

Data used in this Study

This study uses three different data sets. The primary dataset is from American National Election Studies (ANES) is the **2016 Time Series Study**, which examines electoral participation and voting behavior in relation to personality traits and . This dataset was updated in September 2019 and includes self-identified and interviewer-identified demographic data such as age, income, race, and geographic information. The study includes self-identified and some state captured data such as voting intent, registration status, party of registration, sentiment regarding candidates at levels from president to state-level candidates.

The second dataset, **Non-Precinct Voting in the States: An Extensive Dataset of State Laws and Related Resources**, contains voter law data by state by year, ranging from 1972 through 2018. The data through 2012 was collected by law students supervised by Dan Tokaji, Ohio State University. After 2012, the data was collected under supervision by Jan Leighley, American University, who continues to supervise on-going data collection, validation, and updating. The data used in this study is from 2016 and consists of variables including IDs requirements for absentee, early, and day of voting. The original dataset including data from 1972-2008 can be found at the Pew Charitable Trust (*Non-Precinct Place*, 2010). The focus of this study centered on ID requirements by state.

The third dataset was collated by our group based on data from the **Federal Election Commission**. The data used in this study is from the Presidential election years 2004, 2008, 2012, and includes only the electoral outcome for each state used to identify whether the state's 'political leaning' is Democratic or Republican. The method we used to determine the political leaning was simple majority of the previous three years' elections (the 'leaning' was selected as the party that was elected by the state in at least two of the elections from the years 2004, 2008, and 2012).

Cleaning and Analysis Caveats

The primary focus of the data is on state level view of individual voter responses, state level voter ID laws and state historical 'political leaning'. Data from all three datasets was merged on the state variables.

Intent to Vote: Using variable V161030, some respondents had already voted, so we combined the early voters with the 'Yes' responses, in assumption that an early voter is also someone who 'intended to vote'. Similarly, those who responded to V161024x as not intending to register to vote were included in the 'No' response that they did not intend to vote.

Income (Poverty Level): the national poverty level for 2016 was \$24,563 for a family of four (*Poverty Thresholds*, 2020). We chose to use the over/under for poverty level as an indicator, thus we grouped income level under \$25,000 as 'Under Poverty Line' versus every value equal to and over \$25,000 as 'Over Poverty Line'.

Political Leaning (by state): In determining state political leaning we chose to use data from the three most recent presidential elections to account for recent leaning of the state although data suggests that since 1992, most states have stayed aligned with the party chosen in 1992, with only a small number of flips through the years. Eighteen states flipped from red to blue beginning in 1992 (no states have flipped from blue to red as a trend (since the 1972 election), though there are single year voting exceptions). Thus, to understand the recent leaning of the state, we opted to use only the most recent three elections to identify the leaning of the state, especially given the 2016 election, in which four states voted Republican even though their long term trend was to vote Democratic.

Alternative Party identification: After determining the Political Leaning of the state, we compared the respondent's party of record to the political leaning and if the two matched, the respondent was coded as being affiliated with the 'Primary Party'. If the two did not match, the respondent was coded 'Alternative Party'. Some states do not track 'registered party'; those respondents' data were dropped from the analysis.

State Voter Photo ID Requirement: The voter law dataset includes explanation of the id requirements for absentee voting, early voting, and day of voting as separate requirements. The requirements fell into one of 3-5 categories: government photo ID, non-government photo ID, other ID, notary, or signature match. We collated this data into a single variable where each state could be identified as having a 'photo ID requirement' or not. If any of the voting scenarios required a photo ID, then the state was labeled as having a Photo ID requirement.

We did not account for actual voting method as this study was investigating the effect of photo ID law on *intent* to vote. If we were studying how voter ID law affects actual voting, we would have looked at each voting method separately because in some states photo ID is required only in early or absentee voting and in other states photo ID might only be required for day of (in person) voting.

Early Voting Availability (12.x variables)

Early Voting is permitted or not mentioned in all cases (no state prohibits Early Voting).

V12.0: Early voting availability (early_voting_authorized)

Whether the state authorizes in-person early voting.

0: in-person early voting is prohibited by state law

1: in-person early voting is not mentioned in state law

2: state law explicitly authorizes, but does not require, local officials to implement an early voting program at their discretion

3: local officials are required to provide in-person early voting

Early Voting ID Requirements (13.x variables)

Early Voting is permitted or not mentioned in all cases (no state prohibits Early Voting).

V13.02: Government-issued Photo ID required for early voting

(early_voting_govt_photoid_post_2012)

Whether government-issued photo ID is required to request an early ballot.

(7) 0: This is one type of ID that voters may submit, but there are others they can submit instead

(1) 1: yes, voters must submit this type of ID

(14) 2: no, this type of ID is not accepted

(10) 3: signature only sufficient (no signature match requirement)

(2) 98: Unclear

(16) 99: NA

V13.12: Photoidrequiredforearlyvoting(early_voting_nongov_photoid_post_2012)

Whether photo ID not issued by the government is required to cast an early ballot.

(6) 0: This is one type of ID that voters may submit, but there are others they can submit instead

(0) 1: yes, voters must submit this type of ID

(16) 2: no, this type of ID is not accepted

(10) 3: signature only sufficient (no signature match requirement)

(2) 98: Unclear

(16) 99: NA

V13.22: Documentary(nonphoto) IDrequiredforearlyvoting

(early_voting_nonphotoid_post_2012)

Whether nonphoto ID such as a utility bill, paycheck, government check, bank statement, etc., is required to cast an early ballot.

(5) 0: This is one type of ID that voters may submit, but there are others they can submit instead

(1) 1: yes, voters must submit this type of ID

(16) 2: no, this type of ID is not accepted

(10) 3: signature only sufficient (no signature match requirement)

(2) 98: Unclear

(16) 99: NA

V13.3: ID number required for early voting (early_voting_IDnumber)

Whether an ID number (typically driver's license number, state ID number, or last four digits of social security number) is required to cast an early ballot.

- (2) 0: This is one type of ID that voters may submit, but there are others they can submit instead
- (3) 1: yes, voters must submit this type of ID
- (17) 2: no, this type of ID is not accepted
- (10) 3: signature only sufficient (no signature match requirement)
- (2) 98: Unclear
- (16) 99: NA

V13.4: Signature with match required to cast an early ballot (early_voting_sigmatchID)

Whether polls workers must compare the voter's signature to one on file before allowing the voter to cast an early ballot.

- (1) 0: This is one type of ID that voters may submit, but there are others they can submit instead
- (10) 1: yes, voters must submit this type of ID
- (11) 2: no, this type of ID is not accepted
- (10) 3: signature only sufficient (no signature match requirement)
- (2) 98: Unclear
- (16) 99: NA

Election Day Voting ID Requirements (15.x variables)

V15.0: Government-issued Photo ID required for early-voting election day (election_day_govt_photoid)

- 0: This is one type of ID that voters may submit, but there are others
- 1: yes, voters must submit this type of ID
- 2: no, this type of ID is not accepted
- 3: signature only sufficient (no signature match requirement)
- 98: Unclear
- 99: NA

V15.1: Photo ID required on election day (election_day_nongov_photoid)

- 0: This is one type of ID that voters may submit, but there are others they can submit instead
- 1: yes, voters must submit this type of ID
- 2: no, this type of ID is not accepted
- 3: signature only sufficient (no signature match requirement)
- 98: Unclear
- 99: NA

V15.2: Documentary (nonphoto) ID required on election day (election_day_nonphotoid)

Whether nonphoto ID such as a utility bill, paycheck, government check, bank statement, etc., is required to cast a ballot on election day.

- 0: This is one type of ID that voters may submit, but there are others they can submit instead
- 1: yes, voters must submit this type of ID
- 2: no, this type of ID is not accepted
- 3: signature only sufficient (no signature match requirement)
- 98: Unclear
- 99: NA

Absentee Voting (V1 variable)

In all cases Absentee Voting is permitted.

V1: Absentee Voting (abs_vote)

Whether the state allows voters to request absentee ballots and return them either in person, by mail, or otherwise.

- (0) 0: no, absentee voting is not allowed in the state
- (50) 1: yes, absentee voting is allowed in the state

Absentee Voting ID Requirements (7.x variables)

In all cases Absentee Voting is permitted. Excluding any data around when and for whom Absentee Voting is permitted.

V7.0: Government-issued photo ID required to submit absentee ballot (abs_submit_govt_photoID)

Whether government-issued photo ID is required to submit an absentee ballot.

- (1) 0: This is one type of ID that voters may submit, but there are others they can submit instead
- (0) 1: yes, voters must submit this type of ID
- (34) 2: no, this type of ID is not accepted
- (15) 3: signature only (no match required), or no ID required

V7.1: PhotoIDrequiredtosubmitabsenteeballot(abs_submit_nongov_photoID)

Whether photo ID not issued by the government is required to submit an absentee ballot.

- (1) 0: This is one type of ID that voters may submit, but there are others they can submit instead
- (0) 1: yes, voters must submit this type of ID
- (34) 2: no, this type of ID is not accepted
- (15) 3: signature only (no match required),, or no ID required

V7.2: Documentary (nonphoto) ID required to submit absentee ballot (abs_submit_nonphoto_ID)

Whether nonphoto ID such as a utility bill, paycheck, government check, bank statement, etc., is required to submit an absentee ballot.

- (1) 0: This is one type of ID that voters may submit, but there are others they can submit instead
- (0) 1: yes, voters must submit this type of ID
- (34) 2: no, this type of ID is not accepted
- (15) 3: signature only (no match required), or no ID required

V7.3 ID number required to submit absentee ballot (abs_submit_ID_number)

Whether an ID number (typically driver's license number, state ID number, or last four digits of social security number) is required to submit an absentee ballot.

- 0: This is one type of ID that voters may submit, but there are others they can submit instead
- 1: yes, voters must submit this type of ID
- 2: no, this type of ID is not accepted
- 3: signature only (no match required) , or no ID required

V7.4 Signature match required to submit absentee ballot (abs_submit_sigmatchID)

Whether election officials must compare the signature submitted on an absentee ballot return paperwork with a signature on file before accepting a completed absentee ballot.

- (2) 0: This is one type of ID that voters may submit, but there are others they can submit instead
- (24) 1: yes, voters must submit this type of ID
- (9) 2: no, this type of ID is not accepted
- (15) 3: signature only (no match required) , or no ID required

V7.5 Notarization or witness required to submit absentee ballot (abs_submit_notary_ID)

Whether voters must have their signatures on the absentee ballot request paperwork notarized in order to submit a ballot.

- (1) 0: This is one type of ID that voters may submit, but there are others they can submit instead
- (11) 1: yes, voters must submit this type of ID
- (23) 2: no, this type of ID is not accepted
- (15) 3: signature only (no match required) , or no ID required

Formulas

Poverty Line: Over Under

```
IF [V161361x - Pre Income (group)] = '1: < 25k (Poverty family of 4)' THEN 'Under Poverty Line'  
ELSE 'Over Poverty Line'  
END
```

Party Alignment

```
IF [V161019 - Party of Registration]= -9 THEN 'Party Not Known'  
ELSEIF [V161019 - Party of Registration]= -8 THEN 'Party Not Known'  
ELSEIF [V161019 - Party of Registration]= -1 THEN 'Party Not Known'  
  
ELSE  
  
    IF [V161019 - Party of Registration] = 2 THEN // 2 = Republican  
        IF [Political Leaning] = 'Republican' then 'Primary Party'  
        ELSE 'Alternate Party'  
        END  
    ELSEIF [V161019 - Party of Registration] = 1 THEN // 1 = Democratic  
        IF [Political Leaning] = 'Democratic' then 'Primary Party'  
        ELSE 'Alternate Party'  
        END  
    ELSE 'Alternate Party'  
    END  
END
```

Check: Early vs. Day of

```
IF [Check: Status Day of] = [Check: Status Early] THEN 'Match'  
Else 'No Match'  
END
```

Check: Photo ID vs. No Photo

```
IF [Check: Status Early]= 'Any Photo ID Required' AND [Check: Status Day of]= 'Any Photo ID Required'  
THEN 'Any Photo ID Req'  
  
ELSEIF [Check: Status Day of] = 'Gov Photo ID Required' OR [Check: Status Early] = 'Gov Photo ID  
Required' THEN 'Photo ID Req'  
ELSEIF [Check: Status Early]= 'Any Photo ID Required' OR [Check: Status Day of]= 'Any Photo ID  
Required' THEN 'Any Photo ID Req'  
Else 'No Photo ID Req'  
END
```

Check: Status Day of

IF [election day voting govt photo ID] = '1' THEN 'Gov Photo ID Required'
ELSEIF [election day voting govt photo ID] = '0' THEN

IF [election day voting nongov photo ID] = '0' AND [election day voting nonphoto ID] = '0' THEN 'No Photo ID Req'

ELSEIF [election day voting nongov photo ID] = '0' AND [election day voting nonphoto ID] = '2' THEN 'Any Photo ID Required'

ELSEIF [election day voting nongov photo ID] = '2' AND [election day voting nonphoto ID] = '0' THEN 'Gov Photo ID Required'

ELSEIF [election day voting nongov photo ID] = '2' AND [election day voting nonphoto ID] = '2' THEN 'Gov Photo ID Required'
END

ELSEIF [election day voting govt photo ID] = '3' THEN 'Signature Only'

ELSEIF ([election day voting govt photo ID] = '98' OR [election day voting govt photo ID] = "99") THEN 'NA'

ELSE 'ERROR'
END

Check: Status Early

IF [early voting govt photo ID post 2012] = '1' THEN 'Gov Photo ID Required'
ELSEIF [early voting govt photo ID post 2012] = '0' THEN

IF [early voting nongov photo ID post 2012] = '0' AND [early voting nonphoto ID post 2012] = '0' THEN 'No Photo ID Req'

ELSEIF [early voting nongov photo ID post 2012] = '0' AND [early voting nonphoto ID post 2012] = '2' THEN 'Any Photo ID Required'

ELSEIF [early voting nongov photo ID post 2012] = '2' AND [early voting nonphoto ID post 2012] = '0' THEN 'Gov Photo ID Required'

ELSEIF [early voting nongov photo ID post 2012] = '2' AND [early voting nonphoto ID post 2012] = '2' THEN 'Gov Photo ID Required'
END

ELSEIF [early voting govt photo ID post 2012] = '3' THEN 'Signature Only'

ELSEIF ([early voting govt photo ID post 2012] = '98' OR [early voting govt photo ID post 2012] = "99") THEN 'NA'

ELSEIF [early voting govt photo ID post 2012] = '2' THEN

IF [early voting sigmatch ID post 2012] = '1' OR [early voting ID number post 2012] = '1' THEN 'ID Number or Signature Required'

ELSE 'ERROR'
END
ELSE 'ERROR'
END

Citations

2016 Time Series Study. (2019, September 4). *ANES | American National Election Studies*. Retrieved January 14, 2021, from <https://electionstudies.org/data-center/2016-time-series-study/>

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