

# The State of Texas

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Jane Nelson  
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## MEMORANDUM

TO: Christina Adkins, Director of Elections, Texas Secretary of State

FROM: Texas Secretary of State's Elections Division Examination Team

DATE: October 16, 2024

RE: Report of Examination of Dallas County Voting Systems

The following report addresses the examination of the Dallas County Elections Department's voting systems that was conducted by the Texas Secretary of State's Office and the Texas Attorney General's Office on Tuesday, October 8, 2024, at the Dallas County Elections office.

The examination demonstrated that the voting system being tested for use in Dallas County's November 5, 2024 general election counted ballots correctly and complies with the applicable standards for certification of a voting system under the Texas Election Code.

### **Background**

The Texas Secretary of State's Office received reports of concerns relating to the Public Logic and Accuracy Testing and Tabulation Testing for the November 5, 2024 general election that was conducted by the Dallas County Elections Department on September 18-19, 2024. Concerns were raised regarding the accuracy of the central tabulator when conducting testing on September 18, 2024, and regarding the accuracy of the protective counters on specific precinct scanners that were used during the testing process.

In an effort to address these concerns, the Texas Secretary of State's Office, in cooperation with the Texas Attorney General's Office, conducted an examination under Texas Election Code 122.002 of the voting system used by Dallas County.

On October 8, 2024, employees of the Texas Secretary of State's Office, along with an employee of the Texas Attorney General's Office, conducted the examination of the EVS 6.3.0.0 system at the Dallas County Elections office. The Dallas County Republican Party and the Dallas County Democratic Party each provided two representatives who assisted and observed the examination process.

## **Voting System Testing Requirements**

Logic and accuracy testing and tabulation testing are designed to verify the accuracy of the voting system equipment and the programming that is used with that equipment for each election.

To conduct the test, a set of test ballots with known vote totals are scanned and counted by the voting system. If the known totals match the results from the test, it is considered successful. If an error is discovered in the course of the testing process, the county must correct the error and document the process that was used to resolve the issue.

## **Summary of the Examination**

The examination of the EVS 6.3.0.0 system at the Dallas County Elections office included a review of the county's testing materials and procedures, hash validation of the voting system equipment, and three separate logic and accuracy tests.

The Texas Secretary of State's Office and Texas Attorney General's Office also requested specific records from the Dallas County Elections Department relating to the testing process and the use of the equipment, which were provided by the county.

## **Review of the County's Testing Materials and Procedures**

The examination process began with a review of the county's Logic and Accuracy Testing and Tabulation Testing on September 18-19, 2024.

The following description of events is based on the documentation reviewed during the examination process, the statements by the staff at the Dallas County Elections Department, and the statements made by the members of the testing board who were present for the initial testing process in September 2024:

- The county printed test ballots for the September 18, 2024 Logic and Accuracy Testing.
- After the test ballots were printed, the county made minor formatting changes to the ballot, which caused the position of specific races and the selection oval in those races to be shifted slightly. This shift resulted in the target mark oval for specific races being in a different location compared to the test ballots that had originally been prepared for the testing process.
- The revised ballot design was loaded onto the tabulation devices for the September 18, 2024 test.
- However, the original incorrectly formatted test ballots that did not reflect the formatting change were used in the September 18, 2024 test. This error resulted in a mismatch between the test ballots and the tabulator ballot programming that was not identified before the September 18, 2024, test.

- During the testing process on September 18, 2024, the results tabulated by the scanner did not match the expected results that were prepared before the testing process began. This means that the testing process **correctly** identified that the incorrectly formatted test ballots that were used during the test did not match the ballot programming of the election.
- Because the testing process correctly identified that the incorrectly formatted ballots were used, the county was able to identify the issue, segregate the incorrectly formatted test ballots, and prepare the correctly formatted test ballots for the testing that would be conducted on September 19, 2024.
- The county placed the test materials from September 18, 2024, including all of the incorrectly formatted test ballots, into a sealed container as required by Texas Election Code 127.099 and 129.024. This container was separate from the container that was used for the September 19, 2024 test that contained the correctly formatted test ballots.
- On September 19, 2024, the county conducted testing using the correctly formatted test ballots, which matched the programming of the tabulation system. The results of this test matched the expected results, and the test was successful.
- Following the completion of the September 19, 2024 test, a Certification of the Public Logic and Accuracy Test, Hash Validation, and First Test of Automatic Tabulating Equipment was signed by the members of the testing board for both political parties and by the Elections Administrator. The Certification did not include a description of the events of the unsuccessful September 18, 2024 test.

### **Testing Procedures in the Examination**

On October 8, 2024, the examiners conducted additional testing to verify the accuracy of the equipment and the results of the September 18 test and the September 19 test.

### **Selection of Devices**

To conduct the testing, a sample of precinct scanners was selected from the inventory at the Dallas County Elections Department warehouse.

Two devices were selected by the representative from the Texas Attorney General's Office, one device was selected by the representative from the Texas Secretary of State's Office, one device was selected by the representatives from the Dallas County Republican Party, and one device was selected by the representatives from the Dallas County Democratic Party.

These precinct scanners were used for the testing, in addition to each of the devices that had been used in the original testing on September 18 and 19, 2024.

## **Hash Validation**

Hash validation is used to verify that the software and firmware of a particular voting device is the same software and firmware that was tested at the state and federal level during the certification process. Hash validation involves the comparison of a trusted hash that is provided by the Election Assistance Commission (“EAC”) to a user-generated hash that is produced from the system or device that is being hashed. A successful hash validation indicates that the software and firmware has not been altered from its certified version.

Before testing was conducted, a hash validation was conducted on each tabulation device used during the examination process. Trusted hashes were provided by the Texas Secretary of State’s Office for the examination, which were obtained from the EAC.

The hash validation process was ultimately successful for each piece of equipment. However, one DS200 precinct scanner had to be re-hashed, because the incorrect trusted hash was used, causing an unsuccessful hash validation. When the correct trusted hash was provided for the comparison, that precinct scanner produced a successful hash validation.

In the certification for the DS200 precinct scanner, three separate versions (1.2, 1.3, and 1.3.13) were each certified for that system by both the state and federal governments during the certification process for the EVS 6.3.0.0 system. Each version of the DS200 is tested and certified as a unique voting system component, with a unique trusted hash.

During the initial hash validation for this DS200 precinct scanner, the device’s hash was compared to a trusted hash for the DS200 v. 1.3 hardware configuration, which resulted in an unsuccessful hash validation. After reviewing the documentation for the device, it was determined that the county’s device was a DS200 v. 1.3.13, which would require a different trusted hash than what was originally used for the comparison.

The employees of the Texas Secretary of State’s Office requested the hash verification files for the DS200 v. 1.3.13 from the Election Assistance Commission (“EAC”) during the examination process. After receiving the correct hash verification files from the EAC for the DS200 v. 1.3.13, that trusted hash was compared to the hash generated by the county’s DS200 precinct scanner, which resulted in a successful hash validation.

## **Testing of the September 18, 2024 Testing Materials**

The first test conducted during the October 8, 2024 examination was designed to replicate the county’s unsuccessful test on September 18, 2024.

To do so, the testing materials from the September 18, 2024 test (including the incorrectly formatted test ballots) were read into the county’s scanners and tabulated into the county’s central count computer in the same manner as the September 18, 2024 test. The vote totals were consistent with expectations for the impact of the ballot formatting change on the test results.

The outcome of the first examination test along with the documentation provided to the parties in attendance at the review, indicates that the county's explanations for the ballot changes were likely the cause of the unsuccessful test on September 18, 2024.

### **Testing of the September 19, 2024 Testing Materials**

The second examination test was designed to replicate the county's successful test that occurred on September 19, 2024.

To do so, the testing materials from the September 19, 2024 test were read into the county's scanners and tabulated into the county's central count computer in the same manner as the successful September 19, 2024 test.

The results of this test were identical to the results of the September 19, 2024 test, exactly matched the expected results for that test, and all parties were permitted to compare the results line by line. This test was successful and satisfied the tabulation testing and logic and accuracy testing requirements of Chapter 127 and 129 of the Texas Election Code.

The outcome of the second examination test indicates that the programming and tabulation devices being tested for use in Dallas County's November 5, 2024 general election are tabulating ballots correctly.

### **Testing of Materials Marked by Parties Present at the Examination**

The third examination test was designed to ensure a neutral testing process with an outcome that would not be known to the Secretary of State's Office or the Dallas County Elections Department prior to the examination.

Each of the representatives from the Texas Attorney General's Office, the Texas Secretary of State's Office, the Dallas County Republican Party, and the Dallas County Democratic Party marked ballots for the test.

No script was provided to the individuals marking the ballots, and no specific direction was provided on how the ballots should be marked other than the number of ballots that would be involved in the test.

Hand-marked paper ballots and ExpressVote ballots were used during the testing process and each group was responsible for marking a batch of ballots of each type. The ballots marked by the representatives were read into the scanners, and tabulated into the county's central count computer.

Each group was also responsible for performing a hand-count of their own group's selection of ballots and verifying those results against the results generated from the results tapes produced by the precinct scanners and the final results produced by the county's central count computer. The results of the system's tabulation of the ballots were identical to the tabulation of those ballots through the hand-counting process, which indicates that this third test was successful.

The outcome of the third examination test indicates that the programming and tabulation devices being tested for use in Dallas County's November 5, 2024 general election are tabulating ballots correctly.

### **Protective Counters on DS200 Precinct Scanners**

Before the examination, concerns were raised regarding the accuracy of the protective counters on the DS200 precinct scanners used by Dallas County. During the county's testing on September 18 and 19, 2024, members of the testing board observed that the precinct scanners used in the testing had a lower protective counter than would normally be expected for a precinct scanner that had been used in prior elections.

The county provided several possible explanations for the low protective counter on those devices. At the time of the examination, the county's proposed theory was that the precinct scanners used in the testing came from a batch of approximately 50 precinct scanners that had never been used in a prior election.

At the start of the October 8, 2024 examination, a sample of five precinct scanners was selected from several different parts of the Dallas County Elections Department warehouse. The Attorney General's Office, the Secretary of State's Office, the Dallas County Republican Party, and the Dallas County Democratic Party each participated in the selection process.

The participants observed that each of the selected scanners had a low protective counter. Due to the nature of the sampling process used to select the scanners, the participants speculated that the county's proposed theory that the original scanners had not been used in prior elections was an unlikely explanation.

In an effort to determine the cause of the low protective counter, the Secretary of State's Office contacted the voting system vendor for additional information, and reviewed the vendor's technical documentation for the EVS 6.3.0.0 system, which is the system currently in use by Dallas County.

After reviewing the vendor's documentation, it was determined that the protective counter for the DS200 devices was reset during the county's upgrade from the EVS 6.1.1.0 system to the EVS 6.3.0.0 system as a result of a hardware change that was required to perform the upgrade. This change was described in the vendor's documentation, which was provided to the EAC during federal certification and to the examiners during state certification.

Based on the vendor's documentation and the observations made at the examination, the cause of the low protective counter on the DS200 precinct scanners was the hardware change that was made during the county's upgrade of those devices from the EVS 6.1.1.0 system to the EVS 6.3.0.0 system. This is consistent with the documentation that was presented during the certification process and the voting system certification requirements of the Texas Election Code.

## **Conclusion and Recommendation**

The review of the Dallas County Elections Department's September 18 and September 19 tabulation tests indicate that the unsuccessful test that occurred on September 18, 2024 was the result of the use of the incorrectly formatted test ballots that did not match the ballot programming that was used on the system that was tabulating those ballots.

The county identified the issue, placed the incorrectly formatted test ballots in sealed containers, and used correctly formatted test ballots, resulting in a successful test on September 19, 2024. No other accuracy or tabulation issues were identified with the system.

However, no documentation was produced during the certification of the testing results for the September 19, 2024 test that explained the circumstances of the September 18, 2024 test. Texas Election Code 129.023(e) requires the certification of the successful test to document any problems discovered and the cause of any problem if it can be identified. While the unsuccessful test on September 18, 2024 was the result of the use of the incorrectly formatted test ballots rather than an issue with the ballot programming or of the voting system equipment itself, the Dallas County Elections Department should have documented the circumstances of the September 18, 2024 test, and should have included that documentation in the certification document that was created for the successful September 19, 2024 test.

In the course of the examination, a recommendation was made to the Dallas County Elections Department to document the circumstances of the September 18, 2024 test.

Based on the vendor's documentation and the observations made at the examination, the cause of the low protective counter on the DS200 precinct scanners was the hardware change that was made during the county's upgrade of those devices from the EVS 6.1.1.0 system to the EVS 6.3.0.0 system. This is consistent with the documentation that was presented during the certification process and the voting system certification requirements of the Texas Election Code.

The examination on October 8, 2024, and the testing that was conducted during the examination, identified no issues with the accuracy of the tabulating equipment or with the ballot programming that is being tested for use Dallas County's November 5, 2024 general election. This demonstrates that the voting system was counting ballots correctly and complies with the applicable standards for certification of a voting system under the Texas Election Code.