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Guardians at the Gates: Poll Worker Retention in a Challenging Election Environment

Robert M. Stein, Barry C. Burden, Matt Lamb, Gayle Alberda, Lonna Atkeson, Lisa Bryant,
Rachael Cobb, Michael Gilbert, Joshua D. Hostetter, David C. Kimball, Kenneth R. Mayer,
Costas Panagopoulos, Andrew Reeves, Corwin Smidt, and Jennifer Victor

ABSTRACT

Contrary to previous research and press accounts, we find limited evidence that persons who worked the polls in the past, including the 2020 election, are reticent to work in future elections. Our explanation focuses on the motivation and affect persons need to have to work the polls. Persons who believe their work at the polls is consequential for their community and who feel their work is valued, respected, and well-supported are highly motivated to work the polls in future elections. Conflict at the polls with voters and poll watchers, aspects of poll worker training, and collaborations with other poll workers have no appreciable impact on the willingness to work the polls. Only the magnitude and diversity of problems poll workers observed voters had casting their ballots are significant deterrents to working the polls. Our findings identify efficacious steps that local election officials can take to recruit and retain persons to work the polls in future elections.

Keywords: election administration, poll workers, voting

Robert M. Stein is based at the Rice University, Houston, Texas, USA. Barry C. Burden is based at the University of Wisconsin-Madison, Madison, Wisconsin, USA. Matt Lamb is based at the Texas Tech University, Lubbock, Texas, USA. Gayle Alberda is based at the Fairfield University, Fairfield, Connecticut, USA. Lonna Atkeson is based at the Florida State University, Tallahassee, Florida, USA. Lisa Bryant is based at the California State University-Fresno, Fresno, California, USA. Rachael Cobb is based at the Suffolk University, Boston, Massachusetts, USA. Michael Gilbert is based at the University of Virginia, Charlottesville, Virginia, USA. Joshua D. Hostetter is based at the Citadel Military College of South Carolina, Charleston, South Carolina, USA. David C. Kimball is based at the University of Missouri-St. Louis, St. Louis, Missouri, USA. Kenneth R. Mayer is based at the University of Wisconsin-Madison, Madison, Wisconsin, USA. Costas Panagopoulos is based at the Northeastern University, Boston, Massachusetts, USA. Andrew Reeves is based at the Washington University, St. Louis, Missouri, USA. Corwin Smidt is based at the Michigan State University, East Lansing, Michigan, USA. Jennifer Victor is based at the George Mason University, Fairfax, Virginia, USA.

Alarm bells were rung in the run-up to the 2022 midterm elections about the lack of poll workers. ABC News claimed, “US is facing a poll worker shortage” (Hamilton, 2022), Politico stated that “Effort to recruit poll workers relaunched amid fears of shortage” (Montellaro, 2022), and the *Atlanta Journal-Constitution* warned that “Poll worker shortage looms ahead of Georgia election” (Niesse, 2022). It seems that keeping poll workers from one election to the next has been a persistent challenge for local election administrators.

The 2020 election presented unique difficulties that might have deterred experienced poll workers from serving again. The challenges of conducting an election during a pandemic, harassment of local election officials (LEOs) in the aftermath of contentious elections, and an aging cadre of poll workers have

been cited as causes for the reported dearth of persons to work the polls (Contreras, 2023; Cox, 2023). However, these reported concerns belie the fact, as we show below, that LEOs reported it was easier to recruit poll workers in 2020 than it was in prior elections.

What accounts for this vacillation in reported difficulty finding people to work the polls? What factors determine whether prior poll workers will continue to serve? Retention of existing poll workers is of crucial importance to the thousands of LEOs across the country who are responsible for locating appropriate individuals to serve. New poll workers might be welcome because they are poised to bring with them new skills, perspectives, and enthusiasm. However, recruiting new workers taxes the time and resources available to election offices. First-time poll workers also require more intensive training and monitoring to ensure successful administration. Our focus is on the retention of persons who have worked the polls in the past, including the 2020 election. We are interested in what the Election Assistance Commission studies and news accounts highlight: the dearth of experienced persons to work the polls. Our findings extend research on poll workers to their retention, especially among persons with experience and skills needed to perform the myriad of tasks required for conducting elections. There are good reasons to shift the focus to retention, which appears less responsive to recruitment efforts than initial recruitment (Hostetter and Lebron, 2024). Recruiting someone to serve once is a challenge but getting them to return election after election is more consequential as it reduces the need to find new persons and train them for every election cycle.

Despite the centrality of poll workers to the administration of elections, almost no academic research has studied them directly. To build a base of knowledge about this crucial group, a national team of researchers collaborated with LEOs in 10 states and 19 jurisdictions to survey poll workers about their experiences and reasons for working the polls. Our article details the findings from a survey conducted in the lead-up to the November 2022 elections, identifying the experiences of poll workers and their willingness to continue to work the polls.

We fashion and test different explanations for the retention of poll workers. Contrary to previous research, we find limited evidence that persons who worked the polls in the past, including the difficult 2020 election, are reticent to work in future elections.

Our explanation focuses on the experiences of poll workers and how their history at the polls influences their plans to work the polls in the future. Persons who believe their work at the polls is consequential for their political party and community, and who feel their work is valued, respected, and well-supported are most motivated to work the polls in future elections. Conflict at the polls with voters and poll watchers, poll worker training, and collaborations with other poll workers have no appreciable impact on the willingness to work the polls. Only the magnitude and diversity of problems poll workers observed voters had casting their ballots are significant discouragements to working the polls again.

PREVIOUS RESEARCH

Research on the recruitment of poll workers is a nascent field of study and is defined by a limited set of studies in the United States (e.g., Burden and Milyo, 2015; Hostetter, 2020; Hostetter and Lebron, 2024; Jones and Stein, 2021; Roberts and Greenberger, 2023; Greenberger, 2022; Barsky, 2024; Kimball et al., 2010; Suttman-Lea, 2020), the United Kingdom (Clark and James, 2023), Sweden (Högström and Jerhov, 2023; Jerhov and Högström, 2024), and Mexico (Cantú and Ley, 2017). Few of these studies examine poll worker retention. The primary source about the general availability of persons to work the polls is a single question in the biennial Election Administration and Voter Survey (EAVS) of local election administrators. As we describe below, researchers who have relied on EAVS to explain the availability of persons to work the polls have found jurisdiction size, demographics, and institutional arrangements for conducting elections affect the difficulty LEOs report obtaining persons to work the polls. A limitation of the EAVS question is that it is only posed to election officials and does not consider the perspectives of poll workers themselves.

The EAVS survey instrument asks local election administrators “[H]ow difficult or easy was it for your jurisdiction to obtain a sufficient number of poll workers for the November [year] general election?” Responses include very difficult, somewhat difficult, neither difficult nor easy, somewhat easy, and very easy. The proportion of local elections officials who have reported having difficulty (i.e., very difficult or somewhat difficult) finding persons to

work the polls has increased over time, plateauing in 2018. The reported difficulty recruiting poll workers declined in surprising fashion in 2020, despite the difficulties of that election caused by both the coronavirus pandemic and political disputes. News accounts of poll work harassment following 2016, 2020, and 2022 elections should have increased the difficulty LEOs experienced recruiting persons to work the polls. Surveys of LEOs after the 2016 election, however, show that the difficulty recruiting persons to work the polls abated significantly.

These findings raise serious questions about whether there is a shortage of poll workers and whether accounts of poll worker harassment have diminished interest in working the polls. At a minimum, there is some ambiguity in interpreting surveys of LEOs about their difficulty in recruiting and retaining persons to work the polls. Despite the apparent fluctuation between elections, in every election many LEOs report that recruiting poll workers was at least somewhat difficult.

All the aforementioned research relies on the EAC survey of LEOs for assessing the difficulty of recruiting poll workers and not surveys of poll workers. Researchers studying poll workers rather than LEOs have identified material (e.g., payment) motivations for working the polls (Clark and James, 2023; Clark et al., 2023) but also solidarity (e.g., group affiliations) and purposive (e.g., achieving group aims) drives, mirroring research on public service motivation (McAuliffe, 2009; Barsky, 2024; Perry and Wise, 1990; Knoke and Wright-Isak, 1982; Perry, 1996) as reasons for working the polls.

Absent from this literature is why some people who have worked the polls continue to do so and why other experienced poll workers choose not to continue their service. Some obvious reasons why veteran poll workers cease to work the polls are their age and vulnerability, especially when elections are conducted during a pandemic as in 2020.¹ How might specific experiences at the polls shape the likelihood that persons continue to do so in the future? More importantly, are the experiences poll workers have consequential to their attitudes about the value and importance of their work to the conduct of fair elections? Are poll workers rewarded by their work at the polls and sufficiently satisfied to return to the polls?

EXPLAINING POLL WORKER RETENTION

We derive several testable hypotheses for why persons who have worked the polls continue to do so from both the extant literature and research on the performance of poll workers.

The first set of hypotheses identify the prevalent demographics of persons working the polls, namely, age and prior experience working the polls, that make them available and aware of opportunities to work the polls. A second set of correlates is experiential and identifies the interactions poll workers have with voters, poll watchers, and their fellow poll workers, as well as training administered by LEOs. The third set of factors shaping poll worker retention is about the ways poll workers believe they are treated and are expected to be closely related to, if not the direct result of, experiences poll workers have at the polls. This set includes feelings of being respected and supported for their service. Feelings of remorse, disappointment, and discouragement resulting from their experiences working the polls are expected to deter the most experienced poll worker from continuing their service.

Clark and James (2023) identify several types of benefits persons obtain from working the polls including solidary, purposive, and material. Barsky (2024) and others distinguish these incentives to work the polls from a public service motivation (McAuliffe, 2009; Perry and Wise, 1990; Knoke and Wright-Isak, 1982; Perry, 1996). The former is clearly relevant to the retention of the poll worker. One cannot acquire these benefits without having satisfactorily worked the polls. An altruistic or public service motivation may be more relevant to the initial recruitment of persons to work the polls. Because our focus is on the retention of previous poll workers, we focus on these experiences poll workers have working the polls as a major factor in shaping their decision to return to working the polls in future elections.

A potential way to alleviate poll worker reticence to work future elections may be the collaboration of

¹Though COVID pandemic had officially ended before the 2022 election, the CDC continued to issue warnings to persons over 60 years of age—the majority of poll workers—to avoid crowded places and take precautions including hand washing and wearing a mask when in crowded locations, like a polling location.

other poll workers and the training they receive. When things go badly at a polling location, poll workers might only have their coworkers to turn to for assistance, or they are at least inclined to turn to them first. Similarly, the training poll workers receive from their LEOs may sustain workers when difficulties arise (Hall, Monson, and Patterson, 2007). We hypothesize that the quality of poll worker collaborations with other poll workers and the quality of their training mitigate the negative effect bad experiences at the polls have on their intention to work future elections. We test these two conditional hypotheses with interaction terms between poll worker training and experiences at the polls and poll worker collaborations and experiences at the polls. We expect that the negative effect of experiences at the polls has on the likelihood to work the polls in the future declines with better collaborations and poll worker training.²

METHODS

No single national study has been undertaken of persons who work the polls. Most of our understanding about why persons work the polls comes from surveys with LEOs, not with poll workers. To remedy the dearth of contemporary data on poll workers, we collaborated with LEOs in 10 states and 19 jurisdictions to survey poll workers about their experiences and reasons for working the polls. Two waves of surveys were administered to thousands of poll workers across a variety of jurisdictions before the November 2022 general election. The individuals surveyed had all worked at least one election between November 2020 and the time of the survey.

The Supplementary Appendix SA1 reports the sample of jurisdictions by state and number of completed surveys. The communities represent a wide range of contexts in terms of election laws, political cultures, and demographic profiles from sparsely populated and Republican-leaning Otero County, New Mexico to dense, democratic-favoring cities such as Boston, Massachusetts. (See Supplementary Table SA1). In this paper, we analyze data from the pre-election wave, which represents the knowledge that LEOs would have about potential poll workers headed into the 2022 election.

Surveys were completed by 5,761 people between September 15, and October 14, 2022, who had

recently served as poll workers. Surveys in all jurisdictions analyzed here were conducted online.³ Survey respondents were solicited to take the survey by either their respective jurisdiction's LEO or, where allowed, the researchers.⁴ Several follow-up requests were issued to increase response rates and representativeness of the samples.⁵ Among the poll workers who completed the pre-election survey, 88% reported having worked the polls in the 2020 election.⁶ The survey queried voters about their

²Our model of poll worker retention not account for state election laws (e.g., early voting, Election Day vote centers, and the portability of poll workers across jurisdictions) because the limited sample of states does not include sufficient variation on state election laws to allow a meaningful test of their explanatory power. Partisanship of respondents is not considered because we were unable to obtain permission to ask poll workers their party affiliation in 11 of the 19 jurisdictions in our sample.

³Selection of participating jurisdictions was based on established relationships between co-authors and LEOs, most (but not exclusively) in geography where co-authors teach. The sample approximates the electoral map of U.S. states. Three states in which we surveyed poll workers were "red" states (Texas, South Carolina, and Missouri); four were "blue" states (Massachusetts, Connecticut, New Mexico, and California) and two were "battleground" states (Michigan and Wisconsin). Our sample skews only slightly towards urban jurisdictions (Boston, MA; Charleston, SC; Grand Rapids and Lansing, MI; Harris County, TX; Milwaukee, WI; St. Louis County and City, MO.) with eight jurisdictions in suburban or rural locations (Cibola, Dona Ana, Otero, and Los Alamos, NM; Fairfax, VA; Fresno, CA; Wellesley, MA). Weighting jurisdictions by population offset some of urban skew of our sample. Poll workers in Lubbock County, Texas completed a self-administered paper survey; these surveys were not available for inclusion in this paper.

⁴In 12 of our 19 study jurisdictions state law prohibits LEOs from sharing names, addresses (including emails) and other personal information of their poll workers. In these jurisdictions, LEOs directly solicited their cadre of poll workers to take the survey at a designated URL site. For the remaining jurisdictions, LEOs shared the contact for their poll workers with the researchers to make the solicitation.

⁵The text of the original solicitations and reminders were uniform across all jurisdictions. The timing of follow-up/reminder solicitations to take the survey were not uniform across jurisdictions. On average, reminders were sent two weeks after the initial launch of the survey. It is possible that the timing, early or late, of responses is potentially related to the likelihood a person reported they would work the polls in 2022. One possibility is that those who were reluctant to report they would not work the polls in 2022 were reticent to complete the survey and did so late and/or only after a reminder. We regressed response likelihood to work the polls in 2022 on date each respondent completed their survey. The model was estimated with fixed effects for states. The date a respondent completed the survey is unrelated to any ordinal responses to the likelihood they would work the polls in 2022. These results are reported in Supplementary Table SA6.

training, problems they observed voters having at the polls, their own experience working the polls, their interactions with other poll workers, and their sense of how they are treated when working the polls.⁷

Our main interest is in the retention of existing poll workers in the challenging post-2020 environment. For our dependent variable, respondents were asked how likely they were to work the polls in the upcoming November 2022 election. This is essentially the same information that election administrators receive when they reach out to prior poll workers to inquire about interest and availability in the next election. LEOs need to reliably and accurately estimate a person's intent to work the polls before each election. This is required to properly staff, equip, and operate in-person polling locations. What we seek to identify is the best means for making this prediction. Our measure of the likelihood to work the polls is a four-category ordinal measure ranging from "very unlikely" to "very likely."

Following the hypotheses outlined, above, summary scales were constructed from survey responses for five categories of poll worker experiences: (1) training, (2) collaborating with other poll workers, (3) treatment when working the polls, (4) observed experience of voters at the polls, and (5) unpleasant experiences working the 2020 election.⁸ We use multi-item batteries of questions to measure each concept in a reliable and valid fashion.⁹

First, the training poll workers receive should influence their likelihood to continue to work the polls. This effect may be direct or mediated by their experiences at the polls. Poll workers well versed in their responsibilities should report fewer problems working the polls than persons whose training was deficient. Respondents were asked if they strongly agree, agree, disagree, or strongly disagree with five statements about their training.

- The training instructors were knowledgeable and answered questions thoroughly.
- As a result of my training, I was adequately prepared to serve as an election worker in any election.
- I was provided with clear instructions of what was expected of me as a poll worker.
- The training provided was in-depth enough to solve any problems I experienced as a poll worker.
- Training locations were close to where I live.¹⁰

Second, persons were asked about their collaborations with other poll workers. Respondents were

again asked about their degree of agreement or disagreement with five statements about other poll workers with whom they worked.

- Election workers at my location were punctual.
- Election workers at my location were knowledgeable.
- Election workers at my location worked as a team and fostered a collaborative environment.
- Interactions between election workers at my location were professional, courteous, and respectful.¹¹

Third, the poll worker's perceived treatment working the polls is measured with ten agree-disagree questions. These questions did not reference any specific election but rather asked the respondents their opinions about being a poll worker over their career working the polls. Our intent is to capture the perceived treatment a person receives when working the polls, including how candidates, voters, and the election system regard them.

- Working as a poll worker has become more difficult.
- Candidates and political parties unfairly blame poll workers for losing elections.
- Voters are courteous and friendly to me.
- Voters appreciate the work I do as a poll worker.
- Poll workers in my county are respected and well-supported by our elected officials' duties as poll workers.

⁶All the respondents who did not work the polls in the 2020 election reported having worked the polls in elections before and after the 2020 Presidential election. Among same number of persons who did not work the polls in 2020, 73% have worked the polls in one or more elections since the 2020 election.

⁷The content of survey varied in several jurisdictions to accommodate the needs of LEOs. This paper reports the results of the common survey questions asked of respondents in all 19 jurisdictions.

⁸A score is created for every observation for which there is a response to at least one item. The summative score is divided by the number of items over which the sum is calculated.

⁹The results of the factor analyses are reported in Supplementary Table SA7.

¹⁰The results of a factor analysis of the five questions about poll worker training produced an eigenvalue for the first extracted factor of 3.1 and a Cronbach's Alpha of .88.

¹¹The results of a factor analysis of the five questions about other poll workers produced an eigenvalue for the first extracted factor of 2.9 and a Cronbach's Alpha of .79.

- I am paid fairly for my work as a poll worker.
- Poll watchers for candidates and political parties perform a useful role at the polling place.
- My state has enacted laws that make it more difficult for me to perform my duties as a poll worker.
- I feel safe and secure working as a poll worker.¹²

Fourth, to assess whether poll workers observed voters having difficulty at the polls, respondents were asked the share of voters—most, less than half, a few, or none—that appeared to experience the following problems.

- Problems recording their vote choices on the voting equipment.
- Problems completing a provisional ballot.
- Problems checking in to vote with the proper ID.
- Poll watchers interfering with a voter trying to vote.
- Conflicts with other voters waiting to vote.
- Misunderstandings or confusion about election rules.
- Waiting more than an hour to vote.¹³

Finally, to assess specific exposure to difficulties by poll workers, respondents were asked whether they had one or more unpleasant experiences working the polls in that election:

- Conflict with poll watchers representing candidates or political parties.
- Difficulty with voting machines and other equipment.
- Long lines of voters waiting to vote.
- Conflict with voters.
- Conflict with other poll workers.¹⁴

Unlike the other scales, the items in this intended measure of poll worker problems at the polling place do not appear to measure the same underlying concept. The five questions do not cohere, evidenced by the small Alpha value, and weak factor analysis results. We thus rely on the two separate questions about conflicts with voters and poll watchers, both of which were frequently mentioned in news accounts during and after the 2020 election. We believe that the excluded questions about difficulty with voting machines, long lines, and conflicts with other poll

workers are captured in our measures of voter problems at the polls and poll worker collaborations.¹⁵ The intercorrelations among our survey measures are modest and do not raise concerns about multicollinearity (see Supplementary Table SA2).

In addition to the above measures, our estimate of intent to work the polls in 2022 includes the respondent's age¹⁶ and the number of elections the respondents worked the polls since 2020.¹⁷ This latter item is our measure of the extent of the person's experience as a poll worker. Both of these factors are widely believed to correlate with the likelihood of returning as a poll worker. This may be because they indicate the availability and interest of older individuals who have already worked the polls. Descriptive statistics for all of the variables are provided in Supplementary Table SA3.

RESULTS

Four out of five respondents reported that they were very likely to work the polls in the 2022 election. Although a high proportion of poll workers express a strong interest in continuing to work the polls, there is some notable variation in this predisposition among our sample of jurisdictions. As Table 1 shows, the range in the percent of respondents who reported they were "very likely" to work the polls in 2022 run from a low of 67% in the city of St. Louis to 98% in Doña Ana County, New Mexico.

Notwithstanding the variation by jurisdiction, it is clear that persons who have worked the polls continue to have a strong interest in returning to their duties in the future. This finding might seem surprising given the circumstances of the 2020 election and its aftermath. The threat of COVID and criticism

¹²The results of a factor analysis of the ten questions about treatment produced an eigenvalue for the first extracted factor of 2.1 and a Cronbach's Alpha of .61.

¹³The results of a factor analysis of the seven questions about treatment produced an eigenvalue for the first extracted factor of 3.0 and a Cronbach's Alpha of .84.

¹⁴The results of a factor analysis of the five questions about poll worker problems at the polls produced an eigenvalue for the first extracted factor of .1 and a Cronbach's Alpha of .1.

¹⁵The inter-correlation (Kendall Tau) between reported problems with poll watchers and problems with voters is .16 (ASE = .024). The factor loadings for these two items were the largest loadings on the first extracted factor i.e., .23.

¹⁶The categories are 18–25, 26–40, 41–60, 61–70, and 70+.

¹⁷The categories are no elections, one election, two elections, and more than two elections.

TABLE 1. LIKELIHOOD OF WORKING THE POLLS IN 2022 (PERCENT)

	<i>Very Likely</i>	<i>Somewhat Likely</i>	<i>Somewhat Unlikely</i>	<i>Very Unlikely</i>
Boston	87.0	8.0	1.1	4.0
Cambridge	73.9	9.0	10.8	6.3
Charleston	71.8	13.7	4.0	10.6
Charlottesville	75.8	8.8	6.6	8.8
Cibola	87.5	0.0	0.0	12.5
Doña Ana	98.3	0.0	0.0	1.8
Fairfax	85.1	8.5	2.1	4.3
Fairfield	66.7	23.1	10.3	0.0
Fresno	95.3	2.4	1.2	1.2
Grand Rapids	77.9	9.1	3.9	9.1
Harris	89.5	10.6	0.0	0.0
Lansing	76.3	8.8	3.5	11.4
Los Alamos	83.9	6.5	0.0	9.7
Milwaukee	79.8	6.9	4.4	8.9
Otero	92.3	0.0	0.0	7.7
St. Louis City	67.0	14.6	5.8	12.6
St. Louis	75.5	3.8	4.9	15.8
County				
Wellesley	90.9	4.6	0.0	4.6
Total	80.6	8.5	3.2	7.8

that LEOs and poll workers received from the President Trump and other election deniers could have soured many from returning to the polls in subsequent elections. These findings raise doubt about the alleged paucity of persons to work the polls, with inertia in service being the predominant pattern even in an era of historic disruptions.

It is possible that individuals who completed the survey were disproportionately likely to continue serving as poll workers, perhaps because of their commitment to the job or above average experiences in 2020. Although this kind of selection bias is possible, the EAVS survey of LEOs found that approximately 17% of poll workers were new in 2022.¹⁸ This rate is quite like the approximately 19% of poll workers we surveyed who did not say they were “very likely” to serve that year.¹⁹

As Clark and James note, “most studies of poll workers have studied specific locations rather than deploy a nationwide random sample (2023:195).” It is difficult to know how well our convenience sample approximates a national sample of US poll workers. Minimally, our sample matches the age, gender, and prior experience working the polls that other researchers (e.g., Barsky, 2024; Clark and James, 2023; Suttman-Lea, 2020) studying single states or jurisdictions have reported for their samples of poll workers (see Supplementary Table SA4).

Another means of assessing the representative of our sample is to compare poll worker responses

about problems at the polls with voters’ assessment of polling place operations for the same jurisdiction (i.e., county) in comparable election years. We have compiled survey responses to the 2016 and 2020 Survey of the Performance of American Electorate (SPAEE) about polling place experiences and poll worker performance from respondents in 16 of the 18 jurisdictions included in our 2022 survey of poll workers. Our focus is on problems such as long waiting times, voters’ difficulties with voting machines, and the overall performance of poll workers that both voters and poll workers reported. In our sample of jurisdictions, there is significant congruence among voters’ and poll workers’ experiences at the polls (see Supplementary Table SA5). The exception is

¹⁸https://www.eac.gov/sites/default/files/2023-06/2022_EAVS_Report_508c.pdf, p. 21.

¹⁹Persons who worked the polls in 2020 but were no longer interested in continuing their service may have been reluctant to participate in our survey. Those who have already stopped working at the polls may have numbered among those who did not respond to the survey. This potential selection bias may have skewed responses about working the 2022 election upward. The presence of a selection bias in our survey could also have biased our estimates of the correlates of working the polls in 2022. As noted above, in 12 of our 19 study jurisdictions state law prohibits LEOs from sharing names, addresses (including emails) and other personal information of their poll workers. In these jurisdictions, LEOs directly solicited their cadre of poll workers to take the survey at a designated URL site. For the remaining jurisdictions, LEOs shared the contact for their poll workers with the researchers to make the solicitation. If a selection bias is operative in our sample, it should be more prominent among those jurisdictions where the LEO directly solicited participation in the survey rather than responses of persons solicited directly by the researchers. Persons who decided not to work the polls in 2022 may have been reluctant to report this decision directly to their respective LEO. A solicitation to participate in the survey from the researchers, however, may have muted the reticence of persons reporting their decision not to work the polls in 2022. The expectation is that those who stopped working the polls were less likely to respond to a survey from their former employer than they would be to a solicitation from the team of researchers. Among poll workers contacted to take the survey by their LEO, 82% reported they were “very likely” to work the 2022 election. Among poll workers contacted by the researchers 78% reported they were “very likely” to work the polls in the 2022 election, for a significant difference of 4%. We re-estimated our model of working the polls in the 2022 election with a dummy measure for method of soliciting respondents (i.e., 1 = contacted by researchers, 0 = contacted by LEO). The coefficient for the method of soliciting the survey is insignificant and our estimates for other covariates for the likelihood of working the polls in 2022 election are unchanged from those reported in Table 2 (Supplementary Table SA8). We assess the likelihood of a selection bias in our measure of likelihood to work the polls to be modest but non-consequential.

voters' difficulty with voting machines with less than 5% of SPAE respondents who reported problems with voting machines but poll workers in the same jurisdictions reported nearly 14% of voters have some difficulty with voting machines. Voter and poll worker congruence on waiting times (i.e., waiting more than 1 hour) and poll worker performance are closely aligned in the 16 matched jurisdictions.

The representativeness of our sample may call into question our estimate of the share of persons who were likely to work the polls again in 2022. However, this alone would only cause the intercepts reported in our models of likelihood to work the polls to be inflated. This is not true of the coefficients for the estimated determinants of working the polls. It is possible that an overly high estimate of poll worker retention would reduce variance in the measures and make it more difficult to obtain statistically significant relationships.

A common method for estimating the effects of independent variables on an ordinal scale such as ours is ordered logit or probit. However, the skewed distribution of responses about the likelihood of working the polls suggests that the standard approach might not be appropriate. This concern is verified by the results of the Brant test (1990) of whether independent variables predict the outcome categories in the proportional manner as the model assumes. The likelihood ratio tests are significant ($p < 0.05$) confirming that our ordinal measure of intent to work the polls does not meet the proportional odds assumption for three of our eight independent measures.

Failing to meet the proportional odds assumption has practical implications for our findings and policy recommendations for retaining persons to work the polls. The Brant test tells us that several of our correlates of intention to work the polls have different slopes when compared across pairs of responses. For example, age may have a significant and positive effect on being "very likely" to work the polls while it may have a null effect on being "very unlikely" to work the polls. In addition to the methodological complications they cause, these differences in slopes have real consequences for the strategies LEOs undertake to recruit and retain persons to work the polls.

There are a number of statistical "fixes" for violations of the proportional odds assumption that enable researchers to identify whether and how the slopes of covariates vary across response categories.²⁰ We have adopted the most straightforward of these methods by estimating four binary logit regression models for each response to the intent to work the 2022

election question. Our focus is on those respondents who reported they were either very likely or very unlikely to work the 2020 election. Estimates for those who reported they were either somewhat likely or somewhat unlikely to work the polls also tell us about the different correlates of those who were reticent to unequivocally report their intentions.

Table 2 and Figure 1 report the logit coefficients and predicted probabilities for each of our four dependent measures. Models are weighted for the frequency of responses for each jurisdiction with fixed effects for jurisdictions and random intercepts. The latter captures differences that might arise among jurisdictions such as demographic differences that are not explicitly measured in our model.

In line with prior research, we find that age and years working the polls have a significant and positive effect on respondents' intentions to work the polls in 2022. Both variables are significantly related to all but one of the four intentions to work the polls in 2022. As suggested by the Brant tests, the direction and magnitude of these correlates vary with the respondent's intention to work the polls. Age and experience at the polls are both positively and strongly related to being very likely to work the polls in 2022 but negatively related to all other intentions. These effects are strongest for persons reporting they were somewhat or very unlikely to work the polls. Any reticence to work the polls is associated with less experience working the polls and younger rather than older poll workers.²¹

²⁰The generalized order logit model implemented in the "gologit2" command in Stata allows estimates of ordinal measures without meeting the proportional odds assumption (Williams, 2016). "gologit2" produces a series of binary logistic regressions for each $n - 1$ pairs of response categories. If the proportional odds assumptions are not violated, all of the coefficients (except the intercepts) will be the same. Where the assumption is violated, different slopes for the same covariates are reported for different response categories. Given the limited number of independent variables that did not fulfill the proportional odds assumption we thought it useful to estimate an ordered logit model of intention to work the polls. The results, reported Supplementary Table SA9 substantively replicate the findings reported in Table 2.

²¹We were able to measure respondent partisanship in 17 of our 19 jurisdictions, reducing the usable sample size from 4,126 to 3,362. The distribution of partisanship is skewed, with 53% Democrats and only 18% Republicans. Another 28% identified as independent (15%), affiliated with another party (2%), or preferred not to identify their partisan affiliation (11%). We estimated our model of likelihood to work the polls in 2022 election with and without two dummy measures, one for Democrats and another for Republicans (the excluded category is independents/other party). The results (see Supplementary Table SA10) do not suggest that inclusion of partisan preferences has a substantive effect on our findings.

Firsthand experiences while working the polls have little effect on the intention to work the polls. Conflict with poll watchers or voters is unrelated to any intention to work the polls in 2022. The training poll workers received is also unrelated to working the polls again. Positive collaborations with other poll workers only reduced the likelihood that persons reported they were very unlikely to work the polls. Poll worker collaborations were unrelated to other intentions to work the polls. The exceptional experiences were difficulties the poll workers observed voters having at the polls. The number of problems that voters were observed to have at the polls had a significant and negative effect on the likelihood that persons reported they would be very likely to work the 2022 election. This same experience has a significant and positive effect for persons who reported they would be somewhat likely to work the polls. These findings suggest that for some poll workers, the problems they observed voters having at the polls but not any other on-the-job troubles were disincentives to work the polls in 2022. This surprising finding has seldom if ever been considered by LEOs or researchers who seek to understand why individuals do or do not continue to engage in public service.

Treatment about service significantly shapes all intentions to work the polls. This remains among the strongest correlates of intention to work the polls among all categories of responses. Perceived treatment is significantly and positively related to persons who reported they were very likely to work the polls in 2022 and is negatively related to all other intentions to work the election. Even those who reported they were somewhat likely to work the polls were significantly less likely to believe they were treated well as poll workers.

Discovery of the largely insignificant and modest influence experiential variables have on working the polls is both surprising and potentially gratifying. Criticism of poll workers in the aftermath of the 2020 election was thought to discourage both new and experienced persons from working the polls. Despite stories about voters being more adversarial toward election workers in recent years, conflicts with voters and poll workers did not diminish the respondent's willingness to work the polls. Furthermore, the adoption of election laws intended to rein in the discretion and authority of poll workers was expected to depress interest in working the polls. Whether working the polls has actually gotten more difficult and challenging after 2020 appears mostly

TABLE 2. LOGISTIC REGRESSION ESTIMATES FOR LIKELIHOOD TO WORK THE POLLS IN 2022

	<i>Very Likely</i>	<i>Somewhat Likely</i>	<i>Somewhat Unlikely</i>	<i>Very Unlikely</i>
Elections worked since 2020	0.935* (0.143)	-0.655* (0.0667)	-0.680* (0.0424)	-0.734* (0.0763)
Age (categorical)	0.266* (0.0530)	-0.245* (0.0539)	-0.476* (0.0629)	-0.0727 (0.0692)
Treatment	0.673* (0.0931)	-0.420* (0.108)	-0.323 (0.208)	-0.674* (0.167)
Training	-0.0852 (0.149)	0.144 (0.132)	-0.113*** (0.0670)	-0.0389 (0.0967)
Collaboration with other workers	0.0609 (0.162)	0.0316 (0.0562)	0.00606 (0.148)	-0.227* (0.0606)
Voter problems	-0.218* (0.0596)	0.303* (0.0647)	0.246 (0.525)	-0.449*** (0.229)
Conflict with poll watchers	-0.138 (0.210)	0.0575 (0.339)	0.352 (0.255)	0.106 (0.188)
Conflict with voters	-0.0501 (0.206)	-0.144 (0.137)	-0.0203 (0.350)	0.321 (0.250)
Constant	-3.949* (1.525)	0.692 (0.704)	1.093 (0.791)	2.377* (0.731)
Observations	4,126	4,126	4,126	4,126
Number of groups	18	18	18	18

Robust standard errors are in parentheses.

Fixed effects for jurisdictions.

* $p < 0.01$.

** $p < 0.05$.

*** $p < 0.10$.

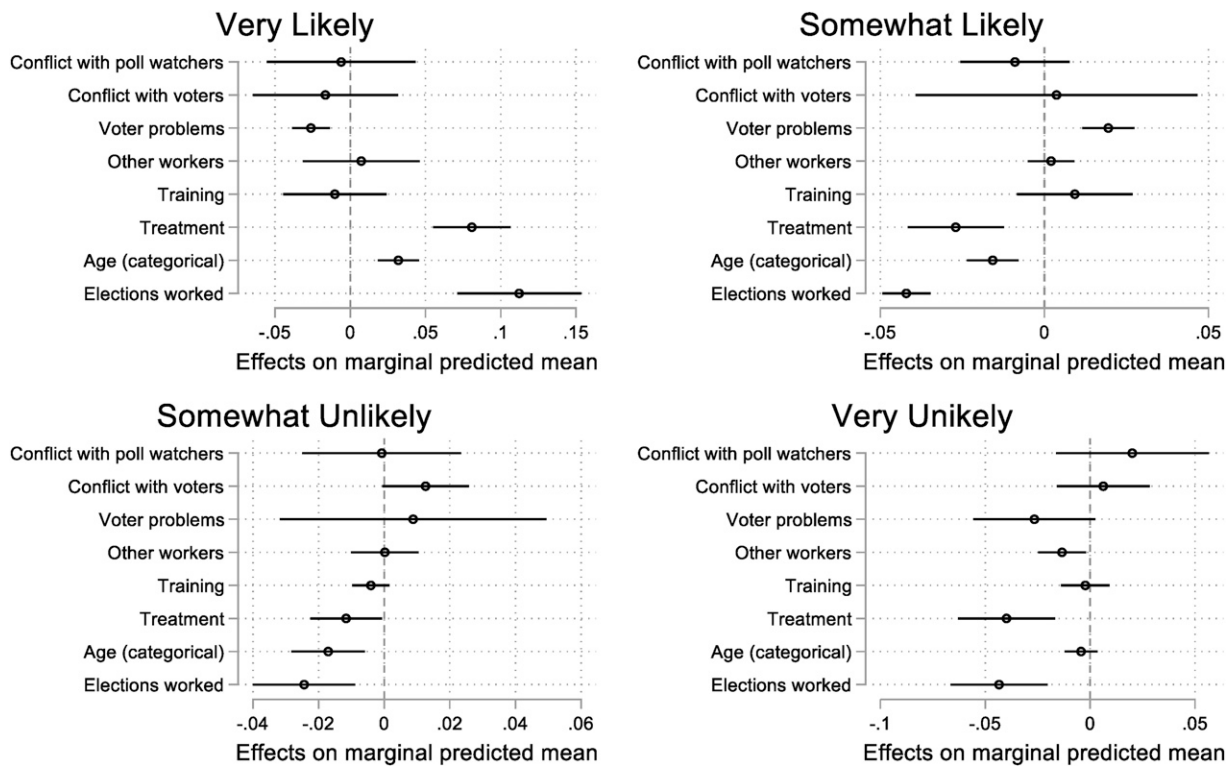


FIG. 1. Estimating Probabilities of Working the Polls. Marginal Effects From Table 2.

irrelevant to the decisions of experienced poll workers to continue working the polls.

Unexpectedly, training and for most respondents' collaborations with other poll workers are also inconsequential to the decision to work the polls in the future. This finding might in part arise from the high regard poll workers have for the training they receive and for their collaborators at the polls. The mean values for these measures are 3.19 and 3.26, respectively, on a four-point scale (Supplementary Table SA2). Relatedly, we find no support for our conditional hypotheses. Neither training nor successful poll worker collaborations mitigate the negative effects that conflicts with voters have working the polls in 2022. The interaction between reported conflicts with voters at the polls and training and poll worker collaborations has statistically insignificant effects on the likelihood to work the polls. Unlike the case with many election administrators who have been discouraged from further public service, these findings further suggest that the alleged negative experiences poll workers had in the 2020 election were not consequential to their commitment to working the polls in the future.

Poll workers' perceptions of treatment about working the polls in the aftermath of the 2020

election are positive and consequential. Most people who worked the polls reported that they were treated well by other stakeholders. Across the range of the treatment scale, we observe a 0.32 increase in the probability that respondents reported they would be very likely to work the polls in the 2022 election. This change in probability is both substantial and consequential, moving respondents from a slightly greater chance to work the polls to a near certainty of working the polls.

DISCUSSION AND CONCLUSION

Our findings offer several insights into the extant literature on the retention of poll workers. First, our sample of poll workers remarkably expressed little reticence to work the polls in future elections in the aftermath of the contentious 2020 election. More than 8 out of 10 persons who worked the polls before and in 2020 said they would be very likely to work the polls in 2022 and beyond. The scarcity and difficulty to retain poll workers that emerges from the EAVS and media reports does not match what poll workers told us. Perhaps the problems of the

2020 election—the COVID pandemic and aspersions on the election system—were seen by many respondents as having dissipated sufficiently to no longer be significant deterrents. However, it also seems that the persistence of election workers is an essential fact about their service, even in the most difficult of times.

Second, our correlates of working the polls and their relative importance deviate from what we have learned from previous research. Inertia is a large part of who serves: age and years working the polls have their strong and positive effects on the willingness to continue working the polls. There might also be endogeneity or spurious relationships among the variables to the degree that the kinds of people who are more likely to be retained as poll workers are also prone to report more positive experiences. Future research might explore traits such as public service motivation and personality as potential factors behind both outcomes.

However, we had not expected that prior experiences working the polls, especially conflict with voters and poll workers, to have so little effect on working the polls in the future. If the tendency to see the experience positively is endogenous to retention, then one would see more robust relationships. Only the problems that poll workers saw voters having at the polls were a significant deterrent to working the polls in the future, a surprising but small effect. The training poll workers receive and their collaborations with fellow poll worker are so consistently positive to have a nonsignificant role in the decision of poll workers to continue working the polls. Central to a person's willingness to work the polls are their motivation and commitment to this modestly compensated civic activity. Our measure of treatment in working the polls does not quite capture the purposive and solidary benefits of working the polls discussed by Clark and James (2023). These findings are hardly surprising but would have gone undetected had we not surveyed poll workers. Even the most attentive and empathetic LEO might not fully appreciate the commitment and motivation poll workers have working the polls. Poll workers are often recruited and trained individually without full consideration of why or how they are self-selected or recruited.

Political parties are the wellspring from which many poll workers are drawn. In part, this condition owes to the fact that 39 states require members of major political parties to be present as poll workers

and judges at each polling location if they can be recruited. This requirement should not be a constraint on recruiting from other sectors of society. Our findings about what motivates a person to work the polls provide LEOs with a viable strategy for expanding their search for poll workers beyond political parties. Respondents identified a wide array of reasons, motivations, and societal sectors from which to recruit persons to work the polls. LEOs can still fulfill the partisan affiliation required in many states without relying solely on the two major parties to staff polling locations. Additional research needs to identify which appeals to work the polls are most efficacious for recruiting new poll workers.

There remains a note of caution about our findings and the conclusions and recommendations we draw from them. The doubt we have raised about the veracity about the difficulty LEOs have in obtaining enough poll workers may be misplaced. Future research needs to clarify when the difficulty LEOs report recruiting poll workers is really about recruiting experienced and qualified persons to work the polls or merely finding “enough” people to fill the slots available. To this end, the EAC's 2022 EAVS includes a new question on the number of persons working the polls for the first time. This question provides us with some indication of the proportion of persons working the polls who are experienced as opposed to first-time poll workers. If we assume that experience matters in the performance of poll workers, we might expect that reported difficulty recruiting persons to the polls will vary with the proportion of those working the polls for the first time.

AUTHORS' CONTRIBUTIONS

R.S., B.B., M.L., and D.K. were responsible for drafting and revising the article. All authors have contributed to the design of the work, acquisition/analysis of data and have approved of the final version of the article.

SUPPLEMENTARY MATERIAL

Supplementary Table SA1
 Supplementary Table SA2
 Supplementary Table SA3
 Supplementary Table SA4
 Supplementary Table SA5

Supplementary Table SA6
 Supplementary Table SA7
 Supplementary Table SA8
 Supplementary Table SA9
 Supplementary Table SA10

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Address correspondence to:
 Robert Stein
 Rice University
 6000 S. Main
 Houston
 TX 77251
 USA

E-mail: stein@rice.edu

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