Targeting Poll Worker Recruitment to High-Need Counties: Creation of a Voter Risk Assessment Tool

Background

While leaders and communities are rightly turning to vote-by-mail options, that action alone is insufficient to protect the right to vote in the 2020 election. Failure to ensure safe, accessible in-person voting risks further disenfranchising many Americans, especially those in marginalized groups. The expansion of voting by mail must be coupled with resources to address local operational gaps that will make voting in person increasingly difficult.

Due in large part to COVID 19, our election system is facing a critical shortage of poll workers to staff the polls in 2020. In normal times, recruiting poll workers, who work to ensure the in-person voting process operates safely and efficiently, is challenging. Yet, COVID-19 has exacerbated the difficulties typically associated with poll worker recruitment: a large proportion of poll workers tend to be senior citizens, a vulnerable population during this pandemic that will, with good reason, likely refrain from working the polls in November.

To address this issue, Carnegie Mellon University, in collaboration with the Voter Protection Corps, collected and analyzed public data to determine which counties in eight key states (Arizona, Florida, Michigan, North Carolina, Ohio, Pennsylvania, Texas, and Wisconsin) will need the most support in recruiting poll workers to ensure the right to vote. Here, we outline the approach and methodology used to develop an interactive “voting risk assessment” tool. Though thorough poll worker recruitment will require a large-scale intervention from many organizations and governments across the country in this election, this tool analysis enables organizations to understand:

1. Demand: How many voters will be impacted by same-day in-person voting issues in each county
2. Resource Supply: What types of resource constraints and challenges exist related to in-person voting
3. Poll Worker Recruiting: What challenges do these counties report and face as they recruit poll workers in the upcoming general election
4. Priority Population: What populations are most vulnerable to these voting barriers

Using the outlined methods, we have identified which counties are high-priority targets for immediate poll worker recruiting efforts. While our tool uses existing data and focuses on certain types of voting risks, it is flexible enough to incorporate additional data that’s generated by campaigns and voter outreach groups as they launch voter registration, GOTV, and poll worker recruiting efforts. The tool also supports different voter protection interventions. Equipped with this understanding, voter protection organizations can allocate their resources efficiently, create a call to action, and ultimately provide targeted support in their priority counties.

Data Sources

The current analysis draws from three public data sources capturing voter, county, and community information.

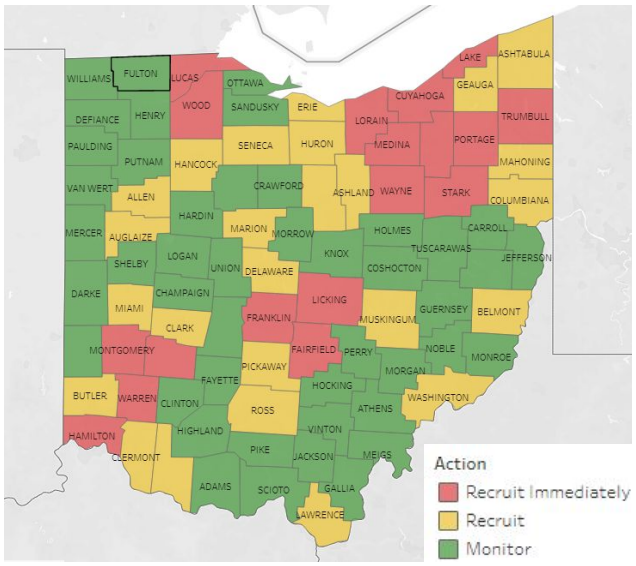
Data Source	Description	Years	Data
Election Administration and Voting Survey (EAVS)	Provides county-level election data about the resources, local characteristics, and infrastructure for U.S. elections.	2016	Link
The Cooperative Congressional Election Study (CCES)	Provides information about political attitudes and voter election experience	2016	Link
American Community Surveys (ACS)	Provides community characteristics of U.S. residents.	2018	Link

Creating the Tool: An Action-Focused Approach

All steps of the current analysis lead to a direct action for each county based on that county's unique voter characteristics. We considered three immediate actions to be used to guide poll worker recruitment in each county:

1. Recruit Immediately
2. Recruit
3. Monitor

With these actions in mind, we aggregated data in a way that can qualify voter resources in each county to address potential gaps in poll worker needs. While poll worker recruitment will be essential for nearly every county in the upcoming general election, decision makers with finite resources must prioritize first where to take action.



The Indicators: Voter Data Across Four Key Metrics

We selected risk indicators based on qualitative means (research and domain experience), technical means (analysis of correlation and regression models), and data availability (access and completion). We organized the risk indicators into four overarching metrics that address a unique attribute of the voter resources.

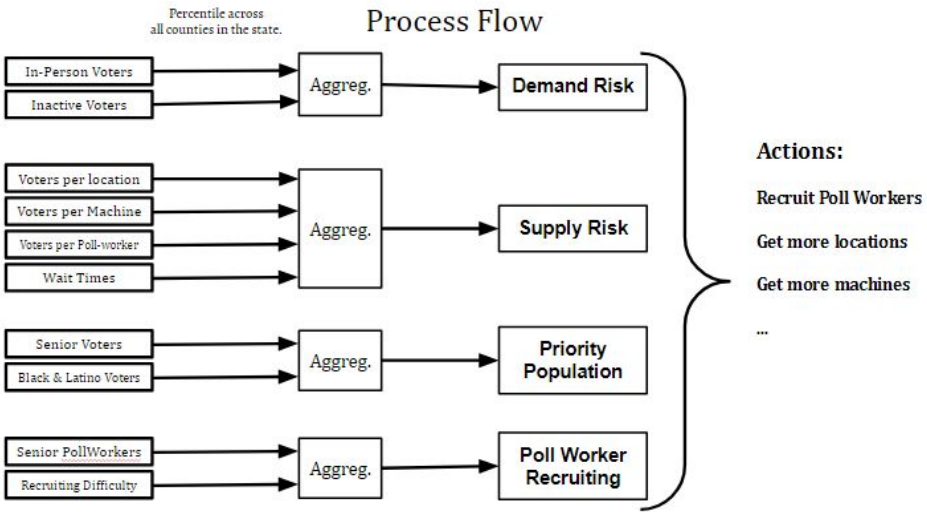
Metric	Indicator	Definition (County Level)	Data Source
Demand Risk	In-Person Voters	Number of persons who vote in-person	EAVS
	Inactive Voters	Number of inactive voters (e.g. have longer process times and additional steps)	EAVS
Resource Supply Risk	Voters per Location	Number of voters per polling location	EAVS
	Voters per Machine	Number of voters per voting machine	EAVS
	Voters per Poll-worker	Number of voters assigned per poll-worker	EAVS
	Wait Times	Time waited to cast the vote	Survey Data
Priority Population Risk	Black/Latino Population	Number of Black and/or Latino voters	Census
	Senior Citizens	Number of senior citizen voters (60+)	Census
Poll Worker Recruiting Risk	Recruiting Difficulty	Reported Difficulty in Recruiting (1 to 5)	EAVS
	Senior Poll-workers	Number of Poll-workers who were seniors (60+)	EAVS

How We Scored

For each indicator, all counties were ranked in comparison to their peers using percentiles. For the key risk metrics, we explored several aggregation techniques (e.g. rule-based, median, min, and max) to combine inputs into a single score. Based on correlation of values, median is used for toolkit display purposes. These scores were then designated as “high”, “medium” and “low” based on the top, medium, and bottom quartiles, respectively.

What’s Included: The Sheets

- **Direct Action Map**: View the recommendations for each county based on the data
- **County-Level Metrics**: See how each county ranks in percentiles; visualize trends and gaps
- **County-Level Indicators**: Drill down to see which indicators drive the overall metric score
- **Key Metrics Heat Map**: View and sort county rankings based on a single metric
- **Indicator Heat Map**: View and sort county rankings based on all available data



What does this tool enable?

While created specifically to aid in the targeting of poll worker recruitment, we designed the voter risk assessment tool to host a flexible, interactive, and transparent view of U.S. voter data. This view enables several possible actions to improve the voter experience based on tailored information on a county's existing voter resources. We hope this enables further voter protection work in the upcoming election.

Other Possible Actions
- Add polling locations
- Add voting machines
- Explore wait times
- Fortify data process

Some Insights from Analysis

In general, larger population centers scored higher on demand and priority population risk. This is intuitive, since these metrics relate closely to raw numbers of voters. Yet, for many counties, high demand risk did not necessarily indicate high supply and recruiting risk. Of all counties with high demand risk, only 21% also had a high supply risk. For these high demand and high supply counties, however, this indicates a potentially large negative impact on a large number of voters. The analysis demonstrates the importance of allocating resources based on a tailored view of each county's unique voter characteristics.

Caveats:

1. Data Availability

The availability of data plays a huge role in this analysis. Most states had incomplete data related to wait times or difficulty. Pennsylvania and Wisconsin had the most missingness in the EAVS dataset, yielding lower-confidence recommendations. States like Ohio, Michigan, Arizona, and Florida had relatively complete data across most indicators. The project recommends more data collection efforts to paint a fuller picture of the resources and needs in these areas where there are gaps.

	AZ	FL	MI	NC	OH	PA	TX	WI
In Person Voters	Full	Full	Full	Full	Full	Full	Partial	Full
Black and Latino	Full	Full	Full	Full	Full	Full	Full	Full
Senior Residents	Full	Full	Full	Full	Full	Full	Full	Full
Senior Poll Workers	Full	Partial	Full	Full	Full	Missing	Partial	Missing
Difficulty	Full	Partial	Full	Full	Partial	Missing	Partial	Missing
Inactive Voters	Full	Full	Full	Full	Missing	Full	Partial	Full
Voters Per Location	Full	Full	Full	Full	Full	Full	Partial	Full
Voters Per Machine	Full	Full	Full	Full	Full	Full	Partial	Full
Voters Per Poll Worker	Full	Full	Full	Full	Full	Missing	Partial	Missing
Wait TImes	Missing	Partial	Partial	Partial	Partial	Partial	Partial	Partial

	AZ	FL	MI	NC	OH	PA	TX	WI
In Person Voters	0%	0%	0%	0%	0%	0%	5%	0%
Black and Latino	0%	0%	0%	0%	0%	0%	0%	0%
Senior Residents	0%	0%	0%	0%	0%	0%	0%	0%
Senior Poll Workers	0%	12%	0%	0%	0%	100%	62%	100%
Difficulty	0%	2%	0%	0%	1%	100%	5%	100%
Inactive Voters	0%	0%	0%	0%	0%	0%	7%	0%
Voters Per Location	0%	0%	0%	0%	0%	0%	5%	0%
Voters Per Machine	0%	0%	0%	0%	0%	0%	10%	0%
Voters Per Poll Worker	0%	0%	0%	0%	0%	0%	5%	0%
Wait Times	0%	0%	0%	0%	0%	100%	9%	100%

2. Recency

This report was compiled using public data from 2016 and 2018. While the past can be a great predictor of the present, we recommend updating these numbers when new information is available that can adequately reflect existing resources in 2020.

3. County-Level Data

Our analysis occurs at the county-level due to the common denominator across public data sources. Organizations with more granular (e.g. precinct-level) data are encouraged to update the tool and it's information to account for more nuanced differences within a single county.