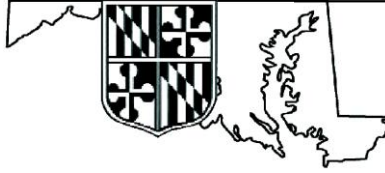


STATE BOARD OF ELECTIONS

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Memorandum

To: Senate Budget and Taxation Committee
February 20, 2018

House Appropriations Committee
Subcommittee on Public Safety and Administration
February 22, 2018

From: Linda H. Lamone, State Administrator of Elections

Subject: Response to Department of Legislative Services' FY 2019 Budget Analysis

Thank you for the opportunity to respond to the Department of Legislative Services' (DLS) analysis of the State Board of Elections' (SBE) Fiscal Year 2019 budget. Before responding to specific questions raised in the analysis, I would like to provide a brief overview of the preparations for the 2018 Primary Election.

Preparation Highlights from the 2016 General Election

As of today, over 1,550 individuals have filed for public office at SBE and over 700 candidates have filed at the local boards of elections, and the deadline to file for office is February 27, 2018, at 9pm. All candidates that filed a certificate of candidacy in 2017 **must** a 2017 financial disclosure statement with State Ethics Commission by March 1, 2018, to be included on the ballot.

There will be additional early voting centers for the 2018 elections. As noted in the analysis, there will be 78 early voting centers for the 2018 Primary Election with one additional center for the 2018 General Election. Seven counties - Anne Arundel, Baltimore City, Baltimore County, Carroll County, Howard County, Montgomery County, and Prince George's County - will have additional early voting centers in 2018, and Frederick County will have an additional center for the 2018 General Election only. Because of the additional early voting centers, SBE and the local boards of elections acquired additional voting units and pollbooks to equip these new locations.

In January 2018, SBE and all of the local boards of elections held a simulated election. This exercise included testing and preparing the equipment for an election, checking in voters and scanning ballots for three "days" of early voting and "election day," generating and uploading results, and "post-election" activities included 100% verification of results and scanning absentee ballots to generate and update absentee results. This exercise was very successful, and we are using it to identify where additional training is needed.

SBE is evaluating and testing new hardware for electronic pollbooks. Election judges in two counties - Caroline and Charles Counties - are expected to use a tablet for the electronic pollbooks during the 2018 General Election, with the other counties transitioning to the table for the 2020 elections.

All political committees' 2018 Annual Report was due January 17, 2018. SBE received nearly 1,900 reports, and over 91% of the political committees filed timely reports. Last month, SBE posted on YouTube a "how to use MD CRIS" video to help treasurers with filing the annual report, and on the filing deadline alone, the video received almost 500 hits. SBE audits every report and sends a deficiency notice if an issue is discovered. In prior audits, the most frequent deficiency was missing employer/occupation information. The ban on fundraising during the legislative session extends to soliciting contributions for federal, State or local candidates and sending "Save the Date" notices for future events.

The State's Fair Campaign Financing Fund has over \$2.9 million, and the certified expenditure limit for each election is a little under \$2.8 million. This amount can fully fund one candidate in the primary election **or** in the general election **but** not both. Montgomery County has a county public financing program for County Executive and County Council offices. SBE is working closely with the Montgomery County to administer the program, and 34 candidates are participating in the program. Howard County will have a similar program for the 2024 elections, and Prince George's County is considering a public financing program for county offices.

Since its introduction in July 2012, SBE's online voter registration system has processed almost 142,000 new registrations and almost 468,000 updates to existing registrations. The integrity of voter registration data continues to be improve as more states join the Electronic Registration Information Center (ERIC). ERIC is a voluntary program for states to ensure unregistered individuals are getting registered and ensure voter rolls are accurate. 23 states are now members¹, and participating states regularly share data from voter registration and driver's license data and compare this data against the Social Security Death index. SBE receives reports every two months, and these reports identify voters who have died, moved within Maryland, moved out of Maryland, and have duplicate registrations within Maryland. Since August 2013, ERIC has generated for Maryland over 395,000 updates to voter records and over 545,000 mailings to confirm voters' addresses.

Recommended Actions

SBE agrees with the recommended action to reduce funding for the acquisition of new pollbooks. These funds are not necessary since SBE, on behalf of the local boards of elections, will finance the purchase of the new pollbooks through the State Treasurer's Office.

SBE is willing before the 2019 Legislative Session to provide a report on the status of the software changes for the accessible ballot marking device.

Issues Raised in the Department of Legislative Services' Analysis

- 1. *Ballot Marking Devices: SBE should comment on why the vendor was not able to resolve the software issue for the 2018 election and how it plans to resolve the problem for the future.*** (page 12)

The current voting system includes a ballot marking device (also called the ExpressVote unit). A voter using the ballot marking devices makes and reviews selections using a touchscreen

¹ Participating states are: Alabama, Alaska, Arizona, Colorado, Connecticut, Delaware, Illinois, Louisiana, Maryland, Minnesota, Missouri, Montana, Nevada, New Mexico, Ohio, Oregon, Pennsylvania, Rhode Island, Utah, Virginia, Washington DC, and Washington State.

interface. When the voter is satisfied with his or her selections, the device prints a ballot with the voter's selections, and the voter feeds into the scanning unit the ballot produced by the ballot marking device. This device was designed to provide most voters with disabilities with a way to mark a paper ballot secretly and independently, and it allows a voter to listen to the ballot sections and can be used with other accessibility tools (e.g., sip and puff).

The plan for the 2016 elections was for all voters during early voting to use the ballot marking device to make selections. This plan was adopted to eliminate the risk that an election judge would issue the wrong paper ballot, allow voters to be alerted of undervotes, prevent voters from overvoting a contest, and provide voters with a summary screen to confirm selections before printing the ballot.

Several months before the 2016 Primary Election, however, SBE received from candidates complaints about how names were displayed in contests with more than seven candidates. Specifically, because the software for the ballot marking device only allowed for the display of seven names at a time on the screen, contests involving more than seven candidates had candidate names displayed on two or more screens. Although a voter was not able to move to the next contest until all of the candidates' names in a given contest had been displayed, navigation within a contest and between contests was confusing. The "Previous" and "Next" buttons moved voters *between contests*, and the "More" buttons moved voters to additional screens in the *same contest*. Because of the limited number of candidates that could be displayed on one screen and the confusing navigation, the State Board of Elections decided to limit the use of the ballot marking devices for the 2016 elections.

For the 2016 elections, the local boards of elections were instructed to deploy one ballot marking device to each early voting center and polling place². This deployment meant that most voters made selections by hand on pre-printed ballots, but voters who wanted to use or required the use of the ballot marking device could use the device to make selections. The policy required that *at least* two voters per day use the ballot marking device to ensure that the secrecy of ballots cast by voters with disabilities was preserved.

The plan for the 2018 elections was to use the ballot marking devices as originally intended, that is, all voters during early voting would use the devices to make selections. While software changes were made to address the number of candidate names that could be displayed at a time (up to 14 candidate names), no changes were made to improve the navigation logic. Although the State Board of Elections believed that navigation improvements would be in place for the 2018 elections, the voting system vendor advised in spring 2017 that changing the navigation logic required substantial resources and could not be completed and federally certified before the 2018 elections.

Prior to deciding on a policy for the 2018 elections, the State Board of Elections invited candidates, advocates for individuals with disabilities, local election officials, and other interested individuals to comment on how the ballot marking device should be used for the 2018 elections. Comments were provided at the August, September and October meetings of

² A few local boards requested and received approval to deploy more units if there was a need for more accessible devices at specific locations. The policy also included an instruction that check-in judges inform voters of the accessible way to read or mark a ballot and a requirement that a sign be displayed at each ballot marking device with instructions on how to navigate within and between contests.

the State Board of Elections and were also submitted in writing. After considering the comments, the members of the State Board of Elections decided to continue the 2016 policy for the 2018 elections.

As the vendor has committed to addressing the navigation issues before the 2020 elections, the limited use of the ballot marking device will not be needed after the 2018 elections. At a national conference this past weekend, the vendor demonstrated the new navigation logic and it appear to resolve the navigation issues previously identified. This software has not yet been federally certified and will not be ready for the 2018 elections. In the meantime, however, the 2016 and 2018 policy aims to strike a balance between the rights of candidates to have their names be viewed and considered by all voters, the ability of voters to make selections without confusion, and the requirement to ensure ballot secrecy.

2. *Election Security: SBE should update on the status of its cybersecurity operations and how it will ensure the integrity of the 2018 election before, during and after voting.* (page 13)

Each election system has a different design and therefore is protected differently. For example, the certified voting system is never connected to the Internet. This mitigates risks related to the Internet, but because election officials use thumb drives to transfer election results, risks associated with removable memory devices exist. SBE's online registration and ballot request system is connected to the Internet. As a result, we manage the risks associated with Internet.

For each system, we identify risks and identify ways to mitigate those risks and use a multilayer approach – or “defense in depth” – to protect the systems. We use vendors and consultants to host, maintain, and protect systems. For example, several systems are hosted by a web hosting company in Annapolis that uses analytics tools and artificial intelligence to monitor websites and SBE network traffic. Before the 2016 Primary Election, we used a cybersecurity firm to analyze the voting systems' election night results network.

The different structure of the various systems demands that we use different ways to protect the systems. Since pollworkers drive election results to the local boards of elections, we focus on preserving the integrity of the data. We use special thumb drives, and the data is encrypted on the thumb drives. Pollworkers also return printed results from each voting unit and the voted paper ballots, which can be rescanned to generate another set of results.

For the online voter registration and ballot request system, we must work to ensure that the system is available and maintain integrity of the data. We use an experienced web hosting firm to manage infrastructure and monitor traffic 24/7, the data is encrypted, transactions are reviewed by local election officials, and we use automated log reviews to identify suspicious transactions.

We also take advantage of the various services offered by the Department of Homeland Security (DHS). In addition to DHS' weekly vulnerability scans of several websites, DHS recently performed a Risk and Vulnerability Assessment and an in-depth cyber assessment on several election systems. DHS is also reviewing local election facilities and identifying where improvements to the physical security of the facilities can be made.

We follow the State of Maryland's IT practices and regularly perform software updates and verify that local election officials' computers are updated. We own vulnerability scanning and

penetration testing software and regularly run scans, analyze results, and mitigate findings. We look for patterns in voter registration and absentee voting behavior and conduct post-election audits to verify the integrity of the process. These post-election audits are heavily focused on voting system custody, voter transactions and the accuracy of tabulation.

We timely receive and share cybersecurity information. We receive alerts from the federal government – including DHS and the U.S. Election Assistance Commission – and the Multi-State Information Sharing and Analysis Center (MS-ISAC), share this information with local election officials, and take action based on these alerts. I am a member of DHS' Government Coordinating Council, which was created after DHS designated elections as a "critical infrastructure" in January 2017. The council's initial effort is focused on improving the sharing of information (e.g., allowing certain election officials to receive security clearances).

Although we rigorously and continuously protect and monitor our systems, we also have equally rigorous plans to restore systems and return to "business as usual" if any of the systems become unavailable. Both State and local election officials have disaster recovery plans, and these plans are tested. SBE will conduct table top exercises before both the 2018 Primary and General Elections. Systems are frequently backed up, and we can restore and process data from the back-up data.

Contingency plans for early voting and election day are in place. Replacement equipment must be deployed within 2 hours of the equipment ceasing to operate as expected, but during this time, voting will continue. If the electronic pollbooks cannot be used, each voting location has either a back-up electronic or paper list of registered voters. If the scanning unit will not accept voted ballots, each unit has an emergency ballot bin where voters can deposit voted ballots for counting later.

Although much of the work of election officials ebbs and flows, our cybersecurity work does not – it is continuous. We welcome the additional resources DHS has made available to election officials. These are free services and help us confirm other findings and identify areas of improvement. We have mature IT systems that are protected and monitored in multiple ways and are reviewing and testing our disaster recovery efforts. We are reminding the election community of the need for vigilance to protect the systems from phishing attacks, malware, ransomware, and other methods of attacks, make sure our vendors are installing updates, have adequate disaster recovery plans, and are evaluating how to build cybersecurity measures into contracts. I hope that this information assures you that Maryland's election systems are well protected and managed and the cybersecurity is a top priority of Maryland's elections officials.