LEGISLATIVE ANALYSIS

TO: HONORABLE MEMBERS OF THE BOARD OF SUPERVISORS

FROM: Carol Roos, Sr. Legislative Analyst

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FILE NO: 992097

SUBJECT: **NEW ELECTION TECHNOLOGIES**

EXECUTIVE SUMMARY

SUMMARY OF REQUESTED ACTION

On November 15, 1999, the San Francisco Board of Supervisors requested that the Office of the Legislative Analyst report on best management practices, training, staffing and implementation of new election technologies utilized by other counties in the State of California. A request to consider multilingual voting access was added.

SUMMARY

The San Francisco Department of Elections proposes to convert from the current punch card voting, manual ballot box collection, and central machine vote counting to a paper ballot, optical scanning and counting system. The Director of Elections proposes to have the system in place for the November 2000 election, dependent on funding. This report looks at voting technologies and related issues regarding voting and vote counting. At this time of fast-developing technology the issue of elections technologies is being addressed by counties, statewide. Some aspects, such as multilingual access and provisional ballots, are particularly relevant in San Francisco.

The planned use of optical scan technology offers increased efficiencies, including faster voting and vote counting, compared to the existing system, and has been demonstrated to work in various California jurisdictions. Touch screen voting has been used successfully in limited, small scale applications; it is untested on a large scale in California. Other technologies such as internet voting are in early development stages, and have not been certified by the Secretary of State. Touch screens and internet voting have potential for application in the City. Current contract negotiations for optical scanning include the ability to convert to touch screen during the five-year contract period. All systems being considered can accommodate multilingual access, although advocates for multilingual access oppose optical scan technology and favor complete touch screen systems. The Americans with Disabilities Act (ADA) also applies to voting access.

While the proposed new technology would speed up write-in and absentee ballot processing once voter signatures have been verified, provisional ballot counting will continue to be labor- and time-intensive, regardless of technology used.

Areas for action to facilitate the election process using new technologies include: allowing adequate time to test and debug the new system; proactively minimizing the number of provisional (in doubt) ballots; training the public, press, precinct workers and volunteers; and engaging in active community outreach up to, and including, reporting election results. Coordinated implementation of these measures is particularly timely as the City shifts from Citywide to district elections for Supervisors.

ANALYSIS

BACKGROUND

In 1997, the Department of Elections retained a consultant who queried stakeholders including citizens groups, representatives of the disabled and political party representatives, regarding new voting systems. In 1997, the Department held a two-day demonstration for San Franciscans to try different systems, including optical scanning and touch screen equipment. In January 1998, the City put out a request for proposals (RFP). Touch screen technology was not certified by the Secretary of State at that time, precluding proposals for touch screen systems. In June 1998, the Department of Elections conducted a customer service survey utilizing the optical scan system (also referred to as pilot phase 1). For the November 1998 election, voters in two precincts of each of San Francisco's 25 neighborhoods, as identified by the Department of Elections, voted using the optical scan system (pilot phase 2). In March 1999, a vendor was selected, and the Department of Elections budget included conversion to the new technology. At that time, funds were not available. In August 1999, new elections technology plans were restarted. Contract negotiations are now underway with a goal of obtaining funding in the upcoming fiscal year (FY2000-2001). Concurrently, as part of a pilot project directed toward a performance and review ordinance/ballot measure related to customer service, the Director of Elections (one of seven participating Department heads) is studying innovative election practices in other jurisdictions.

EXISTING VOTING, BALLOT COLLECTION, AND VOTE COUNTING

San Francisco has about 467,000 registered voters. Currently, San Franciscans vote by punch card. The voter inserts the single-sided card with punch positions (312 punch positions) into a ballot assembly containing pages listing candidates and ballot measures. (A maximum of 26 candidates, or 3-5 ballot measures, can fit on one page of the ballot assembly, and each ballot assembly can accommodate a maximum of 12 pages.) There are separate ballot types, for state assembly, state senate, and congressional district, and political party (for primary elections). The voter punches a hole in the card at the number corresponding to his/her choice, removes the card, and is asked to check for hanging chad (punched paper that has not detached from the hole in the card). A poll worker puts the card into the ballot box. To double check one's vote, a voter must look through the ballot assembly for the number of the choice and check that the corresponding hole has been punched. A poll worker must reconcile, or account for, all ballots (used, destroyed, other). This entails simple arithmetic, but adds time at the end of the day when poll workers are tired. The locked box containing completed ballots is taken from each precinct to City Hall or one of four drop-off sites for counting, where standard, absentee, write-in, and provisional ballots are separated and processed.

PROPOSED VOTING SYSTEM

With optical scanning voting machines, the voter would use a large, (about 10-inch by 22-inch) double-sided paper ballot, containing candidates and ballot measures. There would be different ballot types, as with the existing system, plus ballots for the local districts. To vote, the voter would mark a line connecting two parts of an arrow. The completed ballot would be deposited into the "eagle", a box into which the ballot may be fed any way (right side up, upside down, top or bottom first), and the ballot would be scanned on deposit. The eagle may be programmed various ways: for example, it may be programmed to identify over voting (voting for two candidates for one office) and write-ins, and separate these ballots for further processing. The eagle tallies and displays the number of ballots counted. When the polls close, the eagle stops accepting ballots. The operator can then print a tape showing results for the precinct; these results are recorded on a memory pack, similar to a cartridge. Other poll workers would remain at the polling place to reconcile ballots. The memory packs are detached from the machine and taken to central drop off points. The approximately 640 packs, corresponding to the number of precincts, are loaded into the system computer, which can report results in less than a minute per memory pack. This counting process would be expected to be completed by about 10 or 10:30 pm, after one or two elections.

Absentee ballots would be counted next. In addition to mailed-in absentee ballots, about 10,000 to 15,000 absentee ballots are dropped off at precincts on election day. Currently, each of these absentee ballots is manually sorted by precinct. With the proposed system, the ballots would need to be verified as to signature, opened and stacked. They could then be fed into the counter, and automatically counted at 200-400 per minute by precinct as indicated on the bar coded ballot. This would save hours. The ballots could be sorted manually by precinct, later. As applicable, write-ins would be processed; write-ins and provisionals would be processed much as they are now.

The goal of the Department of Elections is to have the new system running smoothly for the November 2000 election which will be a national Presidential election and the first local district election since voters approved district elections in November 1996. The proposed system is estimated to cost about $3 m over five years, on a lease-purchase basis. For comparison, conversion to complete touch screen voting is estimated at about $15 m. The selected vendor has touch screen capability and, within the five-year period of the contract, the City could implement touch screen voting.

CURRENT LAW

Various laws address voters' rights, and those rights have been expanded in recent years. The Voting Rights Act of 1965, provides basic voting rights. The Voting Rights Language Assistance Act of 1992, provides for increased multilingual voting access. The National Voter Registration Act of 1993, established procedures "that will increase the number of eligible citizens who register to vote in elections for Federal office," including the so-called motor voter provision, implemented by the states. These laws advance the democratic process and have increased the complexity of conducting elections, including tabulation of results.

VOTING TECHNOLOGIES IN CALIFORNIA

Voting technologies basically include punch card ballots with associated voting data base and card counting systems; a paper ballot/optical scanner/electronic counting system, described above; and touch screen voting (with paper ballots for absentee voters) -- touch screen voting is sometimes used to supplement the optical scanning systems. With touch screen voting, the voter presses the screen to indicate his/her choice, or uses the

key pad to write in a candidate. The technology, known as Direct Recorded Equipment, (DRE), is similar to a bank ATM. Voting data is accumulated on a cartridge. Results may be transmitted by modem or by taking the cartridge to the counting center. Internet voting is currently gathering interest. All of the technologies , except internet voting, are certified for use by the California Secretary of State.

According to data from the Secretary of State, about 40 of 58 counties (69%) use punch card systems, and 18 counties (31%) use Mark Sense type voting systems, in which a mark is made on a ballot, usually by special marking tool or marking pen, and then optically scanned. According to Secretary of State staff of the Cal Voter project, this information is subject to change, as other counties go through the same process as San Francisco and consider new technologies options. For example, four or five counties are considering, or have decided to use, touch screen voting on a limited basis. Riverside County has decided to try touch screens countywide. Fresno County has decided to expand its use of optical scanning, and is using new technology in counting absentee ballots including detailed bar coding outgoing and incoming, allowing the county to mail, receive and process absentee ballots more quickly, and at lower cost. As shown by the data, while counties across the state are considering new voting technology, many counties are not contemplating any changes in their voting systems.

As a rule, absentee ballots typically involve more work, printing and mailing costs and associated expense than standard ballots. Write-ins also require separate handling. And, provisional ballots (those which are in doubt) require additional handling and research to verify their validity, regardless of voting technology. The experience of several jurisdictions may provide useful information for San Francisco.

San Mateo County

San Mateo County has about 350,000 registered voters. The county uses an optical scan system, with some touch screens planned to be used for early voting. Election results are usually reported before those of other counties in the Bay region, routinely by about 10 or 10:30 pm, two and one-half hours after the polls close, and the county has earned a reputation for its speed. According to its Registrar, San Mateo converted its voting systems to new technology in 1992, and, therefore, its success is not sudden but the result of seven years of experience. The county has invested heavily in technologies that support a new reality of elections in which, for example, many more people vote by mail than did in the 1950's when voting records consequently needed less updating. According to the Registrar, the county has proceeded with a clear vision of its goals and community expectations, choosing strategies accordingly.

New realities of voting patterns, as noted, have contributed to problems that counties must now solve. Liberalization of federal and state laws described above, (Current Law and Practice), such as Motor Voter, mean that voters may register later than before, or vote by affirmation at a polling place beside their own precinct, resulting in an increase in provisional ballots. Elections officials of the several jurisdictions contacted during research for this report agree that provisionals pose a problem, and that San Francisco handles its provisional ballots in a timely manner. It simply has more of them (10,000 for the December 14, 1999 run off election compared to 300 for San Mateo's last election). The number of provisional ballots can be minimized, however, as discussed below.

City of Los Angeles

The City of Los Angeles uses a 1960's type Vote-o-matic system, including punch card voting with fast counters. It shares equipment and costs with Los Angeles county, as they have elections in alternating years.

According to Los Angeles City staff, there are about 1.9 million registered voters, and the city has all cards collected and counted by 12:00 midnight, except for absentee and provisional ballots (about 100,000), which take about ten days to process. Separate ballots are available in English, Spanish and five Asian Pacific languages (Chinese, Tagolog, Japanese, Vietnamese, and Korean).

Santa Barbara County

Santa Barbara County has about 200,000 registered voters (about 50,000 absentee voters). The county has just switched from voting technology used for 18 years, to a new system. The county uses the same data base system it has historically used, which can track and manipulate voting data to meet the county's needs. However, the old voting card (IBM card size), marked by pencil or special marker caused problems, for example, if a voter used a ball point pen instead of the special marker. Multiple card ballots were needed for some elections which increased costs, and ballots required transport for tabulation at a central site.

The new system is similar, but not identical to, the proposed San Francisco system. A smaller, one-sheet, paper ballot that accepts most writing devices is used. Instead of tabulating ballots at the central location, the ballots are tabulated on deposit into the ballot box. Voting information is stored on a "magic card" /magnetic card which holds all information for the precinct. At the close of the polls, the top of the box detaches, and may be plugged into a telephone jack, with results centrally downloaded, without physically transporting the ballots.

Alameda County and Riverside County

To date, use of touch screen technology in California has been generally limited to early voting and small elections. Piedmont, California (Alameda County), for example, used touch screen voting in an election with one ballot measure and six precincts. Community reaction was positive. Piedmont is a small, relatively homogenous area, compared with San Francisco, without factors that contribute to the City's election complexities.

Riverside County plans to use full touch screen voting countywide for the November 2000 election, and has used touch screen voting successfully, in smaller trials. Riverside County has about 600,000 registered voters. In a San Jacinto recall election conducted with full touch screen voting, approval rates were 98-99% (based on a simple post election survey of voters). Costs are between $3,000 and $5,000 per touch screen unit. Total system cost is about $14 m, for about 4,000 units, according to the Registrar. Prior costs with the existing system on a multi-card countywide election included about $1.4 m for printing expenses alone. The proposed touch screen system includes features to address security and potential vote tampering, and ballot images are randomized, and recorded on a tape (thus, providing hard copy individual voting records). The machines are to be bilingual capable, as part of the RFP, and accessible to people with disabilities.

Monterey County

Monterey County has about 146,000 registered voters. The county uses punch card voting with touch screens for early voting. The Registrar noted the administrative burden associated with changing technologies, primarily in the comprehensive training necessary for poll workers, and associated pressures on the integrity of the voting process, especially in a statewide, Presidential election year when voter turnout is relatively high. According to the Registrar, when that county updates its technology, his preference would be for full touch screen voting that would avoid the paper ballots needed with optical scanning, and their associated expenses. (Monterey and other counties print ballot information directly on the vote cards instead of using numbers on the

cards as in San Francisco. The former results in multi-card ballots with higher printing costs.) He noted that, while the technology is about ten years old, to date no jurisdiction in California has used touch screen at the precinct level. Monterey County is exempt, under Section V of the Voting Rights Act, from providing multilingual ballots. Instead, the county posts Spanish language ballot materials in the voting booths.

MULTILINGUAL BALLOT ACCESS AND DISABLED ACCESS

As noted above, the new technologies can accommodate multilingual voting. Advocates for multilingual ballot access favor touch screen voting as more voter friendly; there could be some difficulty for older voters. In any case, complete and timely translation of voting instructions and ballot information is necessary. Some concern has been expressed about optical scan voting. According to staff of Chinese for Affirmative Action, in the San Francisco 1998 consumer test, part of the ballot was illegible due to the small size of some of the Chinese characters. There is also concern that people may be embarrassed and reluctant to ask for a separate, non-English ballot. Separate ballots in different languages are further criticized as requiring more ballots and expense, to assure that precincts are stocked to accommodate demand. A single, multilingual ballot is preferred. Instead of individual, non-English ballots, the City of Los Angeles provides two ballots per language, at the precinct, which are used as a template laid over the vote recorder in the voting booth.

Lawyers for Civil Rights opposes optical scan technology, and believes the City should convert directly to complete touch screen voting. Lawyers for Civil Rights believes that adoption of an optical scan system would undermine the interest of minority language and disability communities, and that conversion to optical scan would reflect a preference for antiquated technology, including incurring costs associated with paper ballots.

According to the San Francisco Director of Elections, ballots for the November 2000 election will be a single, trilingual ballot (English, Chinese, Spanish). She notes there is concern that after the 2000 census, the City may be required to provide materials in additional languages (such as Russian and Vietnamese). In response to concerns about having to ask for a non-English ballot at the polls, the Department will attempt to find a way to provide non-English ballots without necessitating a request at the polling place. ADA requirements apply at polling places, and both optical scan and touch screen voting can accommodate disabled voters.

PROVISIONALS

San Francisco has a relatively transient and well-educated population that knows its voting rights, compared with some jurisdictions. For these reasons, the City will probably continue to have a greater number of provisional ballots. However, the number of provisionals can be reduced now, and minimized in the future. Measures include regular, systematic purging of voter rolls in accordance with guidelines of the Secretary of State. According to the City's Department of Elections, about 60-65 percent of provisional ballots are counted (that is, they are valid). Reducing or eliminating the remaining non-valid 30-35 percent would speed election results. The City currently does not purge to the suggested state guidelines due to lack of resources, and the effort is backlogged. Methods of purging include, for example, buying back undeliverable voter information pamphlets from the Post Office; recording registration changes, deaths, and eliminating duplicates systematically and regularly; and educating voters about the need to maintain current registration, and how to do so. Reminders about how to vote absentee and the importance of early absentee voting would be helpful. Other jurisdictions utilize newspapers, theater screens, and various other ways to communicate this information to voters.

<u>**CONCLUSION**</u>

A coordinated effort is needed to make the new system work in November 2000. Components of this effort would be expected to include adequate testing and debugging of the system, and training for workers including employees, poll workers, and volunteers. During elections, coordination is critical and additional support will probably be needed for the reinstitution of district elections. Riverside County uses about 20-30 "rovers", or troubleshooters, with cell phones and cars that are available to take and respond to calls from precincts. San Francisco, similarly, has about 38 field deputies for each election. These are City employees, assigned to about 12-18 polling places (depending on difficulty), to troubleshoot and resolve problems. They have cars and cell phones and are in continuous contact with the Department of Elections.

 Most jurisdictions contacted during this research stated that intensive community outreach contributed, in large measure, to their successes. Outreach includes intensive use of all available forums to explain new systems to community groups, individuals, political campaign organizations, and the press. Election and post-election outreach includes providing the public and press with results/updates in an organized, timely manner via in person announcement, web site, and cable access stations, including on the spot coverage of election workers. Creative and time-tested solutions have been used, for example, running training videos for poll workers on the cable access station as in Riverside, or providing advertising on theater screens and transit vehicles, and in multilingual newspapers.

In summary, implementation of optical scanning technology, combined with purging of voter rolls, complete translation of election instructions and ballot materials, and active community outreach, will result in faster and more efficient voting and vote counting. Coordinated implementation of the new technology is particularly important as the City shifts from old to new technology and from Citywide to District elections in a Presidential election year.