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**Testimony At the
Joint Legislative General and Local Government Budget Hearing
Senate Finance Committee
Assembly Ways and Means Committee**

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Good morning Senator Krueger, Assemblymember Weinstein and esteemed members of the Senate and Assembly. I am Robert Brehm, Co-Executive Director of the New York State Board of Elections (Board). Thank you for the opportunity to speak before this panel today with regards to the SFY 19-20 budget.

I am available now and after the hearing to answer any questions you may have about the State Board of Elections operating budget, the status of our cybersecurity efforts, and the implementation of newly signed Chapters for early voting, the consolidation of the primary election, pre-registration of 16-year old individuals, the transfer of voter registration and enrollment records, and the closing of the LLC loophole. I also welcome questions on the cost of proposals pending before the legislature, such as e-pollbooks.

New York State Board of Elections Operating Budget

The New York State Board of Elections (NYSBOE) executes all laws relating to elections, oversees the conduct of elections and strives to maintain citizens' confidence in each part of the election process. The proposed Executive 2019/20 SFY budget, if adopted, would result in a substantial reduction of operating funds for both personal services and nonpersonal services. This reduction would substantially impact the agency's ability to provide current services, not to mention the new responsibilities put on the agency to establish certification programs to properly implement Early Voting and other programs that will become effective during the existing 2018-19 SFY budget and the next budget.

The proposed executive SFY 2019-20 budget appropriates to the NYSBOE, for non-enforcement matters, \$2,995,000 of nonpersonal services funds while we estimate that 4,380,000 is required to meet current program obligations (-\$1,385,000). Further, proposed personal services funds of \$4,065,000 is provided although we estimate that \$5,767,074 is required to meet current program obligations (-\$1,702,074). In addition to the funds appropriated in the SFY 2018-19 adopted budget were technology funds that were re-appropriated. The total amount of the funds is being utilized to supplement NYSBOE IT staff with Hourly-Based Information Technology Service workers (HBITS). The combined technology staff are working on several technology programs.

The State Board is the clearinghouse for over 16,000 filers of campaign finance disclosure information. The existing financial disclosure database system (FIDAS) was designed in 1994 for a much smaller number of filers and both the database and the electronic filing software (EFS) used by candidates and committee treasurers require a significant redesign to update the software systems used and improve functionality to ensure compliance with disclosure requirements.

The State Board's Election Operations Unit utilizes the Candidate Petition Administration System (CAPAS) for managing the filings of candidates running for office. This system is also used by the Compliance Unit to identify candidates who should be filing campaign finance disclosures. However, CAPAS does not capture all candidates for all offices, particularly those seeking to run for local office and do so by filing at their respective county boards. A new system which would allow data sharing between 57 county boards, the New York City board and the State Board would significantly improve our ability to provide information on candidates running for office throughout the state as well as identify those individuals who may be required to file disclosure reports with the State Board.

The State Board has been working to design upgrades for these systems for several years. The technical infrastructure for both systems are being designed in a way to be complementary to one another to maximize efficient flow of information within the State Board and for the public. We are developing a new, web-based system for campaign finance disclosure to make it easier for treasurers to file and for the public to review the reported information. The State Board is also be working with county boards and their system vendors to develop a way to share candidate data from their internal systems with CAPAS. It would be impossible to proceed with these upgrades without the requested funding.

To effectuate new reporting requirements for paid internet digital advertisements enacted by the Governor and Legislature in 2018 (Election Law §§ 14-107; 14-107-b), the State Board was required to create a new database and publish Paid Internet Digital Advertisements by early September 2018. As a result, SBOE reassigned several resources from the existing CAPAS/FIDAS project, including state and HBITS staff, to the implementation of this application in the timeframe required. This solution, however, was only a temporary measure to meet the basic requirements of the legislation. The full functionality of the database, including self-submission, automated workflow, and search capability must still be

incorporated into the mainline project. SBOE is requesting additional funds to supplement this project team to implement this functionality, as well as, regain time lost on the original project schedule due diversion of resources for the stopgap application. While the original expected completion date of April 2019 has been impacted by this requirement, the full impact cannot not yet be estimated until SBOE is able to onboard required contract staff.

In order to continue the NYSBOE's efforts to administer and protect New York's elections services, at a minimum, we submitted a request that \$3,087,074 additional funds be added to the executive budget proposal during the 30-day amendment period to fund basic agency services. The NYSBOE has long had a deficit in personal service funds but was able to provide services with nonpersonal service appropriations. A reduction of this magnitude would significantly impact technology services as well as result in almost 30 percent reduction of staff – all while we work to roll out new election reform initiatives which will take state resources to support during the initial project/regulation development and implementation stages.

Cybersecurity Efforts

In SFY 2018/19, New York State firmly committed resources to create a Secure Elections Center to protect NY's election infrastructure from cybersecurity threats with a \$5 million state appropriation for "services and expenses related to securing election infrastructure from cyber-related threats including, but not limited to the creation of an election support center, development of an elections cybersecurity support toolkit, and providing cyber risk vulnerability assessments and support for local board of elections." In addition, federal funding is available through the 2018 HAVA (Help America Vote Act) Election Security Grant which allocated \$19,483,647 to the State of New York "to improve the administration of

elections for Federal office, including to enhance election technology and make security improvements.”

The New York State Board of Elections (NYSBOE) has been diligently working to prevent, recognize and mitigate threats to our state and local election systems. The NYSBOE has been actively partnering with federal, state and county stakeholders to assess vulnerabilities, leverage resources and identify cybersecurity priorities to maintain a secure elections infrastructure.

The newly established Secure Elections Center (SEC) is responsible for securing the statewide elections infrastructure, end-to-end, from cyber-related threats by developing an elections cyber security tool kit, providing risk vulnerability assessments and support for local board of elections. In 2018, the SEC has:

- conducted extensive outreach to inform and involve federal, state and local stakeholders to increase the communication, expertise and cybersecurity resources available for the State and County Boards of Elections (CBOES);
- implemented a uniform cybersecurity hygiene web-based training for all State Board, County Board and IT staff supporting elections infrastructure;
- tested incident response capabilities and plans of NYSBOE/CBOEs/ County and State IT by conducting six (6) regional elections tabletop exercises;
- implemented a uniform cyber incident reporting procedure;
- initiated uniform, comprehensive risk assessments of all CBOES;
- contracted for uniform Intrusion Detection Systems (IDS) at all CBOEs; and
- contracted for Managed Security Services (MSS) for use by all CBOEs.

The NYSBOE expects to have completed its comprehensive risk assessment in the first quarter of 2019. Risk assessment findings will highlight the priorities and areas of greatest impact for SEC remediation efforts during SFY 2019-20 and beyond. The implementation of IDS and MSS will begin during November 2018 and continue through SFY 2019-20.

The Secure Elections Center is also taking numerous measures to increase the State Board's own security posture through the addition of multiple layers of firewalls, intrusion prevention, vulnerability scanning, application code scanning, and the implementation of multi-factor authentication for access to SBOE web-based applications. The latter effort requires retrofitting existing applications such as the statewide voter registration list known as NYSVoter, as well as, increasing the in-progress scope for CAPAS/FIDAS and MOVE projects. SBOE plans to acquire a commercial Identify Access Management (IAM) solution and hire an additional HBITS programming staff with specific IAM skillset to implement multifactor authentication on these platforms.

In 2018, seven CBOES reported cyber incidents which required extensive State resources to mitigate and recover. Interestingly, in all seven incidents, none specifically targeted election infrastructure. As elections infrastructure is not fully segmented from County infrastructure, we project the occurrence of similar cyber incidents to increase in 2019.

Going forward, we are engaged in future initiatives such as researching the utility of artificial intelligence to monitor transaction history and in examining how best to design election infrastructure. As a result of these

efforts, New York State is positioned as a national leader in election cybersecurity efforts.

State Cyber Grant Summary: \$4,219,009 of the original \$5 million state appropriation has been encumbered in relation to establishing the Secure Election Center; a portion of the Intrusion Detection Services and mitigation efforts for the NYSBOE election infrastructure. \$780,991 remains available for security-related services.

Federal 2018 HAVA Grant Summary: \$15,656,710,68 of the original \$19,483,647 grant award has been encumbered in relation to establishing the Secure Election Center; conducting county election infrastructure risk assessments; a portion of the Intrusion Detection Services; Managed Security Services (SIMs) and other cyber security efforts. \$3,826,936.32 remains available for security-related services.

It is important to note the results of the County risk assessments are expected by March 31, 2019.

Grant Thornton will provide a Security Assessment Report deliverable for each CBOE site assessed that addresses all risk identified through the governance reviews and technical vulnerability assessments. A Scanning Findings Summary Report deliverable is also a deliverable and it will provide a comprehensive written report aggregating and summarizing the assessments performed for all NYS CBOEs, trends and conclusions, and the recommendations for mitigating identified risks. The following is a high-level summary of what the SBOE can expect in the written report:

1. Executive Summary and Background – Description of the assessment methodology, approach, and scope for each of our governance and technical vulnerability scanning assessments.
2. Assessment Findings – Detailed description of the analysis and conclusions. The assessment findings will be mapped to the corresponding CIS Control/Sub-Control as specified in the CIS Handbook for Elections Infrastructure Security and rolled up to the NIST Cybersecurity Framework for a holistic view. In addition, the findings from the policy, procedure and vulnerability testing assessments will be reported with details such as vulnerability description, hosts or nodes, vulnerability severity, status of external exposure, verification of vulnerabilities, and mitigation recommendations.
3. Conclusion – The conclusion will provide a general summary of the findings by security assessment area and an overall summary of the CBOEs' (individually and across all CBOEs) security posture (current state) in comparison with security best practices for elections information systems.
4. Recommendations – the report will also include recommendations to mitigate vulnerabilities and action items to progress toward achieving the desired state in each area assessed.

New York State is committing significant resources to complete comprehensive county-level risk assessments to identify gaps in individual county boards and any over-arching statewide patterns in need of improvement. We anticipate that the remaining unencumbered cybersecurity fund balances of \$4,607,927.32 would fall far short of what is needed to mitigate even the highest priority issues.

In order to continue the NYSBOE's efforts to protect New York's elections infrastructure we requested a 30-day amendment to provide a steady, reliable stream of cybersecurity funding and appropriate in the form of a new \$10 million allocation for continued elections security in SFY 19/20. Without appropriate funding, we will have identified what needs to be fixed without providing means to fix same. It is important also to note that, based on preliminary findings from the risk assessments, county election infrastructure is unable to easily be isolated from remaining county infrastructure which makes the task of providing safe elections larger. Our efforts to protect election infrastructure will also provide collateral improvements to the county as a whole.

Implementation of Election Law Reform (Chapters 2,3,4,5 and 6 of the Laws of 2019)

In January 2019, a series of significant Election Law reform measures were enacted into law. New York State will now offer: early voting starting with the 2019 General Election in November, have consolidated primaries, enable voters to move across county lines and have your voter registration transfer with you, the ability for 16-year old individuals to pre-register, starting in 2020, and see the end of the LLC loop hole.

The implementation of early voting and the potential authorization of e-poll book legislation has a cost to Election administrators. We hope in this budget process, funding will be added in the 30-day amendments to cover early voting and e-poll books.

In a November 2018 Assembly hearing, we provided an outline of what costs should be factored in to implement early voting. In addition, with potential legislation authorizing e-poll books, a rough estimate for Statewide implementation would be roughly \$44 million.

CONCLUSION

I am hopeful the conversation on election administration funding by this joint committee demonstrates our collective will to provide more opportunities for voters to participate in the electoral process and improve voter turnout in future elections.