Evaluating the Performance of Election Administration across the States: Lessons from the 2007 Gubernatorial Elections and the 2008 Super Tuesday Primary

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The 2000 election fiasco introduced a wide variety of people to two important facts. First, the quality of election administration in the United States varies considerably across space and time. Second, this variability can have a material effect on who is declared the winner (Mebane 2004).

Since 2000, a significant literature has emerged in political science that explores the role of voting technologies, especially voting machines, in mediating between the choices that voters would *like* to make in the voting booth and the vote that is *actually counted* on behalf of that voter when the polls close.[1] This literature has constituted one of the most important applied research programs in the history of political science. It has established that some technologies are more likely to "lose" votes than others are. It has established that in some very important close elections, the "wrong person" was most likely declared the winner. It helped provide the factual basis on which Congress passed the Help America Vote Act (HAVA) in 2002, which accelerated the decommissioning of the most antiquated and error-prone voting equipment. And as controversies continue to swirl about issues such as malfunctioning electronic machines and heightened voter identification requirements, this earlier literature has provided an important baseline of research for the constructive involvement of political scientists in the improvement of American elections.

[1] Alvarez and Hall (2004, 2008); Ansolabehere and Reeves (2004); Ansolabehere and Stewart (2005); Brady, Buchler, Jarvis, and McNulty (2001); Buchler, Jarvis, and McNulty (2004); Byrne, Greene, and Everett (2007); Caltech/MIT Voting Technology Project (2001: Card and Moretti (2007); Century Foundation (2004); Dee (2007); Everett, Byrne, and Greene (2006); Frisina, Herron, Honaker, and Lewis (2008); Herrnson, Niemi, Hanmer, Bederson, and conrad (2008); Herron and Sekhon (2003, 2005); Herron and Wand (2007); Keating (2002); Knack and Kropf (2001, 2003); Internet Policy Institute (2001); Kimball and Kropt (2005, 2008); Mebane (2004); Norden, Creelan, Kimball, and Quesenbery (2006); Sinclair (2004); Stein, VonNahme, Byrne, and Wallach (2008); Stewart 92004); tomz and Van Houweling (2003); Traugott, et al (2005); Wand, et al (2001);

This very important literature has nonetheless left the more general study of the effects of election administration on election outcomes imbalanced in important ways. By a large margin, the primary focus of the election administration literature has been on assessing "technology effects" of voting technologies, relying on one indicator of the performance of these technologies, the "residual vote rate."[2] Leaving aside for the moment the reliance on a single metric to assess the performance of something as multifaceted as the quality of election administration, the larger issue is that voting machine deficiencies are not most of the story of why voters in the United States experience problems on Election Day.

Although the failure of voting machines to record the intention of voters accurately is an important source of lost votes in the United States, it may not be the largest source of lost votes. For instance, the 2001 report of the Caltech/MIT Voting Technology Project (2001b) attempted to account for all of the lost votes that occurred in the 2000 presidential election due to all sources of election administration breakdown — including registration difficulties and the poor administration of polling places, in addition to voting machine difficulties. That accounting estimated that between 4 and 6 million votes were lost in 2000, due to various problems with the election system. Of these, 1.5–2 million votes were estimated lost due to faulty equipment and confusing ballots, 1.5–3 million votes were estimated lost due to registration mix-ups, 1 million votes were lost because of polling place operations, and an unknown number of votes were lost due to absentee ballot problems.

For nearly a decade now, researchers have expressed interest in quantifying the quality of the overall election experience in the United States, not just lost votes due to problems with

[2] The residual vote rate is the percentage of ballots cast in a jurisdiction, for a particular race, that exhibit either an "over-vote" (i.e., more votes cast than allowed) or an "under-vote" (no votes at all).

machines and confusing ballots (Stewart 2008). And yet little progress has been made to assess empirically the election system in the United States as an end-to-end process.

The purpose of this paper is to describe an ongoing effort to assess the overall quality of election administration in the United States in the 2008 general election, both nationwide and within each state. This is a survey-based study which has already been piloted twice — in the three states that held gubernatorial elections in November 2007 and in the fifteen states that held presidential primaries for both parties in the February 2008 "Super Tuesday" primary. In addition to describing the study and the steps taken thus far, we focus in this paper on the substantive results associated with the Super Tuesday primary.

The larger project of which this paper is a part is an effort to move beyond the residual vote rate in assessing the quality of the election system, measured across time and space, and assessed at the aggregate and individual level (Caltech/MIT 2001a,b; Ansolabehere and Stewart 2005; Stewart 2006; Alvarez, Ansolabehere, and Stewart 2005; Alvarez, Atkeson, and Hall 2007; Ansolabehere 2002; Alvarez, et al., 2004; Sinclair and Alvarez 2004; Brady 2004; Hanmer and Traugott 2004; Buchler, Jarvis, and McNulty 2004; Herron and Sekhon 2005.) Even though the residual vote rate is a valuable, widely used measure of system performance, it focuses on only one link in a long chain of procedures that must function flawlessly if the intentions of individual voters are to be effectively recorded. Here, we use survey research to develop a series of measures to gauge the complete experience that voters have with the election process.

In particular, we aim to do the following in the larger project, which is part of the Pew/JEHT Make Voting Work initiative:

1. Develop a series of metrics that allows us to summarize the end-to-end experience of voters with the election system at each step in the process, from voter registration to the tabulation of votes.

2. Develop a series of metrics that will be comparable across jurisdictions and time, allowing citizens and officials to gauge how states are performing in comparison to each other and how individual states are improving over time.

3. Develop and refine a set of questions that can be used to track the performance of election systems in a variety of settings.

4. Understand how the failure of different parts of the electoral system affects different types of voters in different ways and at different times and places.

5. Produce an individual-level data set that allows a multitude of researchers to explore the micro-level issues that attend how individual voters experience different parts of the election process.

For the remainder of this paper we, first, articular a systemic view of studying the quality of election administration in the United States, from the perspective of the voter. In section 2 we review previous recent survey efforts that have inquired into the voting experience. Next, we discuss the administration of the survey, assessing the quality of the survey through a comparison with known quantities, such as turnout and election results. Finally, we discuss the substantive findings of the survey, focusing on the results from Super Tuesday

1. Studying Election Performance as a System

The 2001 report of the Caltech/MIT Voting Technology Project (VTP) pointed out that elections are systems, that failures are possible (indeed, likely) at many points in the system, and that reform of elections must encompass the entire system (Caltech/MIT 2001b). It further noted that the focus of the controversy that aroused interest in the 2000 presidential election in Florida was only a tiny part of the problem with elections in the United States, and indeed, may not have been the most important problem. To make this point concrete, the 2001 VTP report estimated that up to six million votes were lost in the 2000 election, only 1.5 million of which were due to failures of voting machines. An equal number of votes were estimated to have been lost because

of long lines, inconvenient hours, or poor polling place locations, and twice as many votes (over 3 million) were estimated to have been caused by registration problems.

To gain some specificity about the idea of elections as a system, consider the major processes that come together to form the election process. The major links in the chain include (1) ensuring the voter is properly registered, (2) getting the voter to the correct polling place on Election Day, [3] (3) validating the voter and checking him/her in at the poll, (4) getting the voter the correct ballot, (5) navigating the ballot interface and using the voting technology, (6) properly counting the vote, and (7) accurately aggregating the counts from a series of machines and voting stations. The residual vote metric is best suited for measuring failures at point (5) of this chain. The task now is to develop replicable ways to measure the other six possible points of failure.

Despite the fact that only 25% of votes lost in 2000 were due to voting equipment problems, the only major metric that gauges the quality of the election process (the residual vote rate) focuses on the performance of voting machines. Nationwide metrics to help track the failures in the election process that account for the remaining 75% of lost votes in national elections have been slow to develop. The desire to establish a comprehensive set of metrics beyond voting machine performance led the U.S. Election Assistance Committee (EAC) to collect performance statistics surrounding the national elections of 2004 and 2006, and presumably into the future.[4] The decentralized nature of election administration in the United States has made this effort, styled the "Election Day Survey," more difficult than it first appeared (Alvarez and Hall 2006). Once perfected, the Election Day Survey will be an invaluable source

[3] We make reference here to a single Election Day, although American elections are increasingly occurring during "election periods" that stretch weeks before Election Day, during which time early votes, absentee ballots, and vote-by-mail ballots are cast. For simplicity, this proposal continues to use the term Election Day, though we recognize it is increasingly anachronistic. See Gronke, Galanes-Rosenbaum, Miller, and Toffey (2008).
[4] URL: http://www.eac.gov/election_survey_2004/intro.htm.

of official performance statistics, but the issues of compliance appear to be so substantial that independent sources of information will always be needed to gain a sense of how well the election system is performing.

Pioneering efforts to use exit polls in 2006 (in Colorado, New Mexico, and Ohio) represented important steps forward in trying to understand why the "other 75%" of lost votes occur (Atkeson and Saunders 2007; Hall 2007; Hall, Monson, and Patterson forthcoming; Magleby, Monson, and Patterson 2007). These studies have demonstrated the viability of using random sampling techniques and survey instruments to assess the quality of the voting experience in localities, including those areas of election administration that do not involve voting machines per se.

If we are serious about improving the strength of each part of the election system, it is important to develop a series of accessible, easy-to-understand measures and a valid survey methodology that allow us to answer the following questions and to compare the answers across states (and even localities) and across time:

- How many voters appeared at precincts on Election Day, believing they were registered to vote, only to be told they did not appear on the registration rolls?
- How many voters appeared at the wrong precinct on Election Day?
- What was the average waiting time to check in at the precinct?
- How many voters were asked to show a picture identification card on Election Day?
- How many voters experienced difficulties in using the voting technology on Election Day?
- How confident were voters that their votes were counted as intended?

These are the most basic questions, and should be thought of as the core questions that can provide a quick-but-informative "temperature reading" of the election system's health. We

can take each of these core questions and probe a bit further into the experience of voters with the election process. For instance,

- Of the potential voters who found they were not on the registration rolls, how many were offered provisional ballots? How many were simply turned away?
- Of the potential voters who appeared at the wrong precinct, how many were successfully directed to the correct precinct? How many had to endure long waits to find out where to go?
- How many potential voters simply left a precinct, not to vote, because of the appearance of long lines?
- How many people were asked for identification in a manner consistent with state laws? Of the potential voters who were asked for identification, whether or not in a manner consistent with state law, how many were not allowed to vote?
- If voters encountered problems with the voting technology, what kinds of problems did they encounter and how helpful were precinct workers in addressing the problems?

In addition to these questions, which are essentially factual, we know little about what voters think about policy questions facing election reformers, or what choices voters would make in order to make the voting process work better. Such questions include whether all voters should be required to show a photo ID to vote, whether electronic machines should be required to produce "paper trails," and whether voters should be allowed to register on Election Day.

We are also interested in a set of subjective questions that nonetheless would help us assess how well Americans believe the franchise is being protected in the United States. Questions in this realm include the following:

- How confident are voters that their votes will be counted as cast?
- How confident are voters that the votes of others will be counted as cast, and that the correct winners will be announced?
- How confident are voters that election officials have competently protected the different links in the voting chain --- have maintained the voter rolls well, etc.?

Finally, it is possible to use surveys to ascertain the political consequences of election practices and different reform efforts. The secret ballot makes it impossible to know whether voters who are turned away from the polls would have voted differently from those who were allowed to vote. It is also possible to use surveys to ascertain whether certain election practices are experienced differently by different types of people, as a function of their race, sex, income, or education level, and by a variety of political attitudes and orientations.

2. Past and Existing Survey Efforts

Considering that election reform has been a highly salient issue in the United States for nearly a decade, one might suppose that the questions posed in the previous section are already being probed through the existing array of academic and government surveys that study elections and voting. It is not true that election reform has been *ignored* by these research efforts. However, the flagship government and academic surveys — the Voter and Registration Supplement of the Current Population Survey, the National Election Studies, and the General Social Survey — have largely ignored election reform. A few academic efforts have taken on the issue of election reform, but the sample sizes and the range of questions addressed has been limited, compared to the full scope of the election system that needs to be monitored.

The government-sponsored research effort that *could* provide core data about the experience of voters on Election Day is the Voting and Registration Supplement (VRS) of the Current Population Survey (CPS). The CPS is the monthly survey undertaken by the Census Bureau, best known for helping to estimate the monthly unemployment rate, distributed to approximately 50,000 households. The VRS is added to the CPS in Novembers of even-numbered years, to gauge the participation of the electorate in the election. Core to the VRS is a

small battery of questions that ascertains whether household members voted in the most recent election; if they did not, the VRS asks why not. (Being a government survey, it does not ask political, attitudinal, or behavioral questions common to academic surveys, such as for whom household members voted.) In response to the NVRA and to changing modes of voting, the VRS in recent years has also asked how household members registered and what mode of voting they used (Election Day voting, absentee ballot, early voting, etc.).

By its nature, the amount of information about the electoral system gathered by the VRS is very limited. (Keep in mind that the VRS is piggy-backing on the larger goal of the CPS, which is economic.) Only two questions are really relevant to election administration. The first is the method of voting used by voters (absentee, on Election Day, early voting, etc.), which is a fact about elections that is most accurately ascertained through official election statistics, when they exist. The second question is the reason why non-voters failed to vote (illness, disinterest in the candidates, out of town, etc.). This question is potentially very useful, but its utility is blunted because respondents are limited to just one choice among a dozen possibilities. As a consequence, the VRS is just the starting point for using survey research to measure the quality of election administration in America.[5]

Until very recently major academic surveys have been even less useful in helping us understand the performance of electoral process. Even though the 2000 election turned on the issue of how elections are conducted in the U.S., neither the 2004 nor the 2006 American National Election Studies contained questions about the voting experience, voting reform,

[5] In the Super Tuesday survey, we asked the CPS question of respondents who reported they did not vote. Unlike the CPS survey, we allowed respondents to give *two* reasons for not voting. In addition, we captured open-ended comments when respondents gave the "other" answer. Three findings are relevant here. First, over one-third of non-voting respondents gave two reasons for not voting. Second, two-thirds of those not voting on Super Tuesday said it was because they were independents. Third, most of the respondents who gave the "other" response gave open-ended answers that could easily be coded into one of the closed-ended categories, which suggests the VRS under-estimates the reasons why eligible voters fail to vote.

election technology, or similar issues, other than asking the respondent if s/he voted via absentee ballot. The 2004 General Social Survey was similarly mute about election reform, except for a single question asking about the fairness of the count.

Commercial polls have not been much more helpful. The 2004 National Election Pool exit poll did contain the question, "how confident are you that votes in your state will be counted accurately?" Unfortunately, this question was only asked in eight states — states where there were already controversies about election administration anticipating the election. Obviously, a national effort to use surveys to gauge the quality of the electoral system must blanket the nation, not be confined to places where we suspect problems *a priori.*

Some academic efforts have been made to fill in the gaps left by the established major governmental and academic surveys. R Michael Alvarez and Thad Hall (Alvarez, Hall, and Llewellyn 2006, 2007; Alvarez and Hall 2005; Alvarez and Hall 2004, 2008) previously were able to put into the field a limited set of questions that gauge the confidence of American voters in the electoral process. This work has been able to establish, for instance, that there are partisan and demographic factors affecting the confidence voters place in the electoral process, and that voters are more-or-less confident in elections depending on the type of voting equipment they use. However, the number of questions they have been able to ask about the electoral process has been seriously limited, along with the number of observations (averaging just over 1,000 respondents per survey).

The recent studies that have used exit polls to measure the quality of the voting experience have likewise been able to establish verifiable correlates with the quality of the electoral experience (Atkeson and Saunders 2007; Hall 2007; Hall, Monson, and Patterson, forthcoming; Magelby, Monson, and Patterson 2007). However, the success of these studies also

demonstrate the difficulty of using exit polls to mount a comprehensive national effort to study progress in election reform, especially if we want to report results at the state level. Using exit polls for such a massive effort would be organizationally and financially impracticable on an ongoing basis.

The 2006 Cooperative Congressional Election Study (CCES) reached a larger sample of respondents (roughly 30,000 voters) and was the first large national survey to include questions related to issues arising throughout the chain of voting. Among other questions, the common core within the CCES asked about whether the respondent was required to show picture identification at the polling place, how long the voter had to wait to vote, and whether the respondent encountered a registration problem. Among those required to show a picture ID and among those who encountered registration problems, respondents were asked if they were ultimately denied the opportunity to vote.

Even this limited set of questions has produced very interesting results that could help inform current policy debates by providing desperately needed facts about what people encounter when they vote. Major questions about the effectiveness of poll worker training are raised when it is discovered, for instance, that 47% of voters reported they were asked for a photo ID in order to vote, even though the requirement existed in only two states in 2006. (In Wisconsin, which only follows the minimum HAVA requirement of asking for an ID from first-time voters who registered by mail, 25% of voters report being asked for a photo ID.) Nonetheless, concerns about the intimidation effect of ID requirements are mitigated somewhat when it is discovered that only 0.2% of those who were asked to show a photo ID were not allowed to vote. (See also Ansolabehere and Persily, 2008.)

The CCES provides an important jumping-off point for the design of the survey we are developing, but even here the number of questions asked about the voting experience was relatively limited. The CCES experience also underscores the importance of having a large national sample to help uncover problems that voters might face in casting a ballot. For instance, the percentage of voters who were denied a ballot after showing a picture ID was so small that the standard academic sample size of 1,000 respondents most likely would have turned up no one who had been denied access to the polls because of this requirement. The percentage who had to wait longer than half an hour to vote was only 4%; less than 1% had to wait longer than an hour. Again, standard sample sizes would have produced very small numbers of respondents, making comparisons across states impossible, not to mention statistical analysis that tried to understand *who* was affected, and to what effect.

In short, while there is an emerging experience with using survey research to gauge the functioning of the electoral process, it has not yet matured to the point where it can be counted on to form the scientific knowledge base on which reform can be assessed and redirected, if necessary. Two basic problems have limited the development of survey research in this area. The first is the lack of a platform focused solely on the performance of the electoral process. Even in the few cases where the performance of the system has been studied, the survey instrument has had to carry questions about a multitude of other issues, limiting the number of questions available to problem about elections themselves. The second has been the lack of a large enough sample — and one distributed nationally — to spot the presence of unusual-but-serious shortcomings in the electoral process.

Because the quality of election administration has not been the sole focus of a national survey of this sort, there are other methodological issues that remain to be addressed through the

larger project. The emerging work that has addressed election administration has proceeded in a variety of modes — telephone survey, mail survey, Internet survey, and exit poll — and we report here a comparison of results using telephone and Internet surveys.

Finally, one must keep in mind limitations to the survey research method as we proceed with this project. It is well known that respondents to survey research questions tend to respond with socially acceptable answers and tend to give responses that put themselves in a positive light. We also know that respondents tend to remember extreme experiences, and tend to participate in surveys when they have had negative experiences. There are two general strategies to meet these challenges, both of which we hope to use in the larger project. The first is simply to make sure the samples are well constructed and controlled. The second strategy is to rely on repeated administration of the survey to allow us to net-out any systematic biases that may be reflected in the answers respondents give. For that reason, in this paper we compare the results we have obtained with past surveys, especially the CCES. Furthermore, we believe the value of this project will be greatly enhanced by repeating the study in future elections beyond 2008.

A catalogue of previous survey questions on election administration

One of the first steps in this project was cataloguing the existing set of public opinion survey questions that had already been conducted about election administration We have compiled those prior questions, reporting them in Appendix 1.

As we discussed above, one can think of the act of voting as a "chain" of actions, with each individual action constituting a link in the chain. These links run from intending to vote to the actual counting of ballots. Breaking the chain at any point will result in the negation of a voter's intended vote. Because we are developing a battery of questions that can probe the

quality of the entire chain efficiently, our goal is to settle on a single question that can be associated with each link in the chain. We have organized Appendix 1 by the steps in the voting chain. Most links in the chain already had solid questions associated with them, and we have chosen to use those questions in the current project. A general question concerning the performance of voting technology had not been asked before, so we constructed a new question to address voting technology generally.

We were satisfied with the performance of most questions from the November 2007 survey and we redeployed many of the questions in the Super Tuesday study. We experimented with a few new questions, and additional probes. Appendix 2 reports the questionnaire that was used on Super Tuesday. To show how some of the questions evolved between November 2007 and Super Tuesday, we have indicated the questions that were asked in different ways across the two studies, as well as indicating questions asked on Super Tuesday that were not asked in November 2007.

3. Survey sample

The empirical focus of this paper is the results from the Super Tuesday survey, but the November 2007 study was an important first step in gaining familiarity with the questions and issues that were likely to arise in administering such a survey. The November 2007 study focused on the three states that held gubernatorial elections in fall 2007, Kentucky, Louisiana, and Mississippi.[6] Sample sizes for each state were 500 each. For each state, this was divided

[6] Kentucky and Mississippi held their elections on November 7. Under Louisiana's unique electoral regime, it held a gubernatorial primary on October 20. In that election, Bobby Jindal received a majority of votes cast, and therefore was declared the winner of the gubernatorial election. Had no one received a majority, a runoff would have been held on November 17. In the spring of 2007, when we were planning this study, we had assumed that no one would receive a majority of votes cast in the primary, and that therefore we would have polled immediately after the November 17 gubernatorial election. Instead, Jindal surged in the days leading up to the primary, requiring us to put the survey in the field earlier than we had originally planned.

evenly, 250 by Internet and 250 by phone. This produced a final data set that consisted of 750 respondents in the Web survey and 750 respondents in the telephone survey.

YouGov/Polimetrix managed the survey implementation, including drawing an Internet sample using their sample matching methodology.[7] We have arranged to receive validated vote data, but have not received them yet. Substantive results from the November 2007 survey are available from the authors.

The Super Tuesday study focused on fifteen states that participated in the February 5 presidential primary. A sample of 200 registered voters was drawn in each state for the Internet survey. We selected five states — Arizona, Georgia, Illinois, New York, and Tennessee — for the parallel telephone administration. These five were chosen to provide a mix of states with respect to region and racial heterogeneity. For the telephone component, YouGov/Polimetrix interviewed 200 respondents from each of these states, selected at random from registered voter lists. Respondents were asked for by name in the telephone survey. To summarize, for Super Tuesday we had fifteen states with a sample size of 200 registered voters in the Internet administration, for a total of 3,000 cases in this mode. For five of these states we did an additional 200 interviews using random digit dialing telephone calls, for an additional 1,000 cases.

[7] See http://www.polimetrix.com/documents/YGPolimetrixSampleMatching.pdf.

4. Comparison of sample with known quantities

Since this is essentially a measurement project, an initial question that comes to mind is how well the survey method uncovers independently known quantities that we also ask about on the questionnaire. For both the November 2007 pilot and the Super Tuesday study, we can compare actual turnout and the election results from those elections with the analogous quantities estimated through the survey.

For the November 2007 pilot, estimated turnout in the survey was roughly twice actual turnout. (Recall that everyone contacted was a known registered voter.) For instance, actual turnout in Kentucky and Louisiana was 37% and 47% of registered voters, respectively, compared to estimated turnout rates in both states that approached 80%. (Mississippi does not report the total number of registered voters, so these quantities cannot be calculated.) The Internet survey over-estimated turnout slightly in Kentucky, compared to the telephone survey (83% for Internet *vs.* 76% for phone), but the telephone mode over-estimated turnout more in Louisiana (81% for phone *vs.* 78% for Internet).

In each state in November, support for the Republican candidates for governor was greater in the survey than in the actual election returns — 45% *vs.* 41% in Kentucky, 64% *vs.* 54% in Louisiana, and 66% *vs.* 58% in Mississippi. Interestingly, the Republican over-reporting was greater for the telephone administration than for the Internet administration.[8] Whether the Internet sample remains more inclined toward Democratic candidates in the November 2008 general election remains a topic for further examination.

[8] The comparisons are these: Kentucky, 44% Internet vote reported for the Republican candidate, 47% telephone; Louisiana, 57% Internet *vs.* 72% phone; Mississippi, 61% Internet *vs.* 72% phone.

Of more importance to this paper, we can do a similar comparison with the results of the Super Tuesday study. Table 1 compares the estimated voter turnout from the survey with the results published by the states. Figure 1 illustrates the same data as a figure.

[Table 1 about here]

[Figure 1 about here]

With the exception of Connecticut, the turnout percentages in the survey are much higher than the actual recorded turnout in the states, by an average of about 25% points. This is a large over-reporting, but consistent with the over-reporting in other survey-based voting studies. Unlike the November 2007 pilot, over-reporting of turnout was consistently greater in the Internet mode than in the telephone mode, though the degree of over-reporting varied significantly, from New York (1% difference in the two survey modes) to Arizona (13% point difference.)

From the perspective of this project's goals, the biggest concern with the over-reporting of turnout is that this means there are likely a good number of respondents in the survey who are reporting on their Super Tuesday experience, even though they did not vote. What difference these respondents make to the survey results must remain somewhat speculative until we receive the validated vote.

Survey researchers usually use reported vote to study electoral participation, and respondents commonly over report voting. Our sample looks quite similar to the American National Election Study in this respect. The over reporting of the vote might occur because of misreporting, usually attributable to social desirability of participation, or because of sample biases, in which non-voters do not participate.

Such errors become a concern as they might bias estimates of the frequency of problems, such as waiting in line, or estimates of the effects of laws (such as ID laws) on behavior. In some years, the American National Election Study has matched its sample to the voter lists to validate the reported vote of the survey respondents. Studies of those samples reveal that the people most likely to over-report voting are more highly educated, have higher incomes, are more interested in politics, and older (Silver, Anderson, and Abramson, 1986). This strongly suggests that social desirability bias accounts for the errors. These are also people who have voted in the past, so they may still report on the general voting experience.[9]

The 2006 and 2007 MIT Team Content on the Cooperative Congressional Election Survey matched its sample to the voter lists. We analyzed that survey to examine whether people who reported voting, but in fact did not vote, differed from those who in fact did vote on a set of key variables. Consistent with earlier studies, we found that those who incorrectly report voting are better-educated, higher-income, highly interested in politics, and older. We compared the answers to the voting experience questions for those who said they voted, but didn't, with those who said they voted and in fact did. We found no meaningful differences in the estimated length of time in line, the frequency with which they said they were asked to show ID, or the frequency of registration problems. In short, the "liars" estimated the overall experience correctly. This result suggests that analysis of reported voting will not produce a seriously biased picture of the actual election experience. But, it also raises questions about the degree to which respondents report problems because they personally experienced them, or are reporting a combination of personal experience and hearsay.

[9] See Brian D. Silver, Barbara A. Anderson and Paul R. Abramson, "Who Overreports Voting?" *The American Political Science Review*, Vol. 80, No. 2 (Jun., 1986), pp. 613-624.

Table 2 compares the actual primary results with the results uncovered by the survey. Figure 1 displays these comparisons graphically. For both Democrats and Republicans, there is a very high cross-state correlation between the vote shares actually received by the major candidates and the estimated vote shares from the survey. However, there were also systematic biases in both parties' vote share estimates. On the Democratic side, Hillary Clinton systematically received about 4% less support in the survey than she received at the polls; the percentage reporting voting for Obama, on the other hand, was very close to the actual outcomes. On the Republican side, Huckabee's support in the survey was slightly less than what he actually received in the various state primaries. Romney's support in the survey was about 7% points greater than what he actually received, while McCain's support was similarly about 7% points less than the actual returns.

[Table 2 about here]

[Figure 2 about here]

Given the demographic characteristics of the various candidates' supporters, these biases are perhaps not surprising. What is reassuring is that the biases appear to be spread uniformly across the states. To the degree the purpose of this survey is to help array states according to how well elections were conducted, this pattern of bias suggests that the *differences between states* described in the survey should be trusted much more than any point estimate describing the prevalence of voting problems in any one particular state.

5. Report of substantive results

We have reported the marginal frequencies of the Super Tuesday election administration items in Table 3, aggregated across all the states and then disaggregated by state. As a general matter, the

voters in our survey reported a good experience on Primary Day, with some variability across the states.

[Table 3 about here]

Overall summary

Overall, 97% of respondents found it "very easy" or "fairly easy" to find their polling place on Super Tuesday (or in early voting). A little more than 2% had a problem with voter registration on Primary Day, with a similar fraction of absentee voters, 3%, reporting problems getting ballots. Roughly 10% of respondents waited more than 10 minutes to vote; 61% reported not waiting at all.[10] Only 2% of respondents reported problems with their voting equipment. Over 95% of respondents reported that the job performance of poll workers was "good" or excellent. Almost 93% of respondents reported that conditions at their polling place were "very well" or "pretty well." Almost 72% of the respondents reported they were "very confident" that their votes were counted as intended, with another 22% reporting they were "somewhat confident."

Figure 3 provides another look at the state-by-state results, by presenting the averages graphically. These graphs make it easy to identify visually states that are outliers on the various measures. For instance:

- Respondents in Arizona and Utah had more difficult times finding their polling places than residents of other states.
- Voters in California and Utah reported more voter registration problems than residents of other states.
- Arizona and Utah voters waited in longer lines to vote than residents of other states did.
- Connecticut voters reported more problems with voting equipment.
- California and Arizona voters rated the performance of poll workers less positively than voters in other states.

[10] In November 2007, only 1% of respondents reported waiting in line more than 10 minutes to vote.

Taking the responses to the election administration questions together, it is clear that the great majority of voters in all states had a positive voting experience on Super Tuesday. However, a few states stand out as "hot spots" of dissatisfaction, particularly California, Utah, and Arizona. California, particularly Los Angeles County, was roiled with confusion over how the ballots of "do not state" voters were handled, and Utah experienced a significant precinct consolidation that apparently affected some voters adversely. Arizona had experienced major problems with its online voter registration system in January, but why that would have affected difficulties locating polling places and length of lines is unclear. Connecticut was rolling out a statewide optical scan voting system for the first time, which likely explains the large number of problems reported in that state with voting equipment.

The questions just discussed — about registration problems, voting machine problems, etc. — are items in which there is a clear valance. That is, we can easily assume that it should be easy to find a polling place, that problems with voter registration should be few, that line should be short, etc. Two of the items reflected in Table 3 do not have a clear valance attached to them. One of those items is the question about receiving help filling out a ballot. As with the November 2007 study, states varied considerably in the percentage of voters reporting that they received help. This ranged from a low of 4% in Massachusetts to 19% in Arkansas.

There are clear differences among demographic groups that help paint a picture of voters who receive help in casting their ballot. (See Table 4.) African-American voters received help at a much higher rate than white or Hispanic voters (Hispanics received help at about the same rate as whites); absentee voters received help at a very low rate, compared to those who voted in person on Election Day or who voted in person before Election Day; voters who experienced problems with election equipment were helped more; high-income voters received less help than

low-income voters; better-educated voters were helped less than less-well-educated voters; and women were helped more than men. Finally, there was a curvilinear relationship between age and receiving help — the youngest and oldest voters received more help than middle-aged voters.

[Table 4 about here]

Voter identification

In the November 2007 pilot, we discovered a significant disparity between state laws concerning voter identification requirements and respondents' reports about whether they were required to show photo identification in order to vote. Those disparities prompted us to dig deeper on Super Tuesday, by adding two additional follow-up questions. The most important follow-up question, asked of those who reported being required to show a picture ID, was this:

> Did you show picture identification because you were asked for it specifically, or because a picture ID was the most convenient form of identification for you to show?
>
> <I was asked specifically for an ID card with a picture on it>
> <I showed a picture ID card because it was convenient for me; I could have shown another form of ID if I had wanted to>
> <don't know>

In addition, we added a question that inquired whether a respondent was a first-time voter, because HAVA generally requires first-time voters to show identification when they vote. Because only 1.9% of the respondents reported being a first-time voter, we focus here on responses to the initial question and the follow-up.

Table 5 reports the percentage of respondents who reported being required to show photo identification when they voted, under the first column. Note that there are considerable differences between the group of states with only the HAVA requirements, compared to those with some form of additional identification required at the polls. However, there was

considerable heterogeneity within the two groups of states. Among the states with the minimal HAVA requirements, the percentage reporting being asked for photo identification ranged from 6.4% (Massachusetts) to 37.3% (Illinois, on the web administration). Among those with some form of identification requirement, the percentage reporting being asked for photo identification ranged from 61.3% (Tennessee, on the web administration) to 99.4% (Arizona, on the web administration). It is striking that several states' voters reported being required to show a picture ID more often than Georgia's did, which is the one state to require photo ID in state law.

[Table 5 about here]

The second column of Table 5 uses the responses to Q13 to try to get closer to the fraction of voters who were actually required to show photo identification, rather than producing it because it was most convenient for them. The results are still quite striking. In the states with the minimal HAVA requirement, roughly half of those who reported showing photo identification did so because of convenience. However, this still leaves almost one-tenth of voters in many of these states stating they were required to produce photo identification, contrary to state law. The percentages remain notably high in Illinois and Utah, even after we allowed respondents to clarify that they showed picture identification because of their own convenience.

Roughly half the voters in the "photo identification optional" states still reported that they were required to show photo ID when they voted. Even in Missouri, where a photo identification requirement was struck down in a high-profile case, nearly one-third of respondents reported facing the requirement at the polls, nonetheless.

Absent actually observing the transactions between voters and poll workers, we hesitate to make too much of these findings. Still, these results suggest that many voters may be facing *de facto* voter identification requirements that are contrary to state law — either being required

to show one when it isn't required, or being given a free pass when it is required. Given the great controversy that photo identification requirements are exciting, the street-level implementation of these laws seems ripe for further study.

Opponents of photo identification laws are concerned that they will depress turnout in two ways, through "intimidation" (some people just won't show up to vote) and by throwing up a tall administrative hurdle for those who do come to the polling place on election day. Our survey results contain little evidence of either of these effects. Of the non-voters, only 0.6% said they failed to vote because of the lack of proper identification. The lack of proper identification was the least-used excuse for non-voting. Among those who did vote, only 1% of respondents who were required to show photo identification state they were required to vote a provisional ballot, and only 0.05% reported being turned away from the polls altogether. Of course, the characteristics of the respondents to a predominantly Internet survey may make our respondents less likely to run into photo identification problems. Nonetheless, our findings make us skeptical that even a perfectly representative random sample of the population would find great numbers of voters denied access to the polls because of the photo identification requirement.

In addition to questions about intimidation that are raised in these findings, a more general concern is this: Voter identification laws are arguably the most salient issue facing election reform currently. If so many poll workers are ignoring the law in this area, or if so many voters are confused about what they are doing and why, how closely other aspects of election law being followed at the grassroots level?

Regardless of the possible effects depressing turnout, it would be troubling to find voter identification laws being implemented differently to different types of voters. To gain insight into the differential implementation of the law, we ran a simple regression, to estimate whether

different types of voters, measured by their race, age, income, sex, education, and first-time voting status, were asked for photo identification more often. We ran the analysis separately for the two major groups of states, those with the minimal HAVA requirements and those that required some for of identification. The results are reported in Table 6.

[Table 6 about here]

The results in Table 6 indicate that African-American voters were 14% points more likely to be asked for photo identification than whites are. This is true in all states, regardless of their identification requirements. Hispanics were 18% more likely than Whites to be asked for photo identification in states with the minimal HAVA requirements, but no more likely than Whites to be asked for photo ID in states that required some form of identification.

Therefore, while our results show no evidence that there was a huge turnout-depressing effect of photo identification requirements on Super Tuesday, they do suggest a quite significant disparity in the experience of voters with the law, depending on their race. We should point out that the Super Tuesday findings mirror the findings of the growing literature on the effect of identification laws on voters (Ansolabehere and Persily 2008; Alvarez, Atkeson, Bailey, Hall, and Martin, 2007; Alvarez, Atkeson, and Hall, 2007; Alvarez, Bailey, and Katz, 2008; Alvarez and Hall, 2005; Ansolabehere, 2007; Ansolabehere and Stewart, 2005; Atkeson, Bryant, Hall, Saunders, and Alvarez, 2008; Trechsel, Alvarez, and Hall 2008). For example, Alvarez, Atkeson, Hall (2007) found that Hispanics in New Mexico were more likely to be asked to show photo identifiaiton at the polls than were Whites.

Comparison of results with 2006 CCES

Three of the questions asked in the Super Tuesday study were also asked in the 2006 Cooperative Congressional Election Study (CCES). Because the state-by-state sample sizes in the CCES were comparable to the sample sizes in this study, it is useful to compare this study's results with those of the CCES. Table 7 reports the comparison. To assist in visualizing the comparisons, Figure 3 shows the same data in graphical form.

[Table 7 about here]

[Figure 4 about here]

Overall, the results of the two surveys are similar, to varying degrees. The fraction of voters reporting they had to show photo identification in 2006 was virtually identical to the fraction in 2006 in these states. As far as waiting in line is concerned, many of the states were also quite similar to their 2006 performance, with a couple of clusters of exceptions. Arizona and Utah, perhaps reflecting difficulties with precinct consolidation (or just greater-than-expected interest in the election), showed much longer lines than in 2006. Arkansas, Missouri, Georgia, and Tennessee reported much shorter lines. Finally, registration problems across the two surveys were highly correlated, though there were notable shifts between the two studies. California stands out, for instance, in the increase in reported voter registration problems. (Based on our examination of the open-ended responses, this spike appears to be due to confusion over whether "do not state" voters would be able to vote in the party primaries.) Most other states saw many fewer registration difficulties compared to 2006.

The fairly high correlation level between our results and the 2006 CCES results is reassuring as far as the validity of the instrument is concerned. Election administration practices

are “sticky” within states, and we would expect for statewide performance to change slowly in most cases. Local problems will, of course, move states around from election-to-election, in terms of their performance on these measures.

Differences across survey modes

One goal of this project is to understand what effect the survey mode has on answers given in the survey. The November 2007 pilot turned up no significant differences in responses, depending on whether the survey was administered via Internet or telephone, except that the Internet respondents were slightly more likely to over-report actually turning out. What about Super Tuesday? Table 8 reports the differences in the core election-administration questions, by study mode.

[Table 8 about here]

The responses to the Super Tuesday study show more statistically significant differences in average responses between survey modes, compared to the November 2007 study. However, we hasten to add that the differences are very small substantively. Part of what is going on is that the Super Tuesday study had a much larger number of responses, and so even small differences can be estimated with much greater precision.

Overall, Internet responders reported (1) less difficulty in finding the polling place, (2) more problems with voter registration, (3) poorer poll-worker job performance, and (4) less confidence that the respondent’s vote was counted as intended. The differences on the remaining items were not statistically significant, using the traditional 95% confidence interval. These items were (1) problems getting absentee ballots, (2) length of lines, (3) showing picture ID, (4) problems with equipment, and (5) receiving help filling out the ballot. On net, the picture here is

that Internet respondents found it a little easier to get to the polls, but then had a less positive experience once they got there.

Further analysis (not reported here) shows that the differences hold up in a state-by-state analysis. For instance, Web respondents are uniformly less confident that their vote was counted as intended than phone respondents, regardless of state. What this suggests is that we need to control for survey mode when pooling together answers from the two modes in statistical analysis. When we compare across states, we should only compare *within* modes, and not combine respondents from the two survey modes in the states where we used both modes. (In other words, we should compare web responders with other web responders and phone responders with other phone responders. Comparisons across states that combine modes will generally not be comparable.)

Confidence

A question was raised in the November 2007 study about the "confidence" question on the survey. In particular, the survey administrator reported that there was sometimes hesitation on the part of the phone interviewer and the respondent, as the question was asked and then answered. This question had one of the highest non-response rates, but the non-resonse rate is still tiny for this item.

To better understand answers to this question, we followed-up with an open-ended question, inviting the respondent to report what she or he meant by the answer just given. In Table 9, we have reported ten randomly-chosen remarks from respondents who gave the two most extreme answers allowed for Q18. Among those who reported that they were "very confident" that their vote was counted as intended, most respondents mentioned general faith or

trust in the system. A few mentioned specific features with the election, but by-and-large, the answers were general. Among those who were "not at all confident," the responses fell into a couple of major categories. First, some mentioned the fact that particular candidates had dropped out, implying that a vote for these candidates would not be counted. Second, many others made specific reference to voting machines, especially electronic machines. Third, others mentioned the delegate allocation rules.

[Table 9 about here]

The disparity in the quality of the follow-up responses suggests that the vast majority of respondents, who have great faith that their votes will be counted properly, do not have a set of detailed reasons to describe the reasons for their confidence to a pollster. The very small number who are distrustful of the system were much more effusive in their reasons for their opinions. Therefore, the hesitation experienced in answering the question in November 2007 likely comes from the fact that the "confidence" question taps an attitude that most voters have not thought about in much detail. For most respondents, it elicits a "top of the head" response. Because these responses appear to derive from a general support of the political system, it is likely that even one-time bad experiences at the polls for most voters will fail to shake this confidence very much.

Response differences by race

One of the important policy questions we are interested in is whether the experience of voters varies by race. In the November 2007 study, we discovered that non-White voters reported less positive voting experiences than Whites on most survey items. In that study, we also discovered that most of these differences could be explained by differential experiences in a

single state. For instance, we discovered that non-whites reported greater difficulty in finding their polling place on Election Day, but when we explored this finding further, the problem was confined entirely to the state of Louisiana.

One of the things we could not do in the November 2007 study was separate out the experience of Hispanic voters from those of non-whites more generally, due to sample sizes. For this study, we are able to take a separate look at Hispanics. The number of Asian-American respondents was insufficient to draw conclusions about this rather heterogeneous group.

Table 10 reports the average answers to the election administration questions, broken down by race. Of the nine questions, four show statistically significant differences among the racial groups (at the traditional .05 *p*-value), and five do not. There were no racial differences in terms of difficulty finding the polling place, problems with voter registration, problems getting absentee ballots, problems with equipment, and confidence that the vote was counted as intended. When there were racial differences, Whites reported shorter lines and better-performing poll workers. Blacks were asked to show photo identification at a much higher rate than other groups, and they were more likely to get help filling out the ballot.

[Table 10 about here]

The particulars of the racial differences are a bit different from what we observed in November 2007. For instance, last fall, the respondents reported no racial differences in being asked for photo identification. Two particular patterns that *are* common across the two studies are the longer length of lines and poorer performance of poll workers experienced by non-white voters.

In substantive terms, the racial differences, when they exist, are small, with the exception of the difference in the tendency to be asked for photo identification.

The effect of machines on equipment problems and voter confidence

Although the issue of voter identification has recently taken the place as the most controversial issue facing election administration, the past decade's attention to these issues started with the breakdown of voting technologies in the 2000 presidential election. The results from this survey allow us to begin assessing the relationship between voting technology and voter experience. In particular, we examine whether the type of voting machine used affect the experience on Election Day, in terms of voting machine problems and length of lines, and whether voters are more or less confident in the election results when they vote electronically or with paper.

Voters using paper ballots reported slightly more problems with voting equipment than those using DREs (2.9% *vs.* 2.1%), whereas users of lever machines in New York reported fewer (1.3%). (See Table 11.) However, these differences are small and fail to reach traditional levels of statistical significance. (The F-statistic here is 1.46, $p = .23$). Similarly, voters were equally likely to say they were confident their vote would be counted as intended, regardless of the voting machine used. On the 1-4 scale, with 1 = "very confident" and 4 = "not at all confident", the average value for DRE-users was 1.36, lever machine 1.32, and paper 1.37. (The F-statistic is 0.59, $p = .59$.)

[Table 11 about here]

Lines were much longer for voters using DREs, compared to lever machines and paper. We estimate that the average wait in line for DRE-users was 5.3 minutes, compared to 2.8 minutes for lever machine-users and 3.3 minutes for paper-users. ($F = 10.8$, $p < .00005$). Problems cycling voters through polling places in areas using DREs, and an under-provision of DREs due to their purchase price, has been widely commented on by election administrators and

citizen groups. The evidence here is that these reports and complaints are not simply anecdotal. However, it is also true that the question we asked ("Approximately, how long did you have to wait in line to vote?") leaves open the question about *where* the wait occurred — checking in at the registration table or waiting for a machine after check-in. It might be possible to ask a more precise set of questions about this in the future, although there is a real possibility that would be probing a level of detail that would be difficult to gauge reliably in a questionnaire.

6. Conclusions

The overall project that the surveys described here is a part attempts will put a major survey into the field following the November 2008 presidential election, to judge the experience that voters had at the polls. The larger purpose is to help develop a comprehensive knowledge base about the quality of elections in the United States, as experienced by voters.

In this paper, we have described two pilots that have prepared us for the November 2008 election, focusing more attention on the Super Tuesday results. As far as Super Tuesday is concerned, we reached the following substantive findings:

1. Voters on Super Tuesday, overall, reported satisfactory experiences participating in the primary.
2. A few "hot spots" of dissatisfaction on Super Tuesday were apparent, particularly California, Utah, and Arizona.
3. Voters in states that have some form of voter identification requirement are much more likely to report being required to show a picture ID in order to vote, compared to states with the minimal HAVA requirements. There was considerable variability in how voters experienced voter identification laws. Many voters in states without strict identification requirements report being required to show picture IDs nonetheless; many voters *with* identification requirements report not being required to show ID.
4. African-Americans were more likely to report being required to show a picture ID in order to vote, regardless of the state law.

5. The voting machine being used (optical scan paper *vs.* DRE *vs.* lever machine) was unrelated to whether voters felt confident their votes would be counted as intended. Voters who used DREs reported longer lines to vote than voters who used optical scanners or mechanical lever machines.

The main results pertaining to sampling and the questionnaire are the following:

1. Turnout as reported in the survey was higher than what was actually reported by the states, but the survey over-report was of a similar magnitude to other election studies.

2. Democratic respondents were less likely to report voting for Hillary Clinton, compared to actual results; Republican respondents were more likely to report voting for Mitt Romney and less likely to report voting for John McCain, compared to official election returns.

3. Internet responders reported (1) less difficulty in finding the polling place, (2) more problems with voter registration, (3) poorer poll-worker job performance, and (4) less confidence that the respondent's vote was counted as intended. The differences on the remaining items were not statistically significant, using the traditional 95% confidence interval. These items were (1) problems getting absentee ballots, (2) length of lines, (3) showing picture ID, (4) problems with equipment, and (5) receiving help filling out the ballot. On net, the picture here is that Internet respondents found it a little easier to get to the polls, but then had a less positive experience once they got there.

4. The survey questions appeared to perform well, with very few non-responses to questions. Answers to the Super Tuesday study were consistent with statewide results obtained in the 2006 CCES study (which asked some of the same questions), which indicates that the questions are successfully tapping stable characteristics of election administration in the states.

Both Super Tuesday and November 2007 were different elections than November 2008 will be. Most obviously, the 2008 general election will have a much greater turnout than either of the two elections we have studied thus far. To the degree that problems emerge in elections when polling places are congested and the administrative capacity of election departments are strained, we have probably under-estimated the degree of problems we are likely to find in November 2008.

While we are mostly satisfied with the questions we have developed thus far, a close reading of the questionnaires in Appendix 2 reveals that we have thus far not probed as deeply about the experience of absentee voters, nor have we probed very deeply into why non-voters failed to vote. It is these areas of the questionnaire that we are currently working to expand.

Voting constitutes the central act of a democracy. The quality of voting in the U.S. has become a major issue for the first time in at least a generation. Billions of dollars are being spent to improve elections; thousands of hours are being spent by legislators and activists in passing new laws related to elections; and thousands of hours and millions of dollars are being spent in the court disputing election laws. Whether any of this activity will have an effect on elections, for good or ill, is an important policy question. Using survey research is an important tool for assessing the dynamic quality of election administration in the United States.

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Table 1. Comparison of turnout estimates in survey with actual turnout in the states.

State	Turnout reported in survey			
	Total	Internet	Phone	Turnout reported by state
Alabama	76.2% (200)	76.2% (200)	N/A	39.3% (2,773,982)
Arizona	65.0% (400)	71.5% (200)	58.5% (200)	51.3% (1,947,035)
Arkansas	75.5% (200)	75.5% (200)	N/A	Not reported
California	89.7% (200)	89.7% (200)	N/A	57.7% (15,712,753)
Connecticut	48.4% (200)	48.4% (200)	N/A	45.7% (1,108,576)
Delaware	57.7% (200)	57.7% (200)	N/A	25.5% (575,913)
Georgia	72.8% (400)	76.0% (200)	69.6% (200)	44.7% (4,531,057)
Illinois	74.7% (400)	78.7% (200)	70.8% (200)	40.9% (7,304,563)
Massachusetts	73.4% (200)	73.4% (200)	N/A	44.1% (4,011,551)
Missouri	81.8% (200)	81.8% (200)	N/A	Not reported
New Jersey	70.9% (200)	70.9% (200)	N/A	35.2% (4,845,847)
New York	50.1% (400)	50.7% (200)	49.6% (200)	22.5% (11,370,307)
Oklahoma	67.9% (200)	67.9% (200)	N/A	37.2% (2,022,537)
Tennessee	70.4% (400)	76.8% (200)	64.1% (200)	29.9% (3,666,824)
Utah	75.5% (200)	75.5% (200)	N/A	32.5% (1,319,650)

Note: Sources generally from state election division web site. Particular source citations available from authors upon request.

Table 2. Comparison of candidate support in the survey with actual candidate support in the primary. (Note: Sources generally from state election division web site. Particular source citations available from authors upon request)

Alabama

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Barack Obama	57.0%	57.0%	N/A	56.0%
Hillary Clinton	37.2%	37.2%	N/A	41.6%
John Edwards	2.4%	2.4%	N/A	1.5%
N	76	76	N/A	536,626

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
Mike Huckabee	41.1%	41.1%	N/A	41.2%
John McCain	29.2%	29.2%	N/A	37.1%
Mitt Romney	18.5%	18.5%	N/A	17.8%
Ron Paul	10.7%	10.7%	N/A	2.7%
N	78	78	N/A	552,209

Arizona

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Hillary Clinton	44.0%	45.6%	41.3%	50.3%
Barack Obama	41.9%	41.2%	38.0%	42.3%
John Edwards	8.1%	7.9%	8.6%	5.1%
N	99	59	40	456,626

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
John McCain	34.5%	37.9%	30.0%	47.1%
Mitt Romney	42.8%	40.1%	46.3%	34.5%
Mike Huckabee	8.3%	6.9%	10.3%	9.0%
Ron Paul	4.5%	3.8%	5.6%	4.2%
Rudy Giuliani	2.2%	0.7%	4.4%	2.5%
N	153	84	69	541,767

Table 2 (continued). Comparison of candidate support in the survey with actual candidate support in the primary.

Arkansas

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Hillary Clinton	62.3%	62.3%	NA	70.1%
Barack Obama	30.6%	30.6%	NA	26.3%
Mike Gravel	0.70%	0.70%	NA	0.1%
N	74	74	NA	314,234

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
Mike Huckabee	54.9%	54.9%	NA	60.5%
Mitt Romney	26.3%	26.3%	NA	13.5%
John McCain	13.6%	13.6%	NA	20.2%
Ron Paul	2.6%	2.6%	NA	4.8%
Rudy Giuliani	0.6%	0.6%	NA	0.3%
N	153	84	NA	228,166

California

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Hillary Clinton	43.6%	43.6%	N/A	51.5%
Barack Obama	41.0%	41.0%	N/A	43.2%
John Edwards	10.8%	10.8%	N/A	3.9%
N	99	99	N/A	5,012,124

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
John McCain	33.8%	33.8%	N/A	42.3%
Mitt Romney	39.3%	39.3%	N/A	34.6%
Mike Huckabee	9.7%	9.7%	N/A	11.7%
Ron Paul	9.7%	9.7%	N/A	4.3%
N	67	67	N/A	3,077,340

Table 2 (continued). Comparison of candidate support in the survey with actual candidate support in the primary.

Connecticut

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Barack Obama	48.7%	48.7%	N/A	50.7%
Hillary Clinton	40.2%	40.2%	N/A	46.7%
John Edwards	2.6%	2.6%	N/A	1.0%
N	61	61	N/A	355,561

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
John McCain	42.6%	42.6%	N/A	52.0%
Mitt Romney	35.2%	35.2%	N/A	32.9%
Mike Huckabee	8.6%	8.6%	N/A	7.0%
Ron Paul	13.7%	13.7%	N/A	4.1%
N	42	42	N/A	151,605

Delaware

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Barack Obama	50.2%	50.2%	N/A	53.0%
Hillary Clinton	46.7%	46.7%	N/A	42.3%
John Edwards	1.1%	1.1%	N/A	1.3%
N	72	72	N/A	96,374

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
John McCain	38.3%	38.3%	N/A	45.0%
Mitt Romney	49.3%	49.3%	N/A	32.5%
Mike Huckabee	8.4%	8.4%	N/A	15.3%
Ron Paul	4.0%	4.0%	N/A	4.2%
N	42	42	N/A	50,239

Table 2 (continued). Comparison of candidate support in the survey with actual candidate support in the primary.

Georgia

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Barack Obama	66.8%	71.0%	60.6%	66.4%
Hillary Clinton	27.5%	21.6%	36.5%	31.1%
John Edwards	3.6%	4.5%	2.2%	1.7%
Mike Gravel	0.3%	0.4%	0.0%	0.1%
N	132	83	49	1,060,851

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
Mike Huckabee	29.1%	24.0%	36.0%	33.9%
John McCain	25.4%	25.0%	26.0%	31.6%
Mitt Romney	35.4%	36.7%	33.7%	30.2%
Ron Paul	6.7%	9.0%	3.6%	2.9%
Rudy Giuliani	0.7%	0.6%	0.8%	0.7%
N	141	75	66	963,541

Illinois

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Barack Obama	63.3%	62.8%	63.9%	64.0%
Hillary Clinton	32.7%	30.5%	36.1%	32.4%
John Edwards	2.7%	4.4%	0.0%	1.9%
N	170	104	66	2,059,702

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
John McCain	41.3%	40.7%	41.9%	46.9%
Mitt Romney	34.8%	33.5%	36.3%	28.3%
Mike Huckabee	11.2%	13.7%	8.3%	16.3%
Ron Paul	10.3%	12.1%	8.2%	4.9%
Rudy Giuliani	0.4%	0.0%	0.8%	1.3%
N	114	57	57	910,540

Table 2 (continued). Comparison of candidate support in the survey with actual candidate support in the primary.

Massachusetts

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Hillary Clinton	50.1%	50.1%	N/A	55.8%
Barack Obama	41.9%	41.9%	N/A	40.5%
John Edwards	5.0%	5.0%	N/A	1.6%
Mike Gravel	0.6%	0.6%	N/A	0.0%
N	108	108	N/A	1,263,764

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
Mitt Romney	60.7%	60.7%	N/A	51.0%
John McCain	33.9%	33.9%	N/A	40.8%
Mike Huckabee	1.4%	1.4%	N/A	3.8%
Ron Paul	2.3%	2.3%	N/A	2.6%
N	44	44	N/A	501,997

Missouri

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Barack Obama	55.9%	55.9%	N/A	49.3%
Hillary Clinton	40.4%	40.4%	N/A	47.9%
John Edwards	1.6%	1.6%	N/A	2.0%
N	91	91	N/A	825,050

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
John McCain	26.0%	26.0%	N/A	33.0%
Mitt Romney	33.4%	33.4%	N/A	29.3%
Mike Huckabee	25.4%	25.4%	N/A	31.5%
Ron Paul	10.6%	10.6%	N/A	4.5%
Rudy Giuliani	1.8%	1.8%	N/A	0.6%
N	75	75	N/A	588,844

Table 2 (continued). Comparison of candidate support in the survey with actual candidate support in the primary.

New Jersey

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Hillary Clinton	49.8%	49.8%	N/A	53.8%
Barack Obama	44.1%	44.1%	N/A	43.9%
John Edwards	2.8%	2.8%	N/A	1.4%
N	85	85	N/A	1,141,199

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
John McCain	40.2%	40.2%	N/A	55.4%
Mitt Romney	50.6%	50.6%	N/A	28.3%
Mike Huckabee	2.6%	2.6%	N/A	8.2%
Ron Paul	1.8%	1.8%	N/A	4.8%
Rudy Giuliani	4.8%	4.8%	N/A	2.7%
N	54	54	N/A	566,201

New York

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Hillary Clinton	56.5%	52.9%	62.5%	56.5%
Barack Obama	39.6%	42.0%	35.5%	39.7%
John Edwards	0.7%	0.0%	2.0%	1.1%
N	127	73	54	1,891,143

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
John McCain	43.6%	39.1%	46.9%	49.7%
Mitt Romney	32.2%	35.5%	29.7%	26.6%
Mike Huckabee	8.4%	4.8%	11.3%	10.2%
Ron Paul	11.0%	20.6%	4.0%	6.0%
Rudy Giuliani	0.9%	0.0%	1.5%	3.5%
N	65	26	39	670,078

Table 2 (continued). Comparison of candidate support in the survey with actual candidate support in the primary.

Oklahoma

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Hillary Clinton	48.4%	48.4%	N/A	54.8%
Barack Obama	40.8%	40.8%	N/A	31.2%
John Edwards	9.8%	9.8%	N/A	10.2%
N	67	67	N/A	417,207

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
John McCain	30.6%	30.6%	N/A	36.6%
Mike Huckabee	35.8%	35.8%	N/A	33.4%
Mitt Romney	26.5%	26.5%	N/A	24.8%
Ron Paul	6.2%	6.2%	N/A	3.3%
N	74	74	N/A	335,054

Tennessee

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Hillary Clinton	55.5%	46.8%	68.5%	53.8%
Barack Obama	38.0%	42.8%	30.9%	40.5%
John Edwards	4.8%	7.7%	0.6%	4.5%
N	147	89	58	624,756

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
Mike Huckabee	34.5%	31.2%	38.6%	34.5%
John McCain	24.8%	22.5%	27.8%	31.8%
Mitt Romney	30.5%	33.1%	27.0%	23.6%
Ron Paul	6.5%	6.4%	6.5%	5.6%
Rudy Giuliani	0.6%	1.0%	0.0%	0.9%
N	119	65	54	553,815

Table 2 (continued). Comparison of candidate support in the survey with actual candidate support in the primary.

Utah

	Democratic Primary			
Candidate	Total	Internet	Phone	Official results
Barack Obama	67.3%	67.3%	N/A	56.7%
Hillary Clinton	31.4%	31.4%	N/A	39.1%
John Edwards	1.3%	1.3%	N/A	2.9%
N	46	46	N/A	131,403

	Republican Primary			
Candidate	Total	Internet	Phone	Official results
Mitt Romney	86.8%	86.8%	N/A	89.5%
John McCain	7.7%	7.7%	N/A	5.4%
Ron Paul	2.9%	2.9%	N/A	3.0%
Mike Huckabee	1.9%	1.9%	N/A	1.4%
N	108	108	N/A	296,061

Table 3. State averages for election administration items.

Questions	Overall mean	AL	AZ	AR	CA	CT	DE	GA	IL	MA	MO	NJ	NY	OK	TN	UT	*p* value of *F*-test across states
Q5. Difficulty finding polling place (4-1 scale)	3.85 (0.45) N=2,558	3.88 (0.37) N=151	3.59 (0.71) N=138	3.86 (0.40) N=147	3.85 (0.43) N=95	3.91 (0.33) N=101	3.81 (0.40) N=111	3.88 (0.39) N=298	3.88 (0.47) N=299	3.91 (0.35) N=154	3.87 (0.47) N=161	3.89 (0.40) N=136	3.90 (0.36) N=207	3.93 (0.25) N=138	3.88 (0.40) N=283	3.63 (0.72) N=139	.00
Q7. Problem with voter registration (pct. yes)	2.1% N=2,564	2.6% N=154	3.9% N=142	0.4% N=149	9.0% N=98	0.7% N=98	1.2% N=117	1.6% N=291	1.4% N=301	0.9% N=148	1.1% N=163	3.5% N=140	1.8% N=198	1.6% N=136	0.6% N=286	6.3% N=142	.00
Q9. Problem getting absentee ballot (pct. yes)	3.1% N=320	0.0% N=4	0.9% N=138	31.1% N=7	3.8% N=95	0.0% N=2	0.0% N=3	0.0% N=10	0.0% N=9	0.0% N=4	0.0% N=6	12.8% N=7	0.0% N=10	15.6% N=5	0.0% N=4	9.4% N=17	.01
Q10. Length of time in line (1-5 scale)	1.52 (0.79) N=2,564	1.50 (0.93) N=151	2.11 (1.03) N=138	1.46 (0.63) N=148	1.64 (1.14) N=95	1.29 (0.47) N=101	1.55 (0.67) N=112	1.70 (0.85) N=298	1.34 (0.61) N=302	1.28 (0.54) N=154	1.42 (0.64) N=162	1.31 (0.46) N=136	1.38 (0.62) N=207	1.23 (0.50) N=138	1.65 (0.83) N=283	1.88 (1.11) N=139	.00
Q11. Need to show picture ID (pct. yes)	55.7% N=2,563	98.3% N=154	93.7% N=143	88.5% N=149	15.3% N=98	98.1% N=98	88.7% N=113	95.9% N=292	36.5% N=301	6.4% N=148	65.3% N=164	20.1% N=141	13.9% N=198	14.6% N=136	63.2% N=286	25.2% N=142	.00
Q14. Problems with equipment (pct. yes)	2.4% N=2,878	3.7% N=159	1.7% N=270	0.0% N=157	2.6% N=186	6.1% N=101	3.1% N=119	1.1% N=303	3.5% N=311	2.3% N=153	2.0% N=169	3.0% N=148	1.3% N=207	1.7% N=142	2.3% N=294	4.4% N=159	.01
Q15. Help filling out ballot (pct. yes)	9.8% N=2,878	15.0% N=159	4.5% N=271	18.5% N=157	5.2% N=185	13.0% N=101	7.1% N=120	7.0% N=303	12.5% N=311	3.6% N=153	12.4% N=153	9.5% N=148	4.1% N=207	7.3% N=142	15.8% N=294	13.0% N=157	.00
Q16. Job performance of poll workers (1-4 scale)	1.35 (0.60) N=2,559	1.27 (0.52) N=151	1.56 (0.74) N=137	1.28 (0.54) N=148	1.56 (0.80) N=95	1.38 (0.63) N=100	1.38 (0.57) N=112	1.31 (0.57) N=298	1.28 (0.54) N=300	1.39 (0.66) N=154	1.38 (0.63) N=161	1.31 (0.54) N=136	1.35 (0.58) N=207	1.30 (0.58) N=138	1.31 (0.51) N=283	1.40 (0.65) N=139	.00
Q18. Confidence that vote was counted (1-4 scale	1.41 (0.77) N=2,881	1.30 (0.64) N=155	1.49 (0.85) N=277	1.37 (0.70) N=152	1.61 (0.89) N=186	1.39 (0.81) N=104	1.49 (0.96) N=114	1.42 (0.76) N=310	1.32 (0.72) N=311	1.28 (0.58) N=158	1.50 (0.89) N=169	1.44 (0.81) N=141	1.39 (0.73) N=216	1.38 (0.67) N=143	1.44 (0.81) N=290	1.27 (0.55) N=155	.00

Table 4. Demographic variability in receiving assistance in casting ballot.

Race

White, 9.2%
Black, 14.8%
Hispanic, 10.0%

Where R voted

In person, on Election Day, 10.4%
In person, before Election Day, 11.0%
Absentee, 4.2%

Did R have problems with equipment?

Yes, 18.0%
No, 9.6%

Income

Less than $60,000, 11.3%
Greater than $50,000, 8.5%

Education

No college, 10.6%
College, 10.0%
Post-graduate, 7.6%

Sex

Male, 9.5%
Female, 10.2%

Age

18-44, 12.2%
45-65, 8.0%
66 and over, 10.0%

Table 5. Voters reporting being required to show photo identification.

	Pct. reporting being asked to show picture identification to vote	Pct. reporting being asked to show picture identification, after follow-up question
HAVA only		
California	15.3%	8.5%
Illinois (web)	37.3%	21.4%
Illinois (phone)	35.9%	19.3%
Massachusetts	6.4%	5.9%
New Jersey	20.1%	9.4%
New York (web)	14.0%	11.1%
New York (phone)	13.8%	3.2%
Oklahoma	14.9%	9.0%
Utah	25.5%	16.5%
Require ID		
Alabama	98.3%	67.6%
Arizona (web)	99.4%	61.8%
Arizona (phone)	89.3%	57.5%
Arkansas	88.5%	65.3%
Connecticut	98.1%	77.6%
Delaware	88.7%	59.8%
Georgia* (web)	95.4%	72.4%
Georgia* (phone)	96.9%	75.2%
Missouri	65.3%	36.5%
Tennessee (web)	61.3%	35.8%
Tennessee (phone)	65.4%	39.4%

*Georgia requires photo identification. The other states allow other forms of identification to be shown.

Table 6. Regression results describing the probability of being asked to show photo identification in order to vote. (With state fixed effects)

	States with only HAVA requirements	States with identification requirements beyond HAVA
Black*	0.14 (0.05)	0.14 (0.06)
Hispanic*	0.18 (0.07)	0.063 (0.16)
Age (years)	-0.0011 (0.0009)	-0.0017 (0.0016)
Income	0.00019 (0.0044)	0.012 (0.007)
Female	0.026 (0.023)	0.048 (0.041)
Education	0.019 (0.008)	-0.0035 (0.015)
First-time voter	0.093 (0.15)	-0.22 (0.16)
Constant	0.042 (0.059	0.47 (0.13)
N	899	846
R2	.09	.11

*Comparison category is white voters

Table 7. Comparison with identical items appearing on 2006 CCES.

		Alabama		Arizona		Arkansas		California		Connecticut	
CCES question	Feb. '08 question #	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average
Asked to show picture identification (pct. yes)	Q11	90.6% N=320	98.3% N=154	92.7% N=369	93.7% N=143	83.1% N=236	88.5% N=149	18.5% N=1,645	15.3% N=98	96.4% N=279	98.1% N=98
Length of wait to vote (1-5 scale)	Q10	1.47 N=314	1.50 N=151	1.59 N=335	2.11 N=138	1.89 N=148	1.46 N=148	1.60 N=1,573	1.64 N=95	1.58 N=274	1.29 N=101
Problem with voter registration (pct. yes)	Q7	1.8% N=338	2.6% N=154	3.0% N=762	3.9% N=142	2.5% N=244	0.4% N=149	3.1% 2,852	9.0% N=98	2.7% N=294	0.7% N=98
		Delaware		Georgia		Illinois		Massachusetts		Missouri	
CCES question	Feb. '08 question #	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average
Asked to show picture identification (pct. yes)	Q11	88.7% N=71	88.7% N=113	84.0% N=729	95.9% N=292	32.2% N=1,130	36.5% N=301	9.7% N=392	6.4% N=148	49.7% N=624	65.3% N=164
Length of wait to vote (1-5 scale)	Q10	1.58 N=71	1.55 N=112	2.08 N=617	1.70 N=298	1.44 N=1,007	1.34 N=302	1.33 N=384	1.28 N=154	1.95 N=588	1.42 N=162
Problem with voter registration (pct. yes)	Q7	2.7% N=75	1.2% N=117	3.3% N=793	1.6% N=291	3.2% N=1,163	1.4% N=301	2.9% N=408	0.9% N=148	3.1% N=641	1.1% N=163

Table 7 (continued) Comparison with identical items appearing on 2006 CCES.

		New Jersey		New York		Oklahoma		Tennessee		Utah	
CCES question	Feb. '08 question #	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average	CCES average	Feb. 2008 average
Asked to show picture identification (pct. yes)	Q11	12.1% N=589	20.1% N=141	15.4% N=1,231	13.9% N=198	14.9% N=289	14.6% N=136	63.3% N=471	63.2% N=286	35.0% N=226	25.2% N=142
Length of wait to vote (1-5 scale)	Q10	1.30 N=580	1.31 N=136	1.46 N=1,226	1.38 N=207	1.37 N=266	1.23 N=138	2.63 N=194	1.65 N=283	1.58 N=190	1.88 N=139
Problem with voter registration (pct. yes)	Q7	4.3% N=605	3.5% N=140	2.6% N=1,289	1.8% N=198	3.0% N=302	1.6% N=136	2.9% N=483	0.6% N=286	6.9% N=245	6.3% N=142

Table 8. Comparison of election administration items, by survey mode.

Question	Web average	Phone average	*p* value on difference in *t*-test, raw difference
Q4. Method of voting			
In person, on election day	83.0%	80.2%	.26
In person, before election day	6.8%	9.3%	
Absentee	10.2%	10.5%	
Q5. Difficulty finding polling place (4-point scale)	3.84	3.89	.03
Q7. Problem with voter registration (pct. yes)	2.4%	1.0%	.03
Q9. Problem getting absentee ballot (pct. yes)	4.1%	0.0%	.08
Q10. Length of time in line (5-point scale)	1.53	1.50	.53
Q11. Need to show picture ID (pct. yes)	54.6%	59.3%	.30
Q14. Problems with equipment (pct. yes)	2.5%	2.0%	.07
Q15. Help filling out ballot (pct. yes)	9.4%	11.4%	.10
Q16. Job performance of poll workers (4-point scale)	1.37	1.28	.00
Q18. Confidence that vote was counted as intended (4-point scale)	1.44	1.31	.00

Table 9. Open-ended responses to the “confidence” question (Q18), randomly chosen.

a. Among those answering “very confident”
- I have confidence in the system
- I'll leave that up to the political analysts to figure out!
- I'm not a paranoid idiot.
- I knew the vote counter. I live in a town of 400 people.
- I believe in our system. I know there have been problems in the past, I used a paper ballot and believe that it was counted.
- No idea! I just believe it was.
- just the way the precent was run.
- my faith in the recorders office
- we voting tabulator the machine that it goes into it automatically counts it
- nothing was reported saying they had issue with it

b. Among those answering “not at all confident”
- Because Edwards had dropped out of the race
- Problems with folks having their political affiliation being changed prior to voting, causing that person not to be able to vote. An American citizen was not allowed to vote because someone screwed up, and I mean alot of folks, so why would I b. . . .
- Because of the electorial votes
- The black box I put my vote into not only provides no proof that it correctly took in my vote, or transfered it correctly to the actual count, but a poll worker plugs a cartridge into the machine after every vote. How am I to know this doesn't
- I did not get a receipt and there seems to be no way to verify who I voted for. Given the past two Presidential elections with all of the fraud, I have absolutely no confidence that my vote for Barak Obama went to Barak Obama.
- Because paper ballots weren't available and there is no way to check accountability with the electronic voting machines.
- Everyone I talk to are amazed McCain got the votes. Everyone I know was voting for Romney. Machines and computers are easliy hampered with! They should go back to written voting. We have NO WAY to prove how we voted!
- It was a gut feeling I got when I was leaving from the polling place that made me feel like myself and my son vote wasn't counted.
- because in de whoever wins gets all the electorial votes. and my candidate didnt win
- because i voted for ron paul i think people are against ron paul

Table 10. Comparisons of election administration items by race.

		Mean by race				
Questions	Overall mean	White	Black	Hispanic	Other	*p* value of F-test of equality between races
Q5. Difficulty finding polling place (4 = very easy; 1 = very difficult)	3.85 (0.45) (N=2,558)	3.86 (0.45) (N=2,104)	3.82 (0.50) (N=252)	3.79 (0.45) (N=69)	3.89 (0.36) (N=133)	.14
Q7. Problem with voter registration (pct. yes)	2.1% (N=2,564)	2.0% (N=2,108)	2.3% (N=253)	0.9% (N=70)	3.5% (N=133)	.55
Q8. Problem getting absentee ballot (pct. yes)	3.1% (N=320)	3.1% (N=265)	0	4.3% (N=21)	5.8% (N=19)	.78
Q10. Length of time in line (1 = no time at all; 5 = more than 1 hour)	1.51 (0.75) (N=2,562)	1.49 (0.74) (N=2,107)	1.69 (0.79) (N=253)	1.57 (0.72) (N=69)	1.39 (0.71) (N=133)	.0000
Q11. Need to show picture ID (pct. yes)	55.8% (N=2,555)	53.0% (N=2,100)	73.2% (N=253)	58.2% (N=70)	52.2% (N=132)	.0000
Q14. Problems with equipment (pct. yes)	2.4% (N=2,864)	2.6% (N=2,360)	1.1% (N=266)	1.4% (N=88)	3.2% (N=150)	.27
Q15. Help filling out ballot (pct. yes)	9.8% (N=2,877)	9.2% (N=2,371)	14.8% (N=267)	10.0% (N=87)	7.2% (N=152)	.007
Q16. Job performance of poll workers (1 = excellent; 4 = poor)	1.32 (0.55) (N=595)	1.33 (0.59) (N=2,105)	1.42 (0.61) (N=253)	1.43 (0.66) (N=69)	1.30 (0.55) (N=132)	.019
Q18. Confidence that vote was counted (1 = very confident; 4 = not at all confident)*	1.36 (0.66) (N=2,844)	1.35 (0.65) (N=2,343)	1.41 (0.66) (N=264)	1.43 (0.74) (N=86)	1.44 (0.70) (N=151)	.091

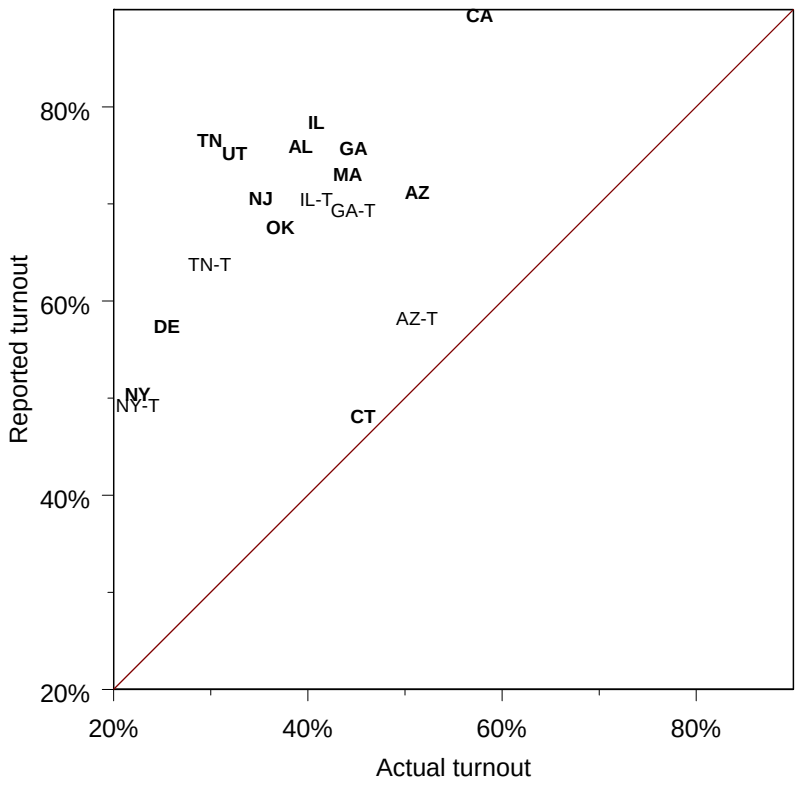
Table 11. Differences in experience and attitudes as a function of voting machine type

a. Percentage experiencing voting equipment problems
DRE = 2.1% (N=1,150)
Lever machine = 1.3% (N=216)
Paper = 2.9% (N=1,496)

b. Average time waiting in line to vote
DRE = 5.3 minutes (s.d.=11.6, N=1,072)
Lever machines = 2.8 minutes (s.d.=6.3; N=210)
Paper = 3.3 minutes (s.d.=10.7; N=1,272)

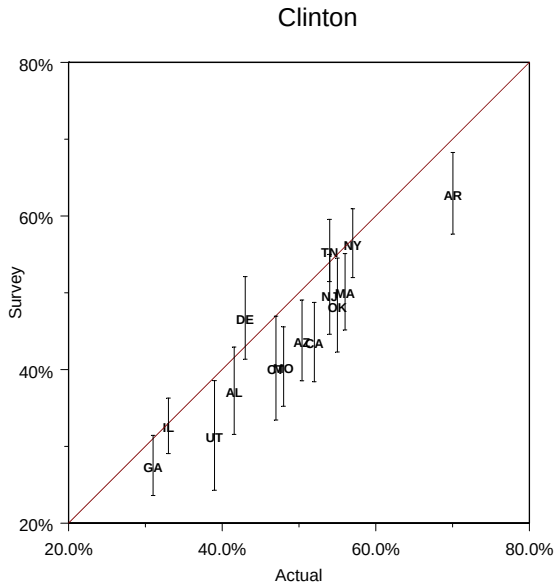
c. Confidence that vote was counted as intended (1=very confident; 4 = not at all confident)
DRE = 1.36 (s.d.=0.66; N=1,139)
Lever machines = 1.32 (s.d.=0.52; N=214)
Paper = 1.37 (s.d.=0.67; N=1,489)

Figure 1. Comparison of turnout reported in survey with actual turnout.



Note: Tokens with "T" after them indicate turnout reported in the telephone survey. The other tokens indicate turnout reported in the Internet turvey

Figure 2a. Comparison of actual primary outcomes with survey estimates, Democrats. (Vertical lines represent 95% confidence interval.)



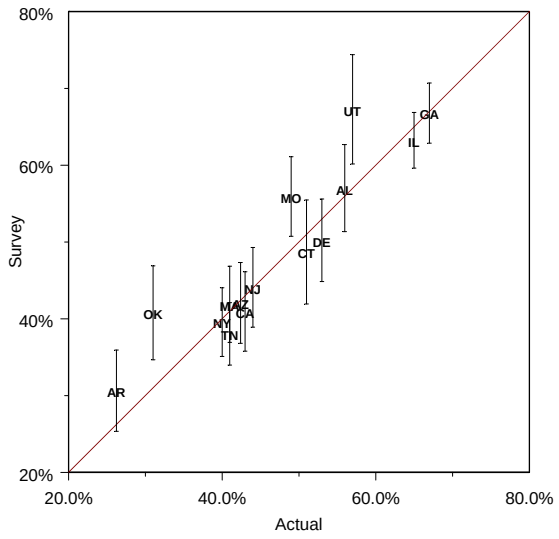
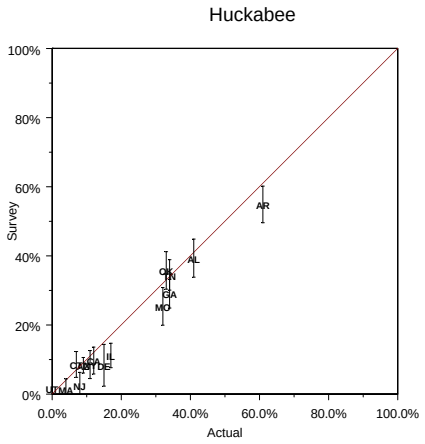
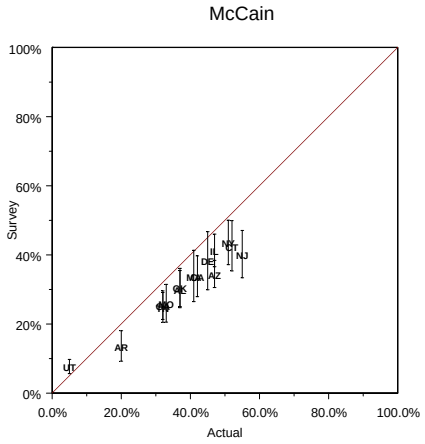


Figure 2b. Comparison of actual primary outcomes with survey estimates, Republicans. (Vertical lines represent 95% confidence interval.)





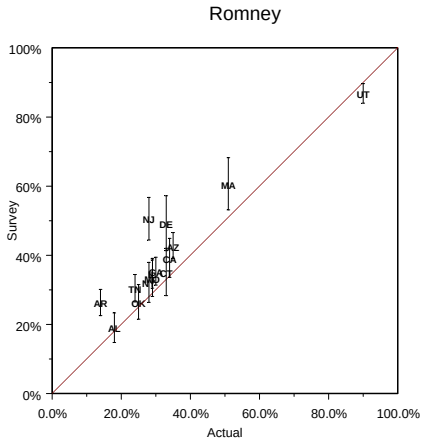
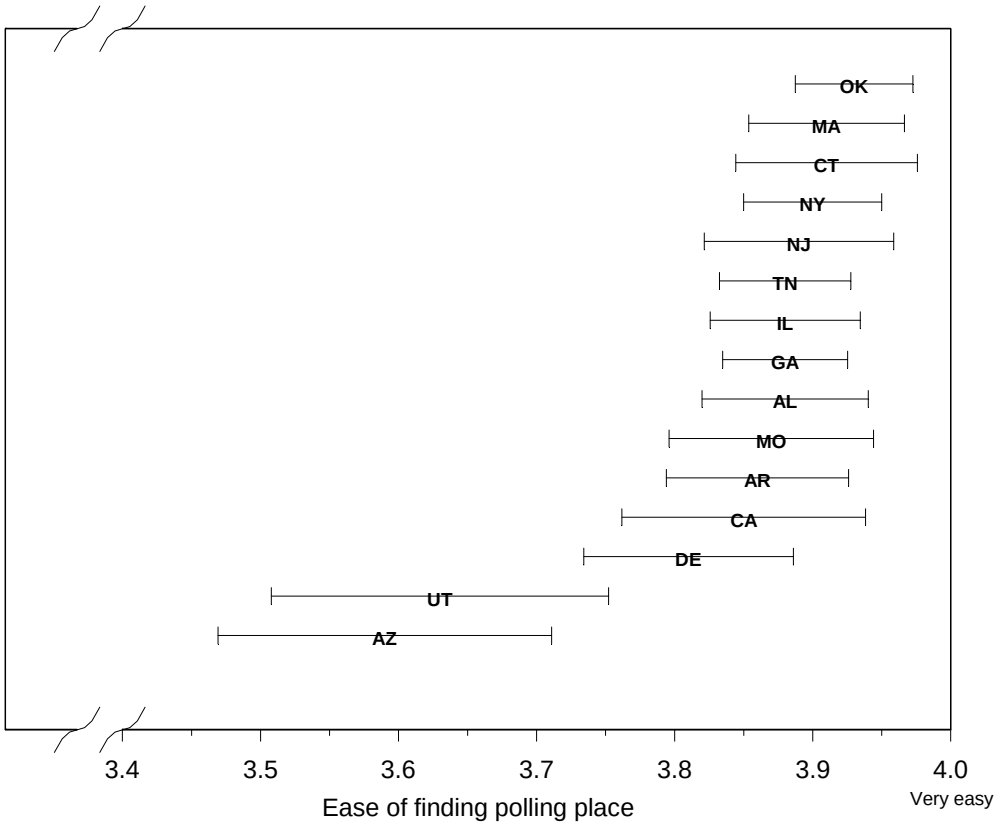


Figure 3. Graphical depiction of state averages for election administration items

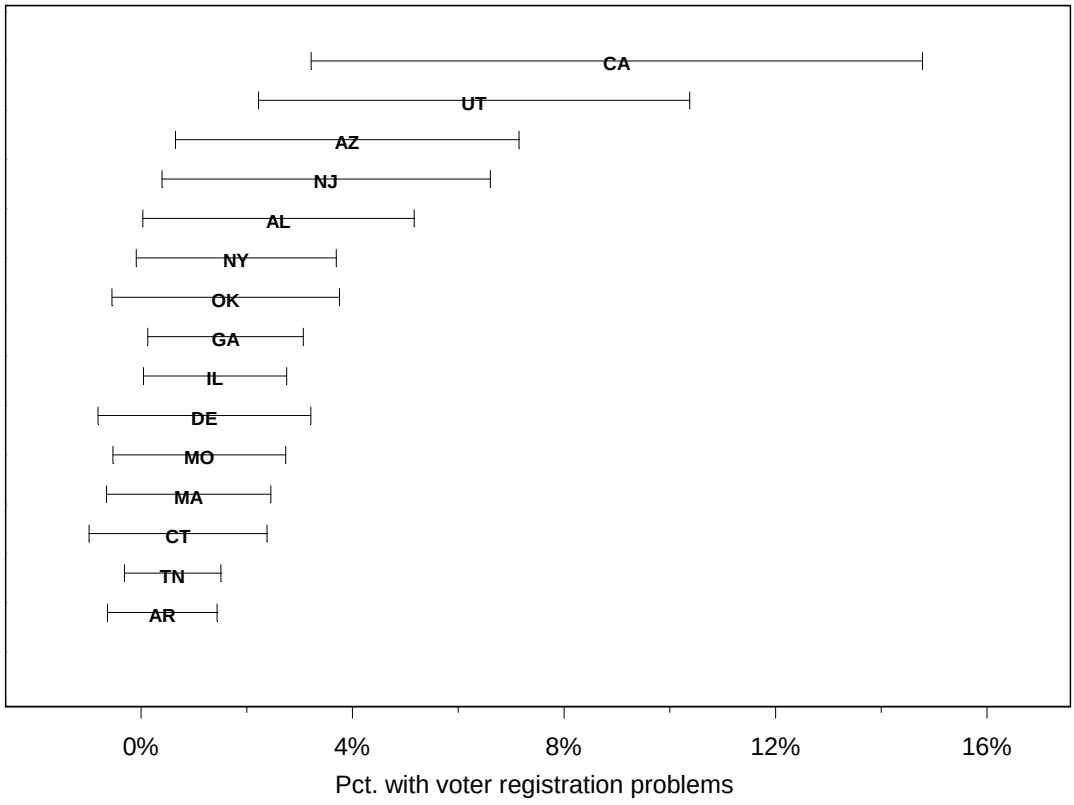
a. Ease of finding polling place



Note: The tokens indicate the statewide average for the item. The horizontal line indicates the 95% confidence interval.

Figure 3 (continued). Graphical depiction of state averages for election administration items

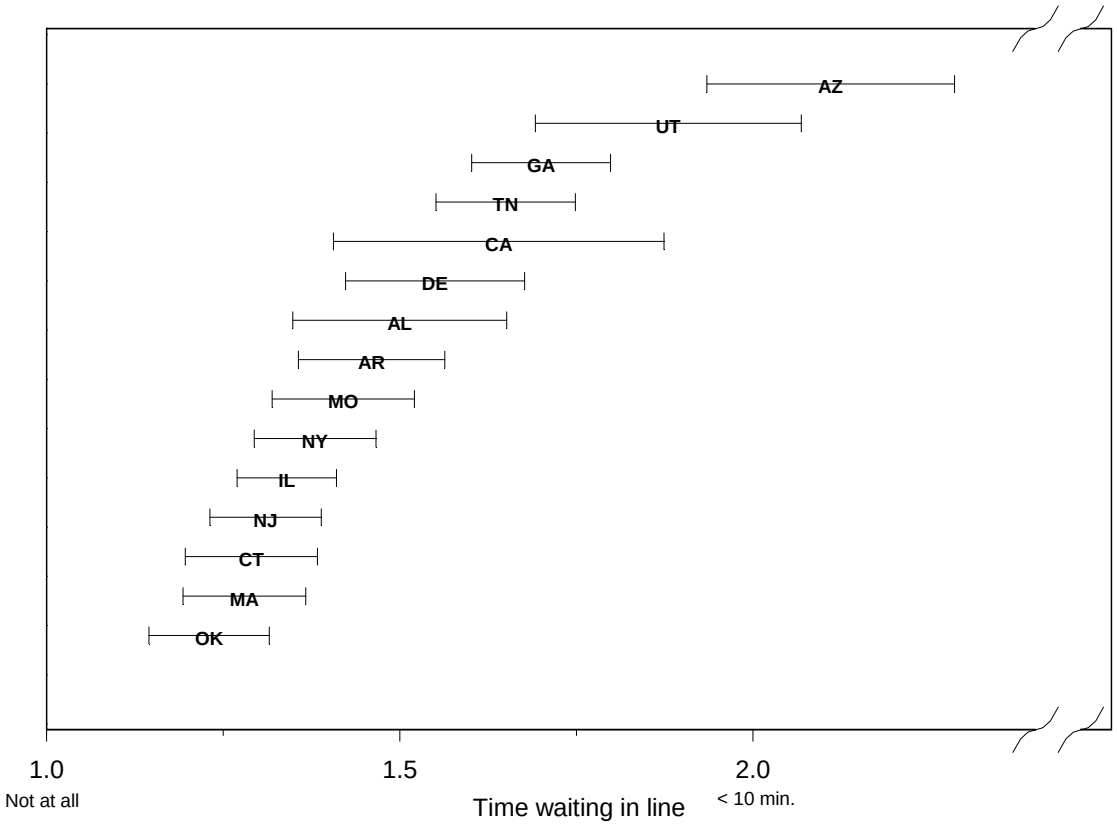
b. Problem with voter registration



Note: The tokens indicate the percentage of each state's respondents who answered "yes" to the item. The horizontal line indicates the 95% confidence interval.

Figure 3 (continued). Graphical depiction of state averages for election administration items

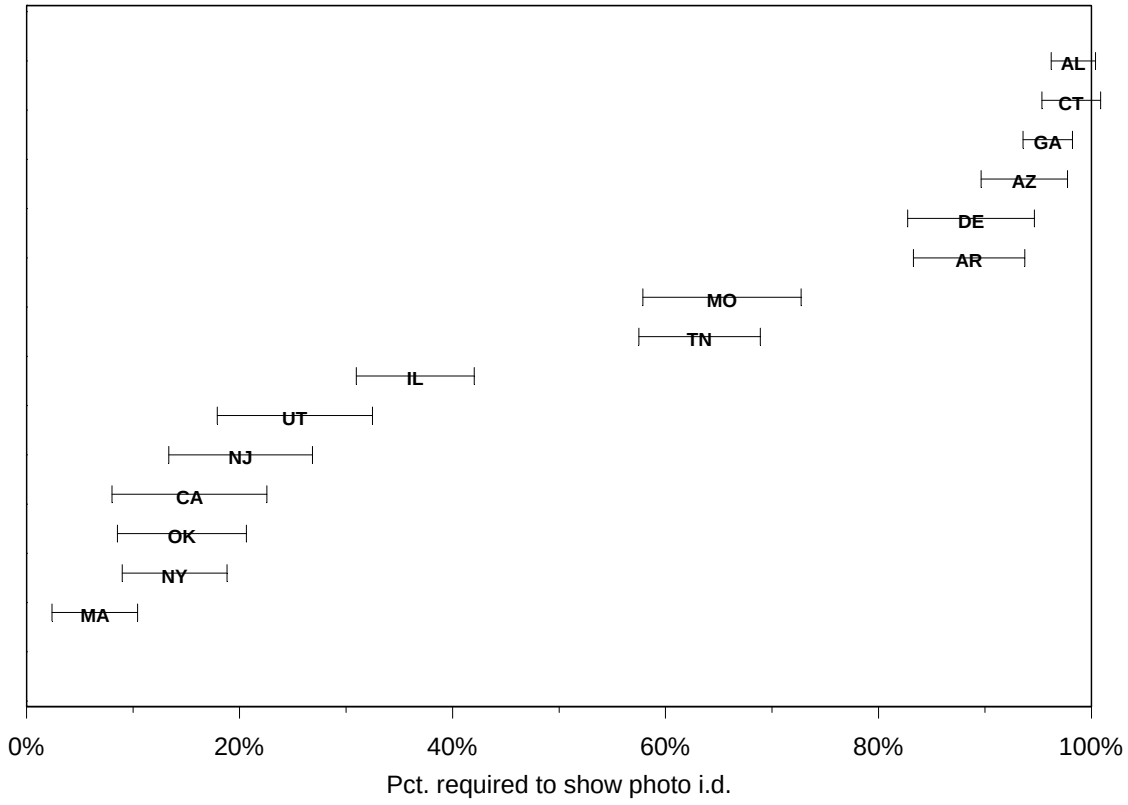
c. Length of time waiting in line to vote



Note: The tokens indicate the statewide average for the item. The horizontal line indicates the 95% confidence interval.

Figure 3 (continued). Graphical depiction of state averages for election administration items

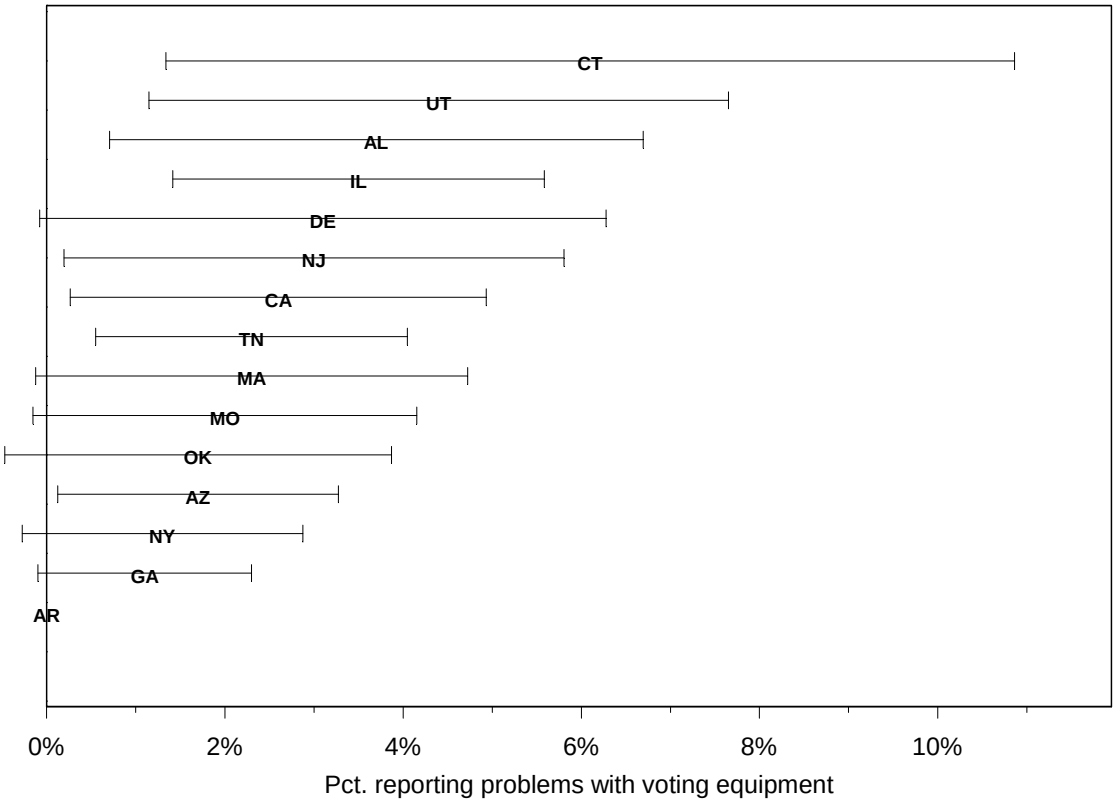
d. Required to show picture identification



Note: The tokens indicate the percentage of each state's respondents who answered "yes" to the item. The horizontal line indicates the 95% confidence interval.

Figure 3 (continued). Graphical depiction of state averages for election administration items

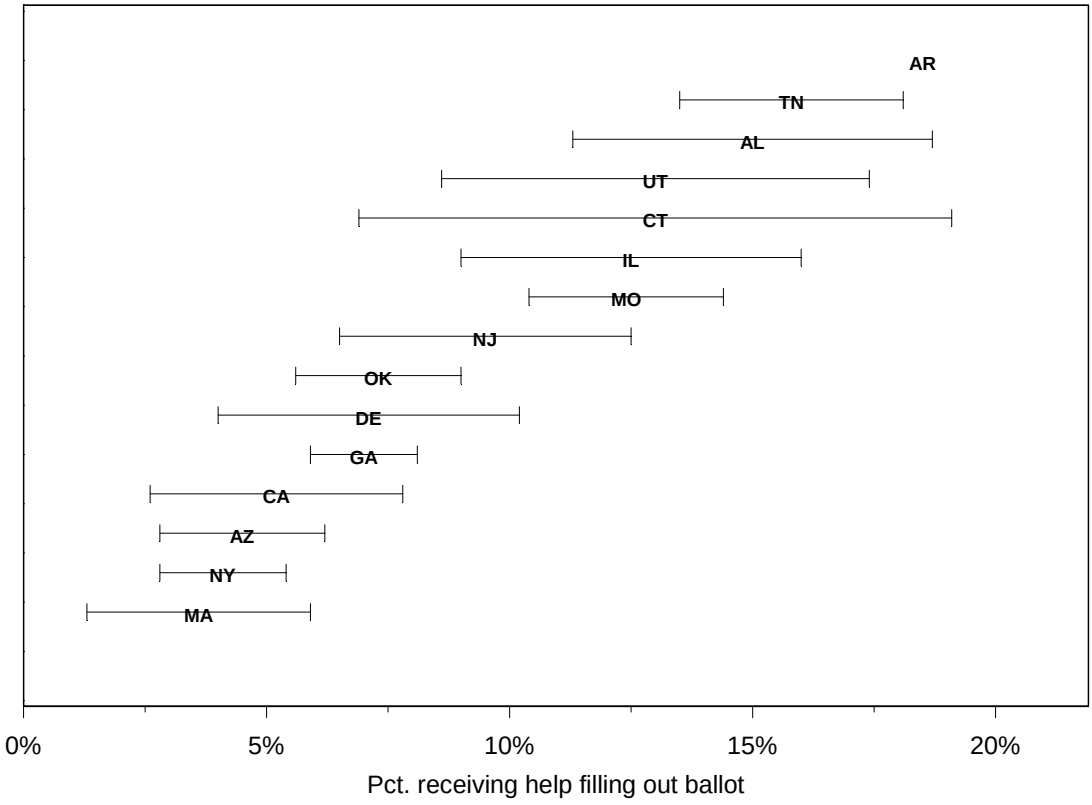
e. Problems with voting equipment.



Note: The tokens indicate the percentage of each state's respondents who answered "yes" to the item. The horizontal line indicates the 95% confidence interval.

Figure 3 (continued). Graphical depiction of state averages for election administration items

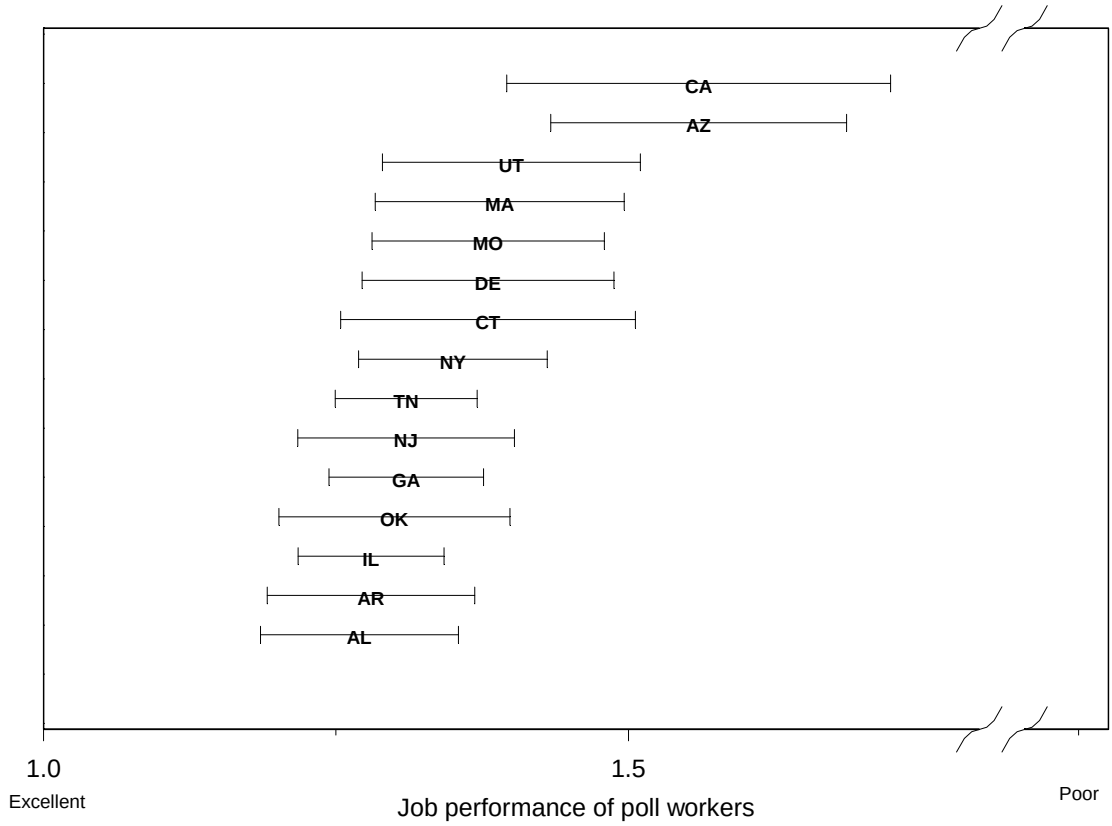
f. Received help filling out ballot.



Note: The tokens indicate the percentage of each state's respondents who answered "yes" to the item. The horizontal line indicates the 95% confidence interval.

Figure 3 (continued). Graphical depiction of state averages for election administration items

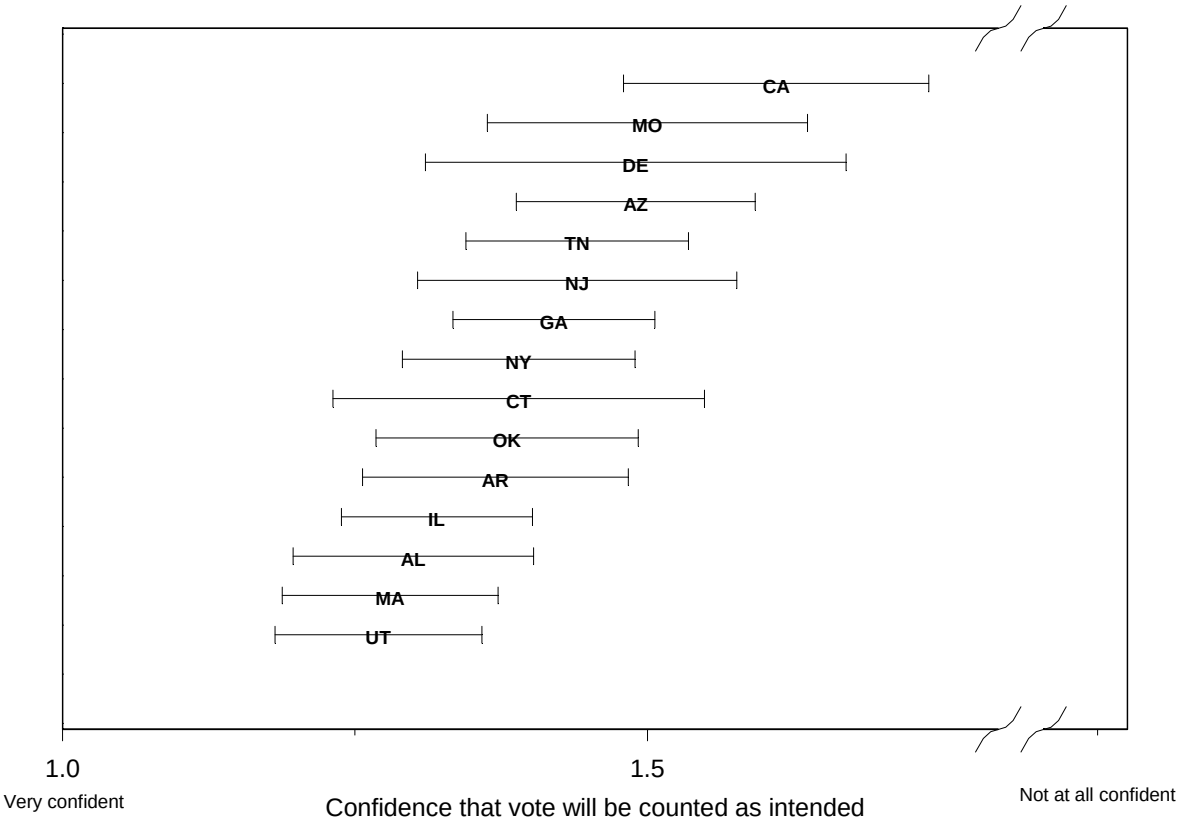
g. Job performance of poll workers



Note: The tokens indicate the statewide average for the item. The horizontal line indicates the 95% confidence interval.

Figure 3 (continued). Graphical depiction of state averages for election administration items

h. Confidence that vote was counted as cast.



Note: The tokens indicate the statewide average for the item. The horizontal line indicates the 95% confidence interval.

Figure 4. Comparison of common items on 2006 CCES & 2008 Super Tuesday Study

a. Required to show photo identification

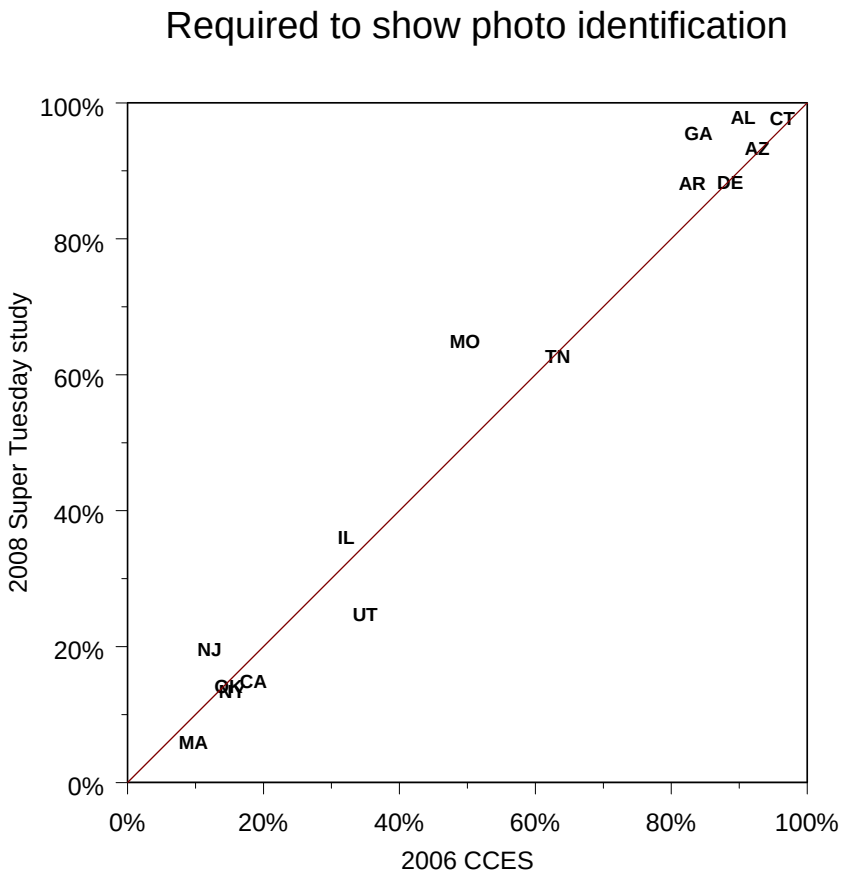


Figure 4 (continued). Comparison of common items on 2006 CCES & 2008 Super Tuesday Study

b. Length of lines (5-point scale)

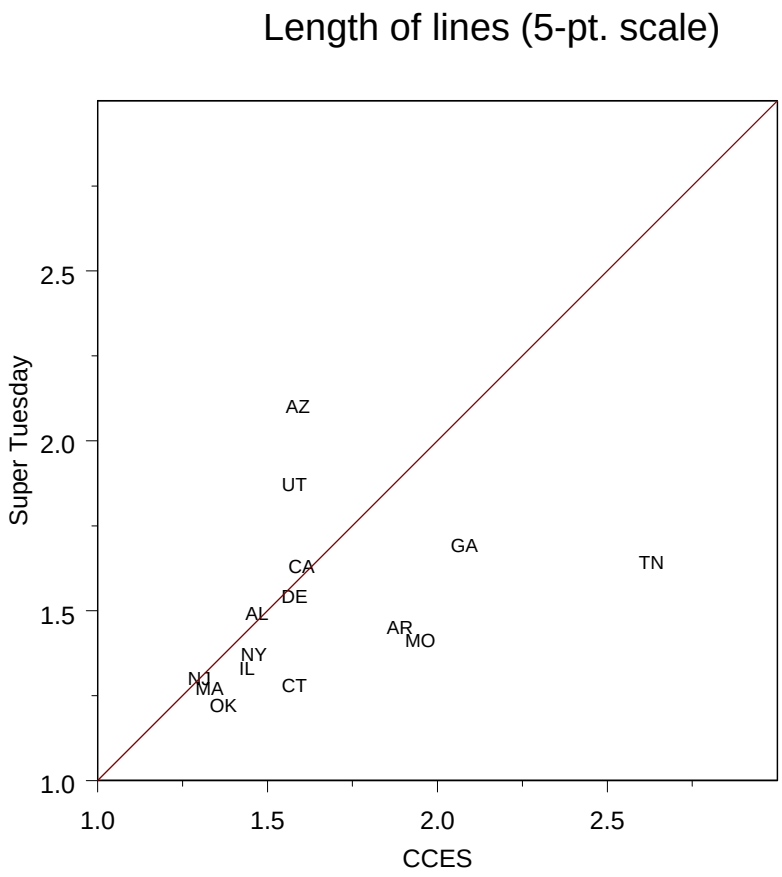
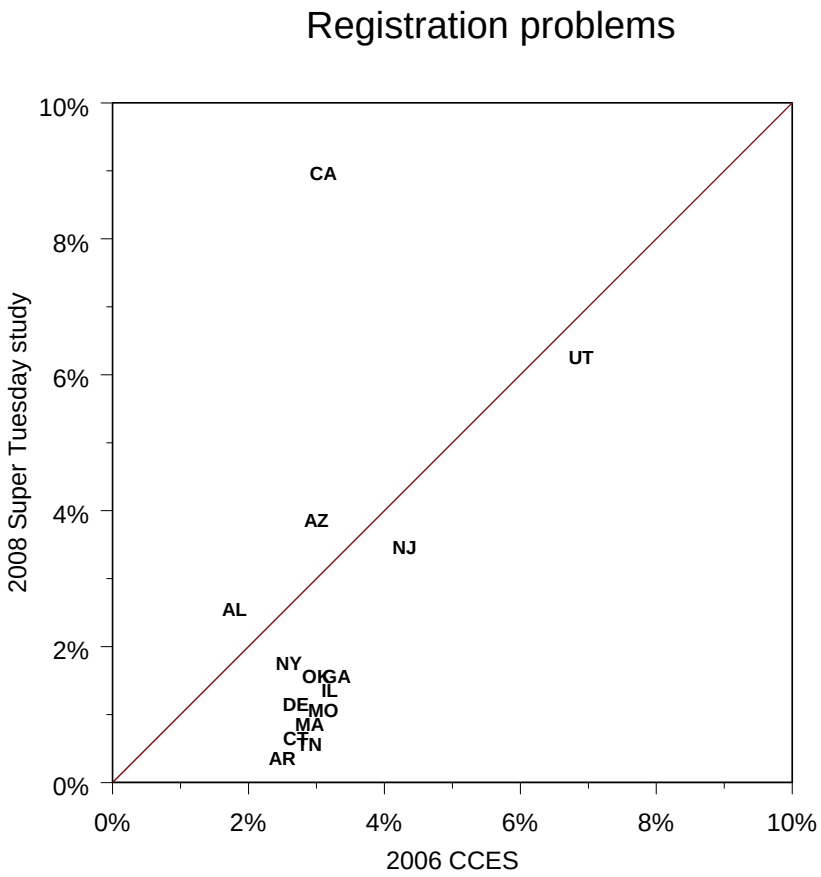


Figure 4 (continued). Comparison of common items on 2006 CCES & 2008 Super Tuesday Study.

c. Registration problems



Appendix 1. Election administration questions used in previous studies

Question category	Question wording	Previous use	Notes
Intention to vote	Did you vote in the election held on [date]?	2006 CCES Common Content	These three questions were used in different modules in the 2006 CCES
Intention to vote	In any election, some people are not able to vote because they are sick or busy or have some other reason, and others do not want to vote. How about you? Did you vote in the election held on [date]	2006 CCES Common Content	These three questions were used in different modules in the 2006 CCES
Intention to vote	In talking to people about elections, we often find that a lot of people were not able to vote because they weren't registered, they were sick, or they just didn't have time. Which of the following statements best describes you? <1/> I did not vote (in the election this November) <2/> I thought about voting this time - but didn't <3/> I usually vote, but didn't this time <4/> I am sure I voted	2006 CCES Common Content	These three questions were used in different modules in the 2006 CCES
Method of voting	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)?	2006 CCES Common Content	
Method of voting	Did you vote early, by absentee or on Election Day?	2006 post election survey NM and CO	

Question category	Question wording	Previous use	Notes
Method of voting	Thinking back to when you voted in the November 2004 election for president, did you physically go to your local precinct to vote, or did you cast your vote by mail using an absentee ballot, or did you use an "early voting" option, which is available in some states?	Alvarez-Hall omnibus surveys (Carnegie)	
Difficulties finding precinct/getting mail ballot	How difficult was it to find your polling place on Election Day?	None	New question for this study
Difficulties finding precinct/getting mail ballot	Were there any problems getting your absentee ballot?	None	New question for this study
Difficulties finding precinct/getting mail ballot	Was your polling station or vote center easy to find?	BYU Exit Poll and Voter Poll	
Registration difficulties	Was there a problem with your voter registration when you tried to vote?	2006 CCES Common Content	Follow-up: Were you allowed to vote?
Waiting in line	Approximately how long did you wait in line to vote on Election Day? <1> Not at all <2> Less than 10 minutes <3> 10 to 30 minutes <4> 31 minutes to an hour <5> More than an hour (please specify how long)	2006 CCES Common Content	
Waiting in line	Please rate the conditions of the polling place where you voted in the 2004 Election: Amount of time waiting in line	BYU Exit Poll and Voter Poll	

Question category	Question wording	Previous use	Notes
Showing identification	Were you asked to show picture identification, such as a driver's license, at the polling place this November?	2006 CCES Common Content	Follow-up: Were you then allowed to vote?
Showing identification	What type of voter identification did you have to show?	2006 post election survey NM and CO	
Using voting equipment	Did you encounter any problems with the voting equipment or the ballot that may have interfered with your ability to cast your vote as intended?	None	New question for this study
Using voting equipment	Did you receive help in filling out your ballot?	None	New question for this study
Using voting equipment	Did you vote using a bubble paper ballot or a voter-assisted terminal?	2006 post election survey NM and CO	
Using voting equipment	Again, thinking back to when you voted in the November 2004 election for president; do you remember the type of voting machine you used to cast your ballot? Was it a [ROTATE]:	Alvarez-Hall omnibus surveys (Carnegie)	
Using voting equipment	How confusing did you find your ballot?	2006 post election survey NM and CO	
Using voting equipment	Please indicate how much you DISAGREE or AGREE with the following statements about voting in the 2004 election. It took too long to vote with the ballot method I used.	2006 post election survey NM and CO	
Using voting equipment	Please indicate how much you DISAGREE or AGREE with the following statements about voting in the 2004 election. The voting equipment was easy to use.	BYU Exit Poll and Voter Poll	

Question category	Question wording	Previous use	Notes
Using voting equipment	Please indicate how much you DISAGREE or AGREE with the following statements about voting in the 2004 election. I felt comfortable using the equipment:	BYU Exit Poll and Voter Poll	
Using voting equipment	Please indicate how much you DISAGREE or AGREE with the following statements about voting in the 2004 election. Characters on the ballot were easy to read	BYU Exit Poll and Voter Poll	
Using voting equipment	Please indicate how much you DISAGREE or AGREE with the following statements about voting in the 2004 election. The wording on the ballot was easy to understand	BYU Exit Poll and Voter Poll	
Using voting equipment	I enjoyed voting with the method I used.	2006 post election survey NM and CO	
Using voting equipment	How confident are you that the bubble paper ballot used to record votes will provide an accurate reflection of ALL THE VOTES?	2006 post election survey NM and Colorado	
Overall quality of experience at the polling place	How well were things run at the polling station on Election Day where you voted? <1/"Very well"> Very Well - there were no problems and any lines moved quickly <2/"Pretty well"> Pretty Well - there were minor problems or short lines <3/"Okay"> Okay - there were some problems or average lines <4/"Not well"> Not well - Lines were slow and the pollworkers were having difficulties <5/"Terrible"> Terrible - There were serious problems with voting machines, registration or very long and slow lines	2006 CCES MIT content	

Question category	Question wording	Previous use	Notes
Overall quality of experience at the polling place	Please rate the job performance of the poll workers at the polling place where you voted.	None	New question for this study
Overall quality of experience at the polling place	Please rate the conditions of the polling place where you voted in the 2004 Election: Ease of finding polling place	BYU Exit Poll and Voter Poll	
Overall quality of experience at the polling place	Please rate the conditions of the polling place where you voted in the 2004 Election: Convenience in parking	BYU Exit Poll and Voter Poll	
Overall quality of experience at the polling place	Please rate the conditions of the polling place where you voted in the 2004 Election: Helpfulness of posted information	BYU Exit Poll and Voter Poll	
Overall quality of experience at the polling place	How helpful were the poll workers at your voting location?	2006 post election survey NM and CO	
Overall quality of experience at the polling place	Have you ever had any problems while voting?	2006 post election survey NM and CO	
Overall quality of experience at the polling place	Please rate the conditions of the polling place where you voted in the 2004 Election: Job precinct poll-workers performed	BYU Exit Poll and Voter Poll	
Overall quality of experience at the polling place	How would you rate your voting experience in this election compared to prior voting experiences?	2006 post election survey NM and CO	
Overall quality of experience at the polling place	Overall, how confusing did you find your voting experience?	2006 post election survey NM and CO	
Overall quality of experience at the polling place	How would you rate your overall voting experience?	BYU Exit Poll and Voter Poll	

Question category	Question wording	Previous use	Notes
Overall quality of experience at the polling place	How confident are you that your ballot in the November of 2004 presidential contest between George Bush and John Kerry was counted as you intended?	Alvarez-Hall omnibus surveys (Carnegie)	
Overall quality of experience at the polling place	How confident are you that YOUR VOTE in the November 2006 election will be counted as you intended?	Alvarez-Hall omnibus surveys (Carnegie)	
Overall quality of experience at the polling place	How confident are you that the current election process in your state produces election outcomes that reflect the will of the people?	BYU Exit Poll and Voter Poll	
Overall quality of experience at the polling place	How confident are you that the current election process in the United States produces election outcomes that reflect the will of the people?	BYU Exit Poll and Voter Poll	
Overall quality of experience at the polling place	How satisfied were you with you voting experience in the 2006 fall election?	2006 post election survey NM and Colorado	
Overall quality of experience at the polling place	How confident are you that your ballot for president in the 2004 election was counted as you intended?	BYU Exit Poll and Voter Poll	
Overall quality of experience at the polling place	Please indicate how much you DISAGREE or AGREE with the following statements about voting in the 2004 election. I am confident that my vote was accurately recorded:	BYU Exit Poll and Voter Poll	
Overall quality of experience at the polling place	How would you rate your overall voting experience?	BYU Exit Poll and Voter Poll	
Demographics related to election process	Was this your first time voting, or have you voted in elections before?	2006 CCES MIT content	

Appendix 2. Questionnaire used in Super Tuesday survey.

[Note: In addition to the following questions, respondents were given a standard battery of questions to ascertain income, education, party identification, length of time living in the current residence, gender, age, and county of residence.]

Q1.[11] In any election, some people are not able to vote because they are sick or busy or have some other reason, and others do not want to vote. Did you vote in the presidential primary held on February 5, 2008?

<yes>
<no>
<don't know>

Q2a.[12] [IF Q2 = "no"] What was the main reason you did not vote? [Randomize the responses]

<I did not have the right kind of identification>
<Illness or disability (own or family's)>
<Out of town or away from home>
<Forgot to vote (or send in absentee ballot)>
<Not interested, felt my vote wouldn't make a difference>
<Too busy, conflicting work or school schedule>
<Transportation problems>
<Didn't like candidates or campaign issues>
<Registration problems (i.e. didn't receive absentee ballot, not registered in current location)>
<Bad weather conditions>
<Inconvenient hours, polling place or hours or lines too long>
<Other> Please indicate _____
<Don't know>

Q2b[13] [IF Q2a <> "don't know"] What is a second reason, if any, you did not vote? [Same response category order as Q2a]

<I did not have the right kind of identification>
<After I got to the polling place, the lines were too long, and I just left>
<Illness or disability (own or family's)>
<Out of town or away from home>
<Forgot to vote (or send in absentee ballot)>

[11] November 2007 question: Did you vote in the election held on November 6, 2007? (Kentucky and Mississippi); Did you vote in the Louisiana gubernatorial general election, held on October 20, 2007? (Louisiana)
[12] Not asked November 2007.
[13] Not asked November 2007.

<Not interested, felt my vote wouldn't make a difference>
<Too busy, conflicting work or school schedule>
<Transportation problems>
<Didn't like candidates or campaign issues>
<Registration problems (i.e. didn't receive absentee ballot, not registered in current location)>
<Bad weather conditions>
<Inconvenient hours, polling place or hours or lines too long>
<No second reason>
<Other> Please indicate _____
<Don't know>

Q3.[14] [If Q1 = "yes"] Was this your first time voting, or have you voted in elections before?

<I am a first time voter>
<I have voted in elections before>

Q4. [If Q1 = "yes"] Did you vote in person at a precinct on Election Day, in person before Election Day, or by mail (that is, absentee)?

<in person on Election Day (at polling booth or precinct)>
<in person before Election Day>
<voted absentee>
<don't know>

Q5. [If Q4 = "in person, on Election Day" or "in person before Election Day"] How difficult was it to find your polling place to vote?

<very difficult>
<somewhat difficult>
<fairly easy>
<very easy>

Q6.[15] [If Q4 = "On Election Day, in a polling place" or "in person before Election Day"] How well were things run at the polling place where you voted?

<very well – there were no problems and any lines moved quickly>
<pretty well – there were minor problems or short lines>
<okay – there were some problems or average lines>

[14] Not asked November 2007.
[15] In November 2007, the following was randomly substituted for Q6: Please rate the job performance of the poll workers at the polling place where you voted. <excellent><good><fair><poor>

<not well – lines were slow and the poll workers were having difficulties>
<terrible – there were serious problems with voting machines, registration, or very long and slow lines>
<don't know>

Q7. [If Q4 = "On Election Day, in a polling place" or "in person before Election Day"] Was there a problem with your voter registration when you tried to vote?

<no>
<yes (please specify what problem, or problems, you had _____)>

Q8.[16] [If Q7 = "yes"] Were you allowed to vote?

<I voted>
<I voted using a provisional ballot>
<No, I was not allowed to vote>

Q9. [If Q4 = "voted absentee"] Were there any problems getting your absentee ballot?

<no>
<yes (Please specify what problem, or problems, you had _____)>

Q10. [If Q4 = "On Election Day, in a polling place" or "in person before Election Day"] Approximately, how long did you have to wait in line to vote?

<not at all>
<less than 10 minutes>
<10-30 minutes>
<31minutes – 1 hour>
<more than 1 hour (please specify how long)>
<don't' know>

Q11. [If Q4 = "On Election Day, in a polling place" or "in person before Election Day"] Were you asked to show picture identification, such as a driver's license, at the polling place this November?

<yes>
<no>
<don't know>

[16] Not asked November 2007.

Q12[17] [If Q11 = "yes"] Were you then allowed to vote?

<I voted>
<I voted using a provisional ballot>
<No, I was not allowed to vote>

Q13[18] [If Q11 = "Yes"] Did you show picture identification because you were asked for it specifically, or because a picture ID was the most convenient form of identification for you to show?

<I was asked specifically for an ID card with a picture on it>
<I showed a picture ID card because it was convenient for me; I could have shown another form of ID if I had wanted to>
<don't know>

Q14. [If Q1 = "Yes"] Did you encounter any problems with the voting equipment or the ballot that may have interfered with your ability to cast your vote as intended?

<no>
<yes (please specify what problem, or problems, you had _____)>
<don't know>
<did not vote>

Q15. [If Q1 = "Yes"] Did you receive help in filling out your ballot?

<yes>
<no>

Q16. [If Q4 = "On Election Day, in a polling place" or "in person before Election Day"] Please rate the job performance of the poll workers at the polling place where you voted.

<excellent>
<good>
<fair>
<poor>

Q17. [If Q1 = "Yes"] Which party's primary did you vote in?

[17] Not asked November 2007.
[18] Not asked November 2007.

<Democratic>
<Republican>
<Don't remember>

Q17a. [IF Q17 = "Democatic"] Who did you vote for in the Democratic primary? [Randomize choices]

<Hillary Clinton>
<John Edwards>
<Mike Gravel>
<Barack Obama>
<Other _____>
<Don't remember>

Q17b. [IF Q17 = "Republican] Who did you vote for in the Republican primary? [Randomize choices]

<Rudy Giuliani>
<Mike Huckabee>
<John McCain>
<Ron Paul>
<Mitt Romney>
<Other _____>
<Don't remember>

Q18. [If Q1 = "Yes"] How confident are you that your vote in the February 2008 primary was counted as you intended?

<very confident>
<somewhat confident>
<not too confident>
<not at all confident>
<don't know>

Q18a. [19] [If Q18 = "very confident"] What specifically made you very confident that your vote was counted as you intended? _____

Q18b. [20] [If Q18 = "somewhat confident"] What specifically made you somewhat confident that your vote was counted as you intended? _____

[19] Not asked November 2007.
[20] Not asked November 2007.

Q18c. [21] [If Q18 = "not too confident"] What specifically made you not too confident that your vote was counted as you intended? _____

Q18d. [22] [If Q18 = "not at all confident"] What specifically made you not at all confident that your vote was counted as you intended? _____

Q19. [23] Do you have a driver's license, or any other ID card issued by the government?

<yes>
<no>

[21] Not asked November 2007.
[22] Not asked November 2007.
[23] Not asked November 2007.