Pedagogical Value of Polling Place Observation By Students

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Abstract: Good education requires student experiences that deliver lessons about practice as well as theory, and encourage students to work for the public good – especially in the operation of democratic institutions (Dewey 1923; 1938). We report on an evaluation of the pedagogical value of a research project involving 23 colleges and universities across the country. Faculty trained and supervised students observing polling places in the 2016 General Election. Our findings indicate this was a valuable learning experience in the short and long-term. Students found their experiences to be valuable, and directly reported learning in general and specifically related to course material; post-election they also felt more knowledgeable about election science topics, voting behavior, and research methods. Students reported interest in participating in similar research in the future, would recommend other students do so, and expressed interest in more learning and research about the topics central to their experience. Our results suggest participants appreciated the importance of elections and the study of elections. Taken collectively, the participating students are engaged and efficacious – essential qualities of citizens in a democracy.

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I was really excited to gather data
because it made me feel like a real part of the democratic process.
~ student observer of polling places, Election Day 2016

Education in order to accomplish its ends both for the individual learner and
for society must be based upon experience.
~John Dewey (1938, 89).

Good education requires student experiences that deliver lessons about practice as well as theory, and encourage students to work for the public good – especially in the operation of democratic institutions (Dewey 1923; 1938). Moreover, learning is often enriched when students undergo experiences that compel them to become active participants (Kolb 1984). To this end, political science courses often use active learning techniques in the classroom such as simulations, case studies, and role-play to engage students (see Bromley 2013), and these activities produce desirable outcomes: increased interest, knowledge, and involvement (e.g., Alberda 2016; Bridge 2015; Jimenex 2015).

Experiential learning extends 'learning by doing' beyond the classroom, bringing abstract concepts to life in powerful ways and fostering engagement in political processes. Experiential learning transcends abstract knowledge and leads to meaningful participation in real-world political activities, thereby enhancing the potential for both immediate value to students and contribution to society. Engagement in political processes with real outcomes is important: individuals learn best when their emotions are involved in their experiences and when connections are cemented via repeated exposures (Berger 2015).

Existing studies show that experiential learning provides students with opportunities to develop and enhance characteristics of citizenship that are important in a democracy. To foster education's individual purpose, experiential learning increases knowledge, raises interest in topics studied, and improves classroom engagement (Berry and Robinson 2012; Cole 2003; Currin-Percival and Johnson 2010; Lelieveldt and Rossen 2009). To foster education's social purpose, experiential learning develops citizenship skills, and has a positive effect on civic engagement and efficacy (Delli Carpini and Keeter 2000; Maloyed 2016; Mariani and Glenn 2014).

Delli Carpini and Keeter (2000) assert that, because engaging with real political processes increase students' interest and opportunity to learn about politics, such experiences "could increase the likelihood of their continued engagement in public life" (636). An example is Gershetenson et al.'s (2013) experiential exercise in which students were tasked with registering to vote under scenarios that college students typically encounter. Gershetenson et al. (2013) found that students who sought to complete their registration processes found the voter registration process more difficult than they originally believed and became more sympathetic to those facing registration problems. Thus, when students directly experience political processes, as opposed to simply reading, watching, or hearing about them, first-hand experience fosters understanding and creates empathy for others who find political processes challenging. Research that focuses on the act of voting, such as our study, should thus boost interest in citizen participation and concerns about seemingly mundane topics such as the nature and location of polling places.

More generally, studies on undergraduate research conclude that it fosters students' critical thinking, logic, and problem solving skills (Knoll 2016). Herrick, Matthias, and Nielson (2015) argue that student-executed research makes learning more tangible, reinforces lessons by repeated practice, and motivates learning.

In this article, we report the results of a multi-campus experiential learning project that meets both the individual and societal elements of good eduation. On November 8, 2016, faculty from twenty-three colleges and universities across the country organized more than 500 students who observed the operation of polling places. Each pair of students spent two hours at randomly selected polling places recording the length of the lines to vote, duration of each step of the process (voter check-in, filling out ballot, and ballot submission), set-up of the polling place, availability of instructions and assistance, and other details of polling place operation.

Following Election Day, we surveyed students to assess the pedagogical impact of their experience. Our data indicate that student experiences were powerful and valuable, with positive impacts on both short-term learning and continued interest in election processes. The first-hand experience of the 2016 election increased student knowledge of election science topics, raised interest in learning, and stimulated interest in participating in future research. Moreover, the

students' participation in collecting important and previously unavailable data about voting processes demonstrated the capacity for research to improve democracy.

Experiental learning can be tricky in political science, especially when it involves elections, because instructors cannot ask students to engage in political advocacy. Our project avoided these issues by providing experiential immersion in the political process in an explicitly and thoroughly non-partisan manner. While participating students did not turn election machinery themselves, the rigor, detail, and training in our research protocol prompted them to be broadly and deeply attentive to the 2016 election process and exposed them to locations, processes, and people whom they might otherwise not encounter. The project provided students opportunities to gain a better understanding of the research process; to interact with local communities; and to connect observable political phenomena with the production of original data to better understand voting experiences. "Any class that involves field work…or direct engagement with the world outside the campus can engage students' imaginations, creativity, energy, and even emotions in ways that make learning expand and endure" (Berger 2015).

Research Method

Our research assesses the pedagogical impact on students participating in the Polling Place Lines Project coordinated by Charles Stewart III, Christopher Mann, and Michael Herron. The election science research questions of that project are detailed in Stein et al. (2017). Our research question focuses on whether the experience of observing polling locations on Election Day as part of a data collection process produced pedagogical value for the students.

Studies on student learning are usually singular in nature – one point in time, at one place, and focused on one type of student (see Alberda 2016; Berry and Robinson 2012; Bridge 2015; Jimenex 2015). Our study is distinct from previous research on experiential learning in political science in three ways. First, it covers learning experiences across twenty-three institutions ranging from small colleges to major research universities, producing a larger data set than generally found in pedagogical research in political science. Second, our students ranged from first-year undergraduates to graduate students. Third, the students were in various locations across the entire country, in urban, suburban, and rural settings. Our study thus reflects greater heterogeneity in research locations and student participants than typical research settings.

For the polling place observations, each student was trained on a detailed research protocol developed by Stewart, Mann, and Herron to measure polling place lines, how long it took to vote, and other aspects of polling place operation. Participating faculty organized and trained students to make observations at randomly selected polling locations in their areas. Many faculty used the research project as a platform for teaching research methods, elections science, or other related topics, and students were thus prepared for, and invested in the field work, in multiple ways.

Using students as field researchers provides multiple avenues for students to gain first-hand knowledge of the research process and the conduct of elections. "[H]ands-on experience in the field allow[s] students to synthesize acquired knowledge, practice it in the real-world setting, and reinforce the learning" (Herrick et al. 2015). Our project offered a tangible and repetitive experience for students as they visited multiple voting locations in the course of their field research experiences. During their training, students learned about research design, how the voting experience could be affected by lines, and other aspects of election science. They then spent between two and twelve hours in the field where their task of data collection repeated and the learning was reinforced.

Our assessment of the pedagogical value of polling place observation used a post-election survey, and in this way it followed established research on experiential and active learning. Surveys of participants are an effective, and appropriate, approach to quantify the experience of students in active or experiential learning. Past pedagogical research has administered surveys after active or experiential learning activity as a means to examine student outcomes (see Alberda 2016; Gershtenson et al. 2013; Ryan 2014). Using survey measures is valuable because this moves beyond anecdotal evidence and permits researchers to measure empirically students' reactions to their fieldwork experiences. A survey was also necessary for our study to measure quickly and consistently the impact on nearly 500 students across 23 campuses.[2]

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[2] The Institutional Review Boards of Skidmore College (#1610-558) and Dartmouth College (#STUDY00029937) reviewed our study of the pedagogical value to students. This study was determined to be exempt because it evaluates instructional techniques and the data contains no identifying information. Each participating institution's IRB separately reviewed the polling observation of the Polling Place Lines Project.

We asked faculty participating in the 2016 Polling Place Lines Project to administer a survey to their students after Election Day. Faculty at twenty-three institutions agreed to participate. The survey team at Skidmore College provided an anonymous link to each participating institution through the online survey platform Qualtrics. Faculty at each institution then sent the survey link to their students.

The surveys were completed between November 10, 2016, and November 30, 2016, with 92% of surveys completed in the week after Election Day. Each institution received a unique instance of the survey in Qualtrics to track response rates by institution. Identifying information about individual respondents was not collected, but to encourage survey completion faculty followed up with students via mass emails, classroom announcements, and other means. We received 479 responses to the survey, resulting in cooperation rate of more than 90% of the eligible students.[3]

The full survey instrument is in the Supplemental Online Materials [SOM] and key questions are detailed with corresponding results below. The questions used in our survey are similar to those used by previous scholars evaluating experiential and active learning (Jackson 2013; Maloyed 2016).

Who participated in the polling place observation experience?

Participants in the Polling Place Lines Project were close to evenly distributed across the four undergraduate classes and graduate students: first year (21%), sophomore (19%), junior (22%), senior (21%), and graduate students (17%). A majority of students (56%) participated because it was required for class, especially undergraduates (63%). A quarter of students participated for extra credit. Three-fifths of volunteers (64%) and "other" participants (58%) were graduate students.

Overall, student participants reported being well prepared for their fieldwork on Election Day (Figure 1). Fifty-two percent reported being well prepared, and 27% said they were very well prepared. Only 2% said they were not well prepared. This pattern is consistent for each of

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[3] Among the respondents, 91% completed every item. Incomplete responses were retained in the dataset so some results do not add up to 479.

the four undergraduate cohorts and graduate students, indicating that perception of preparation was due to training and/or coursework provided during the fall of 2016.

Figure 1: How well prepared were you ahead of time for the activity on Election Day?
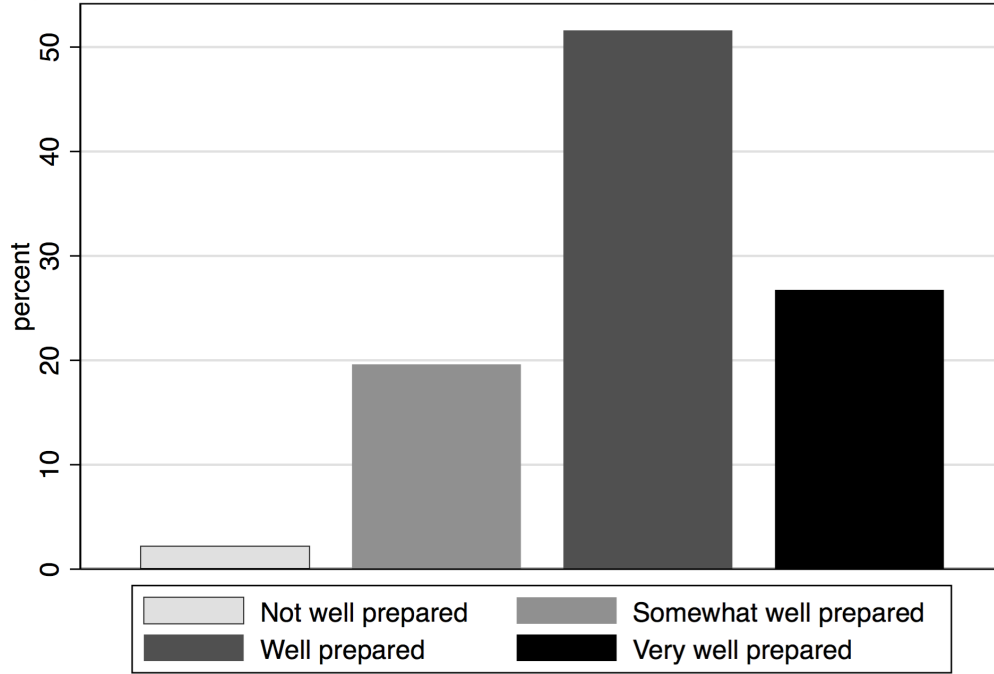
Assessment of learning

The survey asked students several questions to probe their self-assessment of individual learning (i.e., the immediate value for the student). Overall, two-thirds of students said they learned a lot (13%) or a good amount (52%). Figure 2 shows that more advanced students - seniors (73%) and graduate students (74%) - appeared to report slightly more learning though variation across classes is not statistically significant (Pearson $\chi^2(12) = 13.03$, p = 0.367). More generally, three-quarters of participants considered the time they spent on the project to be very (24%) or somewhat (51%) valuable (see SOM Figure 2a). That students frequently perceived it to be a valuable use of time to engage in the voting process is encouraging, as this engagement might spill over into other aspects of political life.

Figure 2: How much would you say you learned from your Election Day experiences?
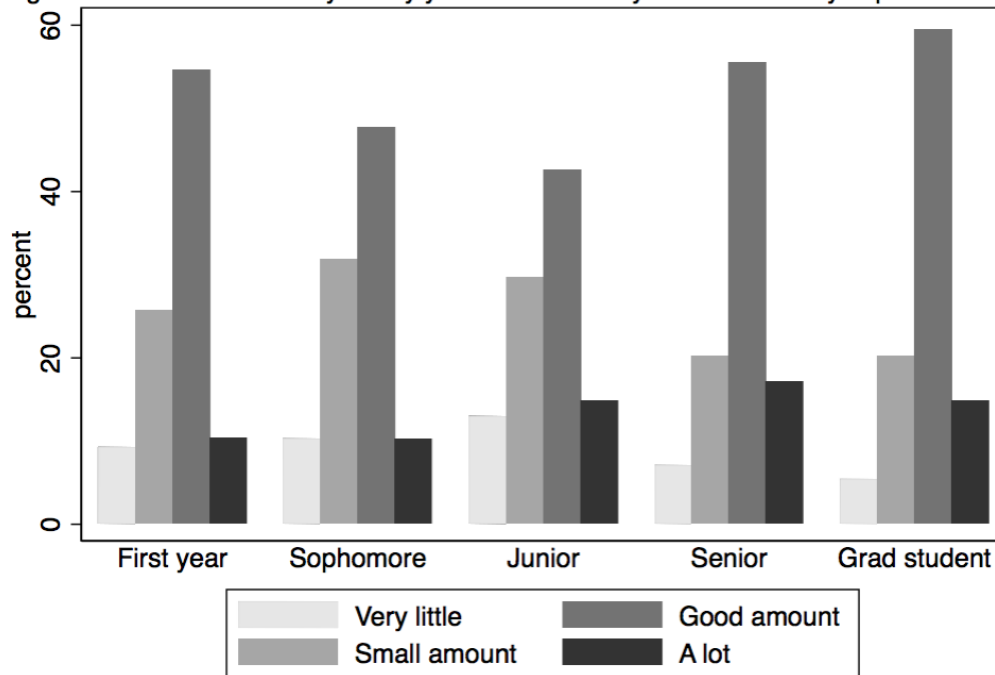
Among the 257 students who reported they were required to participate as part of a class, forty-seven percent reported the experience enhanced their understanding of course materials a lot (12%) or a good amount (35%) (see SOM Figure 2b). Another 39% reported that their experiences enhanced their understanding a small amount. Since election science was only a small part of many broad classes who participated (e.g., Introduction to American Politics, Campaigns & Elections, Voting Behavior, Research Methods), our question aimed at participating students who were required to work in our study should have been worded more carefully. With this caveat, the overall contribution to enhanced understanding of course materials seems encouraging.

At the end of the survey, students were given open-ended prompts to report the best part of their experiences, the worst part, and the most important thing learned. Figures 3a-c are word clouds highlighting the most prominent terms in corresponding responses. Interpretation of open-ended survey responses is noisy and ambiguous, especially when compliance varied widely and

few covariates are available (Roberts et al. 2014).[4] However, the simple word cloud analysis suggests student experiences were consistent with our pedagogical goals. Reflecting the pervasive human element of polling place operations and voting, "people" is highly prominent in responses to best, worst, and most important. As expected, terms related to the research project like "voting", "election", and "poll" also occur frequently in all three sets of responses. In the best part responses, the prominence of words like "seeing", "observing", "watching", "experience", and "learning" indicate that students found the research task engaging. Unsurprisingly, the worst part responses highlight the downsides of field research in terms like "time" and "long hours," along with references to "waiting", "waking", "sitting", "standing", and – of course – "boring." Since one of our pedagogical goals was increasing appreciation for the research process, these terms can be taken as evidence of learning (and not just complaints). The most important lesson responses focus, as hoped, on terms like "people", "vote", "voting", "lines", and "process," which highlights the societal and administrative dynamics associated with voting.

Figure 3a – Word cloud from "The best part of your experience"


Created with wordle.net. Limited to 75 key words.

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[4] Nearly a quarter of survey respondents left the open-ended questions blank (23% for best part, 24% for worst part and most important lessons). The length of each open-ended response varied widely: best part = 9.4 words (s.d. 11.4); worst part = 8.4 words (s.d. 11.2); and most important lessons = 10.1 words (s.d. 12.6).

Figure 3b – Word cloud from "The worst part of your experience"

Created with wordle.net. Limited to 75 key words.

Figure 3c – Word cloud from: "The most important thing you learned"

Created with wordle.net. Limited to 75 key words.

We also asked students to compare their knowledge of eleven topics before and after their experiences.[5] While retrospective self-reporting of change is an imperfect measurement of knowledge gain, this method is also found in previous studies (Alberda 2016; Endersby and Weber 1995; Pappas and Peaden 2004). We believe the retrospective report is indicative of Dewey's social purpose for education: engagement and increased efficacy. Moreover, our

[5] In future iterations of the polling place line observation research we will survey participating students in advance of their training and Election Day experience, but we did not do so in 2016.

findings suggest greater perceived knowledge. These are valuable pedagogical outcomes even if self-reporting is less than ideal for capturing true knowledge gain. Figure 4 compares students' knowledge before Election Day (gray bars) to their knowledge after the observation experience (black bars) on eleven topics. In every case, the post-experience distribution shifts to the right, away from knowing "very little" towards knowing "a lot." After their experiences, students felt more knowledgeable about election science topics such as lines of voters, Election Day operations, poll workers, poll watchers from candidates and parties, election law, and how elections are administered. Moreover, students reported more knowledge about why voters do or do not vote and about methodological issues like research design, research ethics, data collection, and the challenges of fieldwork. Insight on these topics is valuable as the topics are not limited to one particular course; indeed they are useful across courses and disciplines.

Figure 4: Knowledge Before and After Election Day Observation Experience
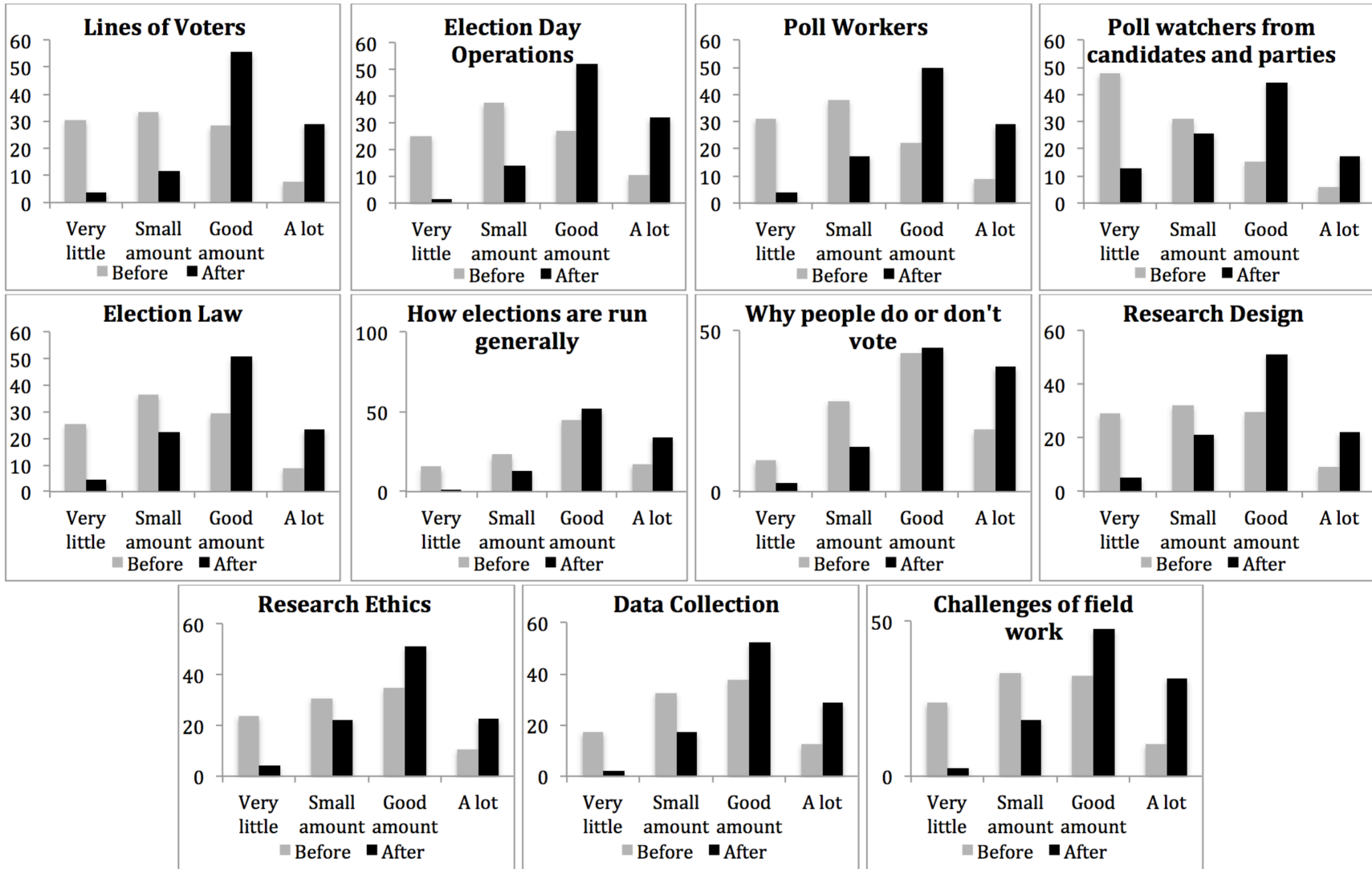
Assessment of future interest

Our survey also measured students' engagement with election science and research. Despite recently experiencing the grind of data collection in the field, fifty-two percent of students said they were extremely (21%) or very (30%) likely to participate in a similar research project (Figure 5). Only 11% said they were not at all likely to do so. When asked if they would recommend a friend participate in a similar project, 58% percent said they were extremely (24%) or very (34%) likely to recommend it (see SOM Figure 5). Only 8% said they were not at all likely to recommend the experience to others.

Figure 5: How likely would you be to participate in a similar research project about voting activity?
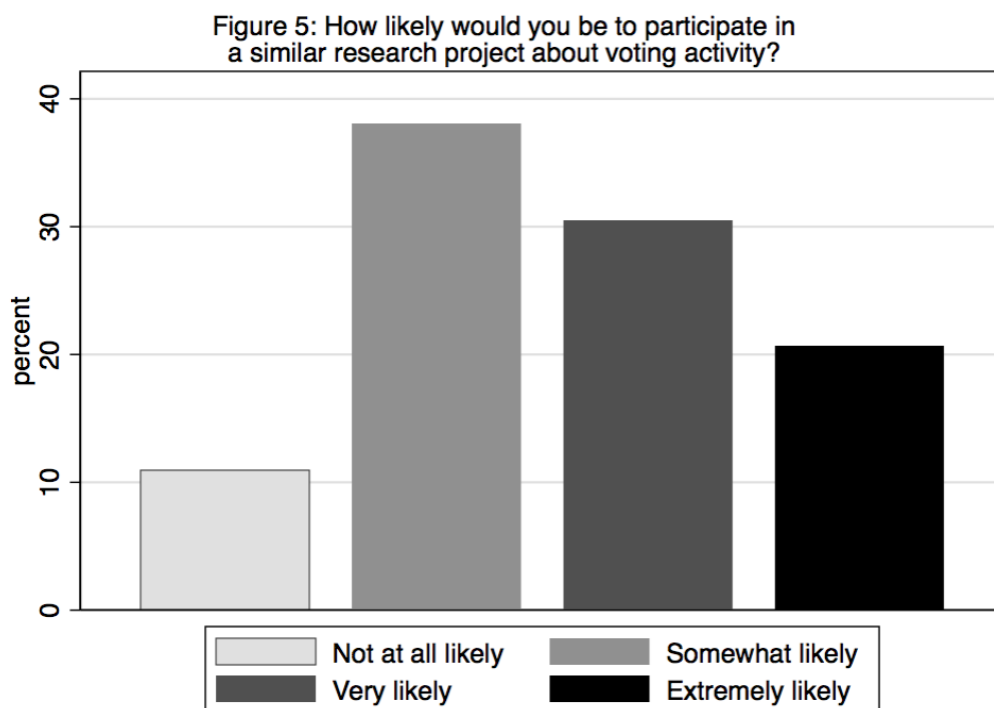
We also asked students whether they would like to learn more about several election science topics (Figure 6). (Asking whether they would like to do more research about these topics produced highly similar responses; see SOM Figure 6). Narrow election science topics of lines and poll-workers did not prompt high levels interest for learning or research, but it is probably safe to assert that the levels among these students are still dramatically higher than among the public. Students reported more interest in future work on Election Day operation, perhaps because the broader term encompasses more aspects of their experience. Election law, election science generally, and the reasons for voter participation draw high levels of interest for

future work. While faculty may immediately think of course enrollment implications, the more important aspect of this interest is engagement of these students with democratic processes.

Figure 6: How interested are you in learning more about the following topics?
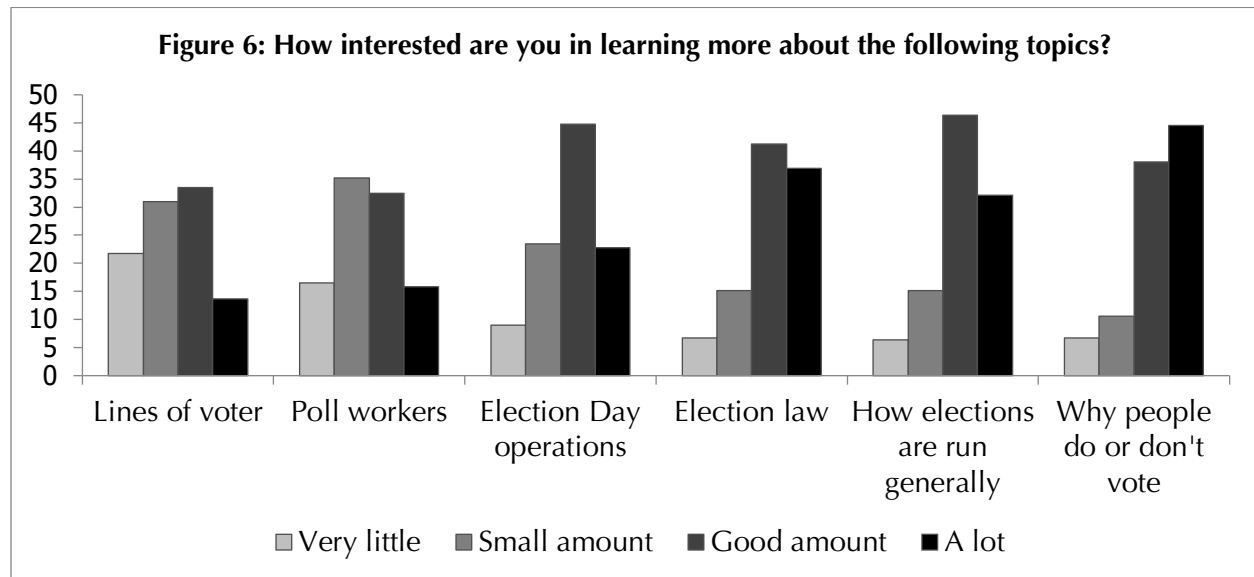
Discussion

Experiential learning opportunities like the project described here offer students a chance to learn about political processes outside the classroom and in a concrete, tangible manner. Instructors who tap into these opportunities are able to create a space for students to learn and to foster important societal values, such as various qualities of citizenship. Our findings indicate that observing polling places for the Polling Place Lines Project was a valuable learning experience in the short and long-term. With respect to the short-term, students found their experiences to be valuable, directly reported learning in general and specifically related to course material; post-election they also felt more knowledgeable about election science topics, voting behavior, and research methods. Students reported interest in participating in similar research in the future, would recommend other students do so, and expressed interest in more learning and research about the topics central to their experience. Our results suggest participants appreciated the importance of elections and the study of elections. Taken collectively, the participating students are engaged and efficacious – essential qualities of citizens in a democracy.

Further, it is worth noting that we have assessed here only the common denominator of students' Election Day experiences. Many participating faculty enriched Election Day

experience with attention in their courses to election science, voting behavior, public policy, public administration, and more. Several participating faculty used the data collected by their students to teach empirical analysis. In short, this report provides a conservative estimate of the pedagogical value of our 2016 polling place observation project.

This project highlights the multifaceted importance of and potential for collaboration. First, nearly all participating faculty found local election administrators were cooperative. Many of these public officials were enthusiastic about this project to engage students with the election process. Second, the collaboration among faculty at different colleges and universities worked well. For the research on polling place operations, this collaboration provided a dataset heretofore unavailable about polling place lines and other characteristics in different jurisdictions during a single election. On the pedagogical side, the collaboration was limited to participation in the learning assessment survey. Greater collaboration could further bolster the pedagogical value with activities, such as videoconference presentations and discussions among students observing different jurisdictions.

The 2016 Polling Place Lines Project is the genesis of our ongoing project. We invite faculty members at other institutions to join the 2018 Polling Place Lines Project for the pedagogical opportunity for their students as well as supporting the research. If interested, please contact Christopher Mann (cmann@skidmore.edu), Charles Stewart III (cstewart@mit.edu), or Michael Herron (Michael.C.Herron@dartmouth.edu).

References

Alberda, Gayle. 2016. "Campaign Simulation for American Government: An Active Learning
Approach." *PS: Political Science and Politics* 49 (4): 872-75.

Berger, Ben. 2015. "Experience and (Civic) Education." *PS: Political Science and Politics* 61-
64.

Berry, Michael J. and Tony Robinson. 2012. "An Entrance to Exit Polling: Strategies for Using
Exit Polls and Experiential Learning." *PS: Political Science and Politics* 45 (3): 501-505.

Bridge, David. 2015. "Fantasy Presidents: A Game that Makes Research More Exciting." *PS:
Political Science and Politics* 48 (4): 621-25.

Bromley, Pam. 2013. "Active Learning Strategies for Diverse Learning Styles: Simulations are
only on Method." *PS Political Science and Politics* 46 (4): 818--822.

Cole, Alexandra. 2003. "To Survey or Not to Survey: The Use of Exit Polling as a Teaching
Tool." *PS: Political Science and Politics* 36 (2): 245-52.

Currin-Percival, Mary and Martin Johnson. 2010. "Understanding Sample Surveys: Selective
Learning about Social Science Research Methods." *PS: Political Science and Politics* 43
(4): 533-40.

Delli Carpini, Michael X., and Scott Keeter. 2000. "What should be learned through service
learning?." *PS: Political Science & Politics* 33 (3): 635-638.

Dewey, John. 1923. "Social Purposes in Education." *General Science Quarterly* 7 (2): 79–91.
doi:10.1002/sce.3730070201.

Dewey, John. 1938. *Experience and Education.* New York: Macmillan.

Endersby, James W. and David J. Webber. 1995. "Iron Triangle Simulation: A Role-Playing
Game for Undergraduates in Congress, Interest Groups, and Public Policy Classes." *PS:
Political Science and Politics.* 28 (3): 520-523.

Gershtenson, Joseph, Dennis L. Plane, Joshua M. Scacco, and Jerry Thomas. 2013. "Registering
to Vote Is Easy, Right? Active Learning and Attitudes About Voter Registration."
Journal o fPolitical Science Education 9: 379-402.

Herrick, Skye, William Matthias, and Daniel Nielson. 2015. "How Collaborations with Undergraduates Improve Both Learning and Research: With Examples from Internantional Development Experiments." *PS: Political Science and Politics* 48 (1): 48-52.

Jimenex, Luis F. 2015. "The Dictarorship Game: Simulating a Transition to Democracy." *PS: Political Science and Politics* 48 (2): 353-357.

Knoll, Benjamin R. 2016. "Learning By Doing: Mentoring Group-Based Undergraduate Research Projects in an Upper-Level Political Science Course." *PS: Political Science and Politics* 49 (1): 128-131.

Kolb, David A. 1984. *Experiential Learning: Experience as The Source of Learning and.* Englewood Cliffs: Prentice-Hall, Inc.

Lelieveldt, Herman and Gregor Rossen. 2009. "Why Exit Polls Make Good Teaching Tools." *European Political Science* 8 (1): 113-22.

Maloyed, Christie L. 2016. "Actionable Data Projects: Social Science and Service-Learning in General Education Courses." *Journal of Political Science Education* 12 (2): 115-27.

Mariani, Mack and Brian J. Glenn. 2014. "Simulations Build Efficacy: Emperical Results from a Four-Week Congressional Simulation." *Journal of Political Science Education* 10: 284-301.

Pappas, Christine and Charles Peaden. 2004. "Running for Your Grade: A Six-Week Senatorial Campaign Simulation." *PS: Political Science and Politics* 37 (4): 859-863.

Roberts, Margaret E. et al. 2014. "Structural Topic Models for Open-Ended Survey Responses." *American Journal of Political Science* 58(4): 1064–82.

Stein et al. 2017. Waiting to Vote in the 2016 Presidential Election: Evidence from a Multi-Campus Study. Paper presented at the Annual Meeting of the Midwest Political Science Association, Chicago, IL.