Controlling Democracy:

The Principal-Agent Problems in Election Administration

R. Michael Alvarez and Thad E. Hall

Thad E. Hall is Assistant Professor of Political Science and an Investigator with the Institute for Public and International Affairs at the University of Utah. R. Michael Alvarez is Professor of Political Science at the California Institute of Technology and is co-director of the Caltech/MIT Voting Technology Project. The authors thank Los Angeles County Registrar/Recorder Conny McCormack and Larimer County Clerk Scott Doyle for their input, the small but growing cadre of election scholars for their comments, and Mary King Sikora, Karen Kerbs and Melissa Slemin for their assistance.

July 27, 2006

Working Paper 2006-07-08
http://www.ipia.utah.edu/workingpapers.html
Controlling Democracy:
The Principal-Agent Problems in Election Administration

Keywords
election reform, public management, principal-agent theory

ABSTRACT

Election reform has become a major issue since the 2000 election, but little consideration has been given to the issues associated with managing them. In this article, we use principal agent theory to examine the problems associated with Election Day polling place voting. We note that Election Day voting manifests problems that agency theory shows are difficult to overcome, including adverse selection of and shirking by poll workers. We then examine alternate methods of voting, such as early, absentee, and Internet voting, and show how these reforms can mitigate many of the more severe principal agent problems in election management.

AUTHOR CONTACT INFORMATION

Thad Hall, Assistant Professor
Investigator, IPIA
University of Utah
260 S. Central Campus Drive
Room 252
Salt Lake City, UT 84112
801-585-7344
thadhall@gmail.com

© by R. Michael Alvarez, and Thad E. Hall
Few citizens gave much consideration to the issue of election administration in the United States before November 7, 2000. However, scholars have recognized that election administration has been a problem for some time. In 1934, the Brookings Institution issued a report stating, “There is probably no other phase of public Administration in the United States, which is so badly managed as the conduct of elections” (Harris 1934, 1). The irony here is rich. Elections are where the public makes primary decisions that affect all citizens and all administrators. It is where public preferences manifest themselves in decisions about who will run all levels of government and, through the initiative and referenda process, even how the government will be run. Yet the history of election administration is one where frequently ill-equipped, poorly trained, part-time administrators have been trusted with managing this critical democratic function.¹

After the 2000 presidential election, the current debate over election reform began, with a primary focus on voting equipment and on developing procedural remedies for flaws observed in the current election process. Consider, for example, the election reform legislation enacted by Congress—the “Help America Vote Act of 2002” (P.L. 107-252). This legislation was primarily designed to provide states with money to purchase new voting equipment and to encourage states to implement a series of

¹ In a recent example, a study by the United States General Accounting Office (GAO) found many instances where election administrators were not adequately resourced for the complex tasks they are required to perform (GAO 2006). To note on specific example, the GAO estimated “that 11 percent (of election jurisdictions) had an insufficient workforce” for processing voter registration applications (GAO 2006, page 85). This echoes the problems that Harris (1934) discussed, more than seven decades earlier.
specific procedures, such as statewide voter registration systems, voter education programs, and provisional voting (Liebschutz and Palazzolo 2005; Alvarez and Hall 2005).

This law and many national and state level reform efforts (e.g., Governor’s Select Task Force on Elections Procedures, Standards and Technology 2001; National Commission on Federal Election Reform 2002) typically focused on changing the current election system without considering whether the model of election administration that is used today is appropriate.² That is, why do most people vote at polling places on a single day at a single location? Why are voting places sometimes located in private homes and garages, or in private businesses? Why do volunteers or poorly-paid people staff these polling places? What are the managerial complexities created by using such an election system? Are there other models for elections that would strengthen the ability of election administrators to control and manage the election process?

In this article, we use the logic of principal agency to analyze the problems that arise in the existing election system built around polling place voting on a single day. We then identify alternate means of serving voters that election administrators can employ to retain greater control over the election process. Using this theoretical construct, we consider the various components of poll site voting that administrators must manage in the current system and use cases from recent elections to illustrate the difficulties associated with managing each component of the system. We then explore how other means of serving voters—such as vote centers, vote-by-mail, early voting, and

² The report Voting: What Is, What Could Be, by the Caltech/MIT Voting Technology Project (VTP) (2001) was the only report that examined elections beyond the scope of the current system, although they too typically focused on improving the processes associated with poll site voting.
Internet voting—can allow election administrators to mitigate many of the serious agency problems associated with election administration. We conclude with a discussion of how administrators can use experimentation to test these administration techniques and present systematic data from Oregon and the United Kingdom to bolster this point.

Principal-agent Theory

Principal-agent theory has been used extensively in public administration, implementation analysis, and political science to examine the problems associated with management and administration in a decentralized environment. As Waterman and Meier (1998, 174) note, “the principal agent model...is in essence a theory about contractual relationships between buyers and sellers.” A critical management problem in most organizations is delegation. Delegation occurs when a principal – who wants an activity accomplished but cannot easily perform the task – instead hires an agent to accomplish the task. Unfortunately, just as principals cannot do the task themselves,

---

they often have difficulty knowing if they hired the right person and whether the task is being accomplished appropriately.

The two problems—hiring the right agent and knowing that they will do the job appropriately—are known respectively as adverse selection and moral hazard. Moral hazards arise because the principal and agent often have conflicting goals and views of risk; the principal cannot assume the agent will act in the principal’s best interest. This conflict is exacerbated because monitoring the actions of an agent can be costly. Adverse selection problems leave principals in the position of not knowing if they have hired the right person for the job and if the agent is actually who the person she has represented.4 Key aspects of the principal-agent relationship are the discretion available to the agent, the specific charge given to the agent, and the formality of the agent’s contract (Mitnick 1980; Waterman and Meier 1998).

Principal-agent problems are inherently information related, but they are not necessarily intransigent. As Thompson (1997) notes, corporations and governments are typically able to find satisfactory solutions to principal agent problems; business and governments prosper even in the face of these problems. The four strategies that are typically employed by principals to overcome this information asymmetry are (1) contracting, (2) candidate screening requirements, (3) monitoring requirements, and (4) institutional checks. However, not all administrative structures and not all problems

---

4 Summaries of principal-agent theory as applied in political science can be found in Bendor 1988; Kiewiet and McCubbins 1991 (especially Chapter 2); Mitnick 1992; and Moe 1984.
allow for these mitigation strategies to be easily implemented. The administration of elections is an example of a policy area that has complicated principal-agent problems that are not easily resolved.

Designing contracts between principals and agents is complicated because both sides have an incentive to ensure that the contract maximizes their own position (e.g., Kiewiet and McCubbins 1991, chapter 2; Donohue 1989, esp. chapter 5). Cooper (2003) has shown that governments rarely have the resources necessary to achieve their contractual goals. From the principal’s perspective, the contract should constrain the agent’s ability to act contrary to the goals of the principal, and maximize the amount of work that the agent will be completing. Designing appropriate contracts is difficult, and even with one, it can be costly for the principal to enforce the terms of the contract and to gather the necessary information to ensure that the agent is fulfilling its end of the agreement.

A well-designed contract is of limited benefit if the organization cannot overcome adverse selection problems. Given the costs associated with collecting meaningful performance data after an agent has been hired, it is important to hire the right person at the outset. However, developing an effective screening process can also be exceedingly difficult. Just as there is a “lemon” problem in the used-car market, under-qualified candidates apply for jobs that maximize their pay relative to their skills (e.g., Akerlof 1970). Principals must spend valuable resources to pierce the veil of deception that agents have an incentive to cloak themselves within.

The difficulties associated with contracting and the adverse selection problem leads many principals to implement monitoring requirements, with performance reports
and the like being commonly used (Hall and O'Toole 2000). There are many techniques for determining if agents are acting appropriately (e.g., Banks 1989; Banks and Weingast 1992; Bendor, Taylor, and van Gaalen, 1987), but each technique is costly. Monitoring takes time and other resources away from achieving the goal that is being monitored, and principals can end up flooded with information that they must sort through to determine if agents are behaving appropriately. Also, it can take a significant amount of time for the principal to observe whether the agent is actually acting consistently with job expectations.

Institutional mechanisms can also be enacted to limit the ability of agents to act outside the interest of principals. The most common type of check is to limit the ability of the agent to act unilaterally. Requiring agents to receive signoff before acting and requiring multiple actors to agree on a single decision are examples of this sort of institutional check. The goal behind these institutional checks is to limit the damage that an agent can do if they decide to directly act against the interests of the organization.

Our interest is in considering whether the problems identified through principal-agent theory can be easily mitigated in the context of American election administration. We specifically focus on four aspects of the principal-agent model:

1. The principal-agent dilemma can be eliminated if the principal chooses not to delegate.

2. The methods available to principals for minimizing the effects of the principal-agent dilemma—contracting, monitoring, and the like—require time to pass so that the agent can act and these actions can be evaluated.
3. Overcoming the adverse selection problem requires a large pool of potential agents from which to select, so the principal is in a position to reject all unqualified agents.

4. The ability of the principal to negotiate successfully with agents is contingent on the ability of the principal having resources with which to negotiate. A contract, by definition, requires both sides to agree on terms. Any leverage that the principal can have over the agent is likely to bring the negotiations to a resolution.

With this principal-agent framework in place, we can apply it to various models of election implementation in order to determine the factors that alleviate or exacerbate the ability of local election officials to control the election management process. In the next section, we apply this framework to the traditional poll site voting model and show how it creates a series of principal-agent problems that produce significant difficulties for election administration. We then compare the polling place model with alternate models that have fewer principal-agent concerns.

**Applying Principal-Agent Theory to the Current Election System**

Election administration is a multi-stage process. First, there are the interactions between the administrator and the candidates that set the stage for the election. Second, there are interactions between administrators and various entities that are involved in the ballot and voter information production process. For example, election administrators need to design and proofread ballots, prepare voter guides (in the limited
number of localities that utilize them), and perform any required ballot language translations (e.g., GAO-GGD-97-81). Historically, election administration has not faltered at these two points, in large measure because of the control that election administrators have over the process.\(^5\) However, as elections are becoming more complicated—especially involving technology that put the election official at the reliance of vendors to provide support to electronic registration and voting systems—there are more principal agent problems arising at this point in the process. In the interest of parsimony, we focus our analysis on the third part of the election process, the voter registration and the voting process, where principal agent problems are especially acute. These failures occur largely because of the agency problems produced by complicated registration and voting systems, as well as the irregularity in the occurrence of elections.\(^6\)

The problems associated with polling places are numerous and principal-agent theory suggests that they are more likely to be intransigent. The “all-in-one-day” nature of poll site voting forces election officials as principals to rely heavily on various agents for the conduct of voting. Local election officials (LEOs) are at the mercy of the owners

---

\(^5\) The problems that do arise most typically involve language minority voters. For examples, see GAO 1997; “Justice Department Announces Resolutions in Two Florida Voting Matters,” Department of Justice, Press Release, #380: 06-27-02, June 28, 2002; and “About Language Minority Voting Rights: Enforcement,” U.S. Department of Justice, Civil Rights Division, Voting Section, [http://www.usdoj.gov/crt/voting/sec_203/activ_203.htm](http://www.usdoj.gov/crt/voting/sec_203/activ_203.htm). But other problems arise, for example, regarding ballot design; the “butterfly ballot” used in Palm Beach County in the 2000 presidential election is a prominent example (Montjoy and Slaton 2002; Wand et al. 2001).

of poll sites, the poll workers, and the voting equipment vendors to ensure that elections can be a success. Consider how the GAO (2001a) described the task of election administration in preparing for Election Day:

Although there was variation in how jurisdictions prepared for and conducted the November 2000 election, behind the scenes, election administration officials across the United States performed similar duties. Before election day, they designed ballots, marshaled and trained thousands of workers to staff the polls on election day, located and prepared polling places, organized and delivered voting equipment and supplies, and educated citizens. *On the day of the election, election officials shared control of the election with an army of poll workers who staffed and oversaw the polls where votes were cast and ballots collected* (GAO-02-03, 15-16, emphasis added).

This description of polling place voting explicitly notes the principal-agent nature of polling place voting and suggests that the high level of delegation is a recipe for problems. Moreover, the GAO also found that both the adverse selection and moral hazard aspects of the principal-agent dilemma exist in elections, noting:

...57 percent of voting jurisdictions nationwide encountered major problems in conducting the November 2000 election. Although all jurisdictions did not experience the same problems, about half of all jurisdictions cited problems with recruiting enough qualified poll workers. However, few election jurisdictions systematically
collected information on how well their jurisdictions administered the election. (GAO-02-03, 15-16).

Poll Workers

The GAO analysis identifies several principal-agent problems, especially adverse selection problems, inherent in this system. The first point of delegation is to poll workers, who manage an election at poll sites. One study found that 51 percent of jurisdictions nationwide had significant problems recruiting enough poll workers (GAO 2001a, 158-160). A small pool of poll workers makes it difficult for a LEO to screen poll workers adequately because they cannot afford to turn many poll workers away. Recruiting is made all the more difficult because election administrators do not have the financial resources to provide significant monetary incentives to poll site workers, and because polling place workers are typically required to work the entire election day (which can in many places be as long as a 12 hour day). Payment for poll workers typically ranges between $50 and $150. LEOs instead rely on their locality having a large pool of civic-minded citizenry who are willing to serve the community on Election Day and who can find the time away from work and family to do this. Election administrators report that a disturbingly high number of recruited poll workers fail to show up on Election Day, which implies that relying solely on civic mindedness has its limits.7

---

7 In a review of the 2002 March primary election in Los Angeles County, the report noted that 1,925 of the poll workers who attended training (from a total of 15,788 workers) did not end up serving on Election Day. The report also noted that other counties in California were having trouble with Precinct Inspector “no shows” on Election Day, with a 2% “no show” rate in Los Angeles County on Election Day and a 3% rate in San Diego County. See McCormack 2002.
Additionally, as the size of the election jurisdiction increases, the ability of election officials to screen workers declines precipitously. For example, in Alexandria, Virginia, where there are 24 poll sites and approximately 200 poll workers, election officials can at least screen the chief poll worker for each precinct with some care. By contrast, there are 5,000 poll sites in Los Angeles County, California, with 5,000 chiefs and 25,000 poll workers. Screening this many individuals is almost an impossible task, putting LEOs in the position of having to trust the implementation of election services to individuals about which they know little, if anything.

This screening is important because of the autonomy poll workers have on Election Day. In many jurisdictions, these individuals have “the final authority on interpreting guidance in areas such as deciding who can vote and determining voter intent” (GAO 2001a, 160). Even if these individuals do not legally have the final authority, poll workers are street-level bureaucrats and the election officials are forced to rely on them to follow regulations and not act as final arbiter of disputes (Lipsky 1980; Montjoy And Slaton 2002). In the end, though, given the nature of Election Day polling operations, poll workers end up with a vast degree of discretionary authority, if they choose to use that authority, as there is little oversight possible and few incentives available to keep poll workers from exercising their discretion. In many states, poll workers count ballots and have final determination of voter intent, especially in the counting of absentee ballots. They also exercise discretion in deciding who must show identification at the polls, how to handle voters who cannot be readily located in the voter registration rolls, and how to handle problems at the polls. This discretion has led
at least one election official to refer to poll workers as “street level lawyers” who make legal decisions on the fly on Election Day.

The following examples illustrate this point. In the 2005 Mayoral runoff election in the City of Los Angeles, our observing team visited a polling place in the Eagle Rock area of northwestern Los Angeles.⁸ There we observed polling place practices in a church that is associated with a senior living facility. The head poll worker in this voting location had taken upon herself to create and to post in each voting station a sign that noted that voters could cast an assisted ballot only with the permission of the polling place workers. While this is one way to interpret California election regulations on assisted voting, whether the polling place workers were correct in exercising their discretion by posting signs in voting booths is an open question. As far as we could tell, this was the only voting precinct where any signs were posted about assisted voting, leaving us to wonder whether those signs were having the possibly unanticipated consequence of discouraging elderly voters from engaging in assisted voting.⁹

Similarly, the Election Reform Information Project received multiple reports in the 2004 general election of poll workers not understanding when or how to issue

---

⁸ The polling place was number 90-0380A, located in the Solheim Lutheran Church, 2236 Merton Avenue, Los Angeles.

⁹ Section 14282 and 14283 of California’s election code deal with assisted voting. In particular, Section 14282(a) states, “When a voter declares under oath, administered by a member of the precinct board at the time the voter appears at the polling place to vote, that the voter is then unable to mark a ballot, the voter shall receive the assistance of not more than two persons selected by the voter …” As the voter is required to take this oath (and the polling place workers must keep a list of voters who have needed assistance (Section 14283)), this implies that voters need to seek some permission from the polling place workers if they need assistance with casting their ballot.
provisional ballots (Cobb and Hedges 2004). These cases are not unique, something that led one election official to note that “Poll workers are the Achilles’ heel of the elections process” and another to note that “it seems remarkable that more problems do not occur” (Lush 2004). The potential for error increases when the law changes. For example, changes in the provisional voting law in Colorado led poll workers to not give out provisional ballots to qualified voters, according to several interest groups who monitor elections (Crist 2004).

Furthermore, poll worker errors can have dramatic consequences. For example, in the 2004 primary election in California, poll workers in 12 consolidated precincts (voters from two distinct voting districts voting in one poll site) in Orange County made a series of mistakes that resulted in voters receiving the wrong ballot containing the wrong candidates and wrong voting districts. Thus, in each consolidated poll site one of the voting precincts had voter turnout that ranged from 5 to 21 percent, while the other voting precincts had turnout totals ranging from 66 percent to 290 percent. As the Los Angeles Times reported, “poll workers unfamiliar with the new electronic voting system made mistakes Tuesday that allowed many people to vote in the wrong districts, potentially endangering the outcomes of several races” (Rabin, Pfeifer and Perry 2004).

With the management of poll sites delegated to civic-minded individuals, the training of poll workers and the monitoring of poll site operations becomes critical to effective election administration. The GAO (2001) estimates that 87 percent of jurisdictions nationally provide some level of poll worker training. This training varies from locality to locality, but typically contains information about the basics of running the elections—from setting up the poll site to closing it down—and how to handle key
problems, like when a voter comes to a poll site and cannot be found on the registration roster. Many jurisdictions have created comprehensive “how-to” guides for poll workers that explain step by step how to solve typical problems. In order to encourage people to attend poll worker training, many LEOs pay poll workers an additional stipend for attending. However, pre-election poll worker training is not a panacea; for example, the poll workers who had trouble implementing the new electronic voting system in Orange County, California in the March 2004 primary had received training on the new system but still made errors resulting in thousands of voters receiving the wrong ballots. Additionally, a study of poll workers in Los Angeles County found that there was wide variation in their level of understanding of basic election laws and procedures: voters in poor and minority precincts were more likely to encounter a misinformed poll worker than were their compatriots voting in a majority white precinct (Barreto, Marks and Woods, 2004).

Given the potential for poll workers to make errors, the obvious solution is to increase monitoring efforts of poll site activities. Considering that election officials have a difficult time finding qualified poll workers, it is not surprising that election officials do not have the personnel to evaluate poll site operations effectively. As the earlier GAO quote noted, few jurisdictions collect systematic data on polling place operations. Instead, election officials rely on citizens with complaints or interest groups that have an interest in monitoring poll activities to identify problems. Third-party monitoring can provide election administrators with information for identifying election problems, but there are obvious biases in the precinct coverage they give and possibly in the information they provide (e.g., Hall 2003 or Bjornlund 2005).
Monitoring elections is complicated because it is not an ongoing activity in the traditional manner of a government program or service. Elections occur on a single day, perhaps three or four times per year. Therefore, election officials are typically not in a position to collect longitudinal data or to rectify problems in a timely manner, nor is there a political will to spend the necessary money to pay for a professional approach to monitoring and managing elections. If a problem is subtle, election officials might not find out about it until the polls close, by which time the problem can only be addressed for the next election. Even if the problem is readily noticeable, it can take hours to remedy, during which time hundreds of voters can be disenfranchised. Monitoring may be important for evaluating election administration but in many cases the data can only be used in the next election.

Polling Places

Adverse selection problems are not limited to poll workers; poll sites can be similarly problematic. Problems at polling places represent both a resource problem—there are often a limited number of potential polling places in a given voting precinct—as well as a delegation problem. Many states have laws that govern the number of poll sites a jurisdiction must have, most commonly by placing a cap on the number of voters who can vote at any one poll site. This forces election officials to find poll sites in specific areas in order to serve a given population, and these sites may not be optimal. For example, the GAO (2001b) found that 84 percent of poll sites used in the 2000 election were not fully accessible to people with disabilities. The number of institutions willing to allow their facilities to be used as a polling site is declining, even among public schools, which have security and logistical concerns about their facilities being used as...
polling sites (GAO 2001a, 165-167). This problem exists despite many states having laws requiring these institutions to provide facilities for poll sites upon request of an election official.

Even when election officials do find appropriate sites, they still do not control these facilities. “They must rely on building managers or custodians to unlock the buildings and ready the space for Election Day. Because the polls typically open so early...custodians may not have opened the space so that the poll workers could enter on time” (GAO 2001a, 167). Despite best intentions, sometimes polling places are inadequate for the task at hand; many lack electricity or sufficient parking for voters. Some of the available locations, especially businesses or schools, lack necessary requirements for polling places, especially during the course of the business or school day, for example adequate and accessible parking close to the polling place, or a facility that is free from distractions or disruptions.10 Additionally, the owners of poll sites do cancel on election officials, often at the last minute, leaving them scrambling for new sites (Hall 2002).

As the previous GAO descriptions illustrate, principal-agent theory is quite applicable to an analysis of poll site voting on Election Day. In this analysis, the election administrator is the principal working with a large number of agents throughout the

---

10 In recent election monitoring in Southern California, our team has observed a variety of such problems with the use of private facilities for polling places, for example, polling in business locations like tire shops or party stores, which have accessibility problems or which are noisy and distracting locations to vote. Problems with the use of schools that are in-session abound in our observation efforts, especially a lack of parking, problems with accessibility, and disruptions during the school day as school children and teachers engage in their normal activities.
election process. On Election Day, the delegation of authority from election officials to other people and entities is almost total. Most election administration is not conducted by professional election administrators. Instead, these officials delegate control of the election to poll workers who are at best skilled amateurs in election administration, and to the owner of poll sites, who often have interests and preferences at odds with the election official. Of course, this analysis is not meant to diminish the well-meaning nature of everyone involved in the election process, but instead to show the problems this system can entail. Delegation brings to the fore the potential for adverse selection problems. Moreover, the nature of elections and the spacing of elections in time make the tools that have traditionally been used to constrain the activities of agents almost useless to an election administrator.

Principal-agent problems at poll sites are quite serious and inherent in the process of election management. Even if problems do not occur at a given poll in a given jurisdiction in a given election, the threat of these problems always exists. For example, the host of a poll site can decide right before an election to use their facility for a purpose other than voting, forcing the LEO to search for a new voting location and to inform voters about the change in venue. Poll workers forget that it is Election Day – as happened in Los Angeles in 2002 – or willfully decide not to show up for work, leaving poll sites unmanned or understaffed. These and other problems can easily leave voters without a place to vote and disenfranchised, even if only temporarily.

The problems associated with conflicting goals among organizations is discussed in Rainey 1997, chapter 5.
Alternatives to the Polling Place: Expanded Early Voting and Vote-by-Mail

Only in the smallest of jurisdictions can an election administrator single-handedly overcome the principal-agent problems inherent in poll site voting. Even then, the problem can only be overcome if the administrator actually runs the poll site. In any jurisdiction with more than a few poll sites, the question remains: how can LEOs overcome these potential problems if they cannot run the election without delegating operations to agents? One answer is to minimize reliance on poll sites and allow voters to vote from wherever they want in a given period of time before an election. There are three current models for addressing this problem: (1) making all voters absentee voters in a vote-by-mail (VBM) system, (2) creating large consolidated precincts, or vote centers, (3) by utilizing expanded in-precinct early voting. In the future, Internet voting could also serve to minimize several major principal-agent problems. The advantage of each of these methods is that each does not require the total delegation of election management to poll workers and poll site owners, allowing the LEO to retain more control over the election process. We discuss below how each of these systems addresses key principal-agent problems.

All-Voting-by-Mail

By moving the election process out of traditional polling places, there no longer are polling places or poll workers to whom the administration of the election has to be delegated. No voting machines, only vote tabulators, must be procured. With vote-by-mail, the LEO only has to produce an absentee ballot—an activity easily under their...
direct control—provide the ballot and election materials to voters, and have ballot tabulation software that can count the ballots, a technology that they need in any event. The only medium between the voter and the LEO is a transit medium—typically the post office—although voters can return their ballot to a physical location as well.

An important feature of VBM is that it has a track record, both in the United States and abroad. Oregon was the first state to use VBM as a means of overcoming principal-agent problems. In 1981, the state enacted a law allowing all VBM trials to be conducted in local elections; in 1987, VBM could be used in all special and local elections (Southwell and Burchett 1997). Local governments quickly adopted VBM because of the cost savings and the control they gained over elections by not having to delegate election management to poll workers and poll sites. By 1994, between 20 and 25 percent of all Oregonians were voting absentee in the non-VBM statewide elections. In 1995, the Oregon Secretary of State took advantage of U.S. Senator Robert Packwood’s resignation and ordered that the elections to replace Packwood be carried out using VBM. Primary election ballots were sent to the approximately 1.8 million registered voters. Voters could either mail in the ballot or drop it off at designated sites, such as the county courthouse. In the primary election, turnout was 58 percent of eligible voters; in the general election, it was 66 percent, close to average for an Oregon congressional election.

Since 1996, all statewide elections in Oregon have been held using VBM. A 1996 survey of Oregonians illustrates the ease of the VBM process (Southwell and Burchett 1997). In the 1995 VBM election, less than 2 percent of voters encountered any difficulties in returning their ballot, in part because almost 90 percent of voters cast their
ballots within 2 weeks of receiving it (more than half voted in the first week). The survey also found that VBM enfranchised voters who traditionally have a difficult time voting at the polls. These included the approximately 15 percent of voters who traditionally have difficulty getting to the polls because of physical disabilities, a lack of transportation, or time constraints inherent in their job. Also, a significantly higher percentage of non-white voters and single-parent households voted, as did those who typically find voting difficult because they have moved recently or because they work. A more recent survey (Southwell 2004) found that young people, housewives, and people with disabilities all reported that VBM allowed them to vote more often.

Subsequent studies have identified how VBM affects other management outcomes, including voter participation and the number of voter errors on the ballot (Alvarez and Hall 2004). In Oregon, data show that VBM may have a positive effect on voting behavior. It encourages voters to participate more than any factor other than it being a presidential election (Southwell and Burchett 2000) and helps retain voters in the voting electorate; voters that use VBM are likely to continue voting in subsequent elections (Berinsky et al. 2001). Because VBM captures and holds voters in the electorate, it has the effect of increasing turnout.\(^{12}\) VBM also reduces voter error rates. The Oregon Secretary of State has calculated the ballot error rate in every county in

\(^{12}\) However, VBM does not tend to pull new voters – including registered voters who have not traditionally voted – into the electorate. If voters do not use VBM when initially introduced to it, they will persist in ignoring the future ballots that are delivered as well.
every general election since 1992.¹³ The data show that, in the majority of Oregon counties that use optical scan technology, the error rate has steadily declined in every presidential election since 1992.

VBM has also been used in the United Kingdom. There, the Electoral Commission has been encouraging local election administrators to try new innovations, including VBM, which could improve voter turnout and improve election administration.¹⁴ For example, a VBM pilot was conducted in 2001 in an election for the West Wiltshire District Council, a local election where 257 voters were eligible to vote. Voters had two weeks to cast their ballot and could return the ballot either by mail or by dropping off the ballot at a designated collection point.

The local government conducted a voter education effort before the election, informing all potential voters that the upcoming election would be conducted using VBM. The result was quite positive, with the 56 percent turnout in the special election being almost three times higher than in recent by-elections, and almost 70 percent higher than turnout in the most recent general local election. It was also cost-effective, with the LEO saving one-third of the typical cost for a special election. The success of this and other VBM experiments has led the Electoral Commission to call for all local

¹³ “Statistical Examination of Ballot Types in Oregon General Elections: 1992-2000.” This report can be accessed online at http://www.sos.state.or.us/executive/policy-initiatives/vbm/pctudy.PDF.

elections to be run using VBM. The costs of sending ballots out by mail and educating voters about VBM are much lower than the costs associated with actually running an election at the poll sites, where poll workers must be paid, equipment purchased, and materials for poll workers developed.

**Early Voting**

In addition to unrestricted absentee voting and VBM, early voting has also changed the election process over the past two decades. Early voting currently is used in at least eight states and is especially prevalent in Texas, which has used this voting method since 1988. Early voting frees voters from having to fulfill their civic duty within a twelve-hour window on a Tuesday, allowing them to cast their ballots at a poll site at their own convenience. It is also considered a more secure voting method compared to the absentee voting process because it is conducted at an official polling place, among observers and election officials, providing a more secure, coercion-free, and private voting environment. Early voting not only makes voting easier, but it does not create partisan or major demographic divides. Early voters are just as likely as Election Day voters to be Democrats or Republicans, and are better-informed voters, in part because they tend to be strong partisans. Early voting also is more likely to be used by the elderly and lower-income voters, which is somewhat surprising since lower-income

---


16 The Caltech/MIT report (July 2001) recommended that liberalized absentee voting procedures be replaced with expanded early-voting opportunities. It states, “We have no systematic measures of fraud, but fraud appears to be especially difficult to regulate in absentee systems. In-precinct voting or ‘kiosk’ voting is observable. Absentee voting is not. The prospect for coercion is increased with absentee voting on demand” (p. 41).
citizens are generally considered to be low-propensity voters (e.g., Stein 1998; Verba, Schlozman, and Brady 1995).

In 2004, early voting grew in popularity in many states across the nation. Over 10 million early votes were cast in the 2004 presidential election, accounting for 8.4% of ballots cast (EAC 2005). In a number of states, early votes were a very large fraction of total ballots cast: Texas, Tennessee, Nevada, and Arizona all reported that more than 4 of 10 ballots cast in 2004 were early votes (EAC 2005). And in two of these states (Texas and Tennessee), the proportion of ballots cast as early votes has nearly tripled in the decade ending in 2004 (EAC 2005).

At this point, there have been few studies of early voting in 2004; one comprehensive study looked at early voting in Florida and found that early voting created some administrative problems for election officials and did vastly stimulate turnout by low-propensity voters (Gronke et al. 2005). What early voting does do for election officials is provide them with the opportunity to serve many voters—especially special needs voters—in facilities that the LEO can better control and staff, with election workers who are more experienced, and under the supervision of professional election staff. In addition, by having more voters cast ballots before Election Day, the pressure on precinct poll workers is reduced by lowering the volume of voters they have to handle.

Vote Centers

One new strategy for mitigating the problems with polling places on Election Day is voting centers. The model jurisdiction in the implementation of vote centers is Larimer
County, Colorado. In Larimer County, a person can vote anywhere in the county because the local election officials uses electronic poll books in their polling places. These electronic poll books are connected to a secure central server that updates voter registration data in real time, which keeps voters from voting at multiple voting centers.

The twist is that Larimer County radically downsized the number of polling places from 143 locations to just 22. These 22 polling places are in centrally located cites that have large parking facilities and are very accessible to the disabled. In many ways, the County stole a page from the big box retailers, who have fewer "mega" locations but that are centrally located so they draw large numbers of voters. The results were also successful; Larimer County reported higher turnout after the switch. The vote centers allow election officials to have greater control over the polling places that are used and use fewer poll workers. The reduction in the number of poll workers needed allowed the county to cull out the poll workers who were less effective but needed when there were more polling locations. Also, with 22 locations, the local election official is in a position to exert more direct management supervision over these locations.

However, to date there have been so few efforts to experiment with vote centers in the United States that their ultimate impact on either election administration or voters is unknown (Stein, Leighley and Owens 2005). Clearly, vote centers, if properly implemented, could ease the principal-agency problems associated with widespread use of traditional polling places and volunteer poll workers. But what costs might be associated with voting centers, and whether they have any positive effect on voter participation, balloting mistakes by voters, voter satisfaction, or any other outcome measure awaits future research.
Internet Voting

In the future, the Internet or other electronic technologies may become the medium through which individuals register to vote and cast their ballot.\textsuperscript{17} As with VBM, registration and voting over the Internet or with other electronic technologies will allow election administrators to avoid delegation as much as possible (Alvarez and Hall 2004). Election administrators will be able to provide election services directly to the voter – including voter registration services and voting services – and voters may be able to use technologies like email as a simple way of communicating with election administrators. Again, the problems at poll sites with poll workers and polling equipment will disappear. With Internet voting, the LEO can control the voting equipment and how voters interact with election services, though what the ultimate costs associated with the use of new technologies like the Internet for registration and voting also awaits future research.

The Difficulty of Alleviating Agency Problems

VBM, early voting, vote centers, and in the future, new technologies like Internet voting, may improve voting opportunities for voters and may provide local election officials with greater control over the election process. However, some critics have expressed concerns about whether these voting methods—especially VBM and Internet voting—raise important privacy and fraud issues. Even the administration of VBM can be problematic; in 2002 King County, Washington election officials had a breakdown in the

\textsuperscript{17} While registration and voting over the Internet is the most commonly discussed application of electronic technologies for early or absentee voting, other electronic technologies like email, fax, and text messaging have been used on trial bases in both the United States and the United Kingdom.
absentee voting process that may have disenfranchised thousands—illustrating that no system is completely foolproof.18

One important concern with vote centers is social science research that finds that reducing the number of polling places can reduce turnout. For example, Brady and McNulty (2004) conducted a study examining the effects of consolidating precincts in Los Angeles County for the 2003 recall election. They found that the consolidation reduced turnout by 1.88 percent and also resulted in an increase in absentee voting. Consolidation results in transportation effects—it is harder to get to the polls—and a disruption effect from having to find the new polling place. Other scholars have found the greater the distance to the polls increases nonvoting, and that the cost of finding less accessible polling places is too high. These results hold true even after controlling for motivational, informational, and resource variables, and are quite pronounced in suburban precincts (Dyck and Gimpel 2005; Gimpel and Schuknecht 2003).

With VBM and Internet voting, there is no guarantee that voters can mark and seal their ballot in private, without coercion or pressure, even though survey data suggest this may not be a problem (Southwell and Burchett 1997). A traditional polling place allows voters to stand in a voting booth or behind a curtain, alone, after verifying their identity for a polling place worker. In addition, state laws are quite strict about the partisan and political activities allowed in the vicinity of a polling place. Concerns about the privacy of mailed ballots are especially acute for voters in certain environments, such as nursing homes or other care facilities. Privacy concerns also have been raised regarding

---

overseas ballots, especially since some military personnel have been allowed to fax their ballots to election officials. Additionally, election offices can only verify the identity of a VBM voter by comparing the signature on the ballot envelope with the signature on file. With precinct voting and early voting, the voter is required to appear in person.

Although these privacy and fraud concerns are real, little evidence supports claims of widespread coercion and lack of privacy in the VBM process. Specific instances of absentee voting fraud have occurred: in a widely publicized case in Miami in 1997, significant fraud was alleged in the absentee voting process and the courts eventually decided not to count any absentee ballots in determining the election outcome.19 One systematic study of Oregon’s vote-by-mail experience noted only a handful of instances of vote-by-mail fraud in the United States, and no demonstrable evidence of vote-by-mail fraud in Oregon despite that state’s exclusive use of vote-by-mail (Gronke 2005). Earlier studies of absentee voting also found very little evidence of absentee voting fraud (Miller 1948).

In the specific case of Internet voting, an array of concerns about the potential for fraud has been raised (California Internet Voting Task Force 2000; NSF Internet Voting Workshop 2001; Alvarez and Hall 2004). For example, allowing citizens to vote from their personal computer raises concerns about the security of each individual computer platform used to vote, as well as the security of the ballot transmission path and the security of the computer systems used by election officials to receive, store, and tabulate electronic votes. These security concerns are valid, though the odds of these security


threats occurring are unknown and it is unclear whether these threats are more significant than those facing voting methods currently used. Only by further research and development can the potential effects of Internet-based registration and voting systems on election administration problems be assessed (Alvarez and Hall 2004).

Critics have also argued that liberalized VBM and early voting affect the nation’s civic values. These critics focus on the ceremonial and symbolic aspects of Election Day voting—such as everyone voting with their neighbors at a single place—and how this fosters a sense of citizenship (Stromer-Galley 2003). However, there is no research indicating that, compared with precinct voters, absentee voters have diminished civic values or that civic values in Oregon or California are different than in states like New York, which has restrictive absentee voting laws. Additionally, critics tend to ignore the impact of long lines and other polling place problems on a citizen’s civic values, not to mention the immediate impact that polling place problems have on voting behavior.20

Another related critique is that early voters do not cast informed votes. For example, scholar Norman Ornstein wrote in 2001 that early voters “voted from a smaller base of knowledge than the rest of us had; it was the equivalent of deciding the winner of a basketball game at the end of the third quarter.”21 Although early voters miss out on the last week or so of the campaigns, there is no research indicating that absentee voters are less informed than precinct voters. Additionally, many VBM voters in Oregon

---

20 The Caltech/MIT Voting Technology Project (2001) estimated that of the 4 to 6 million votes lost in the 2000 presidential election, as many as 1 million were lost due to polling place problems.


www.aeipoliticalcorner.org/NQ%20Articles/no010803.pdf [July 22, 2003].
miss little of the election before they cast their ballots. In the 2000 Oregon general election, election officials received 45 percent of the VBM ballots in the final two days of the election; in the 2002 general election, election officials received 48 percent in the final two days.\textsuperscript{22}

Implications

Some readers might question the application of principal-agent theory to election administration. After all, elections have historically been run by amateurs—political party members or individuals who are motivated by a sense of civic-mindedness. However, as Robert Putnam has documented, there has been a marked decline in civic engagement and in social capital over the last 50 years. For example, membership in the League of Women Voters is down more than 60 percent from its peak in 1965 (Putnam 2000, 439). Similarly, memberships in the PTA and in religious organizations have declined as well, and as commuting times increase and the household mobility rate remains at approximately 18 percent annually, social capital will continue to decline. As Putnam (2000, 346) notes, “…the performance of representative government is facilitated by the social infrastructure of civic communities…In the language of economics, social capital lowers transaction costs and eases dilemmas of collective action.” It is in this world of declining social capital that today’s election officials operate.

\textsuperscript{22} The 2000 data are available from the office of the Oregon secretary of state at http://www.sos.state.or.us/elections/nov2000/other_info/g00byday.htm [July 22, 2003]; the 2002 data at www.sos.state.or.us/elections/nov2002/g02byday.pdf [July 22, 2003].
Voting is the foundation of our democracy, yet across the nation the implementation of elections is by amateurs who have little experience—in the most extreme case they have some on-the-job training spread out over several years. Major elections in the U.S. are held on a single day across the nation, requiring LEOs to gear up in a massive effort to serve their entire community in a single 12-hour timeframe. The principal-agent model illustrates that the ability of the LEO to control the quality of service that is provided to their customer—the voting public—is greatly limited by their inability to carefully select poll workers and to control the activities at poll sites. Even worse, if problems do arise, elections are not an ongoing process in the typical sense. It is not as though the election administrator is in a position to come in the day after the election and work through the problems with the election workers as they do their jobs, since there may not be another election for months, and the same individuals may not staff it. In every election, the LEO has to make a new set of delegations to poll sites, poll workers, and other parties.

Interestingly, there may be political incentives for LEOs to maintain the status quo and keep the principal agent problems. The inefficiencies, the lack of formal control over poll workers, and the ongoing likelihood for problems can take some pressure off of the LEO to be responsible for the election. When things do go wrong, the LEO can point to the current system and in part blame any of the facets noted previously—the poll workers, the vendors, the polling place owners—for the result. The lack of transparency and monitoring also can benefit the LEO because there is no systematic data to use to evaluate management performance in the election. Even more serious, in places where local election officials are elected or are openly partisan, the principal
agent problems may not manifest themselves randomly but instead be biased against voters or groups in a way that benefit the LEOs own political party.

There are ways to avoid or minimize delegation problems, but they require a reconceptualization of elections outside of the traditional one-day, poll site extravaganza used in America for more than 200 years. There is an obvious tension between managing and controlling elections and maintaining the historic participatory democratic election process that involves polling places, poll workers, and taking time out of one’s day to engage in a civic ritual. However, there is no reason why LEOs cannot recapture control of the election process by removing the need to delegate election authority to amateur officials and still maintain a feeling of civic engagement. Models exist—such as vote-by-mail, early voting, vote centers, and Internet voting—that will allow election officials to manage the voting process directly and the rise in the number of voters who are seeking out these mechanisms suggest that there is quite a demand for them. LEOs should consider experimenting with these techniques to determine if this form of elections provides them with the ability to serve the public in a more effective and efficient manner and to study the potential problems with these alternative electoral procedures in a rational and scientific manner. Election officials today often refer to “multi-channel elections,” where they offer voters options to vote early, vote absentee, and also vote at polling places. They recognize that the first two options lessen pressure on poll sites on Election Day by decreasing the volume of poll site voters, and also increase the level of public service they are offering.
Bibliography


