



## Monroe County Board of Elections

### **General Election 2022 Reporting Investigation Findings and Recommendations**

On Election Day 2022, the Monroe County Board of Elections experienced unexpected technological challenges resulting in several hours' delay in publishing election night returns. While we successfully published results within several hours of closing the polls, we recognized that voters and candidates have become accustomed to receiving this information within approximately one hour of closing polls and that the delay caused confusion and reduced confidence in the outcome for some. We then committed to conduct a full investigation of the causes of the delay, to remedy any issues within our control, and to report our findings. The following constitutes that report.

#### **Standard Election Night Reporting Procedure**

At the close of polls on each Election Day, election inspectors at each poll site follow a detailed, uniform, written site closing procedure which, among other things, requires them to power down the voting machines, remove a pair of barcoded memory cards containing identical vote tally data from each machine, seal each card in a separate tamper-evident container, and immediately return one of each pair of cards to one of several designated locations across the county. Bipartisan Board of Elections staff at each location collect the cards, scan their barcodes to confirm the chain of custody, copy each card's data to a PC and begin to upload the data to a central server in real-time. Once the file transfer is complete, the data is tallied, then exported, and published into a human-readable format on the Board of Election's website, maintained on Monroe County's server. It was at that point of export to the server that the Board of Elections staff began to detect signs of delay.

After a couple of hours of unsuccessful attempts, a Commissioner's decision was made to work outside of the County server and relocate to our auxiliary site in Brighton which operates on an independent/isolated server. Upon arrival, the team reloaded election results (absentee, early voting, and Election Day) and continued operation as originally planned.

#### **Reproducing Election Night Reporting Error**

In the months following Election Day 2022, the Board of Elections undertook an effort to review every element of the election night reporting system to diagnose the causes of the delay in publishing election night results. As is standard practice, the Board first recruited the voting system vendor Dominion Voting Systems Corp. and the network administrators at Monroe County Information Services (MCIS) to work with our expert staff to attempt to reproduce the election reporting errors.

On December 20, 2022, in preparation for a scheduled conference call with stakeholders, Board staff re-ran the full election night reporting process exactly as was done on Election Day 2022, anticipating that errors similar to those of Election Day 2022 may occur. However, that run proceeded without delay or error, in a manner consistent with usual election night reporting timelines.

The Board convened a conference call with the vendor and MCIS staff to report the result of that test and evaluate further testing options. On that call, MCIS reported that they had quadrupled the county server's RAM after Election Day and rebooted the county server on December 20, 2022. Despite that the election night reporting system appeared to be operating properly, Board staff proceeded with structured testing while vendor staff supervised users and MCIS monitored network traffic. The Board verified all software settings were in compliance with vendor and MCIS instructions, cleared all existing temporary files, restarted the required systems, and ran an export of the election data in the same manner as on Election Day. This export as well was completed without error in approximately 18 minutes,

consistent with expectations for election night reporting timelines.

The group continued with its efforts to replicate and diagnose the Election Day 2022 errors, this time evaluating the performance of the system at each of the many stages of the procedure. The Board ran a third complete extraction and upload of the election data which was also completed without error in under twenty minutes. In examining the results of the third test in detail, it appeared that the data files related to early voting and absentee voting data accounted for over ninety percent of the total processing time of that upload. The Board ran a fourth test excluding these files and found that the entire procedure ran without error in under one minute.

The Board drew several conclusions from the foregoing testing. First, it was not possible to replicate the errors encountered on Election Day 2022 with the equipment and circumstances on hand. Second, it appeared that the vendor software was working properly and that the Board had been operating and continued to operate properly. Third, there was some delay attributable to the characteristics of particular files, but this delay could not account for the entirety of the Election Day 2022 delay. Nevertheless, on January 10, 2023, the Board convened an additional round of testing and diagnostics, which returned substantially the same results as the previous rounds.

In sum, it appeared that all elements of the election night reporting system within the control of the Board of Elections were functioning properly during each round of testing and that the majority of the delay was due to transient network issues that were no longer present during testing.

### **Election Night Reporting System Improvements**

Despite that there did not appear to be any ongoing issues with the election night reporting system, the Board has taken its experience of Election Day 2022, the nature of its successful workarounds, and the results of several rounds of testing and introduced certain improvements to the system which will further reduce the likelihood of election night reporting delays in future election cycles.

First, the Board will relocate its election night canvass and reporting from its downtown Rochester offices to its Brighton Training and Service Center, where it already maintains its own server isolated from other county infrastructure, which is used for the secure maintenance of the voting machines and poll pad systems themselves. Migrating the election night reporting functionality to this server will in no way impair its maintenance functions but will increase the reliability, security, and independence of the reporting function.

Second, to the extent possible, on the Monday before Election Day, Board staff will pre-load early and absentee voting results so that the processing time associated with those files will not impair reporting of votes cast in the standard manner at poll sites. New York State law does require that absentee votes be canvassed on a rolling basis in the weeks before Election Day but does not permit Board to report them until after the close of polls on Election Day. Similarly, the law permits us to canvass early votes as early as 8 p.m. on Election Day, but not to report them until after the close of polls. Our pre-queue procedure will strictly comply with these requirements; the voting data associated with these batches of votes will be thoroughly secured against early release. The Board will continue to canvass absentee votes which arrive on or after Election Day in the standard fashion as prescribed by law.

The accuracy and security of the 2022 General Election results were never in question. It was the transmission to the website, which was the issue. Unfortunately, what traditionally took minutes turned into several hours of troubleshooting and finally, successfully publishing all results. We are confident that the remedies now in place for the 2023 Primary and General Elections will result in Election Night reporting that is not only accurate but timely, as well.

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