

AAAS AMA: Hi, we're scientists who study how technology affects voter participation. As us anything!

AAAS-AMA ¹ and r/Science AMAs¹

¹Affiliation not available

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Abstract

At the Annual Meeting of the American Association for the Advancement of Science, we will be delivering a presentation entitled “Research and Policy on Voter ID Laws and Voter Participation.” During that session, we’ll discuss the science on voter suppression, the statistical impact of voter ID laws, and procedures for assuring that all eligible voters have a chance to vote. David Marker will describe how as expert witness survey data were included, or excluded, in Voter ID cases in Texas, Pennsylvania, and Alabama. Paul Gronke will discuss the procedures states are implementing to maximize the chance that eligible voters will indeed be able to vote. If you have a question about how states are using technology either to boost or suppress voter participation, ask us anything! Participants: Paul Gronke, professor of political science, director of the Early Voting Information Center, Reed College, Portland, Ore. Automatic Works: The Gains to Voter Registration and Turnout from Oregon Motor Voter David Marker, senior statistician, Westat, Rockville, Md. Making Sure the Data are Heard: Expert Statistical Testimony in Voter ID Trials

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Why are so many places so resistant to using newer technology in their elections?

[SaysiAlt](#)

The current state of the art technology is called "op scan" in the industry--optical scan machines. These *are* newer technology, and they have the advantage of keeping a paper trail.

The main barrier to introducing new voting technology is the cost. America wants democracy on the cheap, and in nearly every state, local election officials face severe funding challenges.

I'm curious how you can use technology to stop gerrymandering?

[gardenia2244](#)

DM: I don't believe you can. Clearly newer technology has been used to increase the bad effects of gerrymandering, for example by running all possible boundaries. The need to eliminate partisan gerrymandering has become much more important in the last 10 years because of technology. That is why the Supreme Court is now considering these cases. But bear in mind that there is not "correct" or "proper" set of boundaries, they will always be a compromise between various positive social goals; but we can reduce the impact partisan concerns have on the outcome.

Is there a clear statistical measurement of whether or not voter suppression is happening in a certain



place? If there are several different measurements, which one do you think is the most useful?

[phosphenes](#)

It's very difficult to precisely measure voter suppression. the reason is that the election system is a complex, interlinked system of laws, rules, individual voters, and political actors. When a rule or procedure is put in place, it's not like an experiment where everything else is held static.

To take on prominent example, when a state passes a voter ID law, political groups may use this as a mobilizing tool. This doesn't mean that the ID did *not* suppress some votes, but isolating this effect is extremely difficult.

Excellent scholars are investigating this question, but I suspect that a search for a precise statistical estimate is illusory. Instead, we focus on whether or not there are individuals who are unable to cast a ballot because of artificial obstacles.

What state currently has the most sophisticated yet secure voting technology and why is it most effective?

[adenovato](#)

PG that question as posed can't be answered. Elections are a multi-step complex system, from voter registration, to early and absentee voting, to polling places, and to vote tallying and post election audits.

There is no one technology to identify as "most sophisticated yet secure."

Louisiana resident.

Growing up and becoming a voter myself, I've always thought it was normal to present ID when going to vote. As I have learned over the last few years, this is not the case in many places. How do people with out ID's go about voting (and life in general)?

[thepilotguy1989](#)

Many without an ID have disabilities that prevent them from leaving the house often. Some do indeed have jobs and may well have an ID at work. But many such IDs do not have a photo, so states that implement voter photo ID laws won't allow us IDs to be used to vote.

Based on your research, what's the lowest cost, highest impact technology for increasing voter participation? And the converse - what's the most expensive and most useless, or worse, counterproductive?

[lawstudent2](#)

In my experience, the lowest cost, highest impact reform is same-day and election-day registration. This allows people to register, or update registration, at the polling place.

The most expensive has likely been the direct recording electronic machines, only because they have now fallen out of favor, and we spent billions of dollars on this technology a decade ago.

People in other countries, where everyone has a government-issued ID, often ask me why requiring someone to show an ID when they vote prevents people from voting. I can only assume lots of people in the US don't have an ID. Since I always have (and so has everyone I know), I can't really explain to them why that is. Do you have a simple explanation I can offer?

[dekker44](#)

David Marker (DM): You are correct that lots of American's don't have IDs, at least ones without a photo. In addition, many people (especially women and Hispanics) change their name after they obtain initial IDs.

Why are voter ID laws so important in the US? How is it possible that showing one of your ID cards impacts differently people from different classes?

[lucaxx85](#)

DM: Many Americans do not have an ID that has a picture of them and has their current name. You don't need one for most of life's activities. If you get married you may change your name, but you don't have to change your IDs. Also, some states with restrictive laws don't recognize photo IDs issued in other states. This can be particularly problematic for out-of-state students. In general, those less connected to society, rural people, working from home, and others, are less likely to have these types of ID.

Are you familiar with the work of dr bob fitrakis at columbus state (ohio)? When i read his work, he says the black box voting machines use proprietary intellectual property and that their vote counting algorithms are a trade secret. How can 1+1 be a trade secret? Do we use simple addition to determine vote count? And if not, why?

Im not super informed on this subject but I cant wrap my head around that.

[Zachmorris4187](#)

It's incorrect to say that the "vote counting algorithm" is a trade secret. There is a lot of programming and technology that goes into creating a voting machine that meets the certification requirements. That is what's proprietary.

Hi poll worker in Florida here. We have been using the Sequoia AVC Edge machine for many years and do everything in our power to discourage anyone from using it, including those actually disabled who may actually need it. This is a system that has a Braille remote control and headphones and allows audio voting, as well as being able to vote in Spanish and Creole for those who need it. Why don't we switch to a better system or fix whatever the problems are or make it where everyone uses this system, including those not disabled? We invest a lot of time and money into a system that our county has only had less than 5 people use it in the last 5 years, or so they would have us believe. Instructing clerks to discourage voters from using it sounds illegal but that's what has happened in training classes many times.

[archn](#)

Hi! I'm not sure what county you are in, and I'd have to defer to the head of elections in your county. However, we know a couple things, first, that voters continue to vote on the machines that they are most comfortable with--and in some Florida counties, that can be an older DRE. Second, replacement machines cost money, and the funding has to be in place to replace the machines.

This is a little off-topic, but as data scientists interested in the election process I think you might have an opinion on this.

Since the Supreme Court seems like it will continue to rule against gerrymandered districting, it makes me wonder about whether it is possible to fix those cases. Because we have so much data on who lives where and how they are likely to vote, do you think it is even possible now for districts to be drawn up in a way that doesn't reflect the partisan desires of the architect?

[weaselodeath](#)

The incentives of the people who draw the lines is to create districts that are likely to reelect them. It is possible to draw districts in a different way, but it requires political will.

Is there any data that massive social media companies (Snapchat, Reddit, Facebook) have an effect on voters? If so, what sort of conclusions have been made as a result of that data?

[Bunkfoss](#)

PG That is outside my field of expertise. I do believe, based on what I have seen from 2016, is that social media is a much bigger concern regarding foreign interference than is voting technology.

During your research, what correlation did you see between income/race and voting technology and ID laws?

Does this also effect access to voting locations as well?

Sorry if this question isn't formatted 100% correctly.

(I'm a resident of Texas so this research is particularly interesting to me.)

[LMyers92](#)

DM: We have improved a lot since 2000, but in Florida in 2000 there were a lot of data showing that better voting procedures were available in wealthier, whiter, areas. In Jacksonville they were using optical scan machines, but in wealthier areas they had the reader in the precinct, so if a ballot was unreadable, it was returned and the voter could clean it up to make sure it counted. In the poorer areas the same machine was used to vote, but the reader was at a central location, so when a ballot was unreadable there was no chance for the voter to clean it up. As a result the former had very few invalid ballots, but the latter had many. The former was primarily a white precinct but the latter had many blacks.

Is there any chance that government issued ID card will be finally implemented in USA?

It is ridiculous that americans lack proper ID that (almost) all other developed countries have.

[Gsonderling](#)

PG The United States political tradition has always been somewhat hostile to a strong, centralized national government. We will have IDs that meet some more secure requirements -- REAL ID -- but I see little chance of a federally issued identification card. It runs contrary to our political ethos.

I'm against voting machines because I have no way, as a laymen, of knowing that these machines aren't rigged to give false results in favor of the manufacturers favored candidate, result, or party. Why should I trust these and how do we know they're honest?

[LoogyHead](#)

DM: The key is to have a paper trail, so that an audit of a random sample of machines can be conducted after the election, before the vote is certified. Without a paper trail (it can be electronic images of each hard copy ballot) you can't know. See recent Federal bills to require a paper trail and "risk-limiting audits". Some states already require this excellent procedure.

What do you consider the most effective method of encouraging voter participation - social media engagement, data-driven in person communication, P2P conversations, large group contact (speaking engagements at events, etc.) or something else?

[Dontjudgemeforasking](#)

Parties, candidates, and political campaigns that people care about. Voting reforms and secure voting technology are certainly important, but the primary drivers of voter participation are interest and information about politics.

Is there any specific practices that are unusually harmful towards voters(either their participation or making their votes easily disregarded and/or alterable) that some states may be still doing?

[Ahri La Roux](#)

Some states do not have a Department of Motor Vehicles (or similar organization) or other location easily accessible in every county. Even if they have one in some states they aren't open on weekends or at lunch, making it hard for people to access them.

Texas' not recognizing IDs issued by other states or even its own universities or colleges is quite harmful.

Does your research include any studies of voter suppression via malicious applications of voter ID systems like CrossCheck? I've read some partially substantiated accounts of hundreds of thousands of votes being discarded because 2 people had matching first & last names (even if middle names were different or they voted 1500 miles apart).

[Minister for Magic](#)

PG Cross Check isn't a voter ID system, it's a system meant to check for duplicate registrations across states. I think the ERIC system is superior.

I feel like voter participation would skyrocket if they could do it from their phones or computers. Having to leave work or fill out an absentee ballot feels so backwards.

What if voting was tied to my irs.gov credentials and on Election Day I could login to the irs site and vote? Or what about an official vote.gov site where to create an account you have to submit an image of your birth certificate and a recent pay stub?

I don't know I just feel like the whole process could be done so much better to get more engagement and eliminate issues.

[Pzst](#)

PG There is simply insufficient security for internet voting to work in this country at present. Keep in mind that this is not like your tax form that is not anonymous. Once you cast your ballot, it can never be retrieved

I learned recently that the Supreme Court has ruled that partisan gerrymandering is unlawful, and all that remains is to come up with a scientific framework to define it in terms that courts are equipped to understand. The efficiency gap is one such measure that's being developed.

My question is about whether there are similar measures under development to detect the impact of voter ID laws on voter participation. And if so, do you see any avenues for these measures having any real legal or policy impact? Are you sharing this information with courts and policy/law makers, or is it just going out to journals and the media? Do you see any reason for optimism about the impact your work is having on voter participation in the United States?

[BowieSpiders](#)

PG I don't think it is correct to state that SCOTUS has rules that partisan gerrymandering is illegal. In *Vieth* the Court (actually Justice Kennedy) said that there *may* be a standard that would allow partisan gerrymandering to be ruled unconstitutional. We don't know yet how the Court will rule on the current case.

Why doesn't the US government use technology to ensure voters are well informed rather than leave it to the states? I was shocked to hear how hard it was to be an informed voter in Alabama compared to Washington.

Also gratuitous mention, voter registration should be automatic to reduce barrier to entry. I mean come on.

[wmpc0324](#)

PG There is no shortage of political information available. Government can't force people to become informed.

Does a paper receipt make voting more secure? Why or why not?

[dendari](#)

PG It doesn't necessarily make it more *secure* but can make it more trusted and increase election integrity, because it allows voters to check to make sure their ballot was counted as cast, and there are paper trails that can be audited.

Why can't I vote from my phone? I can bank from my phone.

Taking off work to physically go to a place to vote is time consuming, extremely inconvenient, and inefficient. Am I missing a piece of the puzzle?

[WagonWheelsRX8](#)

PG Banking is not like voting because of the anonymous ballot.

Has there been any effort to implement voting technologies focusing on local levels of government? For example, is there any focus in developing small scale voting technologies for towns having their own city hall and elected officials? I ask as I often see the topic of voting technologies be discussed for large government concepts like the presidential election system, though I'm sure as a layman I simply am not aware of smaller scale scenarios. My reasoning is that I feel that electronic voting technologies would experience further meaningful development if used in scenarios smaller than that of national or state matters. Refine variants of the technology via local public interaction and measure effects and slowly scale up when success has been determined.

[Senyu](#)

PG In every state that I am aware of, the same voting technology is used for federal, state, and local contests.

Hi! Well I live in Venezuela, a newly authoritarian country, with police brutality against any form of protest, the government recently advanced the presidential elections, and they have a clearly history of rigging the past two elections, I know all this are assumptions that doesn't work very well with science, but there is enough evidence to prove how corrupted the government in Venezuela is. So my question is this, you consider this "fake" election of a form to prove that my country is still a democracy? And what it voters should do?

[TheDiegup](#)

DM: This is a really sad and tough situation you are in. A few years ago (when Chavez was still alive) I reviewed a set of articles looking at whether or not the Venezuelan election was fair. A number of articles looked at surveys conducted of voters leaving the polling place. But the situation is clearly much worse now.

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[TheDiegup](#)

PG I am not an expert on this, but Freedom House creates "scores" for countries. I'd look there.

So do you think setting up measures to ensure people that are voting are 1. Citizens and 2. only voting once is a bad thing?

To me it seems that certain political parties are more motivated in making it easier to get votes from certain groups, such as illegal immigrants, so they pander to them in the political sphere to help themselves get elected. It's all pretty shady, if you ask me. It seems that stricter measures to prevent malicious actions in voting makes more sense.

[jacobkjones](#)

PG there is no evidence -- zero evidence -- of illegal immigrants voting in significant numbers. You can find a one or two cases of people mistakenly voting when they were not eligible, but claims of widespread voting by undocumented citizens are simply false.

Is that Paul Gronke formerly of SUNY?

[RogerDFox](#)

PG Not SUNY but I am formerly of many things and places.

To what extent is technology ready for universal direct democracy or demarchy?

[giltwist](#)

PG: I'm not sure about technology. I'd ask why we think this would be a good thing? Most democratic theorists posit that direct democracy can only work in small, homogeneous areas like city states (e.g. Athens, small towns in New England). Complex political decisions require experts, just like surgery.