 1602	37.2 (1.8) N = 1478
Indiana	60.4 (2.6) N = 650	34.7 (2.1) N = 1047	41.7 (2.7) N = 824	31.6 (2.2) N = 767
Iowa	21.0 (2.1) N = 398	35.0 (3.1) N = 537	15.1 (1.8) N = 517	22.8 (2.8) N = 382
Kansas	37.3 (3.1) N = 363	41.9 (3.4) N = 496	41.4 (3.0) N = 555	46.8 (3.8) N = 335
Kentucky	48.5 (2.9) N = 398	46.6 (2.9) N = 658	23.2 (2.4) N = 667	43.8 (3.5) N = 459
Louisiana	34.0 (3.0) N = 346	44.2 (3.2) N = 566	22.4 (2.9) N = 541	0 (0) N = 373
Maine	26.5 (3.0) N = 223	43.4 (4.5) N = 311	24.7 (3.6) N = 330	23.6 (3.7) N = 209
Maryland	46.6 (2.9) N = 444	36.4 (2.5) N = 890	32.4 (2.3) N = 826	39.8 (2.6) N = 625
Massachusetts	50.3 (2.7) N = 488	29.1 (2.1) N = 913	36.5 (2.2) N = 887	39.6 (2.5) N = 718
Michigan	45.3 (2.0) N = 949	33.1 (1.7) N = 1677	46.9 (1.9) N = 1451	41.2 (2.0) N = 1227
Minnesota	26.6 (2.1) N = 537	28.6 (2.2) N = 825	26.1 (2.1) N = 823	31.3 (2.3) N = 709
Mississippi	39.4 (3.6) N = 246	6.5 (1.7) N = 348	38.3 (4.9) N = 347	34.6 (4.6) N = 249
Missouri	60.8 (2.3) N = 750	37.7 (2.2) N = 1108	46.9 (2.5) N = 969	47.2 (2.7) N = 726
Montana	59.4 (4.7) N = 170	40.5 (8.9) N = 142	59.3 (5.1) N = 200	61.6 (5.6) N = 134

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State	2008	2010	2012	2014
Nebraska	40.1 (4.0) N = 215	23.9 (4.5) N = 141	42.6 (3.5) N = 455	49.2 (4.2) N = 260
Nevada	24.3 (2.7) N = 362	42.6 (3.2) N = 555	32.6 (3.4) N = 517	33.5 (3.8) N = 378
New Hampshire	73.6 (4.0) N = 198	39.9 (4.3) N = 308	58.7 (5.0) N = 284	37.6 (4.4) N = 187
New Jersey	48.1 (2.3) N = 748	14.7 (1.4) N = 1275	21.2 (1.7) N = 1125	21.1 (1.9) N = 926
New Mexico	43.2 (3.9) N = 228	32.6 (3.5) N = 377	33.4 (4.3) N = 357	33.5 (5.3) N = 270
New York	38.9 (1.5) N = 1494	20.4 (1.2) N = 2482	9.9 (.9) N = 2109	21.7 (1.5) N = 1866
North Carolina	51.4 (2.2) N = 824	24.5 (1.7) N = 1332	55.5 (2.1) N = 1341	31.6 (1.9) N = 1085
North Dakota	40.1 (7.0) N = 87	36.9 (6.5) N = 103	76.2 (5.5) N = 71	42.2 (7.7) N = 67
Ohio	62.5 (1.8) N = 1194	41.3 (1.6) N = 2144	40.9 (1.7) N = 1638	39.6 (1.9) N = 1546
Oklahoma	56.6 (3.3) N = 383	40.8 (3.6) N = 483	44.0 (4.0) N = 506	40.5 (4.1) N = 306
Oregon	58.8 (2.8) N = 518	56.5 (3.1) N = 705	57.5 (2.6) N = 945	60.7 (2.6) N = 684
Pennsylvania	48.9 (1.5) N = 1606	41.6 (1.5) N = 2324	39.9 (1.7) N = 1725	34.8 (1.6) N = 1663
Rhode Island	45.5 (6.9) N = 92	24.0 (3.9) N = 176	35.9 (5.2) N = 195	34.2 (6.3) N = 125
South Carolina	46.0 (3.2) N = 380	34.6 (3.0) N = 589	37.7 (3.0) N = 720	38.5 (3.3) N = 512
South Dakota	45.2 (5.4) N = 119	23.5 (5.5) N = 136	29.5 (6.1) N = 131	43.8 (7.8) N = 97
Tennessee	49.4 (2.6) N = 563	37.0 (2.6) N = 848	44.3 (2.8) N = 836	43.7 (3.0) N = 647
Texas	52.1 (1.5) N = 1794	31.4 (1.2) N = 3282	31.7 (1.5) N = 2746	34.7 (1.6) N = 2199
Utah	44.9 (3.7) N = 243	27.7 (3.6) N = 321	34.8 (3.5) N = 410	18.9 (2.7) N = 281
Vermont	37.2 (5.2) N = 97	31.2 (7.6) N = 85	33.7 (7.2) N = 122	10.6 (3.8) N = 84
Virginia	.5 (.2) N = 695	N = 0	20.0 (1.7) N = 1212	5.9 (.9) N = 897
Washington	62.5 (2.3) N = 754	60.9 (2.3) N = 1165	60.8 (2.5) N = 1168	51.5 (2.4) N = 885
West Virginia	58.3 (4.1) N = 215	39.6 (4.5) N = 275	46.9 (5.1) N = 271	44.5 (5.5) N = 224
Wisconsin	62.3 (2.3) N = 594	39.4 (2.4) N = 927	56.4 (2.5) N = 933	38.0 (2.4) N = 771
Wyoming	43.2 (7.7) N = 51	60.3 (8.9) N = 76	55.4 (7.4) N = 105	72.1 (7.2) N = 57

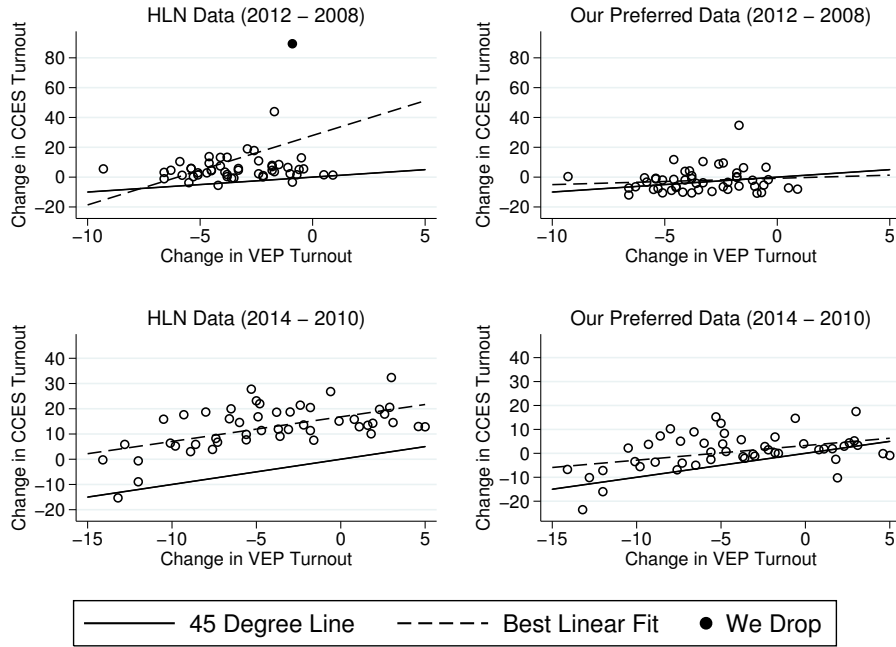
Note: Turnout Measured as Hajnal, Lajevardi, and Nielson do in Table 1: using sample weights, dropping respondents who self-classify as being unregistered, and dropping respondents who do not match to a voter file record. Dark grey cells denote state-years coded as being the first year of a strict voter ID law. Light grey cells denote state-years coded as having a strict voter ID law, but it is not the first year of the law. Standard errors reported in parentheses.

Table A.4: Relationship Between Future Implementation of Strict Voter ID and Turnout

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	General Elections:						Primary Elections:					
	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
	No	No	No	No	Yes	Yes	No	No	No	No	Yes	Yes
Number of Observations	93,652	93,652	99,864	99,864	114,230	114,230	93,989	93,989	100,379	100,379	112,553	112,553
Future Strict Voter ID State	-0.368 (0.117)	-0.385 (0.141)	-0.344 (0.092)	-0.356 (0.116)	-0.253 (0.077)	-0.258 (0.097)	-0.070 (0.200)	-0.073 (0.208)	-0.090 (0.189)	-0.091 (0.199)	-0.084 (0.169)	-0.080 (0.178)
Black X		0.057 (0.134)		0.016 (0.142)		-0.004 (0.122)		0.101 (0.117)		0.101 (0.126)		0.066 (0.120)
Future Strict Voter ID State		0.077 (0.108)		0.050 (0.118)		0.088 (0.097)		-0.103 (0.103)		-0.132 (0.088)		-0.084 (0.085)
Hispanic X		0.398 (0.505)		0.670 (0.382)		0.409 (0.348)		-0.008 (0.205)		0.040 (0.183)		-0.086 (0.179)
Future Strict Voter ID State		-0.219 (0.141)		-0.263 (0.128)		-0.406 (0.103)		-0.832 (0.118)		-0.882 (0.141)		-0.945 (0.124)
Mixed Race X												
Future Strict Voter ID State												

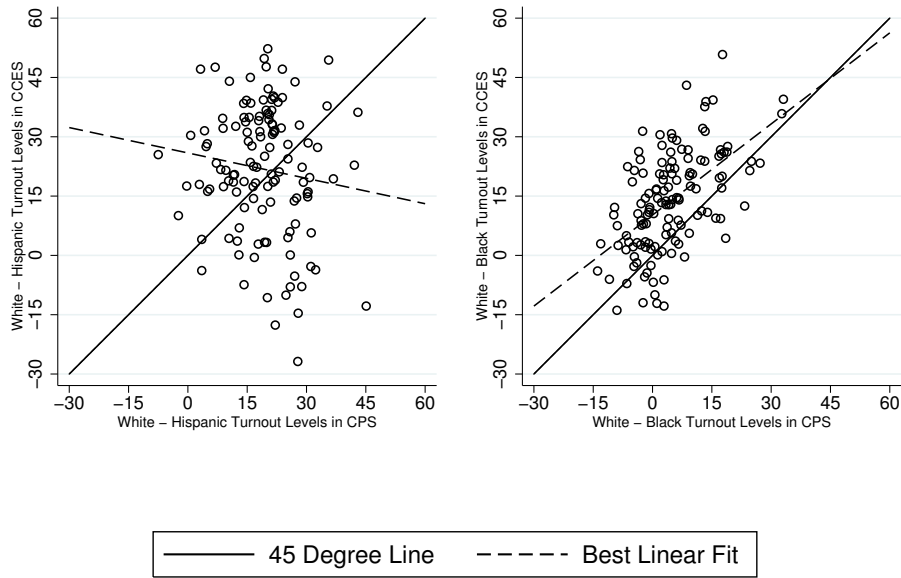
Note: Sample include all respondents in 2008, 2010, and 2012, except those from states that already implemented strict voter ID. Regressions also include all control variables listed in Table I of Table 1 of Hajnal, Lajevardi, and Nielson. Observations weighted by sample weights and standard errors clustered by state are reported in parentheses.

Figure A.1: Measurement Error Within States over Time



References

Figure A.2: Comparing Racial Gaps in the CPS and CCES



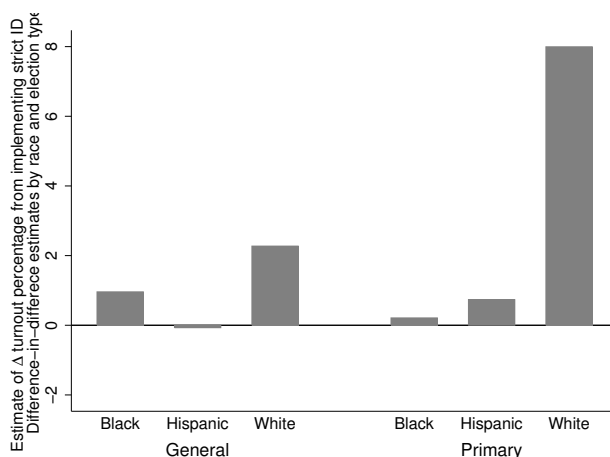
Note: CPS turnout by race constructed from the P20 detailed tables found at <https://www.census.gov/topics/public-sector/voting.html>. White, Hispanic, and black turnout is taken from “White non-Hispanic alone”, “Hispanic (of any race)”, and “Black alone or in combination” rows, respectively. The CPS only report turnout rates when a sufficient population of a minority group resides in a state. This figure include 125 and 132 state-year observations in which a turnout rate was reported Hispanics and blacks, respectively.

Table A.5: Estimated Group Turnout Percentage Implied by HLN, Figure A9

Racial Group	General Election	Primary Election
White/Other	10.9 [9.4, 12.4]	6.8 [4.7, 8.8]
Black	10.4 [8.4, 12.4]	2.5 [-.1, 5]
Hispanic	6.5 [3.6, 9.3]	1.2 [-2.3, 4.7]
Asian	12.5 [5.7, 19.4]	6.6 [-1.4, 14.7]
Mixed Race	8.3 [3.8, 12.8]	3.1 [-2.3, 8.5]

Note: Point estimates represent the change in turnout following the implementation of a strict voter ID law for a given racial group and election type. 95% confidence intervals presented in brackets.

Figure A.3: Increasing Group Turnout Percentage Implied by HLN, Figure 4



Note: This graph plots the difference-in-differences that underlie the difference-in-difference-in-difference graphed in Figure 4 of Hajnal, Lajevardi, and Nielson. This analysis does not use sample weights, keeps respondents in the sample who self classify as being unregistered, and drops respondents who do not match to a voter file record.

Table A.6: Alternative Specifications of General Election Turnout Models Including State Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Cluster Standard Errors by State	No	Yes	Yes	Yes	Yes	Yes	Yes
Exclude First Year of Strict ID Law	No	No	Yes	Yes	Yes	Yes	Yes
Exclude 2006 and 2008-VA Data	No	No	No	Yes	Yes	Yes	Yes
Apply Sampling Weights	No	No	No	No	Yes	Yes	Yes
Include respondents who self-classify as unregistered	No	No	No	No	No	Yes	Yes
Include unmatched respondents as non-voters	No	No	No	No	No	No	Yes
Number of Observations	167,524	167,524	167,524	144,044	143,916	153,620	190,732
Strict Voter ID State	0.109 (0.008)	0.109 (0.147)	0.115 (0.094)	0.011 (0.010)	0.020 (0.015)	0.018 (0.013)	0.060 (0.050)
Black X	-0.005 (0.008)	-0.005 (0.016)	-0.005 (0.017)	-0.006 (0.012)	-0.033 (0.019)	-0.024 (0.019)	-0.019 (0.018)
Strict Voter ID State	-0.045 (0.013)	-0.045 (0.017)	-0.044 (0.018)	-0.045 (0.022)	-0.061 (0.022)	-0.053 (0.026)	-0.047 (0.024)
Hispanic X	0.016 (0.034)	0.016 (0.040)	0.016 (0.040)	-0.022 (0.034)	-0.035 (0.040)	-0.009 (0.055)	-0.043 (0.033)
Strict Voter ID State	-0.026 (0.022)	-0.026 (0.033)	-0.026 (0.034)	-0.026 (0.034)	-0.025 (0.030)	-0.042 (0.047)	-0.024 (0.040)
Mixed Race X							
Strict Voter ID State							

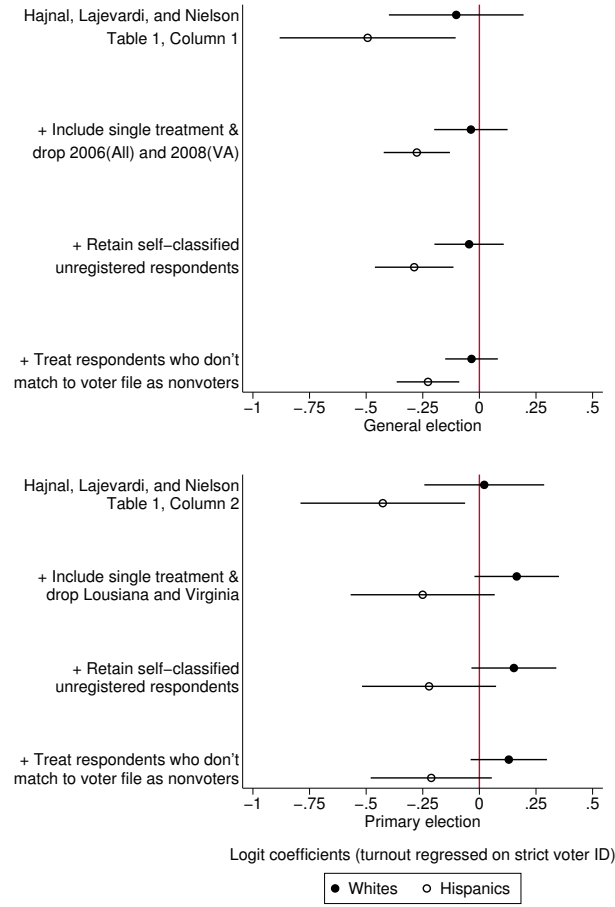
Note: All models include all other variables included in Table A.9, Column 1 in Hajnal, Lajevardi, and Nielson. Result in Column 1 replicate this model exactly.

Table A.7: Alternative Specifications of Primary Election Turnout Models Including State Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Cluster Standard Error by State	No	Yes	Yes	Yes	Yes	Yes	Yes
Exclude First Year of Strict ID Law	No	No	Yes	Yes	Yes	Yes	Yes
Exclude 2006 and 2008-VA Data	No	No	No	Yes	Yes	Yes	Yes
Apply Sampling Weights	No	No	No	No	Yes	Yes	Yes
Include respondents who self-classify as unregistered	No	No	No	No	No	Yes	Yes
Include unmatched respondents as non-voters	No	No	No	No	No	No	Yes
Number of Observations	146,683	146,683	146,683	142,254	142,119	151,886	184,261
Strict Voter ID State	0.068 (0.010)	0.068 (0.065)	0.078 (0.043)	0.035 (0.022)	0.054 (0.021)	0.048 (0.021)	0.033 (0.015)
Black X	-0.043 (0.010)	-0.043 (0.022)	-0.044 (0.022)	-0.050 (0.021)	-0.069 (0.026)	-0.061 (0.026)	-0.047 (0.021)
Strict Voter ID State	-0.056 (0.016)	-0.056 (0.022)	-0.055 (0.022)	-0.064 (0.021)	-0.071 (0.027)	-0.058 (0.029)	-0.034 (0.028)
Hispanic X	-0.001 (0.040)	-0.001 (0.044)	-0.001 (0.044)	-0.031 (0.041)	-0.084 (0.042)	-0.048 (0.036)	-0.024 (0.029)
Strict Voter ID State	-0.037 (0.026)	-0.037 (0.035)	-0.037 (0.036)	-0.049 (0.037)	-0.050 (0.034)	-0.057 (0.030)	-0.047 (0.025)
Mixed Race X							
Strict Voter ID State							

Note: All models include all other variables included in Table A.9, Column 2 in Hajnal, Lajevardi, and Nielson. Result in Column 1 replicate this model exactly.

Figure A.4: Sensitivity of Estimates from Models Excluding State Fixed Effects to Alternative Specifications



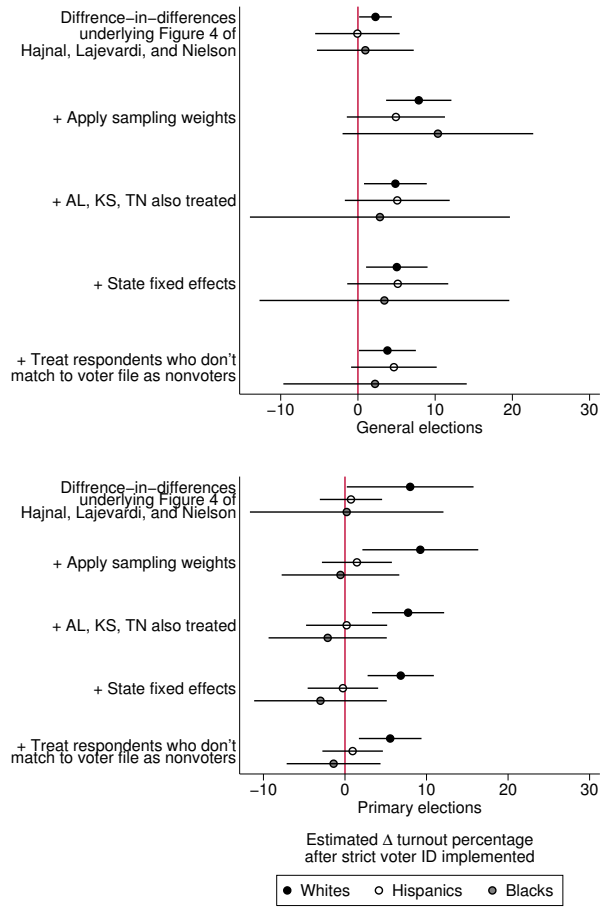
Note: More details on the models producing these estimates can be found in Table ?? in the Appendix.

Table A.8: Alternative Specifications of Models Excluding State Fixed Effects

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		General Election Turnout				Primary Election Turnout				
	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Exclude First Year of Strict ID Law	No	No	Yes	Yes	Yes	No	No	No	No	No
Exclude 2006 and 2008-VA Data	No	No	Yes	Yes	Yes	No	No	No	No	No
Exclude Louisiana and Virginia Data	No	No	No	No	No	No	No	No	Yes	Yes
Include respondents who self-classify as unregistered	No	No	No	Yes	Yes	No	No	No	Yes	Yes
Include unmatched respondents as non-voters	No	No	No	No	Yes	No	No	No	No	Yes
Number of Observations	167,396	167,396	143,916	153,620	190,732	146,548	146,548	142,119	151,886	184,261
Strict Voter ID State	-0.102 (0.148)	-0.057 (0.128)	-0.037 (0.081)	-0.045 (0.076)	-0.035 (0.058)	0.022 (0.132)	0.097 (0.112)	0.165 (0.093)	0.152 (0.093)	0.130 (0.084)
Black X	-0.112 (0.102)	-0.102 (0.102)	-0.161 (0.106)	-0.125 (0.103)	-0.104 (0.085)	-0.397 (0.116)	-0.385 (0.117)	-0.384 (0.113)	-0.365 (0.117)	-0.341 (0.112)
Strict Voter ID State	-0.391 (0.119)	-0.333 (0.163)	-0.239 (0.102)	-0.242 (0.121)	-0.192 (0.092)	-0.448 (0.121)	-0.360 (0.130)	-0.415 (0.120)	-0.375 (0.119)	-0.342 (0.106)
Hispanic X	-0.219 (0.210)	-0.195 (0.204)	-0.172 (0.200)	-0.067 (0.272)	-0.345 (0.196)	-0.637 (0.250)	-0.603 (0.251)	-0.687 (0.257)	-0.452 (0.217)	-0.606 (0.211)
Strict Voter ID State	-0.225 (0.144)	-0.212 (0.151)	-0.116 (0.163)	-0.225 (0.222)	-0.122 (0.182)	-0.309 (0.181)	-0.290 (0.185)	-0.290 (0.193)	-0.314 (0.161)	-0.324 (0.148)
Mixed Race X										
Strict Voter ID State										

Note: All models include all other variables included in Table 1, Columns 1 and 2 in Hajnal, Lajevardi, and Nielson. Results in Column 1 replicate Table 1, Column 1 exactly and results in Column 6, replicate Table, Column 2 exactly. Observations weighted by sample weights and standard errors clustered by state are reported in parentheses.

Figure A.5: Sensitivity of Difference-in-Difference Models Using 2010 and 2014 Data to Alternative Specifications



Note: More details on the models producing these estimates can be found in Table ?? (top panel) and Table ?? (bottom panel) in our appendix.

Table A.9: Alternative Specifications of Difference-in-Difference-in-Difference General Election Turnout Models

	(1)	(2)	(3)	(4)	(5)
Apply Sampling Weights	No	Yes	Yes	Yes	Yes
Include AL, KS, and TN as					
States Implementing Strict Voter ID (2010 -2014)	No	No	Yes	Yes	Yes
Include State Fixed Effects	No	No	No	Yes	Yes
Include unmatched respondents as non-voters	No	No	No	No	Yes
Observations	80,406	80,286	80,286	80,286	103,996
<hr/>					
State Implemented Strict Voter ID (2010 - 2014)	-0.053 (0.018)	-0.087 (0.035)	-0.085 (0.028)		
Year == 2014	-0.023 (0.010)	0.159 (0.012)	0.159 (0.013)	0.159 (0.013)	0.004 (0.015)
State Implemented Strict Voter ID (2010 - 2014) X Year == 2014	0.023 (0.011)	0.079 (0.021)	0.049 (0.020)	0.050 (0.020)	0.038 (0.018)
Hispanic Respondent	-0.248 (0.014)	-0.278 (0.015)	-0.282 (0.016)	-0.315 (0.014)	-0.310 (0.012)
State Implemented Strict Voter ID (2010 - 2014) X Hispanic Respondent	-0.023 (0.021)	0.027 (0.034)	0.033 (0.027)	0.043 (0.019)	0.043 (0.017)
Hispanic Respondent X Year == 2014	0.001 (0.022)	0.021 (0.028)	0.020 (0.028)	0.020 (0.026)	0.009 (0.021)
State Implemented Strict Voter ID (2010 - 2014) X Hispanic Respondent X Year == 2014	-0.023 (0.022)	-0.030 (0.032)	0.002 (0.035)	0.001 (0.034)	0.008 (0.026)
State Implemented Strict Voter ID (2010 - 2014) X Black Respondent	-0.182 (0.011)	-0.179 (0.016)	-0.177 (0.017)	-0.174 (0.016)	-0.212 (0.013)
State Implemented Strict Voter ID (2010 - 2014) X Black Respondent	-0.012 (0.024)	-0.058 (0.046)	-0.049 (0.044)	-0.045 (0.045)	-0.039 (0.033)
Black Respondent X Year == 2014	0.034 (0.010)	-0.013 (0.011)	-0.007 (0.010)	0.000 (0.010)	0.032 (0.011)
State Implemented Strict Voter ID (2010 - 2014) X Black Respondent X Year == 2014	-0.013 (0.029)	0.025 (0.077)	-0.020 (0.076)	-0.016 (0.072)	-0.016 (0.056)

Note: Column 1 replicates the results presented in Figure 4 in Hajnal, Lajevardi, and Nielson. All regressions include self-classified unregistered respondents and drop all respondents who do not identify as white, Hispanic, or black. Standard errors clustered by state are reported in parentheses.

Table A.10: Alternative Specifications of Difference-in-Difference-in-Difference Primary Election Turnout Models

	(1)	(2)	(3)	(4)	(5)
Apply Sampling Weights	No	Yes	Yes	Yes	Yes
Include AL, KS, and TN as					
States Implementing Strict Voter ID (2010 -2014)	No	No	Yes	Yes	Yes
Include State Fixed Effects	No	No	No	Yes	Yes
Include unmatched respondents as non-voters	No	No	No	No	Yes
Observations	81,407	81,281	81,281	81,281	103,996
<hr/>					
State Implemented Strict Voter ID (2010 - 2014)	-0.069 (0.047)	-0.078 (0.040)	-0.042 (0.031)		
Year == 2014	-0.100 (0.015)	0.010 (0.013)	0.008 (0.013)	0.017 (0.011)	-0.062 (0.010)
State Implemented Strict Voter ID (2010 - 2014) X Year == 2014	0.080 (0.039)	0.092 (0.035)	0.077 (0.022)	0.068 (0.020)	0.055 (0.019)
Hispanic Respondent	-0.233 (0.012)	-0.214 (0.014)	-0.215 (0.014)	-0.266 (0.026)	-0.249 (0.023)
State Implemented Strict Voter ID (2010 - 2014) X Hispanic Respondent	0.005 (0.040)	0.037 (0.036)	0.009 (0.025)	0.071 (0.030)	0.063 (0.027)
Hispanic Respondent X Year == 2014	0.075 (0.021)	0.081 (0.023)	0.086 (0.023)	0.084 (0.019)	0.070 (0.014)
State Implemented Strict Voter ID (2010 - 2014) X Hispanic Respondent X Year == 2014	-0.073 (0.036)	-0.078 (0.038)	-0.075 (0.033)	-0.071 (0.030)	-0.046 (0.028)
State Implemented Strict Voter ID (2010 - 2014) X Black Respondent	-0.208 (0.014)	-0.171 (0.016)	-0.170 (0.016)	-0.161 (0.016)	-0.167 (0.015)
State Implemented Strict Voter ID (2010 - 2014) X Black Respondent	-0.020 (0.017)	-0.009 (0.023)	-0.012 (0.023)	-0.022 (0.020)	-0.022 (0.019)
Black Respondent X Year == 2014	0.099 (0.013)	0.042 (0.018)	0.046 (0.018)	0.062 (0.018)	0.071 (0.014)
State Implemented Strict Voter ID (2010 - 2014) X Black Respondent X Year == 2014	-0.078 (0.024)	-0.098 (0.018)	-0.099 (0.027)	-0.098 (0.028)	-0.069 (0.019)

Note: Column 1 replicates the results presented in Figure 4 in Hajnal, Lajevardi, and Nielson. All regressions include self-classified unregistered respondents and drop all respondents who do not identify as white, Hispanic, or black. Standard errors clustered by state are reported in parentheses.