

# ***Infrastructure Projects and Changes in Election Administration: Evaluations and Recommendations For 2013-2015***

***Board of Election Commissioners for the City of Chicago***

***Report of Lance Gough, Executive Director***

***May 9, 2013***



*Commissioners*

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## ***Introduction & Overview***

In recent years, the Board of Election Commissioners for the City of Chicago and the Board's management staff have participated in a series of forums, discussions and community-outreach efforts to explore changes in election administration. Some of these changes involve legislative proposals that have surfaced locally and in other states. Other changes involve systems and equipment changes that have the potential to assist voters or streamline election administration. To that end, this report presents two sets of recommendations. The first component of this report is a list of anticipated infrastructure needs for 2013 through 2015. The second component is a review of various concepts for changing election administration.

Section 1 provides a set of recommendations for Infrastructure Projects that I recommend that the Board pursue to improve voter service, secure our balloting systems, to replace outdated equipment, expand facilities, and update systems that are outdated or vulnerable to malfunction. These projects are designed to prepare the Board of Election Commissioners for elections in 2014 and beyond. These recommendations include: upgrading the web site; replacing the Optical-Scan Ballot Counters; upgrading the voter-registration/polling place database (election management system); updating the software in the Edge2Plus and HAAT units now in use; replacing the agency's computer work stations; acquiring more floor space for the 2014 and 2015 election cycles; upgrading the email system; preparing to relocate the warehouse; and implementing electronic poll books. These items are listed with cost projections in order of priority and feasibility.

Section 2 provides evaluations of potential changes in election administration. These concepts include On-Line Voter Registration, Election Day ("Same-Day") Voter Registration, Allowing Fax or Internet Voting for Military/Overseas/Disabled Voters, Offering Elections Entirely by Mail, and Vote Centers. Most of these concepts would require changes in the Election Code. Some of these concepts have been included in proposed legislation in the General Assembly. Some of these concepts have been tested in other jurisdictions across the country. In 2011, the Board began discussing all of these concepts with our many civic and community partners as part of the Board's "Voter Engagement" outreach project. Per the Board's requests at recent meetings, we have revisited all of these concepts and are listing the arguments for and against each proposal and making specific recommendations on the best ways to implement these concepts if the General Assembly were to work to change the law. These concepts are listed in order of likelihood of feasibility and consideration by lawmakers. There are no specific cost projections for these concepts, but I have included information on possible facility and equipment considerations for each. My Senior Management team has made recommendations on the best ways to achieve these changes, if the General Assembly and the Governor were to consider these concepts.

I look forward to discussing these recommendations at your earliest convenience.

## **Section 1.**

### ***Infrastructure Projects for 2013-2015***

## **Section 1: Infrastructure Projects for 2013-2015**

### **I. Upgrade web site**

**Cost estimate: \$74,000 in first year; \$44,000 in subsequent years**

- A. Host at secured cloud facility
  - 1. Facility to offer expandable capacity on short notice for peak periods
  - 2. Facility to manage servers, internet software, security patches
  - 3. Facility to perform all detection of hacking, intrusions or dedicated denial of service (DDOS) attacks
- B. Upgrade software for content management
  - 1. Microsoft Sharepoint software would offer more flexibility and upgrades for managing content (currently using WebUpdate, which hasn't been upgraded since the Board made the transition to this version of software in 2008)
  - 2. Enhance voter-search component
  - 3. Maintain multi-lingual content on all pages
  - 4. Use newer, more secure version of SQL for voter-search database
  - 5. Provide new mobile version of site for smart phones, tablets, etc.
  - 6. Provide downloadable spreadsheets of election results
- C. Move hosting to more secured cloud hosting facility
- D. Eliminate problems encountered by this and other jurisdictions with peak traffic loads on Election Day

### **II. Replace Optical-Scan Ballot Counters (Ballot Scanners)**

**Cost estimate: Approximately \$2 million per year**

- A. Eliminate current weakest link in the balloting system
  - 1. Equipment now outdated and prone to failure
  - 2. Each election requires day-after re-counts of 5-20 precincts where the scanner cartridges fail.
  - 3. Current scanners do not show logic used for counting votes from each ballot.
- B. Incorporate new Precinct Image Cast counters from Dominion that are compatible with current inventories of Edge2Plus touchscreens and HAATs
  - 1. Minimize risks inherent with introduction of new equipment
    - a. Simplify training for judges
    - b. Ensure compatibility between key pieces of voting equipment
    - c. Ensure accountability through one vendor
  - 2. Use lighter-weight and less costly paper for ballots
  - 3. Utilize equipment that meets 2005 EAC certification standards
  - 4. Offer scans of ballots at time of insertion and logic used to count selections
  - 5. Provides alternatives for accessible voting (in addition to Edge2Plus)
- C. Prepare for changes in results transmission from remote sites

## ***Section 1: Infrastructure Projects for 2013-2015 (continued)***

### **III. Voter Registration/Polling Place Database (Election Management System)**

**Cost estimate: \$400,000 over 26 months (mid 2013-mid 2015)**

- A. Upgrade all modules, from voter registration through candidate filings
- B. Contract with past Voter Registration System developers to implement changes to more current, secure and flexible SQL platform
- C. Update to include new fields, such as email addresses for voters and polling place room names and ZIP+4
- D. Build better compatibility with Illinois Voter Registration System

### **IV. Upgrades to the Edge2Plus and HAAT units that were tested and approved by the State Board of Elections in 2012**

**Cost estimate: Included under current Dominion Service Agreement**

- A. Changes to be completed ahead of the March 2014 Primary Election
- B. Necessary with or without new ballot scanners

### **V. Upgrade office work stations**

**Cost estimate: \$103,000**

- A. Upgrade computer work stations
- B. Upgrade various software on servers and computer work stations
- C. Upgrade the e-mail program
- D. Upgrade telephone system to join the City of Chicago contract

### **VI. Acquire additional floor space for the 2014 and 2015 elections**

**Cost estimate: \$33,000**

- A. Presently reviewing draft election calendars from 2014 and 2015
- B. Determining when additional space would be needed for Petition and Objection filings
- C. Determining when space might be needed for Electoral Board Hearing Officer proceedings
- D. Determining when space might be needed for Grace Period Registration/Voting, Early Voting, Election Judge training and processing of Mail Absentee Ballots.

### **VII. Upgrade email system**

**Cost estimate: \$12,000 annually**

- A. Enhance capacity/storage
- B. Contractor to manage security and spam-filtering tasks

## **Section 1: Infrastructure Projects for 2013-2015 (continued)**

### **VIII. Warehouse Relocation**

#### **Cost estimate: To be determined in negotiations with City**

- A. City may have Election Board move from center building to west building
- B. New facility should be built out to accommodate fewer ESCs, but more ESCs that are suited for larger precincts resulting from 2012 consolidation

### **IX. Implement Electronic Poll Books**

#### **Cost estimate: \$740,000 annually: \$300,000 annually for software; hardware may be available through lease for \$220,000 per election**

- A. Electronic poll books arguably are needed now in light of our experience in the 2012 General Election, when many voters needed directions when they arrived at the wrong polling places.
- B. Electronic poll books arguably are needed now in light of changes that have occurred with Early and Grace Period Voting schedules. Both programs were extended to be offered through the Saturday before Election Day. Electronic poll books would help prevent any individual from voting more than once. The current process of applying stickers to the ballot applications (to indicate that the voter participated in Early Voting, Absentee Voting or Grace Period Voting) is cumbersome and difficult for judges to achieve in the hour before polls open.
- C. There will be even more need for electronic poll books under proposals that would extend Grace Period and Early Voting schedules through the Monday before Election Day.
- D. We have access to information gathered in a trial by the Cook County Clerk's Office in 28 precincts in the April 2013 election.
- E. Board should review products, in addition to County's Votec system, that may best fit Chicago's needs.
- F. Electronic poll books will be required if the Illinois enacts provisions for Same-Day registration, similar to programs in Wisconsin, Minnesota, Maine and other states.
- G. Electronic Poll Books will be required if Vote Centers are to be used on large scale or in limited circumstances, such as Special Primaries, Special Elections or Aldermanic Run-Off Elections.

## **Section 2.**

### ***Changes in Election Administration***

## **Section 2. Changes in Election Administration**

### **A. On-Line Voter Registration**

**Current status** Voters may download and print out the registration application form, complete that form, sign it and submit it. But what if the voter has access to a smart phone, tablet device or laptop, but not a printer? What happens when the voter has access to a printer, but completes the form by hand, leading to the inability to accurately read and enter the hand-written information at the Election Board?

**Option** In September 2012, the Chicago Election Board implemented a system that allowed the voter to launch the process over the Internet. Once the data was submitted, the Election Board printed and mailed the application to the voter. However, this still led to other issues. Forms were returned as undeliverable. Although this system moved a step closer to “online” registration, the voter still had more processes to complete with a paper form and a wet-ink signature.

This year, the Governor has proposed and the General Assembly is considering legislation that would mandate the State Board of Elections to offer truly online registration by incorporating the Secretary of State’s digitized signatures from driver’s licenses and state identification cards. The State Board would screen the application information and forward the data, including the digitized signature, to the appropriate local election authority to complete the processing of the registration.

#### **Arguments For**

- Convenience: The proposed system would provide voters with the means to launch the registration process from any computer or web-enabled device without a printer.
- Cost: Other states have reported significant savings through processing registrations through a web site. Arizona, for example, has said that it used to spend nearly \$1 per paper registration but now spends only 3 cents to process an on-line registration.
- Accuracy: The only hand-written item on the form would be the voter signature. This system greatly reduces the possibility of errors related to the voter’s hand-writing and/or the data-entry staff’s ability to interpret or enter those hand-written items.
- Security: The voter data is added to the database when the identity is confirmed and a card is mailed to the voter for address verification.
- Corrections: This system could detect inappropriate address submissions, such as post-office boxes, or duplicate registrations, and advise the applicant instantly, instead of a week later, of some flaw in the voter registration application.
- Such a system at the state level also could check all other jurisdictions’ files simultaneously to cancel any outdated registration. Currently, if the voter does not include such information, the ability to detect a duplicate registration only occurs after the second election authority processes a registration from the same person. This then leads to a flagging of that record by the State Board of Elections’ Illinois Voter Registration System (IVRS).
- Referrals: A state-based system should result in directing the voter’s data to the correct agency, helping prevent errant submissions to the wrong election authorities.

## **Section 2. Changes in Election Administration**

### **A. On-Line Voter Registration (continued)**

#### **Arguments Against**

- Security: With any on-line system come the vulnerabilities of hacking. Equally important is the possibility of a dedicated denial of service (DDOS) attack that might prevent voters from entering their data during peak periods near the registration deadline.

#### **Senior Management Recommendation**

The Board and Senior Management support on-line registration. Senior Management has provided guidance to the General Assembly on pending legislation. The likelihood of passage of legislation during the current session is not known, but momentum does appear to be moving in favor of passage within the next two years.

### **B. Election Day or “Same-Day” Registration**

**Current status** In Illinois, a voter must register 28 days before an election in order to be eligible to cast a ballot at his or her polling place on Election Day. The “grace period” option has allowed people to continue to register in person at the election authority until three days (the Saturday) before Election Day. There have been proposals to expand Grace Period through the Monday before Election Day. The General Assembly appears to be moving in the direction of mandating Election Day Registration.

**Option** Some states offer Same-Day Registration in each polling place. Is such a system workable in all elections? Would it create lines and confusion on Election Day? How could it be implemented to prevent attempts to vote more than once? Could it be offered only at select sites that are not polling places – so that those who are registered already are not delayed by the people who wait to register on Election Day? Could separate locations for Same-Day Registration allow the election authority to separate ballots to help check the validity of registrations and/or guard against fraud before those ballots are mixed into the count?

#### **Arguments For**

- One Step: The current system requires the voter to complete two different processes separately (registration and voting), with the exception of the Grace Period program. Same-Day Registration allows the voter to register and vote in one process.
- Mobility: Assists voters who are in the most mobile stages of their lives, particularly younger voters who are most likely to have changed addresses recently.
- Portability: Increasing numbers of voters expect their registrations to function like an “account” that follows them, just as online account would, regardless of their residence. Fewer voters are filing National Change of Address forms when they move. This would help address both of those issues.
- Access: Provides every voter with a safety net and the chance to participate, even those who procrastinate or who were unaware of the need to register or update their records.
- Added Secrecy: After most ballots are counted, provisional ballots and late-arriving absentee ballots run the risk of revealing a voter’s choices if there are only one or two such ballots in a precinct. If same-day registration ballots were held until verification of registration could be confirmed, those ballots could be counted with provisional and late-arriving absentee ballots, helping to shield each voter’s selections.

## **Section 2. Changes in Election Administration**

### **B. Election Day or “Same-Day” Registration (continued)**

#### **Arguments Against**

- Time: For the election authority, it creates a new set of responsibilities during the vote-counting processes that follow the election. The authority would need to devote staff to processing voter registrations and attempting to verify data on the application against Driver’s License, State ID and Social Security databases before counting the corresponding ballots.
- Expense: Whether conducted in the polling places or at separate facilities designated for last-minute registrations, such a system would require specialized staff, more training and more locations and equipment.
- Separation: If same-day registration were performed in polling places, judges would need to be trained to accept these ballots separately to prevent attempts to vote more than once. If such ballots are not separated, there would be no means to identify which ballot(s) should be removed if authorities later determine the person who used Election Day registration was not qualified to register or vote in that precinct.

#### **Senior Management Recommendation**

If legislation for Same-Day Registration were to be introduced, Senior Management favors the concept of separate sites for Same-Day Registration and treating the Same-Day Registration Ballots like Provisional Ballots. Senior Management also believes electronic poll books would be necessary to provide a real-time connection to a central computer system to help block any attempts to vote more than once.

The Board could incorporate one central site or several regional sites that are dedicated to same-day registration and voting. This would achieve three goals:

- 1) Prevent those who are already registered from having to wait in line behind those who waited until Election Day to register;
- 2) Separate the Same-Day voters’ ballots and not include them in the vote counts until their registration can be verified;
- 3) Create a larger pool of ballots to be counted after Election Day (along with late-arriving absentee ballots and other provisional ballots) to reduce the prospect of revealing any individual voter’s ballot selections.

## **Section 2. Changes in Election Administration**

### **C. Allow Military, Overseas & Disabled Voters to Cast Ballots by Fax or Internet**

**Current Status** Voting systems compliant with the Help America Vote Act (HAVA) assure that all voters have access to balloting systems in each polling place so that the voters may cast their ballots independently, regardless of physical differences. Meantime, the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) provides safeguards to military/overseas voters to be able to access mail-in ballots at least 45 days before an election. Further, a new system offered in Chicago provides military/overseas voters with a means to access, mark a ballot online and print it out and mail it in through the Monday before Election Day. However, what if a disabled voter's polling place cannot be made fully accessible? What if a military/overseas voter wants to cast a ballot on Election Day?

**Option** Secured fax lines, and possibly later, internet systems, can allow voters the options to cast ballots electronically.

#### **Arguments For**

- Convenience: Easier access can translate to better turnout.
- Signature: Faxed or scanned ballot applications capture signatures, the same mechanism used to verify the facility of an absentee ballot submitted by mail.
- History: Chicago Election Board already has utilized a grant-funded system through the Pentagon to offer military/overseas voters this option during the 2013 Special Primary and Special Election. The federal courts ordered Internet voting under a consent decree. The partner in this effort, Everyone Counts, has a track record of conducting balloting by Internet in other jurisdictions in the United States and abroad.

#### **Arguments Against**

- Security: Internet balloting encryption and security systems would need rigorous testing. Election authority must anticipate, mitigate for and be ready to respond to all risks, including dedicated denial-of-service (DDOS) attacks or spoof sites that disenfranchise voters on or near Election Day.
- As in any absentee voting system, there is no way to guard completely against "coercion" or "vote selling" in an internet or fax system.
- Digital divide: Different voters have varying levels of access to and familiarity with technology.

#### **Senior Management Recommendation**

For many years, the Board has supported changing the law to allow voting by fax for Military/Overseas voters in all elections. Senior Management recommends that, even though Internet voting holds out promise for providing convenience for military/overseas/disabled voters, Internet voting does not appear to be a high priority among lawmakers. Internet voting deserves continued study but security questions still loom large.

## **Section 2. Changes in Election Administration**

### **D. Offering Elections Entirely By Mail**

**Current Status** In Illinois, every voter has the *option* of casting an absentee ballot. Like the option of Early Voting, voters no longer need to give a reason or excuse to vote absentee. What about conducting an entire election all by mail?

**Option** Some jurisdictions, like the states of Oregon and Washington, have gone to all-mail elections. Such jurisdictions also provide secured local drop boxes for those who want to deposit the envelope directly into a ballot box. Do these systems increase turnout in lower-profile elections? Should Illinois give local election authorities the ability to conduct elections that historically have low turnouts entirely by absentee ballot?

#### **Arguments For**

- Convenience: Voter receives the ballot and application in the mail and returns it on or before Election Day.
- Turnout: States that have utilized all-vote-by-mail elections claim higher turnouts.
- Cost: Election authorities report that there are lower costs, because:
  - Fewer pieces of equipment to program and virtually no cartage;
  - No rentals of polling places or tables; and,
  - Fewer judges and investigators to hire and train.
- Transparency: Easier for poll watchers to monitor a central intake/ballot-counting center.
- Security: Signature checks for all ballots, as with other absentee ballots.
- Consistency: Oregon and Washington report that the central intake allows for more uniform processing of ballot applications and ballots.
- Maintains secret ballot: Envelope-in-envelope systems let judges and observers see only the signature before using automated system to add ballot to the mix without seeing how the person voted.

#### **Arguments Against**

- Tradition: Is having everyone vote by mail a blow to civic engagement?
- Accessibility: To assure everyone can vote secret ballots privately and independently, need back-up audio system for blind voters.
- Coercion: Does an all mail-in election increase the chance of coercion or pressure by a family member, employer or other person in a position of authority?
- Delivery: The U.S. Postal Service may reduce its six-day schedule, which could have a major impact, particularly the weekend before the deadline for obtaining and returning a ballot.
- Inflexible: In the polling place, a spoiled ballot is replaced easily. If a voter makes an errant mark that overvotes a ballot, he or she may not realize the mistake if the ballot is mailed. Even when voters do spot mistakes, they may have trouble getting replacement ballots by the deadline.
- Backup: Secured drop boxes would have to be offered in every neighborhood to serve those who do not want to send a ballot through the mail.
- Speed: Currently, 95% of all ballots are counted by 9 or 10 p.m. on Election Night. That number might take until late Wednesday to reach after an all-mail Presidential Election.

## **Section 2. Changes in Election Administration**

### **D. Offering Elections Entirely By Mail (continued)**

#### **Senior Management Recommendation**

Senior Management believes an all-mail election option would be most workable and most beneficial in a Special Primary and Special Election, and Supplemental Aldermanic (Run-Off) Elections. Additionally, in a Special Primary or Special Election that includes more than one election authority, each election authority should have the option of deciding whether to conduct that election entirely by mail.

### **E. Vote Centers**

**Current Status** On Election Day in Illinois, a voter may cast a ballot only at the polling place designated for that voter's precinct. During Early Voting, though, voters may use any Early Voting location offered by their election authority.

**Option** Some states, such as Colorado and Indiana, have experimented with "vote centers." Under this plan, anyone may vote at any voting center in their election jurisdiction. The concept is to offer fewer locations and more convenience. The concept requires the use of an electronic poll book system so that there are real-time logs of each voter's participation to prevent anyone from attempting to vote more than once.

#### **Arguments For**

- Savings: Set up fewer polling places, which reduces building rentals and cartage.
- Convenience: Voters can pick the site most convenient to them.
- Staffing: With fewer sites, it may be possible to have an election professional or a trained attorney available at each site to resolve questions.
- Local control: In Indiana and Colorado, local election authorities retain the decision on whether or not to use voting centers based on local needs.

#### **Arguments Against**

- Equipment: A voting center in Chicago would require offering hundreds of ballot styles for every possible combination of Congressional, State Legislative, State Representative, Judicial, etc. districts. Chicago would need to procure thousands of additional touch screens and/or go to a ballot-on-demand printing solution with ballot printers at each Vote Center. A ballot-on-demand printing solution would add equipment and extend the time to process each voter.
- Inconvenience: Those who now are able to walk or use public transit might have difficulty reaching the nearest regional voting center.
- Locations: There may be regions of the City where it is difficult or impossible to procure enough large sites with sufficient parking. On its busiest day, Early Voting accounted for 38,000 voters casting ballots at 51 sites, or an average of 745 voters per site. Election Day vote centers in Chicago would need to have the capacity to handle 500,000 to 600,000 voters in one day. Even with 250 to 300 "vote centers" in Chicago (five or six per ward), each site would need to have the capacity to handle between 1,600 and 2,400 voters per site in a Presidential Election.

## **Section 2. Changes in Election Administration**

### **E. Vote Centers (*continued*)**

#### **Arguments Against (*continued*)**

- Difficulty: Requires real-time computer interconnectivity to prevent the prospect of a single voter casting ballots at multiple sites.
- Security: Every computer at every voting center would need to have access to every signature and identifying information in the City. This same risk exists in Early Voting but would expand with the larger number of Vote Centers.

#### **Senior Management Recommendation**

Suburban and rural communities are better suited for Vote Centers in General Elections. Suburban and rural communities have fewer ballot styles. Stocking a Chicago Vote Center with 800 ballot styles in a Primary Election would be problematic. Suburban and rural communities often have more locations with ample parking, and voters who are more likely to have access to cars. Vote centers do not appear to be as viable for the City of Chicago, particularly in a large election.

However, the Board should be open to experimenting with vote centers, perhaps in addition to precincts, instead of replacing the precincts. Further, Vote Centers might be viable alternatives for Special Primaries, Special Elections or Aldermanic Run-Off Elections, where there are few ballot styles and lower turnouts. Vote Centers also could be helpful in the event the Board encounters widespread resistance to locating polling places in schools. Vote Centers also might be necessary under special circumstances, like a major weather event. In these scenarios, the most logical sites for vote centers in Chicago appear to be City Colleges.

Senior Management recommends consulting with City Colleges and lawmakers about provisions that would explicitly mandate access to City Colleges to serve as Vote Centers in Chicago.