

The Voting Experience and Beliefs about Ballot Secrecy

Alan S. Gerber
Yale University
Professor
Department of Political Science
Institution for Social and Policy Studies
77 Prospect Street, PO Box 208209
New Haven, CT 06520-8209
alan.gerber@yale.edu

Gregory A. Huber
Yale University
Professor
Department of Political Science
Institution for Social and Policy Studies
77 Prospect Street, PO Box 208209
New Haven, CT 06520-8209
gregory.huber@yale.edu

David Doherty
Loyola University Chicago
Assistant Professor
Political Science Department
1032 W. Sheridan Road, Coffey Hall, 3rd Floor
Chicago, IL 60660
ddoherty@luc.edu

Conor M. Dowling
Yale University
Postdoctoral Associate
Institution for Social and Policy Studies
77 Prospect Street, PO Box 208209
New Haven, CT 06520-8209
conor.dowling@yale.edu

Seth J. Hill
Yale University
Postdoctoral Associate
Institution for Social and Policy Studies
77 Prospect Street, PO Box 208209
New Haven, CT 06520-8209
seth.hill@yale.edu

The Voting Experience and Beliefs about Ballot Secrecy

Abstract:

The legitimacy of democratic election results rests on the perceived fairness of the rules and procedures for voting. New democracies, for example, go to great length to install democratic institutions, while one of the hallmarks of long-standing democracies is strong institutions protecting the electoral process. In this paper, we argue that beliefs about these democratic institutions, and not just their existence, are of central importance to legitimate elections. We show that even in the United States doubts about democratic institutions are surprisingly prevalent: We find that 36 percent of respondents to a nationally representative survey hold doubts that the choices they make on their ballots remain anonymous. We also present evidence that polling place voters experience a variety of situations that might violate the privacy of their voting process. Concerns about the anonymity of the ballot are greater among those who have not previously voted and for those voting with electronic machines and by mail. These findings suggest an important divergence between public perceptions about the secret ballot and the institutional status of the secret ballot in the United States, a divergence that may have important consequences. More broadly, this evidence suggests that individual beliefs should not be ignored when considering the effects and operation of political institutions.

Democracies are often defined by the rules and procedures that govern their elections. Great effort is put forth to create a system of laws and procedures that promote “fair elections,” those in which the outcome is thought to be legitimate and losing factions accept defeat in peace. Many of these rules and procedures are designed so that all citizens may participate in the political process without harassment and make choices on their ballots as they see fit. Underlying the effort to create these systems is an assumption that with proper rules and procedures, citizens will accept election results as legitimate.

For a voting process to generate legitimacy, however, citizens must not only believe that the institutions defined by election laws are consistent with legitimate elections, but also that election administrators implement these institutions honestly and effectively. These requirements may not always be met. For example, citizens may believe election laws do not prohibit incumbent politicians from pressuring voters at the polls, or that these laws are ineffective at preventing such abuse. Indeed, although election administrators do expend moderate advertising budgets on distributing information about their rules and procedures, these efforts may not reach many citizens or may not be persuasive to those who are reached.

In this paper, we investigate whether perceptions of the operation of a key democratic institution, the secret ballot, deviates from the legal and practical reality of that institution. While we focus on beliefs about the anonymity and integrity of the voting process, our point is not limited to this institution. We argue that in a world of imperfect human implementation and uneven knowledge, citizen perceptions of democratic institutions are not automatically tied to the actual legal status of those institutions. In the limit, if enough of the citizenry doubt that a democracy functions properly, that state lacks legitimacy, regardless of its actual formal rules and their operation.

This research makes two contributions to our understanding of people’s perceptions of the secrecy of the voting process. First, using evidence from a new national survey that we designed and fielded to learn about American beliefs about ballot secrecy and the voting process, we provide a detailed account of respondents’ Election Day experiences. This analysis focuses on the aspects of these experiences that may affect whether citizens view voting as a private or public act. Our evidence suggests

that in the contemporary United States, most citizens believe their voting choices are secret. At the same time, a substantial proportion harbors doubts and misunderstandings about the voting process. Of note, many people have misgivings about the anonymity and privacy of this process. We find differences between the reported experiences of those who vote using different technologies (paper versus electronic) as well as between those who vote early rather than on Election Day. Additionally, responses provided by individuals who reported voting by mail indicate that many people fill out their ballots with others, suggesting that voting is not a strictly secret act for many of those who cast their ballots in this manner.

Second, we assess how the experiences of in-person voters compare with the expectations of individuals who report never having voted before. This comparison is especially interesting given the possibility that a perceived lack of secrecy may be part of the reason some people do not vote (see Gerber, Huber, Doherty, Dowling, and Hill 2011). We find that non-voters' expectations about the voting process diverge from the reported experiences of those who say they have previously voted. For example, compared with the reported experiences of voters, non-voters are substantially more likely to say that they would have to write their name on their ballot, that a poll worker would look at their ballot to see who they voted for, and that someone in line at the polling place would ask them who they were voting for.

The remainder of the paper proceeds as follows. In the next section we describe our data source—a large scale national survey conducted soon after the 2010 general elections, the basic characteristics of our sample, and their general beliefs about the secrecy of their choices in voting. We describe the voting experience of the modal voter, one who casts a ballot at a polling place on Election Day, before turning to how this experience differs from the expectations of those who have never voted, and the experiences of early voters and voters who cast their ballots by mail.

1 Beliefs about Ballot Secrecy

The secret ballot is one of a set of democratic institutions designed to foster competitive and legitimate democratic elections. The ability to vote without one's choices being revealed to others is

considered an essential characteristic of legitimate democratic systems (Franck 1992, 64).¹ The secret ballot, in particular, helps protect voters from fear of intimidation or coercion. In the United States, for example, a secret (Australian) ballot was adopted in the late 1800s in an effort to transform the process of voting from a public affair that was improperly influenced through bribery, coercion, and intimidation to a more private affair free of such maladies (Bishop 1893; Evans 1917; Fredman 1968; Wigmore 1889).² Since its adoption, the secret ballot has been used in all federal and state elections of government officials.³ As such, it is generally assumed that voting in the U.S. occurs in secret; that is, voting is a private act and vote choices are not divulged unless an individual voluntarily reveals her own choices to others.

Other work finds that people's evaluations of political institutions are strongly influenced by the characteristics of the processes used in those institutions (Doherty and Wolak 2011; Gangl 2003; Gibson and Caldeira 1992; Tyler 2006). If institutional procedures are seen as inconsistently applied or ineffectual, the institution's legitimacy suffers. This may lead to public demands for changes to institutional rules or procedures that may ultimately be counterproductive. If people misperceive how political processes work, this may also affect their political choices and behavior. For example, in the realm of the voting process, recent studies argue that formal protections of ballot secrecy are not equivalent to ensuring that citizens understand that they may vote privately and without fear of reprisal (Gerber, Huber, Doherty, and Dowling 2011; Gerber, Huber, Doherty, Dowling, and Hill 2011). These studies report that some citizens have serious doubts about whether their vote choices are truly secret and

¹ Other institutions important for democratic legitimacy include freedom of speech, freedom of association (allowing competing political parties), universal suffrage, and due process of law.

² As Justice Blackmun wrote in *Burson v. Freeman*, voting prior to the adoption of the secret ballot "was not a private affair, but an open, public decision, witnessed by all and improperly influenced by some" (*Burson v. Freeman*, 504 U.S. 191 [1992] at 200).

³ With the notable exception of party nominating caucuses.

that doubts about the secrecy and anonymity of the voting process can affect voter turnout and vote choices.

This previous work reports responses to general questions about ballot secrecy. For example, "...are your choices about which candidate you voted for kept secret unless you tell someone, or are your choice not kept secret?" (Gerber, Huber, Doherty, and Dowling 2011, Table 1). In this paper, we provide a more detailed account of citizens' beliefs about the secrecy and anonymity of the voting process. The questions we asked on our survey (see below for more details) were more specific: "...did you write your name on your ballot?", "...did a poll worker look at your ballot and see who you voted for?", etc. These questions therefore allow us to examine the details of citizens' perceptions of, and experiences with, the voting process in an effort to understand the sources of doubts about formal ballot secrecy protections.

Two aspects of the process of casting a ballot may be particularly important for understanding people's voting experiences and the sources of doubts about the secrecy of one's ballot. First, the official aspects of the voting process, including interactions with election administrators and perceptions about whether voting procedures protect the anonymity of their ballots, may play an important role in whether people think of voting as a private or public act. Although voting in the United States is conducted by secret ballot and is explicitly designed to ensure that the privacy of people's choices on Election Day is maintained, many people may be unfamiliar with the rules and regulations election administrators must adhere to and may therefore think that their vote choices are a matter of public record. Alternatively, people may not be confident that these procedures work.

Second, the social aspects of the voting process may affect how people think about voting. These social aspects include people's assessments of whether their polling place provides an environment where they can cast their ballots privately, as well as whether people go to the polls alone or with other voters and whether they discuss their choices with others. Even if people recognize formal ballot secrecy protections and trust election officials, they may nonetheless view voting as a public act. For example, they may assume that other voters can see their ballots while they are filling them out or that other voters will ask them to discuss their choices at the polling place.

Previous work on the effects of mode or place of voting on beliefs about privacy of the voting process has been limited. Stewart, Alvarez, and Hall (2010) survey voters after the 2009 gubernatorial elections in New Jersey and Virginia, and find that voters in Virginia were more concerned about the privacy of their vote than voters in New Jersey, though they are not certain why. The difference is not due to voting technology, as voters who used electronic voting machines were as concerned about privacy as voters who used optical scan. Stewart, Alvarez, and Hall (2010) are more focused on how confident voters are that their vote is counted, and show that voters who used electronic voting machines, and voters who voted early or by mail were less confident that their votes were accurately counted. They also find that greater concern about privacy of the vote is associated with less confidence that the vote is accurately counted.

Karpowitz, Monson, Nielson, Patterson, and Snell (forthcoming) show in a field experiment that procedures designed to increase the privacy of the voting process can increase the perceptions of secrecy for voters treated with those procedures. Karpowitz et al.(forthcoming) also find that most of the effect of the treatment procedures falls on voters in the local minority, who may be more concerned that their choices may be revealed than members of the local majority. Other research investigates the effects of mode or place of voting on confidence in elections (e.g., Alvarez, Hall, and Llewellyn 2008; Atkeson and Saunders 2007; Bullock, Hood, and Clark 2005; Llewellyn, Hall, and Alvarez 2009), a different focus than ours. A second line of research finds that peoples' experiences at the polling place, including their sense of privacy while voting, can affect both evaluations of poll workers and confidence in the electoral process as a whole (Claassen, Magleby, Monson, and Patterson 2008).

We are the first, to our knowledge, to investigate in an in depth survey the relationship between both mode and place of voting and beliefs about and experiences with ballot secrecy. We also investigate the relationship between vote history and these beliefs and experiences. Finally, we begin to characterize the nature of experiences at the polling place and at home that violate the secret ballot, as reported by voters.

2 Measuring Perceptions of the Voting Experience

We fielded a survey in December of 2010 through YouGov/Polimetrix, which uses a combination of sampling and matching techniques to approximate a random digit dialing sample.⁴ Section 2 of the Appendix contains complete question wording for each item discussed in the text. The final weighted sample is nationally representative of the U.S. adult population (25 and over). All the descriptive statistics and analyses presented below use the sampling weights provided by YouGov/Polimetrix. The minimum response rate was 40.8 percent (AAPOR RR1) and the estimated response rate was 41.1 percent (AAPOR RR3). There are a variety of concerns about using opt-in surveys, especially those fielded on the internet (AAPOR Task Force 2010). One concern is that, because of the choice to opt in, participants are more interested or informed than an average citizen. For example, ninety-four percent of respondents (2821 of 3000) indicated that they were registered to vote. However, to the extent our sample is more interested or informed than average, we should be less likely to find misperceptions and misunderstandings about

⁴ YouGov interviewed 3,263 respondents who had taken both waves of the 2010 Cooperative Congressional Election Study (CCES). These interviews were then matched on gender, age, race, education, party identification, ideology, and political interest down to a sample of 3,000 to produce the final dataset. YouGov then weighted the matched set of survey respondents to known marginals for the citizen population of the United States age 25+ from the 2006 American Community Survey (ACS). The original CCES sample was constructed by first drawing a target population sample. This sample is based on the 2006 ACS, November 2008 Current Population Survey Supplement, and the 2007 Pew Religious Life Survey. Thus, this target sample is representative of the general population on a broad range of characteristics including a variety of geographic (state, region, metropolitan statistical area), demographic (age, race, income, education, gender), and other measures (born-again status, employment, interest in news, party identification, ideology, and turnout). A stratified sample of individuals from Polimetrix's opt-in panel was invited to participate in the study. Those who completed the survey were then matched to the target sample based on the variables listed in parentheses above. For more detailed information on this type of survey and sampling technique see Vavreck and Rivers (2008).

American democratic institutions and voting procedures. Thus, this common concern about internet samples actually biases against the findings we present below.⁵

Consistent with previous research, we find that a substantial proportion of respondents express concerns about the secrecy of their vote choices. We asked, “According to the law, which candidate you vote for is supposed to be kept secret unless you tell someone. Even so, how difficult do you think it would be for politicians, union officials, or the people you work for to find out who you voted for, even if you told no one?” Thirty-six percent of respondents to the survey reported that it would be either “not difficult at all” or “not too difficult.” This compares to 37 percent, 40 percent, and 41 percent in opinion surveys fielded in 2005, 2008, and 2010, respectively (Gerber, Huber, Doherty, and Dowling 2011).⁶ In this paper, we turn to exploring the potential sources of these concerns in more detail.

Our survey focused on respondents’ experiences in the election in which they had most recently voted. Approximately 81 percent reported voting in the 2010 general election, 5 percent reported last voting between the 2008 and 2010 general election, 6 percent said they last voted in the 2008 general election, and 4 percent said the last time they voted was prior to the 2008 election. One hundred and twenty-one (unweighted) respondents—4.4 percent of the weighted sample—reported never having voted.⁷ We asked those respondents who reported having voted before when and how they voted. Among these respondents, 67 percent said that the last time they voted they did so in person on Election Day and

⁵ Further, many of the basic findings come from comparisons across groups recruited and interviewed in this common format. The pattern of differences would have to differ in a large fashion between our respondents and other members of the population before the substantive conclusions of our results would be threatened.

⁶ 2005 RDD of Michigan registered voters, N=573. 2008 CCES, Internet national sample, N=804. 2010 Princeton Survey Research, RDD national sample, N=903. See Gerber, Huber, Doherty, and Dowling (2011, Table 1) for further details.

⁷ Respondents indicating that they had never voted tended to be younger (mean age of 43.1) than the rest of the sample (mean age of 50.8).

an additional 14 percent reported voting early in person.⁸ Nineteen percent reported voting via mail or absentee ballot.⁹ This distribution of responses is consistent with previous surveys (Alvarez, Hall, Ansolabehere, Berinsky, Lenz, and Stewart 2009).

We asked individuals who indicated that they had last voted in-person at a polling place (either early or on Election Day), a number of questions about their voting experience. We present responses to these eight items in Figure 1. The figure displays the proportion of respondents (weighted to reflect a national sample) who responded “Yes” (white part of the bars), “Don’t Remember” (light gray part of the bars), and “No” (dark gray part of the bars) to each statement. We present the full question wording in the left hand column. For each item, “Yes” implies an affirmative indication that the voting process lacked privacy. For presentational simplicity, we reverse-code the response to whether there was a privacy screen or curtain when they voted because a “No” response indicates an affirmation of lack of privacy. We also note that “Don’t Remember” responses do not affirm respondent confidence in the anonymity or privacy of the voting process. Instead these responses may also reflect doubts about the secrecy of their vote choices.

[FIGURE 1 ABOUT HERE]

As the figure shows, for beliefs about the anonymity of their physical ballots, a non-trivial proportion of respondents reported either writing their name on their ballot (6 percent) or that there was some information on their ballot that could be used to identify the ballot as theirs (11 percent).¹⁰

⁸ Most in-person voters reported casting their ballots in a school (30 percent), government building (21 percent), or in a church or other religious building (20 percent). Others said they voted in a fire station (8 percent), library (6 percent), or other location (16 percent).

⁹ Less than one percent said they did not know how they had voted and are excluded from the present analysis.

¹⁰ Respondents who said that their ballot contained personally identifying information were asked what that information was in an open-ended follow-up question. Forty-nine percent said that their ballot listed an identifying code (e.g., a voter identification or social security number), 30 percent said their name or information about their

Additionally, over 7 percent of respondents said they did not remember whether they had written their name on their ballot and 13 percent said they did not remember if their ballot included identifying information. In other words, our findings indicate that, for example, nearly 25 percent of in-person voters were unwilling to affirm that the ballot they cast could not be identified as their own.

We also asked two questions about whether voters thought that election officials examined their ballots. Only 3 percent of in-person voters said that a poll worker looked at their ballot and saw who they were voting for, with an additional 5 percent saying they did not remember. However, when asked whether they thought elected officials access their voting records to figure out who they had voted for, almost 36 percent of in-person voters answered “Yes.” (A “Don’t Know” option was not provided for this item.)¹¹

We also asked in-person voters a series of four questions about whether their choices might have been revealed to other voters during the process of voting. Only 3 percent said someone at the polling place asked them who they were voting for and only 5 percent said that they were able to see who another voter was voting for. However, 22 percent said there was no curtain or privacy screen around their voting space and over 20 percent said that someone walking by could see who they were voting for. We also asked in-person voters “how many voters or poll workers were within 5 feet of you when you voted?” Thirty-two percent said no one was within five feet, 42 percent said one or two people were within five feet, 17 percent said three or four people, and the remaining 9 percent said more than five people were this close (not reported in Figure 1).

address was listed. Approximately 12 percent indicated that they did not know what the identifying information was and the remaining 8 percent provided responses that were too vague to code (e.g., “sticker”).

¹¹ The question that asked respondents whether they thought “elected officials access your voting records to figure out who you voted for?” was only asked to a random subset of respondents. Whereas more than 2,000 respondents answered the other items, only about 900 responded to this item.

These findings suggest that aspects of the voting process may lead people to view their ballot as something other than strictly anonymous. For example, the fact that almost 25 percent of respondents were not sure whether their ballot was free of personally identifying information suggests that a surprisingly large number of in-person voters either suspect or affirmatively believe that the ballots they cast can be identified as theirs. Similarly, many believe that elected officials can access information about who they voted for. Additionally, many in-person voters reported that there was ample opportunity for someone walking by them to see who they voted for. Taken as a whole, these survey responses suggest that the implementation of election procedures surrounding the secret ballot do not translate directly into beliefs among in-person voters that their vote choices are kept private.

3 The Expectations of Non-voters

If many in-person voters hold doubt about the procedures in place to protect the anonymity of their vote choices, might some citizens decide to stay away from the polls because of similar concerns? In this section, we compare the experiences of in-person voters with the expectations of those who reported they had never before voted. One hundred and twenty-one of our 3,000 respondents (4.4 percent of the weighted sample) reported never having voted. We asked these respondents a series of questions about what they imagined their voting experiences would be like if they were to vote. These questions mirrored those asked of in-person voters, except that we asked the questions in the conditional past tense (“would you write your name on your ballot” versus “did you write your name on your ballot”). In many cases the expectations of non-voters and experiences of voters diverged sharply. For example, 61 percent of those who had never voted expected that they would vote with electronic technology, and 27 percent expected to vote with a paper ballot. The actual proportions reported in our sample of voters were 48 percent electronic and 48 percent paper.¹²

¹² The difference between expectations about voting technology of non-voters and the experience of voting technology of in-person voters is not due to differences in state or congressional district of residence for voters and

Turning to the eight items we asked about the privacy of the voting experience, we find substantial differences between the experiences voters report and the expectations of those who have never voted. We present these differences in Table 1. Again, we focus on comparing the proportion of voters and non-voters giving responses that either indicate affirmative doubts about the privacy of the voting process or uncertainty (“Don’t Remember” for voters; “Don’t Know” for non-voters). We find statistically significant (or marginally significant) differences for each of the eight items. In all but one case (the item asking whether the respondent was or would be able to see another voter’s ballot), these differences persist when we restrict our attention to the more conservative coding of those providing responses indicating an affirmative lack of secrecy (i.e., to “Yes” responses).

[TABLE 1 ABOUT HERE]

Non-voters were more likely to say that they would write their name on their ballot (12.9 percent) than voters (5.9 percent) and 34.0 percent of non-voters said they did not know about this aspect of the voting process. Thus, while only 13.2 percent of voters either reported writing their name on their ballot or said they did not remember whether they had written their name on their ballot, almost half of non-voters (46.9 percent) said that they would write their name on their ballot or did not know whether they would ($p < .01$). Similarly, over half of non-voters said that their ballot would include personally identifying information (20.4 percent) or were unsure about whether it would (37.1 percent), compared with only 24.2 percent of voters ($p < .01$).¹³ Many non-voters also either thought that a poll-worker would

non-voters. When we regress an indicator for “voted electronic ballot/expect to vote with electronic ballot” on an indicator for non-voter, the coefficient moves from 13.7 points without geography fixed effects to 14.6 points with state fixed effects and 14.9 points with congressional district fixed effects, suggesting that accounting for geography actually increases the difference in perceptions of non-voters and experiences of in-person voters.

¹³ Fifty-nine percent of non-voters who said their ballot would include identifying information (13 respondents) said that information would be their name or address, 32 percent (8 respondents) said it would be a numeric code, and the remaining 2 respondents said they did not know what the information would be.

look at their ballot to see who they voted for (7.8 percent) or did not know (35.9 percent), compared with a total of 7.7 percent of voters who either said a poll worker looked at their ballot or that they did not remember ($p < .01$). Following a similar pattern, half of non-voters (49.7 percent), compared with 35.7 percent of in-person voters, said they thought elected officials access people's voting records to see who they voted for ($p = .06$).

Non-voters were also somewhat more likely than voters to have doubts about whether there would be a curtain or other privacy screen around the place where they filled out their ballot (33.6 percent versus 24.0 percent; $p < .05$). Nearly three in ten non-voters either said they would be able to see who someone else was voting for (4.3 percent) or did not know whether they would be able to (25.2 percent), while fewer than 7 percent of voters said they could see someone else's vote or did not remember (6.9 percent; $p < .01$).¹⁴ The percentage of non-voters affirmatively saying they thought someone walking by would be able to see their choices was actually smaller than the percentage of voters who said someone walking by could see who they had voted for (2.8 percent versus 20.7 percent; $p < .01$), but a large proportion (31.3 percent) of non-voters said they did not know.

Finally, 12 percent of non-voters said that they expected that they would be asked who they were voting for while waiting in line and an additional 39.3 percent said they did not know if they would be asked. Thus, over half of non-voters thought it was possible that they would be asked to divulge their choices to others while in line at the polling place. This stands in sharp contrast to the 4.2 percent of voters who stated either that someone had asked them the last time they voted or that they did not remember.

¹⁴ Non-voters also said they expected more people to be close to them when they voted. Only 19 percent thought no one would be within five feet of them (compared to the 32 percent of voters who reported this level of personal space). Forty-nine percent of non-voters said one or two people would be within this distance, 16 percent said three or four people, and 15 percent said five or more people would be within five feet of them while they cast their ballot.

In summary, the comparison of in-person voter experiences to non-voter expectations shows that non-voters believe that if they were to vote, many of the experiences at the polling place would undermine the secrecy of choices they would make. These expectations are notably worse than the actual reality reported by experienced voters, and may inhibit the participation of some of the non-voters who hold them (also see Gerber, Huber, Doherty, Dowling, and Hill 2011). Nonetheless, even many individuals who have voted before report experiences inconsistent with a secret ballot. At the same time, the greater prevalence of these beliefs among non-voters undercuts the assumption that the secret ballot institution ensures perceptions of legitimately democratic elections.

4 Differences by In-Person Voting Technology

An important choice for election administrators is the type of ballot technology they use to collect vote choices. In this section, we investigate whether the use of particular voting technologies—specifically voting electronically rather than using a paper ballot—is associated with other privacy-related differences in people’s voting experiences.¹⁵ We asked respondents who reported voting in-person (either early or on Election Day) “what type of technology” they used to cast their ballot. Forty-eight percent of the sample reported casting a paper ballot, 48 percent reported using some form of electronic voting, 3 percent reported using a lever system, and the remaining 1 percent reported using some “other” method. Given the relatively small number of voters who used a “lever” or some “other” method, we focus our attention on differences between voters who used “paper” ballots and those who used “electronic” ballots.

¹⁵ Because ballot technology is not applied at random, we cannot say that differences between these two sets of voters are not due to selection or some other spurious characteristic (for example, geography) correlated with ballot technology.

In Appendix Table A1 we present two comparisons between respondents reporting that they have voted by paper or by electronic ballot.¹⁶ We find several statistically significant differences in the reported experiences of those who voted using an electronic form of voting rather than a paper ballot. Most of these differences, however, are modest in size. Of note, those who reported casting an electronic ballot were more likely to express doubts about whether their ballot included information that could be used to personally identify them (27.6 percent versus 20.3 percent of those who cast a paper ballot; $p < .01$).¹⁷ We also find that those casting an electronic ballot were somewhat more likely to either say that there was not a privacy screen or curtain around the place where they filled out their ballot or say they did not remember (26.7 percent versus 22.0 percent; $p < .05$) and slightly more likely to either say that someone in line with them at the polls asked them who they were voting for or that they did not remember (5.4 percent versus 3.0 percent; $p < .01$).¹⁸ We also find one substantially large difference between those voting a paper ballot and those voting an electronic ballot. While 28.2 percent of those casting a paper ballot said they thought elected officials access their voting records to find out who they voted for, 42.7 of

¹⁶ As we noted above, “Don’t Remember” responses may indicate that the respondent was not confident in the anonymity or privacy of the voting process. Therefore, we calculate the proportions of respondents in each group who responded either “Don’t Remember” or “Yes,” a more broad definition of doubt, and calculate the proportions of respondents in each group who only responded “Yes” for a more conservative definition. The patterns of differences are similar for each type of comparison. For the sake of brevity, we focus on comparing those who indicated any level of doubt about the privacy of the process (“Yes” or “Don’t Remember”) in the text.

¹⁷ P-values reported in the text are from weighted OLS regressions predicting the responses (either only “Yes” or “Yes” and “Don’t Remember”) with an indicator for whether the voter reported using a paper or electronic ballot.

¹⁸ This final difference is somewhat odd. We don’t have any prior reason to believe that there should be more discussion of vote choices in line at polling places with electronic voting machines. This difference may be due to the type of places with electronic voting machines, or the type of people who vote at places with electronic voting machines. But it could also be something about the technology of voting itself, and merits further study.

those casting electronic ballots report this belief, a difference of 14.5 percentage points or a proportional increase of nearly 50 percent ($p < .01$).

Cumulatively, the tabulations in Appendix Table A1 suggest that those who last voted by electronic ballot have voting experiences that are slightly less consistent with a private, secret voting process than those who last voted by paper ballot. This pattern holds across each of the eight privacy-related questions we asked, and is especially apparent in beliefs about elected officials accessing voting records. The fact that almost half of in-person voters who cast their ballot electronically believe that their choices are accessed by elected officials is particularly troubling.

In section 1 of the Appendix, we also compare the experiences of those who voted in-person on Election Day with those who reported voting in-person early. Early voters are more likely to express doubts about whether there was information on their ballot that could be used to identify the ballot as theirs. We find that early voters were somewhat less likely to be confident that someone walking by could not see who they voted for, but that in most other experiences, early and Election Day voters report similar experiences.

In summary, a large number of in-person voters report polling place experiences that suggest violations of the privacy of their voting experience. Many report that their ballot contains information that may link their choices to them, and many more think that elected officials access their voting records to figure out who they voted for. A significant number of in-person voters report no privacy screen or that other people in crowded polling places could see how they were voting. We find that these privacy threatening experiences are more prevalent among voters who cast electronic ballots than among voters who cast paper ballots, and are slightly more prevalent among voters who vote early rather than on the day of the election. We next investigate ballot secrecy among voters who cast their ballots by mail.

5 Voting By Mail

Our data suggest that the experiences of many in person voters threaten the secrecy of the voting process. Voting by mail—where each voter is mailed a ballot that they can fill out at the time and place of

their own choosing—offers an alternative to voting in person.. We asked respondents to our survey who reported voting by mail a series of questions about their voting experiences . The results indicate that most of these voters do not fill out their mail ballots in private and many openly discuss their choices with others at the time that they make their choices. Although this arrangement may be more of a choice than the externally-created experience at a polling place, it is not clear that the social experience of filling out a mail ballot is consistent with the goals of the institution of the secret ballot.

Voters who vote in person at the polls do not have control over the environment where they fill out their ballot. Other actors decide how and where the voting booth is set up and how close other voters and officials might be. In contrast, the experience of voting by mail is in the voter’s control. These voters can choose the time and place to sit down with the ballot, and do not have to travel to a public location beyond their control.¹⁹ Does this control of their personal voting situation lead to fewer doubts about the secrecy and integrity of their ballot?

In Table 2, we compare beliefs about ballot secrecy among those who voted in person and those who voted by mail. We also present our findings regarding the voting experiences of those who reported voting by mail. The first two rows of Table 2 show that although those who vote by mail have more control over the environment in which they vote than those who travel to a polling place to vote in person, mail voters are significantly more likely to have doubts about the secrecy of their vote choices. More than 40 percent of respondents who last voted by mail believe it is “not difficult at all” or “not too difficult” for others to find out who they had voted for, compared to about 35 percent of those who last voted in-person (see row one in Table 2, $p < .01$). Further, those who last voted by mail are more likely to believe elected officials access their voting records to find out who they voted for: 42.2 percent to 35.7 percent (row two in Table 2, $p = .07$). These beliefs are greater despite mail voters not having the polling place experiences

¹⁹ We asked respondents who last voted by absentee or mail ballot where they filled out their ballot. A vast majority did so at home (93 percent). Four percent (21 respondents) reported filling the ballot out at work and three percent (16 respondents) said they filled out their ballot at a government building.

we report in Table 1, where many individuals report other voters or polling place workers being able to observe their vote choices.

[TABLE 2 ABOUT HERE]

For many in-person voters, the voting process is a social experience. They may travel to the polling place with others (perhaps a partner or child), and even if traveling alone, are at least likely to see others at the polling place. Indeed, 38 percent of in-person voters in our sample reported going to the polls with someone (other than a child). The findings presented in Table 2 suggest that, despite voter control over when and how their ballot is filled out, voting by mail is also a social experience for many individuals. Over 23 percent of respondents who report casting their ballot by mail reported that at least one other person was in the room with them when they filled out their ballot (row three, Table 2).

We asked those who reported that at least one other person was in the room with them when they filled out their absentee/mail ballot a series of additional questions about their experiences to determine the extent to which casting mail and absentee ballots is a private rather than social experience. Of these respondents, 85 percent said that one person was in the room with them and 14 percent said two or three people were in the room with them. Additionally, as we show in Table 2, 17.2 percent of all respondents who voted by mail said that at least one other person in the room with them while they filled out their ballot was also filling out a ballot (74 percent of those reporting that at least one other individual was in the room with them), 17.8 percent said they discussed who they were voting for with someone else in the room (77 percent of those with another in the room), and 8.5 percent said they asked someone else for advice about how to vote on a particular race or issue while filling out their ballot (37 percent of those with another in the room). More than six percent of our mail voters reported showing their ballot to someone else after filling it out (28 percent of those with another in the room). In short, for many people the process of casting a mail or absentee ballot is a social act where they reveal their choices to others.

Overall, we find that citizens who last voted by mail are more likely to report doubts about the secrecy of the vote choices and more likely to believe that elected officials access their voting records to find out how they voted. This suggests that it is not solely the errors in implementation of polling place

elections that lead to doubts about the integrity of the voting process, because mail voters have control over their voting environment and do not experience the vagaries of the polling place. Part of the continued beliefs among voters who cast their ballots by mail may arise because, for around a quarter of the mail voters in our survey, the voting process continues to involve having other individuals nearby when filling out the ballot. These findings suggest that the doubts about the institution of the secret ballot may not be resolved with better implementation at the polling place, nor with a move to all-mail elections, but may instead require efforts to reassure voters that existing institutions effectively protect their ballots.

6 Discussion

The secret ballot is an important feature of legitimate democratic states. The data presented in this paper, however, call into question the assumption that the adoption of formal rules for ballot secrecy in the contemporary United States has guaranteed such legitimacy. We find important doubts about the secrecy of the voting process. Many people believe that elected officials can and do access information about who a citizen voted for, and that the operation of polling places are insufficient to protect the privacy of one's choices from election administrators or other citizens. For some of the items in the battery we asked in-person voters, as many as 35 percent express explicit doubts about the rules and practices that should be in place to protect ballot secrecy or report experiences that suggest that those protections do not work effectively. Additionally, these beliefs differ in important ways between those who have previously voted and those who have not, as well as across different modes of casting a ballot.

In particular, among those who have not previously voted, we find surprisingly widespread doubts about ballot secrecy. For example, half of those who had not previously voted think elected officials access voting records and nearly 60 percent either think that there would be personally identifying information on their ballot or do not know. Doubts about secrecy are also more prevalent among those casting an electronic ballot—those doing so are 50 percent more likely to believe that election officials can match up their ballot with some personal identifier after the fact than those who vote with paper ballots. Finally, voting by mail, which allows voters to remove themselves from the physical

and social interactions at the polling place that may threaten ballot secrecy, is no panacea. Sizeable proportions of those casting ballots by mail report that elected officials can access their voting records (42 percent) and that they fill out their ballots with others (23 percent).

There are two broad implications of the findings we report. The first is the importance of measuring the beliefs that citizens hold about institutions, and not just the legal status and actual practices of those institutions. We show that in spite of the fact that most Americans have direct experience voting, a surprisingly large segment of the public has doubts about the longstanding institution of the secret ballot. Although these doubts appear to be remediable (Gerber, Huber, Doherty, Dowling, and Hill 2011, Karpowitz, Monson, Nielson, Patterson, and Snell Forthcoming), before such remediation can occur we need to identify and measure these types of infelicitous beliefs, a step that most prior work on institutional reforms has not taken. More succinctly, fixing the legal status or improving the implementation of an institution may not be enough to change behavior if citizens do not understand those changes. Unfortunately, many of the existing analysis of the effects of legal and institutional reform may be incorrectly estimating the potential effects of these reforms by not accounting for the changes in beliefs that may or may not follow from the institutional changes.

A second implication is that similar mass beliefs about how institutions operate may help explain the disjuncture between formal institutions and the expectations and behaviors of individuals who interact with them. Previous work finds that people's evaluations of political institutions are strongly influenced by the characteristics of the processes used in those institutions (Doherty and Wolak 2011; Gangl 2003; Gibson and Caldeira 1992; Tyler 2006). The findings we present here suggest that if we are to understand how people evaluate political processes and public policies, it is important to examine not only the objective characteristics of these processes and policies, but also public perceptions about how these processes work. For example, broad misunderstanding about the tax structure, no matter its actual operation, may cause incorrect public opinion about government taxes and spending. Similarly, misunderstanding about the rules concerning the hiring and firing of public workers (e.g., school teachers), no matter the actual rules and practices, may explain public attitudes towards those workers. Finally,

errant beliefs about government regulations or the operation of entitlement programs may shape public opinion to such a degree that elected officials seek to change policy in light of those mistaken beliefs. Thus, the findings presented here suggest a need to carefully consider and measure beliefs about these systems and procedures to more accurately draw conclusions about how formal institutions interact with individual behaviors to cause societal outcomes. Overall, individual beliefs should not be ignored when considering the effects and operation of institutions.

7 Appendix

7.1 *Early Voters v. Election Day Voters*

In this section, we present differences in the experiences of those who voted in-person on Election Day with those who reported voting in-person prior to Election Day (early).²⁰ In addition to voting prior to Election Day, the experience of early voters also differs from Election Day voters in terms of where they vote.²¹ Over half of early voters reported casting their ballot in a government building, compared with only 15 percent of Election Day voters. Early voters were also more likely to say they voted at a library (17 percent versus 4 percent), but less likely to say they voted at a school (7 percent versus 35 percent of Election Day voters), religious building (5 percent versus 23 percent), or fire station (2 percent versus 9 percent).

We present differences between Early and Election-Day voters in Appendix Table A2. We find that early voters were significantly more likely to express doubts about whether there was information on their ballot that could be used to identify the ballot as theirs. Specifically, one-third of early in-person voters either said that their ballot included some identifying information or that they did not remember whether it did, while less than one-fourth of Election Day voters gave these responses (33.8 percent versus 22.3 percent; $p < .01$).²² We also find that early voters were somewhat less likely to be confident

²⁰ Seven percent of early voters reported casting their ballot in the one or two days prior to the election, 23 percent said that they cast their ballot three or four days before the election. The remaining early voters voted between five and seven days before the election (41 percent) or earlier (29 percent).

²¹ As with ballot technology, we note that time-of-voting is not randomly assigned, and so differences between the two groups may not be solely attributable to the experience of voting early versus on the day of the election.

²² Early voters who said their ballot had identifying information were about 13 percentage points more likely to say this information was a numeric code or identification number than Election Day voters ($p = .08$) and somewhat less likely to say that the information was their name or address ($p = .16$).

that someone walking by could not see who they voted for—30.0 percent of early voters expressed doubts about this, compared with 24.9 percent of Election Day voters ($p < .05$).

7.2 Question Wording

Unless otherwise noted, question was asked of all respondents.

Difficult to find out?

According to the law, which candidate you vote for is supposed to be kept secret unless you tell someone. How difficult do you think it would be for someone to find out who you voted for, even if you told no one?

- 1 Not difficult at all
- 2 Not too difficult
- 3 Somewhat difficult
- 4 Very difficult
- 5 Impossible

Local elected officials (Only asked to 40% of the sample.)

Do you think elected officials access your voting records to figure out who you voted for?

- 1 Yes
- 2 No

Last time voted

When was the last time you voted?

- 1 In the 2010 general election (November 2)
- 2 In any other election held in 2010
- 3 2009
- 4 2008
- 5 Before 2008
- 6 I have never voted

Voting method (Only asked if had voted before.)

Still thinking about the last time you voted...

Did you vote in person on Election Day at a precinct, in person before Election Day, or by mail (that is, absentee or vote by mail)?

- 1 In person on Election Day (at polling booth or precinct)
- 2 In person before Election Day (early)
- 3 Voted by mail (or absentee)
- 4 Don't Know

When did you vote? (Asked if chose response option 2 “Early in person”.)

- 1 1 or 2 days before the election
- 2 3 or 4 days before the election
- 3 5 to 7 days before the election
- 4 More than a week before the election

When did you fill out your ballot? (Asked if chose response option 3 “Absentee or by mail”.)

- 1 On Election Day or 1 or 2 days before the election

- 2 3 or 4 days before the election
- 3 5 to 7 days before the election
- 4 More than a week before the election

Early and Election Day Voter Experience Battery

Voting place and Mode of Voting

Still thinking about the last time you voted...

What type of a building did you vote in?

- 1 Fire station
- 2 School
- 3 Library
- 4 City Hall or another government building (not a fire station, school, or library)
- 5 Church or religious building
- 8 Other (please specify)

What type of technology did you use to cast your ballot?

- 1 Paper
- 2 Electronic
- 3 Lever
- 4 Other (please specify)

Distance voting and Number voting

Still thinking about the last time you voted...

About how close was the nearest person – either another voter or a poll worker – to you when you were voting?

- 1 Less than 3 feet
- 2 3 to 5 feet
- 3 5 to 10 feet
- 4 More than 10 feet

How many voters or poll workers were within 5 feet of you when you voted?

- 1 0
- 2 1 or 2
- 3 2 to 4
- 4 5 or more

Voting Experience Grid

Again, thinking about the last time you voted...

Columns:

- 1 Yes
- 2 No
- 3 Don't remember

Rows:

- ...apart from any children, did someone go with you to the polls?
- ...was there a curtain or other privacy screen around the place where you filled out your ballot?
- ...did someone in line at the polling place ask you who you were voting for?
- ...did you write your name on your ballot?

- ...was there any information on your ballot that could be used to identify the ballot as yours?
- ...when you were filling out your ballot, were you able to see who anyone else was voting for?
- ...could someone walking by see who you voted for?
- ...did a poll worker look at your ballot and see who you voted for?

What information? (Asked if responded “yes” to 4th item in row above.)

What was the information on the ballot that could be used to identify the ballot as yours?

Hypothetical Early and Election Day Voter Experience Battery

Voting place and Mode of Voting

If you were to vote, what type of building do you think you would vote in?

- 1 Fire station
- 2 School
- 3 Library
- 4 City Hall or another government building (not a fire station, school, or library)
- 5 Church or religious building
- 8 Other (please specify)

And what type of technology do you think you would use to cast your ballot?

- 1 Paper
- 2 Electronic
- 3 Lever
- 4 Other (please specify)

Distance voting and Number voting

Still thinking about if you were to vote...

About how close do you think the nearest person – either another voter or a poll worker – would be to you when you were voting?

- 1 Less than 3 feet
- 2 3 to 5 feet
- 3 5 to 10 feet
- 4 More than 10 feet

How many voters or poll workers would be within 5 feet of you when you were voting?

- 1 0
- 2 1 or 2
- 3 2 to 4
- 4 5 or more

Hypothetical Voting Experience Grid

Again, thinking about if you were to vote...

Columns:

- 1 Yes
- 2 No
- 3 Don't know

Rows:

- ...apart from any children, would someone go with you to the polls?
- ...would there be a curtain or other privacy screen around the place where you filled out your ballot?

- ...would someone in line at the polling place ask you who you were voting for?
- ...would you write your name on your ballot?
- ...would there be any information on your ballot that could be used to identify the ballot as yours?
- ...when you were filling out your ballot, would you be able to see who anyone else was voting for?
- ...would someone walking by be able to see who you voted for?
- ...would a poll worker look at your ballot and see who you voted for?

What information? (Asked if responded “yes” to 4th item in row above.)
 What information on your ballot could be used to identify the ballot as yours?

Absentee or Mail Voter Experience Battery

Where voted and Anyone with you

Where did you fill out your ballot?

- 1 At home
- 2 At work
- 3 At a government building
- 4 Other (please specify)

Was anyone with you when you filled out your ballot?

- 1 Yes
- 2 No

People in room and Also filling ballots out

How many other people were in the room with you when you filled out your ballot?

- 1 1
- 2 2 or 3
- 3 4 or 5
- 4 6 to 10
- 5 11 or more

Was anyone else also filling out their ballot at the same time as you?

- 1 Yes
- 2 No

Discuss vote, Ask advice, and Show ballot to anyone? (Asked if responded “yes” to above item.)

Did you discuss who you were voting for with anyone else in the room?

- 1 Yes
- 2 No

Did you ask anyone in the room for advice about how to vote on a particular race or other issue on the ballot?

- 1 Yes
- 2 No

Did you show your ballot to anyone after you filled it out?

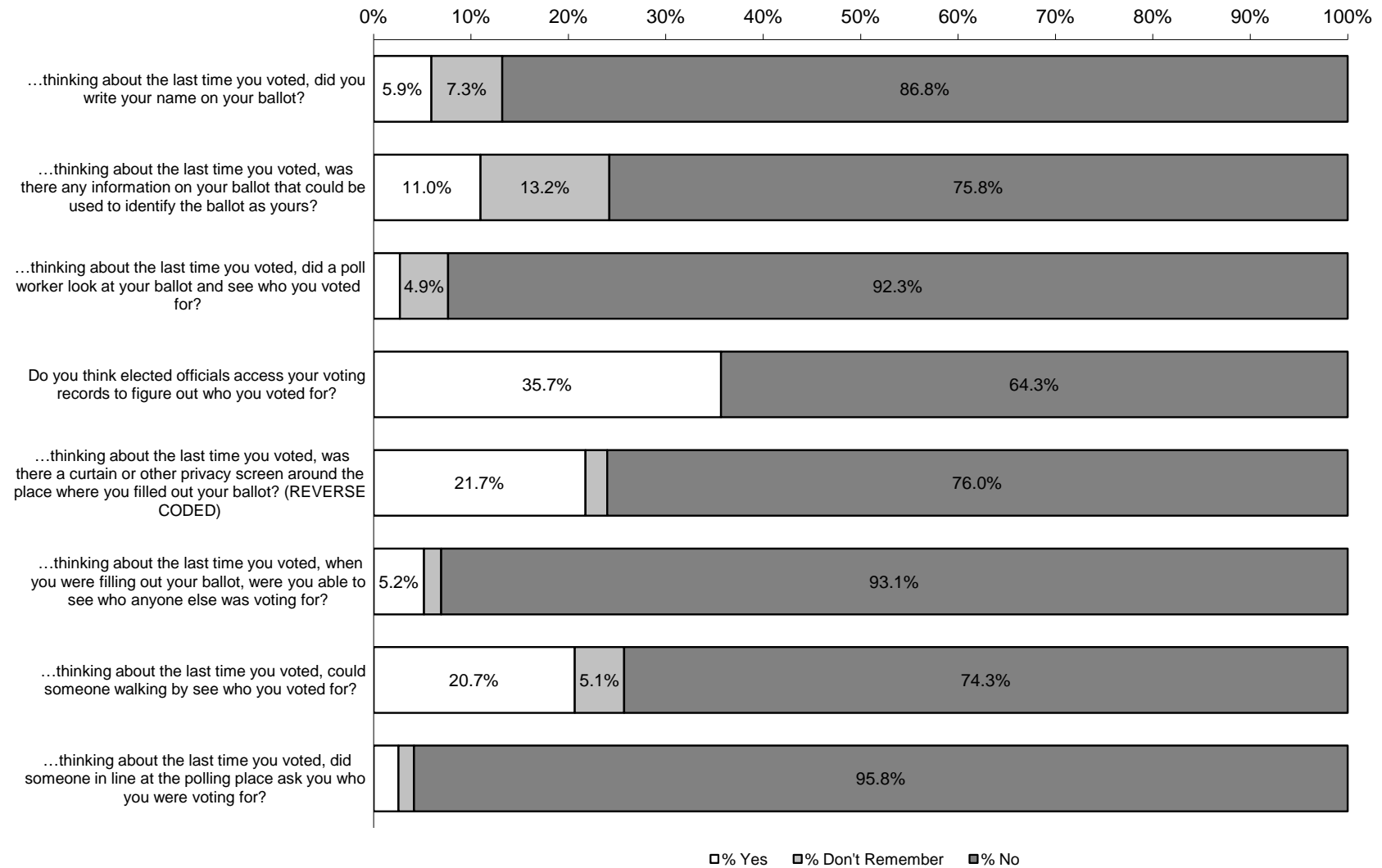
- 1 Yes
- 2 No

References

- AAPOR Executive Council Task Force. 2010. "Research Synthesis: AAPOR Report on Online Panels." *Public Opinion Quarterly* 74: 711-81.
- Alvarez, R. Michael, Thad E. Hall, Stephen Ansolabehere, Adam Berinsky, Gabriel Lenz, Charles Stewart III. 2009. "2008 Survey of the Performance of American Elections." Typescript, Caltech.
- Alvarez, R. Michael, Thad E. Hall, and Morgan H. Llewellyn. 2008. "Are Americans Confident Their Ballots Are Counted?" *Journal of Politics* 70:754-766.
- Atkeson, Lonna Rae, and Kyle L. Saunders. 2007. "Voter Confidence: A Local Matter?" *PS: Political Science & Politics* 40:655-660.
- Bishop, Cortlandt F. 1893. *History of Elections in the American Colonies*. New York: Columbia College.
- Bullock, Charles S., III, M.V Hood III, and Richard Clark. 2005. "Punch Cards, Jim Crow, and Al Gore: Explaining Voter Trust in the Electoral System in Georgia, 2000." *State Politics and Policy Quarterly* 5:283-294.
- Claassen, Ryan L., David B. Magleby, J. Quin Monson, and Kelly D. Patterson. 2008. "'At Your Service': Voter Evaluations of Poll Worker Performance." *American Politics Research* 36:612-634.
- Doherty, David, and Jennifer Wolak. 2011. "When Do the Ends Justify the Means? Evaluating Procedural Fairness." *Political Behavior*. DOI: 10.1007/s11109-011-9166-9.
- Evans, Eldon C. 1917. *A History of the Australian Ballot System in the United States*. Chicago: The University of Chicago Press.
- Franck, Thomas M. 1992. "The Emerging Right to Democratic Governance." *American Journal of International Law* 86: 46-91.
- Fredman, Lionel E. 1968. *The Australian Ballot: The Story of an American Reform*. East Lansing, MI: Michigan State University Press.
- Gangl, Amy. 2003. "Procedural Justice Theory and Evaluations of the Lawmaking Process." *Political Behavior* 25: 119-149.
- Gerber, Alan S., Gregory A. Huber, David Doherty, and Conor M. Dowling. 2011. "Is There a Secret Ballot? Ballot Secrecy Perceptions and Their Implications for Voting Behavior." Typescript, Yale University.
- Gerber, Alan S., Gregory A. Huber, David Doherty, Conor M. Dowling, and Seth J. Hill. 2011. "Do Perceptions of Ballot Secrecy Influence Turnout? Results from a Field Experiment." Typescript, Yale University.
- Gibson, James, and Gregory Caldeira. 1992. "Blacks and the United States Supreme Court: Models of Diffuse Support." *Journal of Politics* 54: 1120-1145.
- Karpowitz, Christopher F., J. Quin Monson, Lindsay Nielson, Kelly D. Patterson, and Steven A. Snell.

2011. "Political Norms and the Private Act of Voting." *Public Opinion Quarterly*. Forthcoming.
- Llewellyn, Morgan H., Thad E. Hall, and R. Michael Alvarez. 2009. "Electoral Context and Voter Confidence: How the Context of an Election Shapes Voter Confidence in the Process." Typescript, Caltech.
- Stewart III, Charles, R. Michael Alvarez, and Thad Hall. 2010. "Voting Technology and the Election Experience: The 2009 Gubernatorial Races in New Jersey and Virginia." Typescript, Massachusetts Institute of Technology.
- Tyler, Tom R. 2006. "Psychological Perspectives on Legitimacy and Legitimation." *Annual Review of Psychology* 57: 375-400.
- Vavreck, Lynn, and Douglas Rivers. 2008. "The 2006 Cooperative Congressional Election Study." *Journal of Elections, Public Opinion and Parties* 18: 355-366.
- Wigmore, John H. 1889. *The Australian Ballot System as Embodied in the Legislation of Various Countries*. Boston, MA: C.C. Soule.

Figure 1. The Voting Experience of In-Person Voters



Note: Source: Bar entries are weighted percentages. Empty bars are 2.7% Yes to "...did a poll worker look at your ballot...?", 2.2% Don't Remember to "...was there a curtain or other privacy screen...?", 1.8% Don't Remember to "...were you able to see who anyone else was voting for?", and 2.6% Yes and 1.6% Don't Remember to "...did someone in line at the polling place ask you who you were voting for?". Question on elected officials accessing voting records was asked of 40 percent of respondents. N ranges from 901 to 2307.

Table 1. The Voting Experience of In-Person Voters Compared to Beliefs about the Voting Process of Non-Voters

	% Yes or Don't Remember/Don't Know			% Yes			N
	Voters	Non-Voters	p-value	Voters	Non-Voters	p-value	
...[did/would] you write your name on your ballot?	13.2%	46.9%	0.000	5.9%	12.9%	0.027	2422
... [was there/would there be] any information on your ballot that could be used to identify the ballot as yours?	24.2%	57.5%	0.000	11.0%	20.4%	0.015	2422
...[did/would] a poll worker look at your ballot and see who you voted for?	7.7%	43.7%	0.000	2.7%	7.8%	0.044	2429
Do you think elected officials access your voting records to figure out who you voted for?	35.7%	49.7%	0.056	35.7%	49.7%	0.056	949
...[was there/would there be] a curtain or other privacy screen around the place where you filled out your ballot? (REVERSE CODED)	24.0%	33.6%	0.030	21.7%	8.4%	0.000	2423
...[were/would] you able to see who anyone else was voting for?	6.9%	29.5%	0.000	5.2%	4.3%	0.654	2425
...[could/would] someone walking by see who you voted for?	25.7%	34.1%	0.062	20.7%	2.8%	0.000	2423
...[did/would] someone in line at the polling place ask you who you were voting for?	4.2%	51.3%	0.000	2.6%	12.0%	0.002	2418

Note: Cell entries are weighted percentages. P-values are from weighted OLS regressions predicting Yes or Don't Remember responses (or just Yes responses) with an indicator for non-voters, using robust standard errors. Question on elected officials accessing voting records was asked of 40 percent of respondents.

Table 2. The Voting Experience of In-Person Voters Compared to By-Mail Voters, and the Social Experience of Voting By Mail

	%Yes			N
	In-person	By Mail	p-value	
Not difficult at all or not too difficult to find out who you voted for.	34.8%	42.5%	0.001	2862
Do you think elected officials access your voting records to figure out who you voted for?	35.7%	42.2%	0.070	1129
Was anyone with you when you filled out your ballot?		23.2%		547
Was anyone else also filling out their ballot at the same time as you?		17.2%		547
Did you discuss who you were voting for with anyone else in the room?		17.8%		547
Did you ask anyone in the room for advice about how to vote on a particular race or other issue on the ballot?		8.5%		547
Did you show your ballot to anyone after you filled it out?		6.4%		547
Note: Cell entries are weighted percentages. P-values in rows one and two are from weighted OLS regressions predicting Yes responses with an indicator for mail voters, using robust standard errors. Question on elected officials accessing voting records was asked of 40 percent of respondents.				

Table A1. The Voting Experience of In-Person Voters by Type of Voting Technology (Paper v. Electronic)

	% Yes or Don't Remember			% Yes			N
	Paper	Electronic	p-value	Paper	Electronic	p-value	
...thinking about the last time you voted, did you write your name on your ballot?	11.3%	13.9%	0.069	5.1%	6.3%	0.245	2200
...thinking about the last time you voted, was there any information on your ballot that could be used to identify the ballot as yours?	20.3%	27.6%	0.000	9.6%	12.7%	0.022	2203
...thinking about the last time you voted, did a poll worker look at your ballot and see who you voted for?	6.7%	7.7%	0.367	2.6%	2.5%	0.900	2208
Do you think elected officials access your voting records to figure out who you voted for?	28.2%	42.7%	0.000	28.2%	42.7%	0.000	856
...thinking about the last time you voted, was there a curtain or other privacy screen around the place where you filled out your ballot? (REVERSE CODED)	22.0%	26.7%	0.010	20.3%	24.1%	0.029	2204
...thinking about the last time you voted, when you were filling out your ballot, were you able to see who anyone else was voting for?	6.6%	7.5%	0.441	5.5%	4.9%	0.525	2204
...thinking about the last time you voted, could someone walking by see who you voted for?	26.0%	26.3%	0.905	22.0%	20.2%	0.321	2202
...thinking about the last time you voted, did someone in line at the polling place ask you who you were voting for?	3.0%	5.4%	0.008	1.9%	3.3%	0.042	2200

Note: Cell entries are weighted percentages. P-values are from weighted OLS regressions predicting Yes or Don't Remember responses (or just Yes responses) with an indicator for those casting a paper ballot, using robust standard errors. Question on elected officials accessing voting records was asked of 40 percent of respondents.

Table A2. The Voting Experience of In-Person Voters by Time of Voting (on Election Day or Early)

	% Yes or Don't Remember			% Yes			N
	Election Day	Early	p-value	Election Day	Early	p-value	
...thinking about the last time you voted, did you write your name on your ballot?	12.7%	15.7%	0.134	5.6%	7.7%	0.157	2303
...thinking about the last time you voted, was there any information on your ballot that could be used to identify the ballot as yours?	22.3%	33.8%	0.000	9.7%	17.2%	0.000	2305
...thinking about the last time you voted, did a poll worker look at your ballot and see who you voted for?	7.7%	7.7%	0.979	2.8%	2.3%	0.555	2311
Do you think elected officials access your voting records to figure out who you voted for?	35.0%	39.3%	0.334	35.0%	39.3%	0.334	901
...thinking about the last time you voted, was there a curtain or other privacy screen around the place where you filled out your ballot? (REVERSE CODED)	23.4%	26.7%	0.187	21.3%	24.1%	0.238	2307
...thinking about the last time you voted, when you were filling out your ballot, were you able to see who anyone else was voting for?	6.9%	7.0%	0.960	5.1%	5.4%	0.850	2307
...thinking about the last time you voted, could someone walking by see who you voted for?	24.9%	30.0%	0.045	20.0%	23.8%	0.106	2305
...thinking about the last time you voted, did someone in line at the polling place ask you who you were voting for?	4.2%	4.0%	0.896	2.5%	2.7%	0.835	2302

Note: Cell entries are weighted percentages. P-values are from weighted OLS regressions predicting Yes or Don't Remember responses (or just Yes responses) with an indicator for those voting before Election Day, using robust standard errors. Question on elected officials accessing voting records was asked of 40 percent of respondents.