
MEMORANDUM
CENTER FOR THE STUDY OF ELECTIONS AND DEMOCRACY
BRIGHAM YOUNG UNIVERSITY

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To: Steve S. Rawlings, Davis County Clerk/Auditor; Pat Beckstead, Davis County Elections Director; and interested parties

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Privacy and the Voting Booth: Results from a Field Experiment

Summary

Working closely with the Davis County Clerk/Auditor's office, the Center for the Study of Elections and Democracy (CSED) conducted an experiment during the February 5, 2008 presidential primary at the Syracuse Community Center in Syracuse, Utah. The purpose of the experiment was to measure how important privacy was to voters and to try to increase the sense of privacy that voters felt while casting their ballots. The Syracuse Community Center lent itself perfectly to this experiment because it has two very similar gyms. Poll workers set up one gym in the usual manner, but CSED helped poll workers set up the other gym slightly differently: using prominent yellow and black tape on the floor around each voting machine to delineate privacy stalls and posting large signs asking voters to respect the privacy of those voting (see the diagram on page 8 for additional information). Voters were randomly assigned to one of the two gyms. CSED observed the proceedings in each gym and also conducted a survey of randomly selected voters as they left the two gyms. For a more complete discussion of the experiment conditions, the exit poll, and the structured observations of the voting rooms, see the attached Methodological Appendix.

Key findings

- The February 5 election in Syracuse was extremely well-run. Most voters expressed high satisfaction with the poll workers and with the voting experience more generally.
- This election was unique because the great majority of voters supported one candidate, Republican Mitt Romney.
- Overall, most voters agreed that they voted in privacy, and voters who had a greater sense of privacy were more confident in the elections process as a whole.
- Voters who did not vote for Mitt Romney expressed the most concern about privacy. Compared to those who voted for Romney, these voters were somewhat less likely to agree that they voted in privacy.
- Throughout most of the day, CSED's enhanced privacy measures assured non-Romney voters. Non-Romney voters in the enhanced privacy room felt more comfortable that they voted in



privacy compared to those who voted in the traditional voting room. During the busiest times of the day, however, the enhanced privacy measures were not strong enough to allay the concerns of non-Romney voters.

- CSED's effort to enhance voter privacy also had a very powerful effect on poll worker behavior.

We will discuss each of these findings in detail.

An election marked by high satisfaction

Overall, voters in Syracuse judged the February 5 primary election as well-run and expressed a great deal of satisfaction with the voting experience. Voters were also extraordinarily satisfied with the polling location, with the touchscreen voting equipment, and with the performance of the poll workers: 98.6% of exit poll respondents said the poll workers did a good or excellent job. It comes as no surprise then that close to 98% of voters said they were somewhat or very satisfied with their "overall experience at the polls today." In part because of their confidence in the election administration, more than 95 percent of voters said they were somewhat or very confident that their ballot would be "counted accurately in this election" and that "the current election process in Utah produces fair election outcomes." Table 1 shows the voter satisfaction rates in the February 5 election in Syracuse compared to the statewide exit poll results from the November 2006 general election.

Table 1

Did you have any problems using the touchscreen voting system?

	Syracuse 2008	Utah 2006
Yes	2%	5%
No	98%	95%

How confident are you that the current election process in Utah produces fair election outcomes?

Very confident	74%	64%
Somewhat confident	22%	30%
Not too confident	3%	5%
Not at all confident	2%	2%

How confident are you that your ballot will be counted accurately in this election?

Very confident	81%	72%
Somewhat confident	17%	24%
Not too confident	1%	3%
Not at all confident	1%	1%

Please rate the job performance of the poll workers at your precinct today.

Excellent	85%	79%
Good	14%	19%
Fair	1%	1%
Poor	0%	0%

A Romney stronghold

Not unlike the state as a whole, voters in Syracuse were predominantly Republican. More than 80% of exit poll respondents said they generally consider themselves to be Republicans or to lean toward the

Republican Party, compared to 62% in the 2006 statewide exit poll. What made this primary election unique, however, was that so many voters preferred one candidate. Seventy-five percent of all exit poll respondents said they voted for Romney, and nearly 90% of Republican respondents said they chose Romney. Table 2 compares exit poll results with actual election returns from Syracuse.

Table 2

Choice for U.S. President (Republicans only)		
	Exit Poll Estimates	Official Returns
Romney	89	90
Other	11	10
N	624	2677

While CSED did not interview every voter that participated in the election at the Syracuse Community Center, our accuracy in measuring presidential vote preferences increases our confidence that the respondents who participated in the exit poll are representative of the voters who cast ballots in Syracuse on February 5, 2008.

Voters' evaluations of privacy

CSED was interested in voters' assessments about privacy for two reasons. First, studies we conducted in 2006 showed some variation in voters' judgments about whether they voted in privacy. While voters reported very high levels of general satisfaction in the 2006 statewide exit poll (64% said they were very confident that the "election process in Utah produces fair election outcomes"), only 51% of statewide respondents in Utah said they strongly agreed that they felt like they voted in privacy. Second, in our analysis of voters' opinions about the 2006 election, we found that voters' assessments of privacy were important determinants of general satisfaction with the election. This finding was confirmed in our study of the February 5 primary in Syracuse. Though the general level of satisfaction with the voting process was very high, voters' sense of privacy contributed strongly to that satisfaction.

By and large, voters in both the enhanced privacy room and the traditional voting room felt like they voted in privacy. Voters were asked to circle a number that corresponded with how strongly they agreed with the statement "I felt like I voted in privacy," with 1 meaning that they strongly disagreed and 5 meaning that they strongly agreed with the statement. The results are shown in Table 3.

Table 3

I felt like I voted in privacy	
1 – Strongly disagree	6%
2	2%
3	6%
4	16%
5 – Strongly agree	71%

Among all voters, the average response was approximately 4.44 on the 5-point scale. This number again highlights voters' general level of satisfaction with the election administration in Syracuse. Given that the election was held in two large gymnasiums, where all voting machines were spaced at least 4 feet apart, it is perhaps not surprising that most voters believed that they cast their ballots in relative privacy.

In any experiment, one important question is whether the changes to the usual conditions had an effect. To determine whether the privacy experiment effectively made voters think more about privacy, the exit poll asked voters to rank in order of importance a list of five things that people value when they come to

vote: “Being able to vote without a long wait,” “Poll workers who are able to help me,” “A ballot that is easy to understand,” “Being able to vote in privacy,” and “Voting equipment that is easy to use.” Table 4 highlights the difference between the two rooms.

Table 4

Percent ranking “Being able to vote in privacy” as one of the two most important values when voting

	All respondents
Traditional voting room	35%
Enhanced privacy room	43%

As Table 4 shows, voters who were randomly assigned to the enhanced privacy room were significantly more likely to rank privacy high on the list of values than those who voted in the traditional room, which had no special measures taken to protect privacy. We count this as evidence that our privacy experiment raised the importance of privacy among voters.

Minority vs. majority voters

One of the central findings of the experiment is that voters who choose to go against the social norm are more concerned about privacy. With nine in ten Republican voters and about three-quarters of all voters casting ballots for Mitt Romney, those voters who do not cast their ballots for Romney should be most attentive to the privacy of the polling location. Table 5 shows that voters who voted for a candidate other than Mitt Romney were much more likely than Romney voters to rank privacy high on their list of values. The basic finding is clear: in the case of the Syracuse Community Center, voters who did not vote for Romney found themselves in a very small minority and in turn placed much greater weight on the value of privacy. Compared to Romney voters in each room, exit poll participants who said they did not vote for Romney were much more likely to rank privacy as a top priority.

Table 5

Percent ranking “Being able to vote in privacy” as one of the two most important values when voting

	Romney voters	Non-Romney voters
Traditional voting room	33%	41%
Enhanced privacy room	41%	52%

We also find that the effects of our experiment are concentrated among these non-Romney voters. Those who voted for Romney were comparatively less concerned about privacy, and our efforts to reassure them about privacy were also less meaningful. When we focus our analysis on those voters who cast a ballot for a candidate other than Mitt Romney, however, it appears that our experimental efforts made an important difference. As Table 6 shows, voters in the traditional voting room were comparatively more sensitive to the possibility that another voter or a poll worker could see their ballots. This effect is especially pronounced with respect to the behavior of poll workers, a finding that fits well with our observations of poll worker behavior (discussed in more detail below).

Table 6

Percent of non-Romney voters who said it was “somewhat likely” or “very likely” that someone else could see their ballot

	Another voter could see my ballot	A poll worker could see my ballot
Traditional voting room	21%	24%
Enhanced privacy room	18%	12%

We also find important effects with respect to the more general question of whether voters agreed with the statement “I felt like I voted in privacy.” On average, non-Romney voters were significantly less likely than Romney voters to feel assured about this general sense of privacy. Despite the fact that the election was held in a spacious gymnasium with considerable space between the voting machines, approximately 21% of non-Romney voters did not agree that they voted in privacy (compared to only 9% of Romney voters). This finding is especially important because a core tenet of democratic elections in America is the secret ballot. Voters who do not vote with the majority of their peers may fear retribution, harassment, or discomfort with not fitting in compared to the majority, especially because they vote alongside their neighbors and other people with whom they frequently interact. It is also important because voters who possessed this general sense of privacy were significantly more likely to be satisfied with their overall experience at the polls, to express confidence that their ballots would be counted accurately, and to judge the elections process in Utah as producing fair outcomes. In other words, whether or not voters feel that they cast their ballots in privacy is strongly related to their overall sense of confidence in the democratic process.

More advanced statistical analysis of the exit poll data (not presented here) bolsters our confidence in the results presented above. This analysis takes into account several different factors simultaneously to investigate which factors are most important to voters’ sense of privacy. While voting for a candidate other than Mitt Romney makes voters less confident in the privacy of voting, the number of voters waiting to vote also has an effect on voters’ sense of privacy. The more voters in the room, the less likely voters are to say they voted in privacy. In addition, the more concerned voters were that another voter could see their ballot, the less reassured they were that they voted in privacy. This same relationship does not, however, work with regards to poll workers. Voters’ sense that poll workers could see their ballots was not significantly related to their overall sense of privacy, though voters’ judgments about the helpfulness of poll workers was strongly related. In other words, voters are reassured by helpful poll workers, even if those poll workers happen to be able to see their ballots. When it comes to a sense of privacy, the prying eyes of other voters turn out to be the biggest concern.

The effect of enhanced privacy on concerned voters

Given our findings with respect to the majorities and minorities, an important question remains: did our enhanced privacy measures reassure non-Romney voters with respect to their general sense of privacy? Here, our results depend in part on how busy the voting room happened to be. CSED designed its privacy measures to protect voters from intrusive poll workers and other voters. In theory, the voting stalls and extra signs should have protected voter privacy during busy hours. The data from the exit poll, however, tell a mixed story. When the polling places were very empty, with just a few voters in each gym, voters were not much affected by the measures CSED took to enhance privacy. Nevertheless, for most of the day, voter traffic was heavier.

When the gyms were moderately busy, there was a pronounced difference between the two rooms: non-Romney voters in the enhanced privacy room more strongly agreed than those in the traditional room that they felt like they voted in privacy. This suggests that during these times (which comprised approximately half of the time the polls were open), the enhanced privacy measures worked to enhance feelings of privacy for the most uneasy voters (those who went against the majority).

The findings also suggest that CSED's enhanced privacy measures were insufficient to calm non-Romney voters during the busiest hours of the day. At times in the day when the gyms were very full, non-Romney voters were still very concerned about privacy; however, non-Romney voters in the enhanced privacy room were no more comforted about privacy than those who voted in the traditional room. During the heaviest voting our privacy measures were not strong enough to produce a difference from the traditional room. Our conclusions here are somewhat tentative, however, because an unanticipated difference between the enhanced privacy room and the traditional voting room occurred during the late afternoon, which was one of the busiest times of the day. During this time, poll workers set up a third check-in table in the enhanced privacy room but not in the traditional voting room. As we explain in greater detail in the Methodological Appendix, this meant that the two rooms differed substantially in their efficiency, with lines moving quicker and more voters voting in the privacy room than in the traditional room. For this reason, we cannot be fully certain of our conclusions about the busy times of the day.

Effects of the CSED experiment on poll workers

While the privacy experiment may not have been strong enough to affect voters during the busiest times of the day, CSED observers noted that throughout the day that the experiment had a powerful effect on poll worker behavior. The privacy lines, denoted by tape placed on the ground around the voting machines, were deliberately placed 10 feet behind the machines to demarcate how far poll workers are supposed to stay from voting machines according to Davis County guidelines. Poll workers in the traditional room came within 10 feet of the machines on numerous occasions, but poll workers in the enhanced privacy room were much more likely to respect the enhanced privacy zone. In the traditional room CSED researchers discreetly marked the 10 foot distance with small pieces of masking tape on the floor, and observed throughout the day that poll workers crossed the line an average of 10 times every half hour. Comparatively, poll workers in the enhanced privacy room crossed the bold yellow and black privacy lines less than once every half hour. Nevertheless, as we explained above, voters' sense that a poll worker could see their ballot did not have a direct effect on their sense of voting in privacy.

The enhanced privacy measures may have had other, less quantifiable effects on poll workers as well as the overall experience in the voting room. CSED observers noted, for example, a difference in atmosphere between the two rooms: the traditional room, in general, was louder and more informal, while the privacy room was quieter and more subdued. Anecdotally, our observers also noted that the enhanced privacy room also had an effect on children, encouraging them to stay close to their parents and not wander around the room or too close to other voters.

Conclusions and considerations

Overall, the February 5 presidential primary election in Syracuse went very well. There were no major problems with machines or materials, the polling rooms in Syracuse were expansive and very well-suited for voting, and voters reported very high satisfaction with poll workers and with the voting process. Nevertheless, even in these favorable voting circumstances, we still find important effects with respect to voters' sense of privacy, especially among those who voted for someone other than the candidate favored by most voters. Our findings lead us to recommend that elections officials keep several important considerations in mind when trying to improve voters' experience in the future.

First, there are simple ways that election administrators can increase privacy for voters who are in the voting minority. While CSED's modifications to the traditional design worked well for most of the day, it seems that worried voters require more precautions still to guarantee their privacy when the polls are very busy. Other ways to increase privacy at the voting machines may include the use of privacy hoods on voting machines or placing voting machines farther apart.

Second, while the CSED experiment was designed to protect voters' privacy while they were in the actual act of casting a ballot, our observers noted that during a primary election, another significant place for

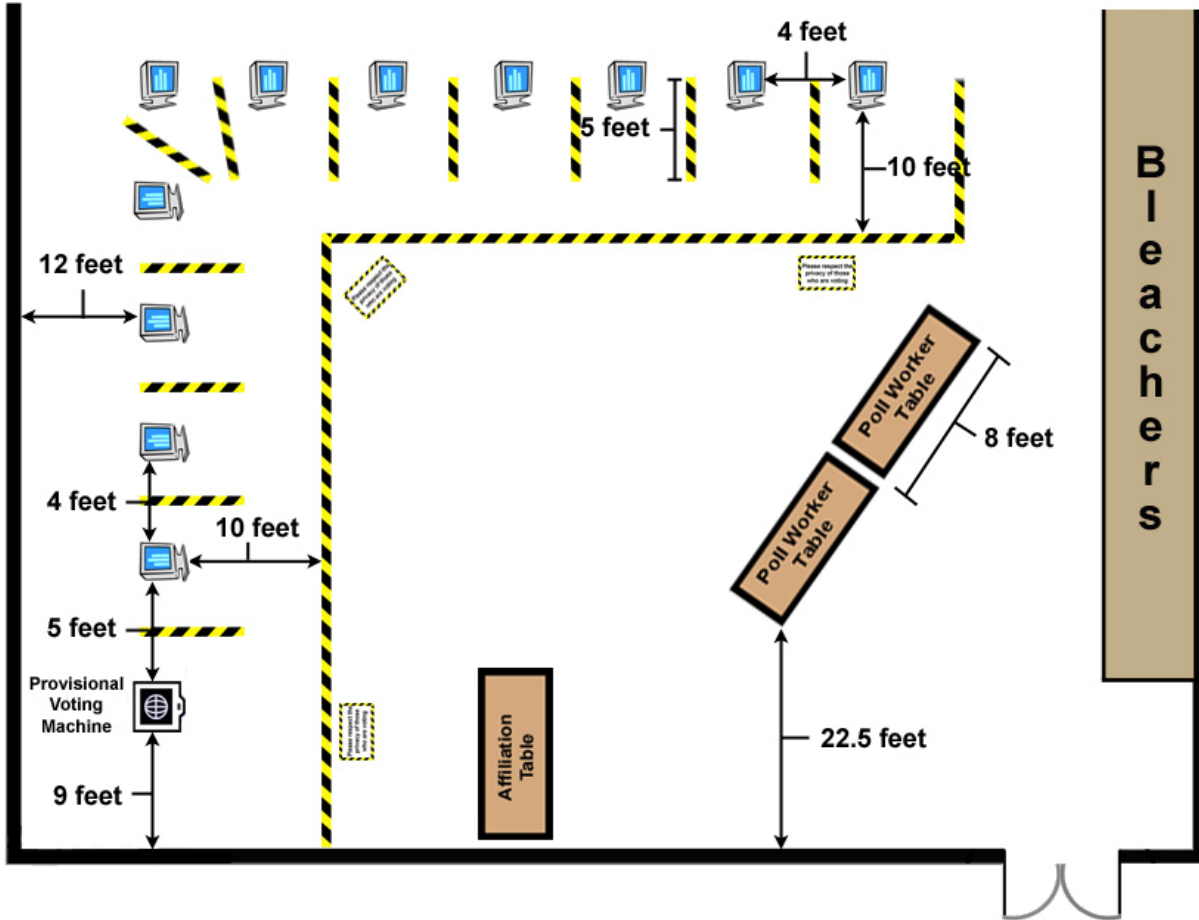
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privacy violations is at the check-in tables. Given the partisan nature of primary elections, voters must declare their partisanship aloud to poll workers. Voters waiting to check in may be able to overhear other voters declare their partisanship and poll workers repeat voter partisanship when encoding cards to cue the appropriate ballot. This privacy concern may increase as more voters are waiting in line to check in. On February 5, check-in lines were sometimes long, even though voting machines were rarely used to their capacity.

Election administrators could mitigate threats to voter privacy at check-in by requiring voters to stand farther back from check-in stations. Election officials could also take steps to improve efficiency at voter check-in, such as providing more card encoders, adding new check-in stations, and giving poll workers more hands-on training with the check-in and encoding process; however, we do not know how such increased efficiency might affect voters' sense of privacy. We caution that increasing efficiency during the check-in process may transfer privacy concerns back to the voting machines, where some voters expressed worry that other voters might see their ballots. During a general election, when ballots are longer, crowds are greater, and voters do not declare partisanship at check-in, the larger privacy concern will likely be at the voting machines, not at the check-in station.

We thank the Davis County Clerk/Auditor's office and the election officials, poll workers, and voters at the Syracuse Community Center for their cooperation with CSED in this experiment. CSED has valued the opportunity to study elections in Utah and to improve the election process. We hope that collaborations similar to this pioneering effort with Davis County will be possible in the future.

Diagram: Layout of the enhanced privacy room



Methodological appendix

Experiment design

Working with the Davis County Clerk/Auditor's Elections office, the research team set up two voting rooms that were almost exactly the same in terms of layout, number of machines, location of poll worker tables, etc. In one room, the research team placed tape around each voting machine to give voters an additional sense of privacy and security while casting their ballots. These privacy zones were also intended to signal to the poll workers and to other voters in the room to avoid these areas unless they were specifically invited to enter. Three signs reading "Please respect the privacy of those who are voting" were placed around the room to reinforce the privacy zones. The other voting room had no tape or signs and served as a traditional voting room. In both rooms, each voting machine had a small sign reading "If you need assistance from a poll worker, please raise your hand" taped to it. The rooms were set up by the research team the night before the election. See the diagram on the previous page for more information on the placement of the machines and the room measurements. Members of the research team were at the polling location throughout the day to supervise the exit poll and to monitor conditions.

Approximately one week prior to the election CSED sent a letter to the poll workers, technicians, and election officials working at the Syracuse Community Center, informing them that there would be an experiment and an exit poll conducted at their polling location. While the letter did not describe the experiment design, poll workers were told that CSED researchers would be conducting research to better understand what makes for a satisfying voting experience, that their duties would not change from what they had been told in their county training session, and that the researchers had the full support of the Davis County Clerk/Auditor. They were asked not to discuss any aspect of the research with each other or with the voters. Poll workers were given contact information for both the CSED research team and for Pat Beckstead, Davis County Elections Director.

Exit poll

As voters finished voting and left the polling rooms, CSED conducted an exit poll to gather information on their attitudes, confidence in elections, demographics, and especially their reaction to the experiment conditions. The poll was conducted under the auspices of the Utah Colleges Exit Poll, a collaborative effort among many Utah higher education institutes that has been sponsored by BYU and has fielded polls statewide in every major election since 1982. Its methodology and survey questions have been rigorously tested and have proven to be very accurate. Its sampling methodology builds in redundancy with multiple interviewers at each voting place and includes an extensive system of interviewer training, supervision, and quality control. The predicted vote totals from past surveys have been remarkably close to the actual vote totals, producing a track record of accuracy that is comparable or better than the average of national election polls.

Six undergraduate students from BYU were recruited to be exit poll interviewers. The students were all juniors and seniors, and most were social science majors. The night before the election, the research team trained the interviewers on exit poll practices, sampling procedures, and proper conduct. The exit pollsters worked in teams of three, with one team assigned to each room at all times. The teams switched places every two hours to ensure an even response rate between the two rooms. When voters exited the rooms, interviewers approached voters at a fixed interval and politely requested that the voter fill out a survey. Interviewers modeled their request on the following approach:

"Hello, my name is (interviewer's name). I am a student with the Utah Colleges Exit Poll. We are conducting a survey today in order to understand the experience you have had voting. You have been selected at random to participate. The survey takes only a few minutes and any information you give will be kept confidential. Your participation is completely voluntary and you can choose not to fill out the survey if you like. Would you be willing to fill out this survey for us?"

Voters from both rooms answered the same survey questions, but received different colored surveys: voters from the enhanced privacy room received blue surveys, and voters from the traditional voting room received white surveys. This allowed the research team to unobtrusively monitor which voters received the privacy treatment and which voters did not. Once voters finished the survey, they placed it in a collection box to protect the confidentiality of their responses. After the election was completed, the research team delivered all completed questionnaires to DataWise, a data entry company in South Jordan, to be entered into a data file. A total of 1,167 surveys were collected—534 from the traditional voting room (response rate of 65.4%) and 633 from the enhanced privacy room (response rate of 67.9%). After CSED received the completed dataset, the data were weighted to ensure that the proportion of responses for different periods of the day reflected the sampling interval that was used for that time period.

Structured observations

Another important part of the project was systematic observation of what was happening in the voting rooms throughout the day. Building on a similar project CSED conducted in 2006, the research team created an instrument that observers used to record how many voters and poll workers were in each voting room every half-hour throughout the day, and also how voters and poll workers responded to the privacy lines (or lack thereof). The instrument also encouraged observers to record other observations on the behavior of voters and poll workers and any other interesting occurrences, especially those that could affect the privacy experiment. Observers were provided with a digital recorder to make additional observations, and were instructed to sit quietly in the gymnasium bleachers at all times while observing or making written notes, then to exit the voting rooms a safe distance from all voting activity before using the digital recorders.

Two undergraduate social science students were recruited to perform the structured observations. The observers were trained the night before the election at the same time as the exit pollsters. The training emphasized the importance of discretion, and observers were told not to reveal to voters or poll workers the fact that an experiment was taking place. Observations lasted approximately 35 minutes, starting every hour. Following the observation period, observers made their digital recordings of events that the instrument may not have captured. The observers switched rooms every hour, so that each observer took notes on both the traditional room and the privacy room several times throughout the day. Members of the research team also completed a few observations. Nine days following the election, all structured observers met to standardize the coding of several of the questions on the instrument.

Problems and Changes to the Experiment Design

The exit poll interval was adjusted twice during the day. The research team started out interviewing every voter, but election officials became concerned that this was causing too much congestion in the foyer outside the voting rooms. At 9:00 AM the interval was adjusted so that student interviewers approached every second voter that left each room. At 11:30 AM the interval was again adjusted to every third voter so that the final number of completed surveys would be in the pre-determined target range. As noted above, weighting was employed to ensure that the exit poll responses are proportionate to the changing sampling interval used throughout the day.

Each voting room was closed once during the day because of voter accidents. The traditional voting room was closed from 12:30 to 1:00 PM and the enhanced privacy room was closed from 2:30 to 3:00 PM. During these times, no voters were in the closed rooms and no structured observations or exit polling occurred in those rooms.

During most of the day, each voting room had two check-in tables. Sometime in the mid-afternoon (between 3:00 and 4:00 PM), a third check-in table was added to the privacy room, but no similar change was made to the traditional voting room. Poll workers used this third table until approximately 7:00 PM. As discussed earlier in this report, this addition could have affected the data, as it caused an imbalance in efficiency and in the number of people in the voting rooms at the busiest part of the day.