How can we measure if photo ID laws impact voter registration and turnout?

The Challenge

In 2011, Rhode Island passed State Law 17-19-24.2, becoming one of 18 states that requires showing photo ID at the polls to vote. The law has been in full effect since the 2014 elections. Photo ID laws vary across states, and are the focus of substantial public debate: some view them as necessary to protect the integrity of the voting system, while some believe they disenfranchise eligible voters from marginalized communities. However, there is little evidence that policymakers and other stakeholders can use when determining if photo ID laws have unintended impacts on voters.

Our goal is to understand if photo ID requirements in Rhode Island impacted voter registration and turnout rates in subsequent elections, so that we can help policymakers ensure that elections are fair, fast and accurate.

Using Data and Science to Measure Impact

We used machine learning, econometric models, and the RI 360 database to compare the impact of the Rhode Island photo ID law on those with a driver's license vs those without. The RI 360 database is a secure, anonymized, longitudinal database of administrative data from state agencies across Rhode Island. All personally identifiable data has been removed from the data and replaced with anonymous identifiers that make it possible for approved researchers to analyze records associated with the same individual while preserving anonymity.
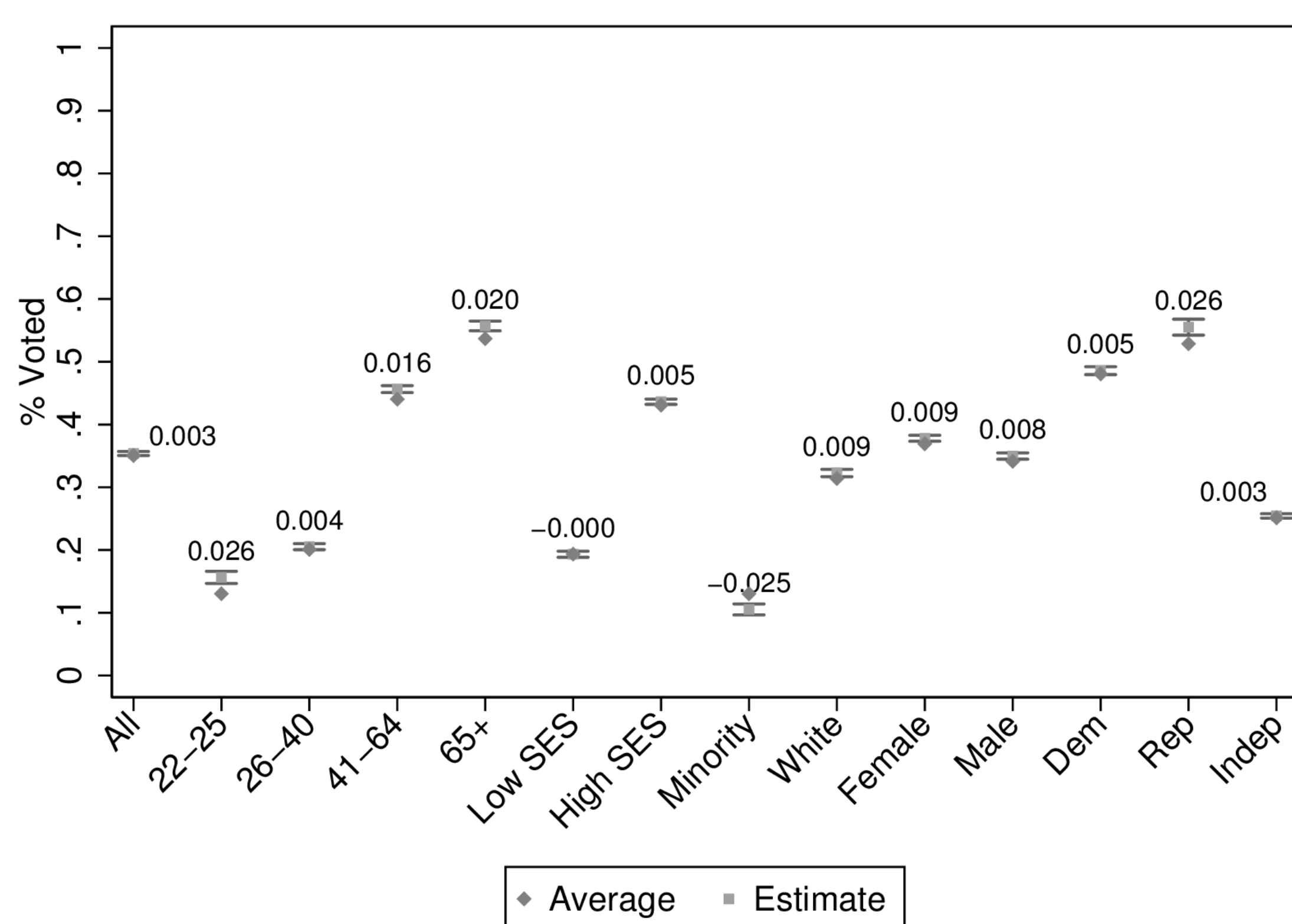

Figure 1: Turnout estimates in the Rhode Island presidential elections. The largest impact in presidential elections are among low SES voters and younger age groups.

We use a difference-in-differences model and Double LASSO, a machine learning technique, to control for observable factors correlated with driver's license status and outcome of interest. By comparing anonymized administrative data from elections before and after the law came into effect, we can measure if voting among those without drivers' licenses decreased, increased, or remained unchanged when compared to those with drivers' licenses.

We argue that the change in voting for those without licenses relative to those with licenses can be attributed to the law. We examine if the impact on voting among those without licenses is more or less pronounced within important socio-economic and demographic groups such as low-income, young, female, and elderly potential voters. Note that in this analysis we only have data on who has a driver's license, and do not have data on who has a state ID. Our results give an average estimate of the impact of the law on everyone without a driver's license. We perform several robustness checks and are able rule out potential alternative causes for our finding of decreased turnout among those without licenses. Future research, in theory, could incorporate more data and focus on a deeper dive into how the law impacted just subpopulations with particular alternative IDs.

Bringing Facts to the Table

We found that State Law 17-19-24.2 did have an impact on voter behavior. Voter turnout, registration, and voting conditional on registration fell for those without licenses after the law was passed:

1. The law decreased both the probability of registering to vote and the probability of voting once someone is registered for individuals without driver's licenses, as compared to those who do.

2. In presidential elections, we find that the law led to an overall decline in registration of 7.6 percentage points, no decline in voting conditional on registration, and a decline in turnout of 2.7 percentage points. The largest impacts are among voters with low socioeconomic status, and younger age groups.

3. We did not find statistically significant impacts of the law on turnout for midterm elections.

4. Overall, these estimates suggest that overall votes declined by 0.42 percentage points as a result of the law.

We found that impacts on registration, turnout, and voting conditional on registration were larger for state legislative districts whose representatives and senators voted against the law. We also measured the extent to which voters responded proactively to the law by using a mail ballot, and found no significant impact of the law on the likelihood that a registered voter chooses to cast their ballot by mail.

What Do These Results Mean?

Ensuring that elections are fast, fair, and accurate is an important mission. To understand how to get there, we need facts we can use to suggest policies that work efficiently and effectively for our communities. This study makes Rhode Island one of the first states to get these facts by rigorously measuring the impact of its photo ID law.

These results contribute to the understanding of a relevant and currently open U.S. policy debate, and suggests subgroups for which more outreach and education could help minimize any undesired impacts of voter photo ID requirements while preserving the integrity of the electoral process.

For the full technical working paper by Justine Hastings, Diego Focanti, and Francesco Maria Esposito, please click here.