# **ELECTION LAWS:**

how they impact voting rates of different racial, age, and income groups Jimmy Draper

PPPA 6021 – Data Visualization Prof. Leah Brooks Trachtenberg School George Washington University April 27, 2022

# Road map

### 1. Background

- 2. Introduction of ease of voting statistic
- 3. How ease of voting impacts
  - a. All voters
  - b. Different racial groups
  - c. Different age groups
  - d. Different income groups
- 4. Policy recommendations
- 5. Works cited

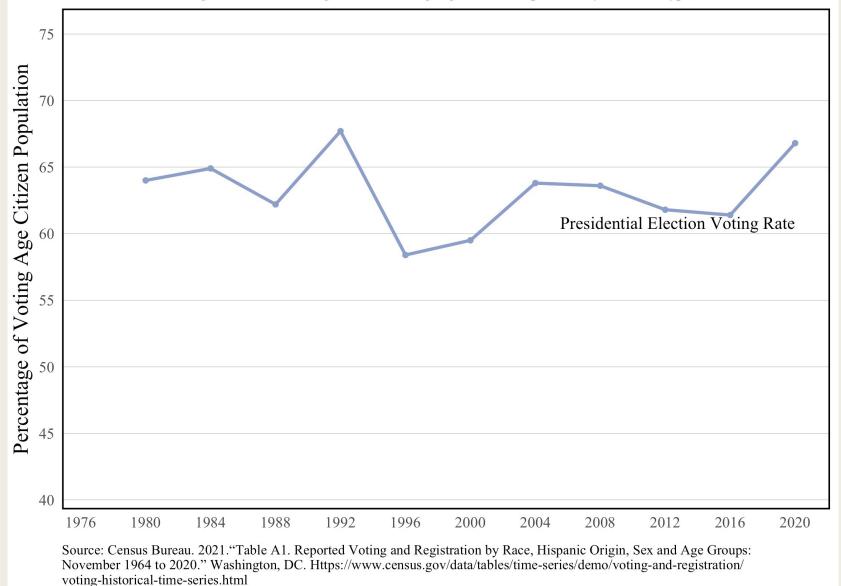
# Background: What do voting and registration rates look like?

### Definitions

- Voting Rate: Number of people who voted divided by number of ageeligible citizens.
- Registration Rate: Number of people registered to vote divided by number of age-eligible citizens.
- The Census reports the voting rate for the entire population and just the citizen population; I chose to go with the latter throughout.
- For the remainder of the paper, I focus just on 2020 voting rates, but I wanted to give some background on registration rates.

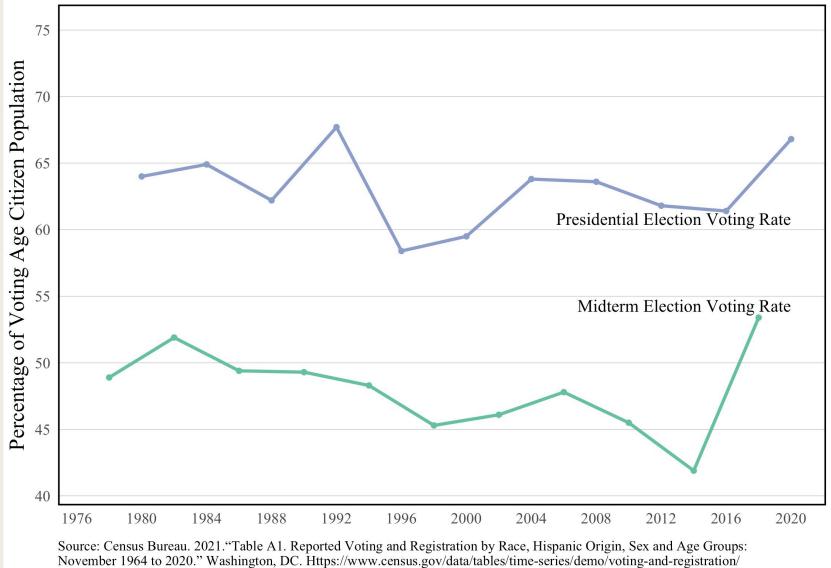
## Voting and registration rates are higher in presidential elections than midterm elections. Voting rates are always lower than registration rates.

National Registration and Voting Rates of Voting-Age Citizen Population by Election Type, 1978-2020



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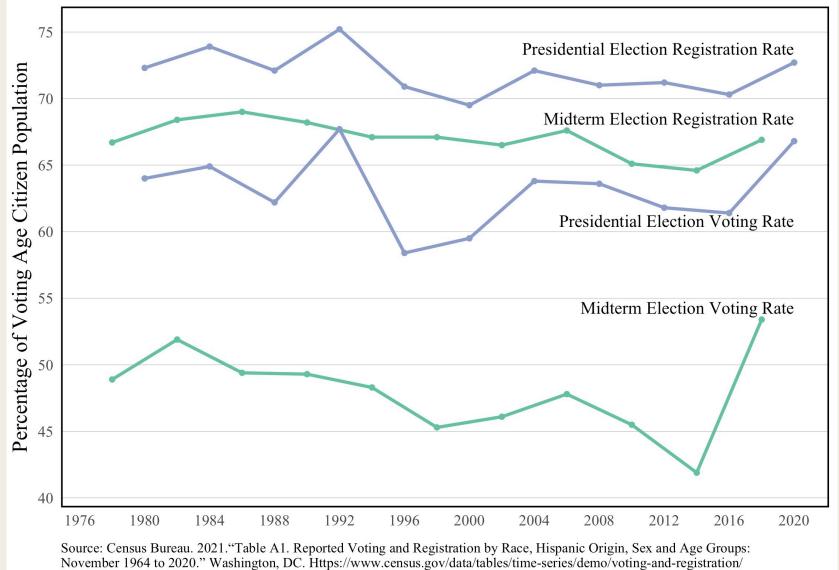
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voting-historical-time-series.html

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## How do election laws vary?

• Mail / online / fax / in-person



• Excuse needed?

• By mail or in-person

• Duration

Creation of ease of voting statistic

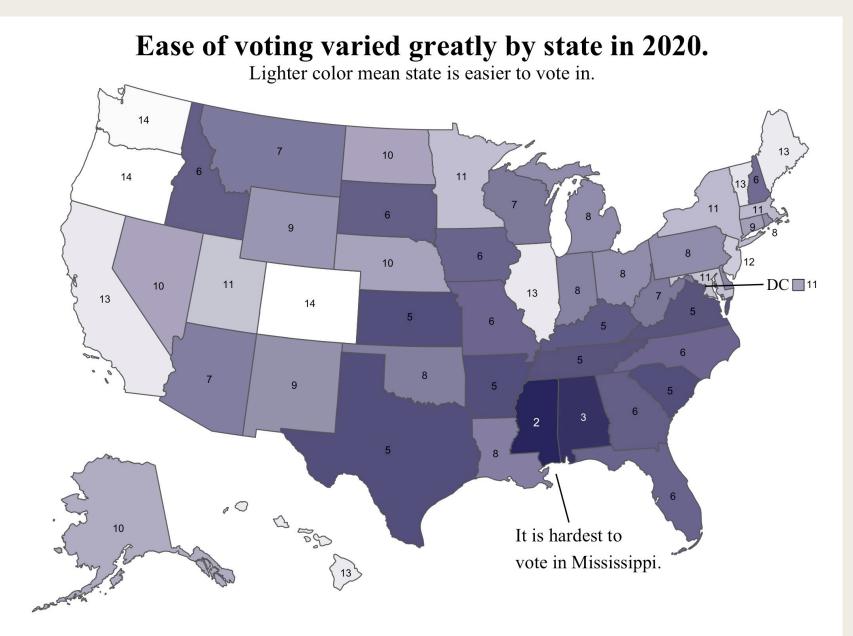
- Almost all data is from late 2020.
  - VoterID

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- Rao, Salam, and Adolphe 2020. O strict photo ID required, 1 not strict photo ID required, 2 no photo ID required, 3 no ID required
- VoterReg
  - Rao, Salam, and Adolphe 2020. 0 proof of citizenship/exact match needed, 1 register before elections, 2 same-day registration, 3 automatic voter registration
- FelonyEnfranchisement
  - American Civil Liberties Union n.d.; Rao, Salam, and Adolphe 2020 for DC. 0 All felons permanently cannot vote (red); 0.6 some felons permanently cannot vote (orange stripes), 1.2 felons can vote upon completion of sentence (orange), 1.8 people in prison or on parole cannot vote (blue/green), 2.4 people in prison cannot vote (blue), and 3 everyone can vote (green).
- EarlyandAbsenteeVoting
  - Rao, Salam, and Adolphe 2020 for DC; Zoch 2021; Vote.org n.d.. 0 no early voting, 1 early voting with approval, 2 early voting less than 3 weeks with no restrictions, 3 early voting more than 3 weeks, 4 all-mail voting. Massachusetts has early voting with no restrictions that varies by county in terms of length. I assigned it the half-way point of early voting, a 2.5.
- OnlineReg
  - Rao, Salam, and Adolphe 2020 for DC; Zoch 2021. 0 No, 1 Yes.
- PollHoursRatio
  - Ballotpedia 2020; David Scanlan NH Department of State 2022. I found the total hours polls were open on election day. The lowest was 11.4 hours and highest was 15 hours. I gave the all-mail voting states the maximum, 15. I want to represent the range in the reported value, so I subtracted 11.4 (the minimum; after this step they range from 0 to 3.6), then divided by 1.8 (after this they range from 0 to 2). I round to two digits for simplicity. Polls range in TN so I had to speculate and said 12. TN polls must close at 7pm, so it is not an outlandish to estimate they open around 7am. Polls range in NH. I calculated average myself based on county level clerk data.

## Ease of voting statistic

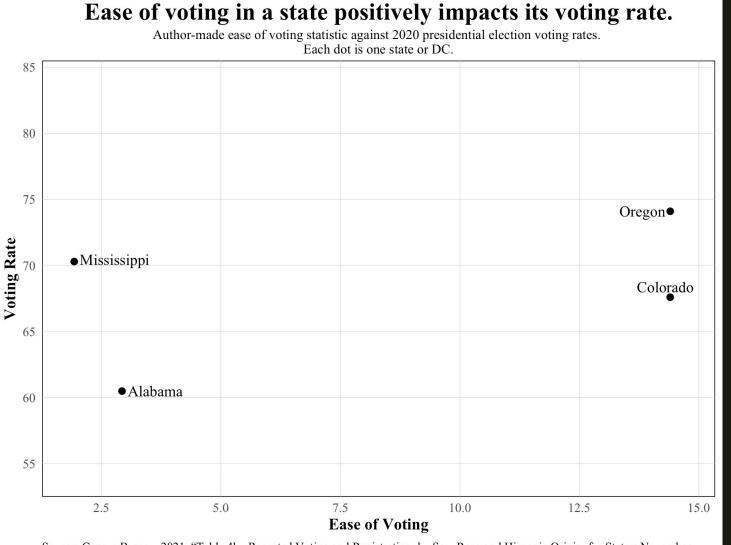
Theoretical Range:
0 to 16
Actual Range:
1.93 - 14.4
Average:
8.6
25 <sup>th</sup> Percentile: 5.99
Median: 8.29
75 <sup>th</sup> Percentile: 10.95



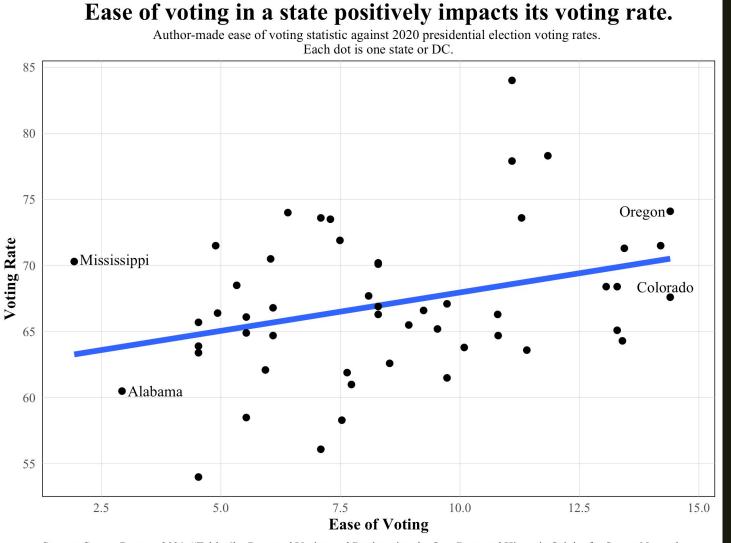
Ease of voting statistic rounded to whole numbers here for simplicity. See appendix for exact numbers, methodology, and sources for how the ease of voting statistic was calculated. Made by author.

How does ease of voting impacts voting rates

- Are election laws (proxied by this statistic) correlated to voting rates?
- Yes, I ran a regression of the statistic on 2020 election voting rates (of the total citizen population of each state) and results were great.
- My variable is statistically significant at the 99% confidence interval.
- R^2 = 0.109
  - The fact that the statistic can explain 11% of the variation is good, especially when voting rates are also very impacted by electoral competitiveness, election type, and demographics (Fair Vote n.d.).
- Coefficient of statistic = 0.58
  - "On average, an increase in the Ease of Voting statistic of 1, would result in a 0.58%-point increase in the voting rate."



ALL VOTERS

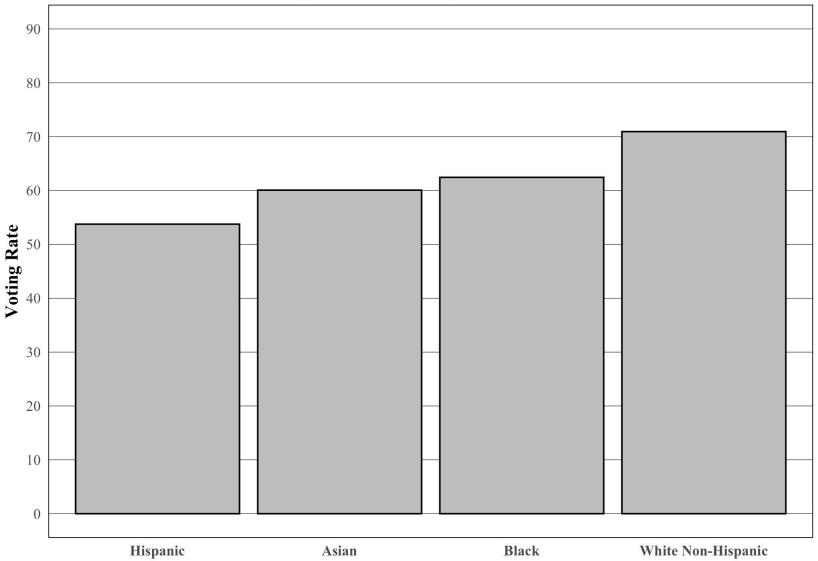


## ALL VOTERS

### BROKEN DOWN BY RACE

#### There are alarming racial disparites in voting.

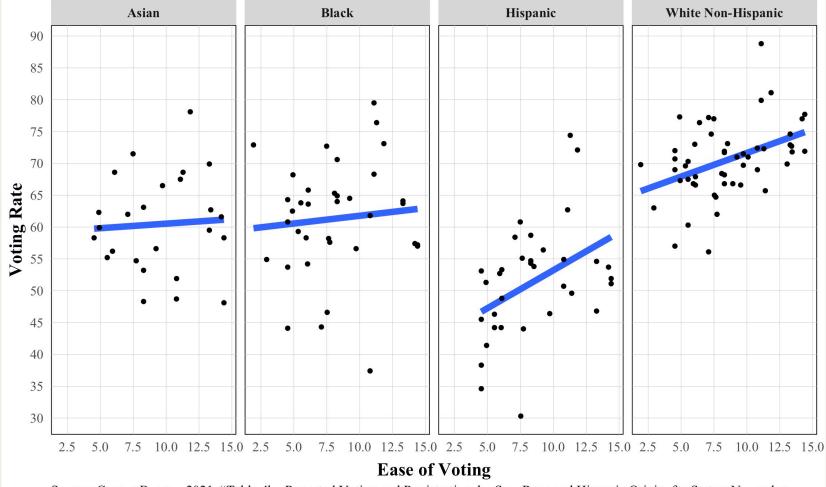
Aggregated national voting rates by race, 2020.



### BROKEN DOWN BY RACE

## Hispanic voters disproportionately impacted by restrictive election laws.

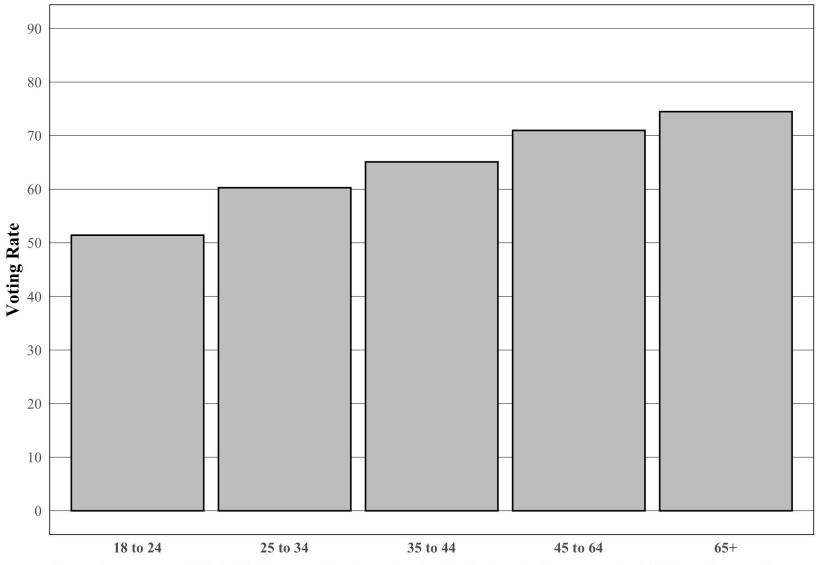
Author-made ease of voting statistic against 2020 presidential election voting rate. Each dot is a racial group in one state. The Census Bureau does not provide data when rounding errors are too large. Some racial groups in some states not shown. Best fit lines of Asian, Black and Hispanic voters are likely flatter than they would be with more comprehensive data. Number of missing values: Asian (26), Black (15), & Hispanic (17).



### BROKEN DOWN BY AGE

#### There are massive age disparites in voting.

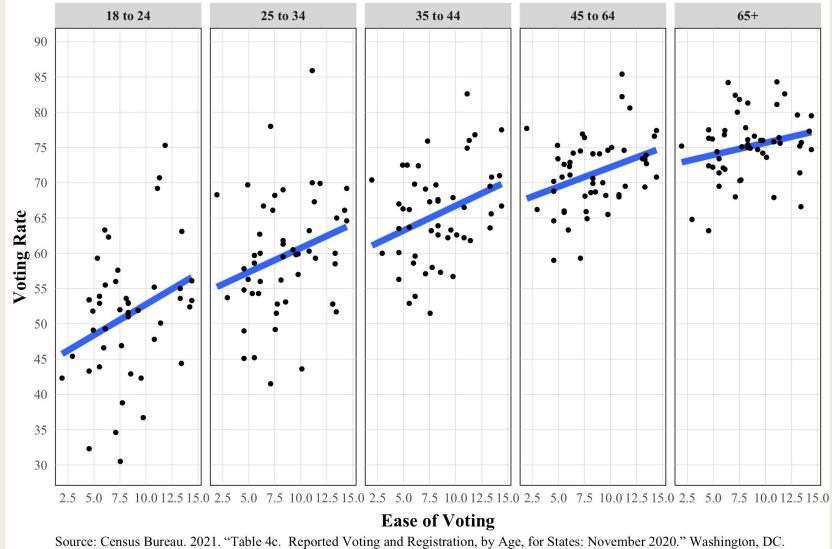
Aggregated national voting rates by age, 2020.



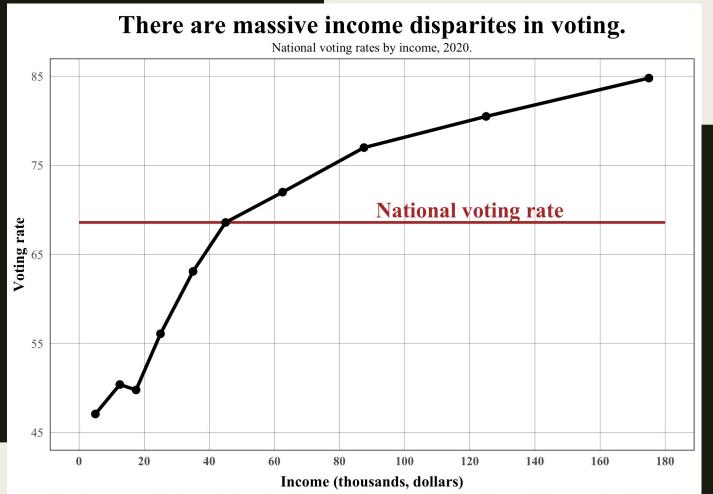
### BROKEN DOWN BY AGE

#### Younger adults most impacted by restrictive election laws.

Author-made ease of voting statistic against 2020 presidential election voting rates. Each dot is an age group in one state or DC. The Census Bureau does not provide data when rounding errors are too large. Some age groups in some states not shown. Missing values: 18-24 (AK, DC, ND, VT, WY), 25-34 (WY), 35-44 (VT, WY).



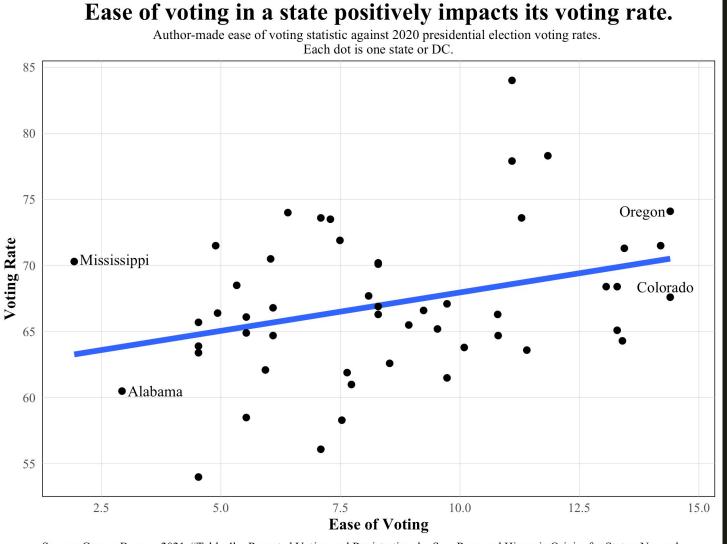
https://www.census.gov/data/tables/time-series/demo/voting-and-registration/p20-585.html



### BROKEN DOWN BY INCOME

State-level data broken down by income is not available, so I was unable to discern how election laws impact people of different income levels using the Census data like I did for race and age.

Note: The census provides income data in brackets. The x-values above are the mid-points of the provided income brackets. For example, 63.1% voting rate for earners between 30K and 40K, the dot plotted is at 35K and 63.1. Under 10K and over 150K were assumed to have mid-points of 5K and 175K, respectively. Source: Census Bureau. 2021. "Table 7. Reported Voting and Registration of Family Members, by Age and Family Income: November 2020." Washington, DC. https://www.census.gov/data/tables/time-series/demo/voting-and-registration/p20-585.html



Source: Census Bureau. 2021. "Table 4b. Reported Voting and Registration, by Sex, Race and Hispanic Origin, for States: November 2020." Washington, DC. https://www.census.gov/data/tables/time-series/demo/voting-and-registration/p20-585.html

## Policy Recommendations

Extrapolating on the coefficient of the ease of voting statistic (0.58):

On average, an increase in the Ease of Voting statistic of 10, would result in a 5.8%point increase in the voting rate.

## **Policy Recommendations**

- Make changes to voting laws that do not impact election integrity and make it easier to vote
- Changes studied:
  - Reduce identification requirements at polls (non-strict photo ID)
  - Increase how long polls are open
  - Enfranchise felons (or never disenfranchise them in the first place)
  - Reduce and streamline registration requirements (timeline, documents, and methods to submit forms)
  - Increase access to early and absentee voting (remove excuse requirement, increase duration, increase locations, and mail ballots to voters)

#### Changes not studied:

- Decrease distance to polls (Cantoni 2020)
  - A 0.25 mile increase in distance would reduces voting by 2-5%.
- Provide cash incentivizes (Panagopoulos 2012)
  - A 50\$ incentive would increase voting by 7.5%-points.
- Make election days holidays (Kim 2020)
  - 29 of 36 OECD countries have elections on weekends or holidays.

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