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Executive Summary

In 2021, the Texas Legislature enacted Senate Bill 1 (87th Leg., 2nd Called Special Session), which included a provision requiring the Office of the Secretary of State to conduct audits in four randomly selected counties. Section 127.351 of the Texas Election Code provides that the Secretary of State shall conduct an audit of the elections held in the preceding two years after the most recent November uniform election occurring in an even-numbered year. On July 28, 2022, the Secretary of State conducted a drawing to determine which counties would be audited for the 2021-2022 election period. In this drawing, Harris County, along with Cameron, Guadalupe and Eastland counties, was selected as one of the counties to be audited in the 2021-2022 election cycle.

The Secretary of State is still in the process of completing the comprehensive audit of all elections held on uniform dates in Harris County in 2021-2022. This report contains preliminary audit findings for the November 8, 2022 General Election. The Secretary of State has conducted an extensive analysis of election records and has conducted numerous interviews with county election officials and staff. Though the preliminary findings included in this report have been identified, it is important to note that additional findings, including patterns and trends identified across all elections within the auditable period, may be included in the comprehensive report that will be released at a later date.

Preliminary Findings for November 8, 2022 General Election

In reviewing the documentation and data provided by Harris County, the Secretary of State’s Office has identified the following preliminary findings resulting from the November 8, 2022 General Election.

Data Inconsistencies Across Different Platforms

The statewide voter registration system is the official list of registered voters in an election. However, Harris County maintains a voter registration system that is independent from the statewide voter registration system. Though the two systems should have identical information, discrepancies exist between the county and state voter registration systems. Noticeable discrepancies are reflected in two separate areas: voter registration numbers and voting history.

With respect to voter registration, when the Secretary of State posted the official voter registration numbers¹ for the state by county, Harris County was listed as having 2,568,463 registered voters at the beginning of early voting based on the information submitted to the statewide voter registration system. Based on the list of voters provided by Harris County

from the county voter registration system, the county had 2,577,746 registered voters resulting in a difference of 9,283 more voters in the county system than had been successfully submitted to the statewide system. However, the cumulative results report\(^2\) and canvass report\(^3\) posted by Harris County showed a total of 2,543,162 registered voters which reflected 25,301 less voters than had been submitted to the statewide system.\(^4\)

Based on the information obtained from Harris County, the Secretary of State is unable to definitively identify the exact cause of this discrepancy. It is unknown whether this inconsistency is due to ineffective county procedures or the mismanagement of election and voter registration data. This is a sizeable discrepancy that reflects the failure to accurately align various election systems utilized in Harris County.

<table>
<thead>
<tr>
<th>Statewide Voter Registration System</th>
<th>Harris County Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official List of Voters</td>
<td>Cumulative Results Report</td>
</tr>
<tr>
<td>2,568,463</td>
<td>2,577,746</td>
</tr>
</tbody>
</table>

Figure A: Registered Voter Disparities Across Reporting Systems

Almost 3,600 mail ballots were sent to voters but not reported to the state.

This inconsistency in reporting across the multiple vendor systems used by Harris County occurs in every phase of the mail ballot process, including ballots mailed, received, accepted, or rejected, that was reviewed in conjunction with the audit.

These discrepancies result in significant fluctuations in data and, at times, incomplete or inaccurate voting rosters presented on the Secretary of State’s website. The posted information is an exact presentation of the actual voting participation record assigned to each voter as submitted by each county. It is the responsibility of the county to ensure that all voting rosters are submitted successfully and displayed accurately on the Secretary of State’s website.

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\(^2\) November 8, 2022 General Election Cumulative Report, Harris County County Clerk’s Office, https://www.harrisvotes.com/Election-Results/Archives.

\(^3\) November 8, 2022 General Election Cumulative Report, Harris County County Clerk’s Office, https://www.harrisvotes.com/Election-Results/Archives.

\(^4\) Voter registration is a dynamic process and continues during an election. However, each election has a specific voter registration deadline that determines eligibility for voting in that election.

\(^5\) The Harris County Election Administrator’s Post Election Report did not indicate which data source they used to determine the total number of mail ballot sent to voters.
Discrepancies in election data lead to legitimate questions that, when unanswered, contribute to an erosion of public confidence in the integrity of election results.

While the inconsistencies may seem minor in comparison to the total number of registered voters and the total number of mail ballot voters, the inconsistencies make it difficult to validate election data and to ensure that eligible voters were able to cast a regular ballot for this election. These discrepancies also limit the ability to verify that ballots were handled properly, voting participation was properly recorded, or that the records accurately reflect the voting activity that occurred in a given election. Further investigation related to conflicting data and county procedures is warranted to ascertain the exact cause of the data discrepancies in the November 8, 2022 General Election.

Ballot Paper Distributions Did Not Follow Election Code Requirements

Ballot paper distributions for election day did not comply with requirements outlined in the Texas Election Code. The Texas Election Code provides a specific rule in determining how much ballot stock to deploy to a given location. This allocation is based on expected voter turnout of voters based on data from the most recent corresponding election, and requires that an additional 25% is included in the allocation for each location.\(^6\) Harris County did not comply with the Texas Election Code requirements and instead relied on their own methodology.

However, the amount of ballot paper that was provided to several election day polling places was insufficient to account for the projected turnout of those locations under the county’s own methodology for calculating the necessary supplies and equipment for each location. The documentation completed by election judges also indicates additional ballot paper allocations were made to at least 238 election day polling places, which is an indication that their alternative methodology was insufficient.

Harris County had a plan to provide additional supplies to locations as needed, but the centralized system used to monitor polling place voter check-ins failed, and Harris County had no way to monitor voting trends on election day at the individual polling places.

\(^6\) Tex. Elec. Code § 51.005.
This miscalculation of supply distributions, coupled with the county’s inability to monitor voting activity, meant that the county had no way to proactively provide needed supplies to their polling locations.

**Equipment Issues Interfered with Voting Activities**

*Equipment issues during both early voting and election day were widespread and interfered with voting activities.*

Help desk logs, rover tickets provided by Harris County, and state inspector reports outlined numerous issues during early voting and on election day with voting system equipment. Specifically, certain polling locations were experiencing frequent paper jams that resulted in a high volume of spoiled ballots. As Harris County had a two-page ballot for this election, the paper jams led to many locations utilizing more ballot paper than anticipated which may have further contributed to the supply issues related to ballot paper. Harris County should have adjusted the election day ballot paper allocations based on the high volume of spoiled ballots that resulted from paper jams during early voting, but documentation from Harris County does not show that this was taken into consideration. In fact, paperwork provided by Harris County indicated 12,833 spoiled ballots for the November 8, 2022 General Election.

Documentation from Harris County also confirmed that there were numerous calls related to power and connectivity issues. In categorizing the reported issues between actual machine malfunctions and issues that resulted from improper set-up of the equipment prior to opening the polling locations, the audit team discovered that 67% of the issues were diagnosed as equipment malfunctions, and 20% of the tickets were resolved when a technician addressed improper cabling connections or set-up design. A combination of paper jams related to the two-page ballot and inadequate training on equipment set-up led to widespread equipment failures. This indicates a strong need for additional training on the equipment and how to properly establish connections when setting up the equipment prior to the commencement of voting.

*38 polling locations experienced a gap of voter check-ins of an hour or more.*

Between the ballot paper distribution issues and the equipment difficulties, the audit team identified 38 locations, as mapped below, that experienced a gap or cessation of voter check-ins of one hour or more. In addition to these 38 polling locations, there may have been more locations where voting was impacted for shorter periods of time, but further data analysis would be needed to definitively establish this finding.
Missing or Incomplete Paperwork was Common on Election Day

Missing or incomplete paperwork from election day polling places made it difficult to validate polling place activities and confirm the scope of various election day problems. In reviewing paperwork related to supply distribution, the audit team experienced difficulties determining the scope of the problem because numerous locations did not properly fill out their required polling place paperwork. Additionally, the audit team’s review of chain of custody documentation from a sampling of polling locations revealed numerous instances of paperwork and reports that were incomplete, unsigned or not generated. Polling place reconciliation paperwork could not be used to validate the preliminary reconciliation report because multiple locations either did not complete the form or were missing critical data points.

Specifically, in an attempt to review the reconciliation documentation provided by Harris County, the audit team discovered that 67 of 782 (9%) polling locations did not return the reconciliation form. Additionally, excluding the missing 67 locations, the audit team identified the following issues with the forms returned:

27% of polling locations failed to return or properly complete necessary paperwork.
• 119 (15%) locations did not include the number of voters who cast a ballot;
• 148 (19%) locations did not include the number of provisional votes cast;
• 79 (10%) locations did not include information for the start of day counts for the individual pieces of equipment; and
• 99 (13%) locations did not include information for the end of day counts for the individual pieces of equipment.

Considering 67 polling locations did not return reconciliation documentation and 148 locations did not include the number of provisional votes cast, at least 215 of 782 (27%) polling locations either did not return the form or had incomplete paperwork.

In stark contrast to election day documentation, early voting polling place paperwork was largely complete and well-executed. Typically, early voting workers are more experienced and receive more training as they work more closely with the county election officer. The differences between election day and early voting paperwork are reflective of this discrepancy in training and experience.

Training for Election Judges and Clerks was Insufficient

As previously mentioned, analysis of the equipment issues experienced in Harris County during the November 8, 2022 indicates a strong need for a more intensive training program for election judges and clerks on equipment set-up and use. Of the 205 troubleshooting tickets provided by Harris County related to equipment malfunctions on election day, 41 of those issues may have been avoided with more in-depth training and timely preparation prior to the election.

Training materials and polling place manuals did not provide adequate instruction or specificity on completing required and necessary paperwork. In order for Harris County to remedy many of the issues identified in this report, Harris County should consider including in their training materials examples of properly completed documentation, troubleshooting guidance on common equipment issues, and signature requirements which verify the essential two-person verification of chain of custody and reconciliation activities.

Furthermore, it is evident that Harris County did not have consistent procedures for reviewing paperwork completed by election judges. Had they reviewed paperwork when equipment, ballots, and forms were delivered to their central counting station at the end of election day, they would have been able to address inconsistencies in paperwork immediately with their election judges. This would have led to a more complete picture of what transpired at each polling place and would have allowed for a more comprehensive reconciliation of voters and votes cast on election day.
Notable Changes Following 2020 Audit

The Office of the Secretary of State previously released an audit containing a review of the November 3, 2020 General Election. The audit was released in two phases. The Phase 1 Progress report\(^7\) included information related to Harris County’s Election Security Assessments and the accuracy of their voter registration data. The final Phase 2 Report\(^8\) addressed specific findings relating to the November 3, 2020 General Election. Since the 2020 reports were issued, Harris County has taken the following steps to address issues identified in the audit.

List Maintenance Activities

The National Voter Registration Act of 1993 (NVRA) requires states to adopt and implement procedures to verify continuing eligibility of voters in order to maintain accurate and current voter registration lists. Likewise, the Texas Election Code requires counties to continuously update their voter registration lists to ensure that only eligible voters are registered to vote in the county in which they reside. List maintenance activities include examining eligibility status based on residency, citizenship, felon status, mental incapacity, and whether a voter is potentially deceased.

The Secretary of State has been working with all Texas counties to ensure that list maintenance activities are worked in a timely and compliant manner to safeguard the accuracy of the statewide list of official voters. Following the passage of Senate Bill 1113 (87th Leg., Regular Session), the Secretary of State increased the monitoring and oversight activities related to all list maintenance activities on a monthly basis. Harris County has provided confirmation of the receipt of list maintenance notifications from the state system, but the county only provides an updated voter status at the conclusion of some investigations. For counties using a third-party voter registration system, the state has limited insight into county investigations while they are in progress and to any communication or correspondence of the actual investigation.

During 2022, as part of these list maintenance efforts, Harris County cancelled 21,916 voter registrations following a county review of voters who may have been deceased, 778 voter registrations were cancelled due to felony convictions, and 47 voter registrations were cancelled due to non-citizenship. A total of 60,422 voter registrations were cancelled for duplicative registration records or for voters who may have moved to other Texas counties.

\(^7\) Phase 1 Progress Report, Texas Secretary of State, (December 2021), https://www.sos.state.tx.us/elections/forms/phase1-progress-report.pdf.
Necessary Contingency Plans for Potential Emergency Events

The 2020 audit revealed that Harris County did not have documentation reflecting a continuity of operations plan or emergency management plans. Since 2020, Harris County has made an effort to develop adequate contingency, incident response, and emergency management plans, specifically with regard to elections and voter registration. Additionally, the Harris County elections office has worked with the Harris County Universal Services to ensure that elections operations are included in county planning. For security reasons, the details of such plans are confidential. Though Harris County has made progress in this area, the Secretary of State highly recommends that Harris County implement Vendor Risk Management Policies since the county relies on different vendors to store, maintain, and process election data.

Changes to Harris County Election Administration

On July 14, 2020, Harris County created the office of the Harris County Elections Administrator and transferred all voter registration duties and election duties to this appointed office, effective November 18, 2020. As a result of Senate Bill 1750 (88th Leg., Regular Session, effective September 1, 2023), the office of the Elections Administrator has been dissolved and voter registration duties have returned to the Tax Assessor-Collector and election duties have returned to the County Clerk.

For the November 8, 2022 General Election, voter registration and election duties were fulfilled by the office of the Harris County Elections Administrator. As a result of the transfer of duties back to the elected officers that traditionally handle elections as a matter of law, the Secretary of State’s Office expedited the review of the November 8, 2022 General Election to address outstanding questions related to the distribution of equipment and supplies. The decision to expedite this review was based on the desire to provide to the new election and voter registration officers as much information as possible to address any process and procedure changes that may be necessary prior to the 2024 election cycle.

Conclusion

This report offers preliminary findings related specifically to the November 8, 2022 General Election. The Secretary of State is working on a comprehensive report of all elections conducted during the 2021-2022 calendar year. While Harris County has made some improvements in their overall county efforts related to list maintenance and security, these preliminary findings show that Harris County needs to address their election-specific policies and procedures.
Overview

According to the 2020 census, Harris County has a population of 4,731,145 residents. Administering an election in a county of this size requires a large number of election workers, an enormous amount of training and preparation, and strong, detailed policies and procedures to ensure a secure, accurate, and accessible election.

Harris County has 1,166 county voter registration precincts. These precincts are the basis for determining how many polling locations are needed on election day.\(^9\) Harris County participates in the Countywide Polling Place Program that allows a voter in a county to vote at any election day polling place located within the county. Voting for the November 8, 2022 General Election was conducted in 99 early voting locations and 782 election day polling places.\(^{10}\) Following the voter registration deadline, based on information submitted to the Secretary of State, Harris County had 2,577,746 registered voters at the time of the election. According to the Harris County canvass report, 1,107,390 voters cast a ballot in the election, resulting in a voter turnout of 45.40%.

Election Workers

For the General Election for State and County Officers, presiding judges and alternate judges for election day polling places are appointed by commissioners court from lists provided by the party chairs of each political party whose candidate for governor received the highest and second highest number of votes in the county in the most recent gubernatorial general election.\(^{11}\) Election clerks are hired by the presiding judges of each election day polling place. Harris County provided a list of election judges and clerks to the Secretary of State as part of this audit. Additionally, this information was included in the Harris County Post Election Report disseminated by the election administrator. In total, 5,498 workers served throughout the county for the November 8, 2022 General Election.

\(^{9}\) Tex. Elec. Code § 42.001.

\(^{10}\) Under Sec. 43.007 of the Texas Election Code, Harris County could reduce their polling locations to 50% of their county voter registration precincts which would only require 583 election day polling locations. However, Harris County has opted not to reduce their polling locations to the extent permitted by Section 43.007 of the Texas Election Code.

\(^{11}\) Tex. Elec. Code § 32.002.
County election officials are required to provide one or more sessions of training specifically for election judges and clerks appointed to serve in elections ordered by the Governor or a county authority.\(^\text{12}\) For election judges, the training must include procedures related to the early voting ballot board and central counting station, as applicable. For election clerks, the training must include procedures relating to the acceptance and handling of voter identification. Harris County requires that all judges and clerks attend a four-hour training session in order to serve in an election. Additionally, Harris County provided a virtual option for those unable to attend the in-person training.

As reported in the Harris County Post Election Report, the county completed a review and revision of the training program and resources prior to the election. The report indicates that the training review produced improved resource materials, a newly organized training manual, and training presentations. The county’s goal was to increase “the hands-on training aspects to ensure workers could set up and operate the voting machines.” The new training manual was provided to every election worker as part of the training class and as a reference resource to use during elections.

---

The in-person training events were held between September 26 – November 7, 2022. As described in the Harris County report, during the 4-hour program, general procedures and responsibilities were discussed prior to breaking into smaller group settings for a more hands-on environment for attendees to learn how to set up voting equipment and complete election forms. Harris County provided no further details regarding the curriculum of the in-person training or the specific forms on which detailed training was provided. According to documentation provided by the county, 5,478 election workers attended in-person training while 785 attended the virtual training.

**Election Systems**

For the November 8, 2022 General Election, all election system equipment in use was certified by the Secretary of State.\(^\text{13}\) It is the responsibility of the county election officers to ensure that all certified equipment is being used in a manner consistent with the terms of the certification and in accordance with state and federal law.

**Voting Systems in Harris County**

In January 2021, Harris County executed a contract to acquire Verity Voting 2.5 developed by Hart InterCivic, Inc. Verity Voting 2.5 was certified by the Secretary of State on April 1, 2021. This voting system was in use for the November 8, 2022 General Election.

\(^\text{13}\) Tex. Elec. Code § 122.031.
Election Management Software

According to county records, Harris County utilized the following Hart software solutions:

<table>
<thead>
<tr>
<th>Component</th>
<th>Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verity Data</td>
<td>2.5.0</td>
<td>Election Management Software</td>
</tr>
<tr>
<td>Verity Build</td>
<td>2.5.0</td>
<td>Election Management Software</td>
</tr>
<tr>
<td>Verity Count</td>
<td>2.5.0</td>
<td>Election Management Software</td>
</tr>
<tr>
<td>Verity User Management</td>
<td>2.5.0</td>
<td>Election Management Software</td>
</tr>
<tr>
<td>Verity Election Management</td>
<td>2.5.0</td>
<td>Election Management Software</td>
</tr>
<tr>
<td>Verity Desktop</td>
<td>2.5.0</td>
<td>Election Management Software</td>
</tr>
</tbody>
</table>

Figure 4: Election Software in Use for 2022 Election as reported by Harris County

Voting System Hardware

According to county records, Harris County utilized the following Hart hardware solutions:

<table>
<thead>
<tr>
<th>Component</th>
<th>Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verity Controller</td>
<td>2.5.1</td>
<td>Voting Machine Ballot Activation Device</td>
</tr>
<tr>
<td>Verity Touch Writer with Access</td>
<td>2.5.1</td>
<td>Ballot Marking Device</td>
</tr>
<tr>
<td>Verity Touch Writer Duo</td>
<td>2.5.1</td>
<td>Ballot Marking Device</td>
</tr>
<tr>
<td>Verity Touch Writer Duo Standalone</td>
<td>2.5.1</td>
<td>Ballot Marking Device</td>
</tr>
<tr>
<td>Verity Central</td>
<td>2.5.1</td>
<td>Central Scanner</td>
</tr>
<tr>
<td>Verity Scan</td>
<td>2.5.1</td>
<td>Precinct Scanner</td>
</tr>
</tbody>
</table>

Figure 5: Election Hardware in Use for 2022 Election as reported by Harris County

Description of Acquired Hardware

The following information provides brief descriptions of each type of hardware used by Harris County:

- **Verity Controller**: This device is used in conjunction with the Verity Touch Writer Duo ballot marking device. This device is connected to the voting devices in the polling place and is generally placed at the check-in station in the polling place for use by the election workers. The election worker will enter the voter’s precinct or ballot style on the Controller, which will issue an access code that is given to the voter. The voter will enter the access code on their voting device, and the Controller will tell the voting device which ballot style to pull up for that voter.

- **Verity Touch Writer with Access**: This is a ballot marking device that includes accessibility features. It operates in the same manner as the Verity Touch Writer Duo, except that it provides those accessibility features and includes a separate ballot printer.
- **Verity Touch Writer Duo**: This is a ballot marking device that can provide accessibility features. The voter makes their selections on the device, and those selections print onto a printed vote record (which is not designed in the same format as a traditional paper ballot, and only lists the voter’s selections on the printed record). The printed paper ballot is then deposited into a ballot box or a precinct scanner, depending on the county’s setup. This version of the Verity Duo must be connected to a Verity Controller device.

- **Verity Touch Writer Duo Standalone**: This is a ballot marking device that can provide accessibility features. This device operates in the same manner as the Verity Touch Writer Duo device, except that it is a standalone device that is not connected to a Verity Controller device.

- **Verity Central**: This is the central scanner for the Verity system and its associated software. The scanner connects to a workstation computer, and as the scanner reads the ballots, those ballots are scanned and read into the Central system. The operator can adjudicate irregularly marked ballots (i.e., undervotes, overvotes, and write-ins) in the software for this module or the operator can set those to be adjudicated in the Count system. The cast vote records from the scanned ballots are exported onto a vDrive that is then read into the Count system.

- **Verity Scan**: This is the precinct scanner for the Verity system. Voters deposit their ballots directly into the scanner at the polling place. This system scans the ballot by reading the text of the ballot through optical character recognition (OCR) technology. The cast vote records and ballot images are read onto a vDrive, which is later read into the Count system.

- **vDrives**: This is the term used for the USB media drives in the Hart Verity system that are used to transfer election data from one device or workstation to another. This can include loading election programming from the Build system onto a voting device, or exporting the cast vote records and/or ballot images from a voting device or scanner so that it can be imported into the Count system. These are proprietary drives that are used with the system, and cannot be substituted for third-party, off the shelf USB drives.

- **Verity Key**: This is a USB device that is used for two-factor authentication purposes. There are several aspects of the system which require a second level of validation to perform (e.g., editing an election in Data or Build, loading election programming onto a voting device or scanner, reading media into Count, etc.). When those actions are performed, the Verity Key must be inserted into the device or workstation by the administrator or election judge to verify that the action is being performed by an authorized user.
**Electronic Pollbook**

Harris County developed, maintains, and operates their own electronic pollbook system. Initially certified in January 2020, Harris County’s ContentActive E-Pollbook V7.15 was recertified on May 31, 2022¹⁴ for use in Texas prior to the November 8, 2022 General Election.

**State Inspector Reports**

The Secretary of State is required to appoint one or more inspectors for an election upon a written request from 15 or more registered voters.¹⁵ Additionally, the Secretary of State has the discretion to appoint an election inspector to any election.¹⁶ A state inspector is entitled to be present, and observe any function or activity, at a polling place, central counting station, place of canvass, or other place at which official election or voter registration functions or activities take place. State inspectors are responsible to the Secretary of State and subject to the Secretary’s direction.¹⁷

While inspecting, state inspectors prepare an inspection report identifying any violation of law observed by the inspector to the Secretary of State following the election.¹⁸ The Secretary of State appointed 13 state inspectors for the November 8, 2022 General Election in Harris County. Of the assigned inspectors, 7 inspectors conducted observations during the early voting period while 6 inspectors conducted observations on election day.

Overall, 93 polling locations were inspected including 41 early voting polling locations, 51 election day polling locations, and 1 central counting station was observed during this election. Considering Harris County utilized a total of 881 polling locations for this election, inspectors collectively observed activities at 10.5% of all polling locations during the election.

![Figure 6: State Inspector Assignments to Harris County for November 8, 2022 General Election](image)

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¹⁵ Tex. Elec. Code § 34.001(b).

¹⁶ Tex. Elec. Code § 34.001(a).

¹⁷ Tex. Elec. Code § 34.001(d).

¹⁸ Tex. Elec. Code § 34.002(c).
While conducting a review of all reports provided by state inspectors for Harris County following this election, several common possible issues were noted, including voting system technical issues, improper polling place procedures, inability to vote, accessibility concerns, and perceived intimidation.

![State Inspector Reports](image)

**Common Concerns Identified by Inspector Reports**

**Machine Malfunctions/Technical Issues**

Machine malfunctions and technical issues were the primary irregularity, accounting for 48% of the issues identified in state inspector reports for during the November 8, 2022 General Election. Inspector reports noted frequent breakdowns of voting equipment and having to reboot equipment created long lines at polling places and frustrated voters. Machines consistently exhibited ballot feeding problems, printing issues, ballots jamming, or overall operational difficulties. Of the 93 polling locations inspected, 30 sites exhibited some form of machine malfunctions or technical issues.

**Polling Place Procedures**

Reported concerns with procedures by the elections staff accounted for 44% of the state inspector reported issues. Common issues identified by the state inspectors included:

- Improper provisional ballot procedures;
- Stamped ballots left unattended;
- Not placing ballots in appropriate bins/boxes;
- Managing voter privacy;
- Electioneering within 100 ft. of polling location; and
- Election workers not wearing name tags.
Accessibility

State inspector reports included specific concerns about two locations. The reports noted concerns about the proximity of a wheelchair accessible ramp to the actual polling location and concerns about the proximity of available parking at a second polling location. More detailed information related to the state inspector reports is included in this report.

Complaints

Any person who believes that a criminal violation of the Texas Election Code has occurred may file a complaint with the Secretary of State’s office. In order to initiate the complaint process, a written and signed complaint must be filed with the Secretary of State.

The Secretary of State has no authority to order a new election, change an election result, or conduct a criminal investigation. However, the Secretary of State has the ability to refer election complaints to the Office of the Attorney General.\(^\text{19}\) If, after receiving a complaint alleging criminal conduct in connection with an election, the Secretary of State determines that there is reasonable cause to suspect that the alleged criminal conduct occurred, the Secretary of State shall promptly refer the complaint to the Attorney General.

Additionally, the Secretary of State may order administrative oversight of the Harris County election administration or voter registration office if an administrative election complaint is filed with the Secretary of State and the Secretary of State has good cause to believe that a recurring pattern of problems with election administration or voter registration exists in Harris County. Complaints that may initiate the administrative oversight process may only be filed by individuals who participated in the relevant election as a candidate, county chair or state chair of a political party, presiding judge, alternate presiding judge or head of a specific-purpose political committee that supports or opposes a measure. Issues that may trigger the administrative oversight process include, but are not limited to:

- Malfunction of voting system equipment;
- Unfair distribution of election supplies;
- Errors in tabulation or results;
- Delays in reporting election returns;
- Discovery of voted ballots after the polls close; and
- Failure to conduct maintenance activities on the lists of registered voters as required.\(^\text{20}\)

To date, the Secretary of State’s Elections Division received 38 complaint forms from Harris County residents about the November 8, 2022 General Election. There is no statutory deadline for the submission of complaints related to a specific election.

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\(^{19}\) Tex. Elec. Code § 31.006.

Figure 8: Complaints Received by Voting Period

An analysis of the complaints received identified an elevated number of concerns related to ballot by mail, chain of custody, and machine malfunctions. A breakdown of the complaints by topic is included below.

Figure 9: Election Complaints by Topic
Voter Registration

Findings

• The Secretary of State has limited insight into the list maintenance process when counties are utilizing a separate county voter registration vendor.
• Though Harris County has made improvements in data synchronization, the county must continue to work to ensure consistency and accuracy between the data contained in their county systems and the data reported to the statewide system.
• Harris County must continue to exercise due diligence in addressing all list maintenance notifications provided by the Secretary of State to ensure the integrity of the county voter registration list.

Voter Registration in Texas

The Texas Election Code outlines the eligibility requirements for voter registration in the State of Texas.\(^{21}\) To be eligible for registration as a voter in Texas, a person must:

• be 18 years of age or older;
• be a United States citizen;
• not have been determined by a final judgment of a court exercising probate jurisdiction to be totally mentally incapacitated or partially mentally incapacitated without the right to vote;
• not have been finally convicted of a felony or, if so convicted, must have fully discharged the person’s sentence, including any term of incarceration, parole, or supervision, or completed a period of probation ordered by any court or been pardoned or otherwise released from the resulting disability to vote; and
• be a resident of the county in which the application for registration is made.

Official Statewide Voter Registration List

The Secretary of State is responsible for the implementation and maintenance of an electronic statewide voter registration system. This system serves as the single system for storing and managing voter registration information from all Texas counties and serves as the official list of registered voters (OLRV) in the state.\(^{22}\) It is the responsibility of county voter registrars to provide all necessary voter registration information on an expedited basis to ensure the accuracy of the voter registration records maintained in the system as well as the accuracy of the official list of registered voters eligible to cast a vote in each election.\(^{23}\)

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\(^{23}\) Tex. Elec. Code § 18.061(c).
The voter registration deadline for the November 8, 2022 General Election was Tuesday, October 11, 2022. Following the registration deadline, county voter registrars must enter all voter registrations received in a timely manner to ensure accurate voter lists. It is important to note that the voter registration deadline is a postmark deadline. Therefore, a county may continue to receive valid voter registrations after the statutory deadline. All voter registration applications received that meet eligibility requirements must be accepted and these voters must be added to the official list of registered voters prior to election day.

To allow time for this clerical work and for late arriving voter registrations, the Secretary of State typically posts the official voter registration numbers for each statewide election immediately before the start of the early voting period. For the 2022 election, the Secretary of State posted the official voter registration numbers for the state by county including 2,568,463 registered voters in Harris County.

<table>
<thead>
<tr>
<th>County Name</th>
<th>Precincts</th>
<th>Voter Registration</th>
<th>Suspense Voters</th>
<th>Non-Suspense Voters</th>
</tr>
</thead>
<tbody>
<tr>
<td>HARRIS</td>
<td>1,166</td>
<td>2,568,463</td>
<td>196,468</td>
<td>2,371,995</td>
</tr>
<tr>
<td>STATEWIDE TOTAL</td>
<td>9,144</td>
<td>17,672,143</td>
<td>1,824,802</td>
<td>15,847,341</td>
</tr>
</tbody>
</table>

Figure 10: Official Number of Registered Voters as Reported to Secretary of State

The voter registration numbers stated above include voters with a “suspending” or “non-suspending” voting status. Both of these designations are considered active voters and are afforded full rights to cast a ballot in Texas, if eligible. Voters with a suspending designation are required to complete a Statement of Residence form to confirm their registration address prior to voting.

While conducting the audit, the team identified differences across several reporting mechanisms utilized by Harris County. Based on the list of voters provided by Harris County, the county had 2,577,746 registered voters while the cumulative results report\(^{24}\) and canvass report\(^{25}\) show 2,543,162 registered voters. Though this represents a low percentage of registered voters, the discrepancy warrants additional investigation to determine the source of the inconsistency. The audit team was unable to identify the cause of the conflicting data based on the information provided by Harris County.

Although the Secretary of State understands the complexity of exact matching due to the timing and coordination of system snapshots while voter registration is still occurring, this disparity of the numbers creates an inability to definitively measure voter turnout and additional required statistical reporting. This would necessitate a close alignment and synchronization of all vendor systems, including the voter registration and electronic pollbook ("ePollbook") systems, and accurate reporting to the statewide system which serves as the official list of registered voters.

\(^{24}\) Harris County Clerk’s Election Results, November 8, 2022 General Election Cumulative Report, https://www.harrisvotes.com/Election-Results/Archives.

\(^{25}\) Harris County Clerk’s Election Results, November 8, 2022 General Election Canvass Report, https://www.harrisvotes.com/Election-Results/Archives.
This responsibility to provide accurate and timely voter registration numbers across all platforms falls on the county election official to ensure consistent reporting.

<table>
<thead>
<tr>
<th>Statewide Voter Registration System</th>
<th>Harris County Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official List of Voters</td>
<td>Cumulative Results Report</td>
</tr>
<tr>
<td>2,568,463</td>
<td>2,577,746</td>
</tr>
</tbody>
</table>

Figure 11: Registered Voter Disparities Across Reporting Systems

**Voter Registration System Certification Process**

Counties in Texas may elect to contract with a third-party vendor to operate the county voter registration system upon the approval of the Secretary of State. The state voter registration vendor certification program is limited in scope and authority. The program measures only compatibility between the county system and the statewide voter registration system. This process ensures the successful exchange of voter information in a timely manner through a series of testing protocols. Once all testing protocols are successfully completed, the third-party vendor is certified as a voter registration vendor in the state. Though the Secretary of State certifies the interfacing capabilities of such systems, it remains the responsibility of the county to ensure that the vendor system is compliant with state and federal law in regards to the processing and protection of voter registration records and information.

While third-party voter registration systems utilized by some counties comply with the significant interfacing requirements with the state system, the state has limited insight into county registration activities. Voter registration information is submitted to the state; however, the tracking of all correspondence including list maintenance activities is not provided to the state. In most cases, only the final outcomes of county investigations related to voter eligibility and residency are reported to the state system.

**Voter Registration Systems in Harris County**

Harris County contracts with VOTEC Corporation for use of their VEMACS voter registration platform. VOTEC has successfully completed the state’s limited certification process and their VEMACS platform is certified for use by county election officials in Texas.

**System Synchronization**

Counties using a certified third-party system have been required to complete synchronization at least once annually to ensure consistency of all voter registration records. However, in June 2022, the Secretary of State began requiring that the system synchronizations be conducted on a monthly basis. This change in policy was a result of the legislative requirements from Senate Bill

1113 (87th Leg., Regular Session) which required the Secretary of State’s Office to monitor county voter registration on a monthly basis. This process includes an accuracy verification of voter registration records focusing on key elements such as voter status, registration dates, effective dates of registration identifying voting eligibility, as well as name and address records, associated precincts, and personally identifiable information. This synchronization supports the accuracy of the official list of registered voters hosted by the Secretary of State.

Harris County has consistently conducted monthly syncs since June 2022. These scheduled synchronizations resumed after the May 2022 election. A review of the monthly data in June 2022 reflected an initial inconsistency between the two systems of over 1,000,000 voter records. A discrepancy identified during the sync process may be related to such activities as new voter registrations that are still pending, voters who have recently moved and the transfer of those records to a new county is still in process, and redistricting activities within the state and county voting precincts. It is important to note that such discrepancies do not indicate ineligible voters but indicate conflicting or missing information in the voter records between the two systems.

A continued review of the process in July 2022 reflected a reduction in the number of discrepancies to approximately 3,950 voter records. This reduction is the result of an intensive review by the county of all records showing a discrepancy of voter information. After reviewing and identifying any missing or inconsistent information, the county resubmitted those records to the state system. A final sync, conducted prior to the voter registration deadline for the November 8, 2022 General Election, reduced the discrepancies to approximately 2,500 voter records leading to a more consistent alignment of the data shared between the two systems.

According to Harris County staff, ePollbooks are synced with VEMACS data prior to each election. Likewise, voter participation information is transferred from the ePollbook to VEMACS during the voting period and submitted to the statewide system on a nightly basis.
Though a discrepancy of approximately 2,500 voters is a small percentage of the registered voters in the county, this discrepancy, if not resolved, may result in inaccurate reporting of voter participation for the affected voters.

Accuracy of Voter Registration List

The National Voter Registration Act of 1993 (NVRA) requires states to adopt and implement procedures to maintain accurate and current voter registration lists. Additionally, states are required to implement a voter registration list maintenance program that makes a reasonable effort to remove ineligible persons from the voter lists in accordance with the NVRA and state law.

Likewise, the Texas Election Code enumerates the importance of maintaining accurate voter registration lists through defining the acquisition of data from other specified agencies, outlining the procedures and processes required of the Secretary of State and county voter registrars, and identifying the criteria used to match this information with the statewide voter registration list. Specifically, Sections 18.068 and 18.0681 of the Texas Election Code require the Secretary of State to conduct comparative reviews of the statewide voter registration list with information received under Chapter 16 of the Code. Following the identification of matched records, the Secretary of State is required to send this information to county voter registrars for further review. It is the responsibility of the county voter registrar to review these records on the grounds of eligibility and/or to eliminate duplicative records to ensure the accuracy and integrity of the county voter registration list.

If the county voter registrar has reason to believe that a voter is no longer eligible for registration, the registrar may use any lawful means to investigate a voter’s continued eligibility to ensure an accurate list of registered voters. Written notice identifying the reason for the investigation and a request for information relevant to determining the voter’s eligibility for registration is required. If the investigation reveals that a voter no longer meets the eligibility requirements to vote in Texas, the voter registrar must cancel the voter’s registration. Additionally, if the voter has not responded to the investigation within 30 days after the notice is mailed to the voter, the voter registrar must cancel the registration for failure on the part of the voter to respond.

The NVRA also requires that states complete their generalized programs to remove voters from the rolls not later than 90 days before a federal primary or general election. The Secretary of State provided notice to county voter registrars of the commencement of the 90-day moratorium period for the November 8, 2022 General Election. Under the NVRA, the only permissible voter removal programs that voter registrars may undertake until after a primary election, and any subsequent primary runoff election, and a general election is to remove voters who voluntarily cancel their voter registration, voters who are deceased, and voters who are finally convicted of a felony or adjudicated totally or partially mentally incapacitated without the right to vote.

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28 52 U.S.C. § 20507(c).
Ineligibility Due to Death

The Texas Election Code requires a quarterly comparison of the statewide voter registration list to identify all potential deceased voters.²⁹ To meet this requirement, the Secretary of State implemented a comparative analysis of the statewide system to records provided by the Local Registrars of Death, Clerks of the Court, the Bureau of Vital Statistics, the Electronic Registration Information Center,³⁰ and the Social Security Administration, in accordance with the Texas Election Code.

Based on the defined matching criteria,³¹ records that are strong matched with the above identified sources are cancelled by the state system.³² Matches that identify the last name, date of birth, and full Social Security Number are considered a strong match. Records that are considered weak matches, on the other hand, require an additional review process to be conducted by each individual county voter registrar. In 2022, 200,971 strong matched records were cancelled by the state voter registration system across all counties. Additionally, 45,049 records were provided to county voter registrars for further investigation as possibly deceased individual voting records. Specifically, in Harris County, 19,187 strong matched records were cancelled by the state and 5,912 weak matched records were provided to the county for further review. Of the 5,912 records provided to the county for further review, 2,729 were cancelled either on confirmation of a deceased status or for a failure to respond to an examination letter and 34 possible matches were confirmed to not match the identified voter record. The audit team was unable to determine the outcome for the remaining 3,149 records due the limited insight into these investigations or any correspondence of the actual investigation in the Harris County third-party voter registration system. Overall, a total of 21,916 voter registrations were cancelled by Harris County in 2022 due to the provision of potential deceased notifications from the statewide system and subsequent investigations.

³⁰ Texas resigned from the Electronic Registration Information Center (ERIC) on July 20, 2023.
³² 1 Tex. Admin. Code § 81.6(a).
Ineligibility due to Felony Conviction

The Secretary of State receives an abstract of final judgment of felony convictions for any person 18 years of age or older each weekday from the Department of Public Safety (DPS). The Secretary of State compares this information to the statewide voter registration records and provides this information to county voter registrars for further review.

A review of the cancellation trend reports indicates that 3,050 potential felon voters were identified, investigated and subsequently cancelled statewide in 2022. Specifically, a review of cancellation data for Harris County revealed 778 cancellations during 2022. It is important to note that these cancellations may include notices provided to county voter registrars from various local and court authorities independent of the statewide voter registration system.

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Ineligibility due to Non-U.S. Citizenship

The Secretary of State is required to conduct a comparative process of the statewide voter registration records to identify any possible non-U.S. citizen records and to provide this information to county voter registrars for further review.\textsuperscript{35} Voting records in need of review are identified through a comparison of voter registration records, data provided by DPS, and additional information reported to the Secretary of State as required by law.\textsuperscript{36}

Based on the defined matching criteria, all records that matched with the above identified sources are sent to county voter registrars for further review. As with the felon process, information obtained through the numerous authorities prevents the Secretary of State from tracking the overall number of notices provided to county voter registrars from these sources as some notifications are independent of the statewide system. However, all voter registration cancellations are reported to the Secretary of State through the statewide voter registration system. Prior to the November 8, 2022 General Election, a review of the cancellation trend reports suggests that 269 potential non-U.S. citizen voters were identified, investigated and voter registrations cancelled statewide from data provided by DPS, and local and court authorities, including responses to jury summons in which an individual indicated that they were not a U.S. citizen. Specifically, in Harris County, 47 potential non-U.S. citizen voters were identified and failed to respond to an examination notice resulting in the cancellation of the voter registration records. Additionally, the audit team conducted a voter participation review of the non-citizen matches provided to Harris County through the statewide system and confirmed that the cancellation of the 47 voters occurred prior to the November 8, 2022 General Election and that no one on this list cast a ballot in the election.

![Figure 15: Cancellation of Voter Registration Due to Non-U.S. Citizenship](image)

Duplicate Registration Records

The state periodically compares the county voter registration records to determine if any voters have more than one voter registration record on file as required by law.\textsuperscript{37} Upon completion of


\textsuperscript{36} Tex. Gov. Code § 62.113.

\textsuperscript{37} Tex. Elec. Code § 18.0681.
the statewide database comparative process, potentially duplicative records are sent to county voter registrars with the oldest registration record for further investigation.

If the duplicative records are within the same county, the voter registrar may merge the records following a determination that each record belongs to the same voter using the procedure for the correction of registration records.\(^{38}\) If the records are located in more than one county, the registrar of the county with the oldest record may deliver a written confirmation notice\(^{39}\) or cancel the registration of the voter\(^{40}\) provided that the voter's record in the county with the newest registration record is not on the suspense list.

A review of the cancellation trend reports\(^{41}\) from the statewide voter registration system indicated that 13,560 duplicative records were cancelled within the same county of registration in 2022. This figure does not include records that were reviewed and merged within the same county of registration to retain voting participation information. Additionally, the review reveals that 508,838 duplicative records were cancelled for voters having a voter registration record in more than one county. Overall, the state review process resulted in the identification and removal of 522,398 duplicate voter registrations from the statewide voter registration list.

Specifically, in Harris County, 2,026 duplicative records were cancelled within the county and 58,396 duplicative records were cancelled for voters having a more recent registration in another county. In total, 60,422 duplicative registrations were removed from the Harris County voter registration system.

![Figure 16: Cancellation of Duplicate Voter Registration Records](image)

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\(^{38}\) Tex. Elec. Code § 15.022.


Residency

County voter registrars are tasked with ensuring voter eligibility based on current residency. If the registrar has reason to believe that a voter’s current residence is different from that indicated on the registration records, or that the voter’s residence address is a commercial post office box or similar location that does not correspond to a residence, the registrar shall deliver to the voter a written confirmation notice requesting confirmation of the voter’s current residence.\(^{42}\)

If a Notice of Address Confirmation is sent, the voter will be placed on the suspense list until a response is received. County voter registrars must retain all copies of correspondence, including the Notice of Address Confirmation, Address Confirmation Response, written response from the voter, and any relevant information in the voter application file.

Additionally, county voter registrars are responsible for the dissemination of new and renewal voter certificates.\(^{43}\) Renewal certificates are mailed between November 15 and December 5 of each odd-numbered year. Voter certificates returned undeliverable to the county voter registrar result in a voter being placed on the suspense list and require written correspondence to the voter for address confirmation.

Since Harris County utilizes a third-party vendor for voter registration purposes, the audit team is unable to review information related to the number of address confirmations that were mailed prior to the November 8, 2022 General Election. However, the statewide system generates cancellation reports that identify the number of cancellations and reason for such cancellations as reported by county voter registrars. A review of these statewide cancellation reports indicated that a total of 54,174 confirmation responses were received statewide from the voters indicating that the individuals no longer lived in the respective county or for whom the voter registration should be cancelled. In Harris County, 11,395 voter registrations were cancelled due to such responses.

Figure 17: Cancellations Due to Receipt of Address Confirmation from Voter

\(^{42}\) Tex. Elec. Code § 15.051.

Voters Found to be Registered at Commercial Mailbox Locations

If a voter registrar has reason to believe that the voter's residential address as listed on the voter registration record is a commercial post office box or similar location that does not correspond to a residence, the voter registrar must seek confirmation of the voter’s actual residential address. The Final Report of the Full Forensic Audit of the 2020 General Election revealed that 687 voters were registered at 70 commercial mailbox locations throughout Harris County. Additionally, there were 164 voters registered at 2 locations in Harris County that were tied to individual apartment units. This finding was based on the analysis of the vote history report from Harris County for the 2020 General Election and compared to addresses for known United Parcel Service (UPS) locations.

As a point of comparison, the same process was used to examine the voting history for the 2022 General Election. A review of this comparison revealed that in 2022, 333 voters were registered at 58 commercial mailbox locations in Harris County. An additional 43 voters were registered at 4 locations that appear to correspond to apartment complexes.

Though there is a reduction in the number of voters registered at fewer commercial addresses across Harris County, further investigation into the use of commercial mailing addresses as residential addresses is warranted.

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46 In 2021, Senate Bill 1111 created a separate confirmation process requiring additional documentation for individuals who may be residing as commercial addresses.
Volunteer Deputy Registrars

Volunteer Deputy Registrars (VDRs) are entrusted with the responsibility of officially registering voters in the State of Texas.47

A review of documentation submitted by Harris County revealed a total number of 1,919 volunteer deputy registrars during 2022. Of the certifications reviewed, 1,370 were new volunteer deputy registrar certifications, 38 were certifications given in reciprocity (honoring a certification from another county) and 511 were renewal volunteer deputy registrar certifications. The documentation also listed 7 additional volunteer deputy registrars but did not include an appointment date.

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Election Security

Findings

• During the audit process for the 2020 election, the Secretary of State identified a lack of security documentation prompting Harris County to initiate the creation of comprehensive security documentation in alignment with the Election Security Best Practices and Election Security Toolkit as prescribed by the Secretary of State.
• Though Harris County must maintain two separate facilities for election operations, they have instituted security measures to ensure proper physical security for both locations. Harris County also has comprehensive records regarding Inventory Management which indicates compliance with relevant provisions of the Texas Election Code.
• With multiple election vendors that store, maintain, and process election data, Harris County should ensure that they have proper Vendor Risk Management Policies for each election vendor.

Policies & Procedures

The Secretary of State is tasked with providing guidance and training on the classifications of election data and establishing best practices for identifying and reducing risk to the electronic use, storage, and transmission of election data and the security of election systems. Likewise, county election officials are required to request training on an annual basis from the Secretary of State. Additionally, county election officials are required to implement security measures to ensure that all devices with access to election data comply with the guidance adopted by the Secretary of State to the extent that funds are available.

In April 2020, the Secretary of State published the Election Security Best Practices Guide to assist election officials with the development and documentation of robust election security policies and procedures. The document provides guidance and outlines industry best practices relating to cybersecurity, physical and technological security, data privacy and protection and disaster response for the entire election process.

Additionally, the Secretary of State created the Texas Election Security Toolkit to help election officials secure their elections. Utilizing the provided templates, county election officials are encouraged to create security documentation that meets the unique county needs and adheres

to prescribed best practices. In addition to the Election Security Best Practices Guide, the toolkit consists of a total of five templates:

1) Election Information Security Policy (ISP) Template – includes protocols that protect election-related data from cyber threats and other disasters;
2) Election Incident Response Plan (IRP) Template – includes specific steps to take in case of cyberattack or other types of disasters;
3) Election Continuity of Operations Plan (COOP) Template – consider how a cyberattack may disrupt an election and explain fail-safes, backup processes, and systems;
4) Election System Security Plan (SSP) Template – provides written protocols that protect election-related equipment housing election data from cyber threats and other disasters; and
5) Election Vendor Risk Management Policy (VRMP) Template - creates guidelines for an election office to ensure that third-party vendors are not introducing security gaps that bad actors can exploit to stage an attack.

This comprehensive policy and procedures document, including the five components outlined above, is known as a Written Information Security Plan (WISP). These policies define how to protect elections from malicious actors and how to respond if such an incident occurs. This compilation of security management tools is a confidential document for election officials to use as a training reference and should be reviewed and updated annually.

**Cybersecurity & Infrastructure**

The Election Security Best Practices Guide encourages election officials, as part of their security posture, to engage in the specific security practices such as:

- Engage in continuous monitoring of election networks and infrastructure for cyber threats;
- Perform vulnerability scanning and routine patch management;
- Classify and protect election data using encryption;
- Participate in security awareness training;
- Conduct election security assessments;
- Install next generation firewalls;
- Segment the election network from other county infrastructure;
- Upgrade unsupported end-of-life operating systems and software;
- Restrict network access to only essential authorized personnel;
- Use endpoint security detection solutions;
- Implement software and network whitelisting;
- Restrict remote network access;
- Backup data securely;
- Secure wireless networks and devices;
- Manage removable media use; and
- Track inventory.
Findings of the Final Report for the Audit of the 2020 General Election conducted by the Secretary of State indicated that Harris County “did not believe they had a continuity of operations or emergency response plan in 2020.” Though officials indicated that security measures and protections were in place against cyberattack at that time, Harris County never provided any such information or documentation. Harris County had contracted with a vendor to create a security plan and was in the process of exploring options in creating a more robust security plan.

Harris County provided a copy of their Contingency Management Plan specific to the Office of the Harris County Elections Administrator. This plan includes incident response procedures to address emergency or crisis situations in the weeks leading up to an election, during the voting period, and immediately following the election. The plan organizes response teams, outlines communication strategies, and identifies relocation efforts, if needed. The emergency or crisis planning document addresses incidents such as natural disasters, fires, loss of network, and even shortage of election workers and includes specific procedures for election judges in polling locations as well as county election staff administering the election.

Figure 21: Harris County Contingency Management Plan

Through a series of interviews conducted with the Harris County election staff, the audit team was informed that policies and procedures related to information security are “all provided through Universal Services\textsuperscript{53}” which manages the “Universal Plan” for the county. Security planning and training is provided to all county employees which includes access management, data management, and data retention.

Additionally, Harris County provided a copy of the county’s “Capability and Continuity Brief” which was presented by Harris County Universal Services on September 28, 2022 in preparation for the November 8, 2022 General Election. The briefing clearly documents the organizational response structure and procedures for outages or disruptions to critical infrastructure such as the county data center, network, radio communications, cyber incidents, and fuel supply that could impact the administration of the election or election processes.

![Figure 22: Harris County Elections Capability and Continuity Briefing](image)

**Physical Security**

Physical security of voting systems, election equipment, election records, ballots and election workers are an essential part of securing elections and increasing voter confidence in the election process.

\textsuperscript{53} Universal Services, a department in Harris County, provides IT and fleet support to Harris County divisions and offices, https://311.harriscountytx.gov/home?id=dept_svcs&dept=US\%20.-
Access to General Offices

The Election Security Best Practice guidance emphasized the importance of securing physical surroundings. Election offices and storage facilities should have secured access points to ensure that no unauthorized access to election data or voter registration records is granted and the data is protected at all times. Encouraged practices for election offices include:

- Documenting all visitors to the election office;
- Maintaining controlled entry and exit points;
- Documenting the time of arrival and time of departure;
- Providing visitor credentials when entering secured areas; and
- Providing an escort while in secure or sensitive areas.

Voting system equipment must be secured using control keys or passwords. The use of an access control key or password must be witnessed by one or more authorized individuals and must be documented in an audit log dedicated for that purpose until the disposition of the equipment.

Through interviews, the audit team confirmed that all election equipment is stored at the Election Technology Center (ETC). Entry into restricted areas requires passcodes and is monitored through video surveillance. Personnel entering the facility are required to sign a visitor log and are escorted throughout the facility. During elections, security guards are present as an added layer of security.

The county election administrator indicated that election records and voting equipment are not maintained at the main election office. However, a visitor is required to sign-in upon entry. Though name badges are not required at the main office, locations housing sensitive equipment and election data require name badges at all times.

Personnel

The general custodian of election records must ensure that a criminal background check is conducted for election officials, staff, and temporary workers who are engaged in pre-election programming, testing, and preparing of the voting system equipment.

According to county staff, all permanent employees are required to pass a criminal background check as part of the hiring process. The county utilizes a vendor to conduct background checks on all temporary personnel.

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55 Tex. Elec. Code § 129.051(g); Election Advisory No. 2019-23.
Inventory Management

The general custodian of election records must create and maintain an inventory listing of all election system equipment and electronic storage media. All equipment must be stored in a secure location even when not in use. Inventory records listing all technology used to support and conduct an election are recommended to include:

1) The original source of the system;
2) When the system first arrived at the organization;
3) Who received the system;
4) Condition of the system;
5) Where the system is stored;
6) When the election system is used in a different location, such as a polling site, document:
   a. Date;
   b. Time;
   c. Who issued the system;
   d. Who received and transported the system;
   e. The location where it was used;
7) When the system is returned to its storage location, document:
   a. Date;
   b. Time;
   c. Who transported and returned the system;
   d. Who received the system; and
   e. Storage location.

Harris County provided a copy of the county equipment inventory which included equipment barcodes, type of equipment, acquisition dates, and polling location assignments, if applicable. The inventory provided did not include transport information. The county logs this information on separate equipment distribution logs.

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57 Tex. Elec. Code § 129.051(c).
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Figure 23: Harris County Inventory Management System
Distribution & Equipment Issues

Findings

- Harris County failed to comply with the Texas Election Code requirements related to the distribution supplies and equipment resulting in reports of insufficient supplies to meet voting demands.
- The insufficient distribution of ballot paper to polling locations and the loss of an effective monitoring system resulted in ballot paper shortages at multiple polling locations across Harris County on election day and, in some cases, is attributed to a cessation of voting at certain locations.
- Technical issues with voting system equipment was a critical concern on election day and resulted in the delayed opening of polling locations and resulted in a high number of damaged or spoiled ballots.
- The audit team identified 38 polling locations that experienced a gap in voting of one hour or greater. The lack of voting activity can be attributed to equipment malfunctions, ballot paper shortages, and in some cases, low turnout at specific locations.

Distribution of Supplies & Equipment

In an election ordered by the Governor, it is the responsibility of the county election official to procure the election supplies necessary to conduct an election and adequately determine the quantity of the various types of supplies that should be allocated to each polling location during early voting in person and on election day.\(^5^9\) Further, the county election official is responsible for ensuring that the supplies are distributed to each presiding election judge no later than one hour before the polling locations are required to open for voting.\(^6^0\)

Texas law requires that the authority responsible for distributing supplies provide each election precinct, or polling location, a minimum number of ballots equal to the percentage of active voters who voted in a given election precinct, or polling location, in the last corresponding election plus an additional 25% of that number.\(^6^1\) Harris County failed to comply with the statutory requirement related to the allocation and distribution of ballot paper supplies for the November 8, 2022 General Election.

\(^{59}\) Tex. Elec. Code § 51.003.
\(^{60}\) Tex. Elec. Code § 51.004(b).
Specifically, for ballots, the county official responsible for the distribution of election supplies must package and seal each set of ballots and enumerate the number of ballots. An official record of the number of ballots distributed to each presiding judge must be prepared and maintained for the period for preserving all precinct election records.

Additionally, the county election official must retain an adequate reserve of ballot paper to supplement the distributed supply on election day as needed. A record must be kept of the number of ballots maintained in the reserved stock and the number of those reserved ballots that are distributed to polling locations. If distributed ballots are reallocated to other locations, this information must be recorded and a receipt provided to each presiding judge showing the number of ballots reallocated.

**Distribution Methodology Utilized by Harris County**

In the November 8, 2022 Post Election Report provided by the Harris County Election Administrator’s Office (EAO), the report detailed that the office “estimated voter turnout to be approximately 65% of registered voters. These projections were based on data and actual voter turnout statistics from prior General Elections (dating back to 2014), comparing like contests, recent voting trends, changing demographics, and precinct realignments. EAO staff used the projected turnout numbers as a baseline for deploying Vote Center locations, voting equipment, supplies, ballot paper, ePollbooks, and election workers for Early Voting Centers (EVCs) and Election Day Vote Centers (VCs). EAO staff projected voter turnout to be approximately 1.2 million voters with 75% of that turnout during Early Voting and the remaining turnout on Election Day.”

Harris County also provided, as part of the audit documentation request, an “Allocation Methodology” summary report. The report outlines the historical analysis of similar election turnout and the projected turnout for the November 8, 2022 General Election as seen below.

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64 Tex. Elec. Code § 51.008(b).
65 Tex. Elec. Code § 51.008(c).
Harris County Supply Allocation

According to the Harris County Allocation Methodology report, “assigning ballot paper is the final task of the equipment allocation workflow. It relies heavily on the accuracy of location-specific turnout projections.” For election day, Harris County had a large number of polling locations that did not have historical turnout data which the county referred to as “no-data ED locations.” The turnout predictions for these locations was estimated at 300 voters per location. Harris County

66 Harris County Allocation Methodology, Harris County Election Administrator’s Office.
67 Harris County Allocation Methodology, Harris County Election Administrator’s Office.
had a two-page ballot for the November 8, 2022 General Election. This would require that each location be supplied with at least 600 pieces of ballot paper or 3 packets of paper which contained 200 sheets per packet. To err on the safe side, Harris County opted to supply these locations with 1,200 pieces of ballot paper, or 6 packets, to double their predicted turnout for each location.

According to distribution logs, Harris County provided set amounts of ballot paper to polling locations across the county on election day. As indicated by the county, some of the distributions were based on actual projected turnout while some of the distributions were projections with no historical data context. The polling locations that operated during early voting were not included on the distribution log for election day. Therefore, the initial distribution for election day, based on the documentation provided, only included the 683 locations that only served as polling places on election day. Of those, 666 (98%) polling locations were provided a standard distribution of individual ballot pages, which, based on a two-page ballot, would accommodate 600 voters per location. The audit team assumes that these locations are consistent with the “no-data ED locations” identified by Harris County in the provided report based on the projected voter turnout of approximately 300 voters and the doubling of the ballot paper distribution.

In the projection methodology used by Harris County as listed in the Post Election Report, it appears the county determined the standard allocation by calculating 65% of the number of registered voters and concluded that equation to equal 1.2 million voters. However, according to the number of registered voters reported to the Secretary of State prior to the November 8, 2022 General Election, 65% of 2,568,463 registered voters would produce an estimated voter turnout of just over 1,669,500 voters. Continuing to apply the county methodology, 25% of the estimated turnout would result in an Election Day turnout of an estimated 417,375 voters. Dividing that equally among the 782 total polling locations would have produced an approximate voter turnout per location of 534 voters.

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In mathematical terms, using the reported calculation method provided by Harris County, the audit team found that the standard allocation of 300 estimated voters per location was not accurate.

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0.65 & \times 2,568,463 = 1,669,500.95 \\
\text{Anticipated Turnout} & \text{Registered Voters} & \text{Estimated Voter Turnout} \\
1,669,500 & \times 0.25 = 417,375 \\
\text{Estimated Voter Turnout} & \text{Anticipated ED Turnout} & \text{ED Estimated Voter Turnout} \\
417,375 & / 782 = 533.73 \\
\text{Estimated ED Turnout} & \text{No. of Polling Locations} & \text{Standard Allocation}
\end{align*}
\]

Following the logic provided, the audit team calculated that, if using the Harris County method, 534 voters should have been the anticipated voter turnout and should have been considered as the basis for paper allocation. This estimated turnout is well above the county projection of 300 voters. The doubling of the voter turnout projection by Harris County provided sufficient ballot paper resources for some locations. However, the amount of ballot paper provided did not include any consideration of possible equipment malfunctions resulting in a high number of damaged or spoiled ballots. As shown in this report, some locations in Harris County received more voters on election day than the number of ballots initially provided resulting in a legitimate fear by election workers that the location would run out of its ballot paper supply and, in some cases, resulted in a complete exhaustion of the supply which halted voting activities.

**State Required Allocation**

In contrast, using the process as defined by law\(^69\) to establish the minimum distributions per polling location, the audit team provided calculations for polling locations that experienced technical difficulties or a shortage of ballot paper. These locations will be discussed in further detail later in this report.\(^70\) This calculation was based on the November 2020 turnout by polling location.

In considering the historical perspective of voter turnout across polling locations for similar elections, Harris County was faced with the challenge of analyzing precinct-based polling locations in the most recent similar gubernatorial election of 2018 to prepare for countywide vote centers for the 2022 gubernatorial election. The vast differences in the two structures presented difficulty in the application of a single mathematical equation to determine a basis for equipment and supplies. However, the November 3, 2020 General Election had an overall voter turnout in Harris County of 68.14%.\(^71\) The 2020 election day only turnout for Harris County was

\(^{69}\) Tex. Elec. Code § 51.005.

\(^{70}\) See pg. 43.

203,737 of 2,431,457 total voters or 8.38%. Though comparison to the 2020 General Election presents challenges given the fluctuation in preferred methods due to the pandemic, it was conducted using countywide vote centers.

As seen below, when using the voter turnout from November 2020 from the same location or from the nearest geographical location, the audit team was able to project a voter turnout of 726 voters for HCC Alief Hayes Campus. This estimation is well above the Harris County projection of 300 voters, or 600 voters based on the doubling for safety. Based on Harris County documentation, this location received the standard allotment of 1,200 pieces of ballot paper, or 600 ballots based on the Harris County two-page ballot, for election day. According to paperwork submitted by the election judge at this location, an additional 4,000 pieces of ballot paper were delivered during voting hours on election day but the exact time was not specified on the documentation. The total number of voters for this location was 739, which exceeds the number of voters anticipated by Harris County based on their methodology.

Example: (82013) HCC Alief Hayes Campus

\[
0.0255\% \times 2,277,033 + 145 = 725.64
\]

A (Turnout Percentage) x B (Number of Registered Voters) + C (25% of A x B) = Paper Distribution

**Ballot Supply Issues**

In a review of the Harris County Help Desk tickets for the November 8, 2022 General Election, the audit team identified 86 tickets related to ballot paper supply. Based on the description provided for each call, most of these calls were from individual polling locations notifying the call center that their location was running low on ballot paper. Specifically, of 1,612 calls logged by the Help Desk, 86 were related to ballot paper. The first call related to ballot paper was actually logged prior to the polls opening after the supplies for election day had been delivered at 6:54 a.m. The caller indicated that they did not receive any ballot paper in the supply bin. Though the number of calls remained relatively steady, the volume increased after the lunch hour. The highest number of calls was received between 3:00 p.m. and 4:00 p.m.
Figure 27: Timeline for Help Desk Tickets for Ballot Paper Issue

Reallocation or Supplemental Distribution

According to Harris County officials, reallocation of supplies, and ballot paper, is determined by monitoring the Harris County Pollbook Console which reports turnout by polling location. Reports are generated twice a day during the early voting period to measure the amount of ballot paper being used. Harris County indicated that if the report reflected a location nearing a 50-60% usage mark, additional ballot paper supplies were distributed. However, “the Pollbook Console runs at a fraction of its normal pace, due to an overloaded volume of queries being run and voter data being received” on election day. “The pollbook console was effectively unusable for ED.”

The inability to monitor ballot paper supply limited the county’s ability to proactively provide additional ballot paper and supplies to polling locations throughout the day on election day. Further, the audit team could not confirm that Harris County had any contingency plans in place specific to the failure of this monitoring tool.

Voting System Equipment Issues

In reviewing data related to the ballot paper supply issues, the audit team identified numerous reports of equipment malfunction in polling locations across the county. Specifically, the audit team reviewed complaints, state inspector reports, documentation from the Harris County Help Desk Call Center, and service notes from the Harris County technical support team related to troubleshooting and observation records. The review of this documentation confirmed that equipment malfunctions occurred in multiple locations throughout the county.

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72 Harris County Allocation Methodology, Harris County Election Administrator’s Office.
State Inspector Reports

Machine malfunctions and technical issues were the primary issues witnessed by state inspectors in polling locations throughout Harris County, accounting for 48% of all observed issues. The reports detailed frequent observations of machines being temporarily out of service or requiring system restarts, which contributed to longer wait times in some locations. Of the polling locations inspected, one-third experienced some form of technical issue with voting system equipment.

Help Desk Logs

Harris County provided an audit log of the calls received by the Harris County Help Desk Center. During early voting and on election day, the call center received 9,523 calls from election judges, poll workers, and voters alike. Of that total, 7,678 were received during the early voting period and 1,612 calls were received on election day. An additional 233 calls were logged as received between November 9 – 10. In reviewing the call descriptions for the calls that were received after election day, the callers were referencing voting day issues. The audit team was unable to determine the actual date these calls were received but, based on the content of the call, determined they were complaints actually received during the voting period.

During a review of the call center logs, the audit team categorized each call to identify the highest volume calls by subject matter to better understand what issues impacted the administration of the election most significantly.

An examination of the call center logs specifically related to possible voting equipment issues revealed 1,659 calls during the voting period which equated to 17% of the entire call volume. However, a day-by-day inspection reflected a noticeable increase in the number of calls related to voting system issues on Election Day with a total of 442 calls.
Diving into the descriptions of each call, the audit team was able to identify that the most common reports included issues with feeding, scanning, and printing of ballots which occurred with various pieces of voting equipment. Though there were numerous equipment challenges reported, the most common reports were specifically related to:

- Duos;
- Duo Gos;
- Controllers; and
- Scanners.

![Reported Issues by Equipment Type](image)

**Figure 29: Frequency of Reported Issues by Equipment Type**

**Rover Tickets**

The technical support team members, or rovers, in Harris County receive calls and deploy to polling locations across Harris County to address reported issues. This team is summoned in response to escalated issues identified by the Harris County Help Desk. During each visit, the personnel complete a Polling Place Troubleshooting and Observation Log. Harris County produced the logs upon request of the audit team.
The audit team reviewed 231 rover tickets, which further outlined the voting system technical issues. Of the 231 total tickets provided to the Secretary of State, 205 (89%) were in response to reported equipment malfunctions. Problems with feeding, jamming, scanning, and printing were reported from across the county polling locations. Response and remediation by the technical support team included the tagging of some equipment as unserviceable and the distribution of replacement equipment.
The chart below provides a further look at the collective response times with a timeline of issues experienced on election day.

![Timeline of Machine Malfunctions](image)

**Figure 32: Ticket Response Times by Hour**

**Common Concerns Identified by Documentation Review**

**Paper Jams**

Multiple locations reported paper jams occurring with the Duo voting machines. Several locations indicated issues with the acceptance of the second page of the two-page Harris County ballot. Ink smears while printing the ballot were also a common issue. Examples of issues reported include:

- “Replacement Duo is now eating ballots. They are very busy, requesting another Duo.”
- “Issue with a jammed ballot, had to instruct how to remove manually since the clear feature on the printer wasn’t working.”
- “Duo got jammed, had to spoil a ballot. Then, the second times the voter voted, the ink smeared. Getting the voter to vote a third time. None of them have been cast at this point.”
- “Second page of ballot paper was not being accepted by Duo.”
- “Location states 5 of 6 lines are down. Duos have several error messages including paper jam when there is no paper.”
- “PJ (Presiding Judge) is having issues with Duos accepting 2nd page of ballot paper. PJ states she has tried everything to correct the issue.”
- “The Scan was not accepting ballots. They tried scanning the ballot every which way. The device detected more than one sheet.”
The call logs and technical tickets also noted a number of comments specifically complaining about paper guides on the voting equipment. Though the guides were intended to direct the two-page ballot path to avoid or eliminate jamming issues, 15 calls from polling locations inquired about how to adjust or completely remove the guides. Two state inspectors, visiting 5 different polling locations, noted complications related to the use of the feeding guides causing paper jamming.\(^{73}\)

**Connectivity/Power**

Though paper jams were the most common issue reviewed, the audit team reviewed numerous calls related to power or connectivity issues between the Duo and the Controller. Some locations indicated no power to equipment or inability to maintain power even when plugged into an outlet. Error messages of “no connection found” were reported from multiple sites. Specific examples include:

- “Duos displayed no controller found screen. I instructed her to check and make sure the cables are connected properly then reboot the controller. She rebooted the controller and waiting for the Duos to come on. She has 3 lines with 7 Duos on each line and well over 100 people in line with 2 of the 3 lines working.”
- “One line of Duos went down-disconnected from controller. Tried cable switching-continued to say ‘no controller found’. Told them to power off all Duos. Switched cables from Duo 1 and the controller, and rebooted the controller. ‘No controller found’ still. Took cables from Duo 7-8, and replaced the cable that connected the Controller and Duo 2 and it worked and was connected. Sending someone out with a new cable to replace the faulty one.”
- “All Duos in line showing no controller found.”
- “Duo will not stay connected with controller.”

**Analysis of Reported Issues**

In this review, the audit team was able to categorize the reported issues between actual machine malfunctions and issues that resulted from improper set-up of the equipment prior to opening the polling locations. Though 67% of the issues were diagnosed as equipment malfunctions, 20% of the tickets were resolved when a technician addressed improper cabling connections or set-up design. This indicates a strong need for additional training on the equipment and how to properly establish connections when setting up the equipment prior to the commencement of voting.

\(^{73}\) On June 15, 2023, the Secretary of State approved a minor modification to the Hart Verity 2.5 system, which involved the installation of a permanent paper path guide to the Verity Duo to improve the paper pathing and prevent situations where the voter could feed the ballot stock into the device in a way that could cause a paper jam or a misprint of the printed vote record. This modification was proposed by Hart to address potential misfeeding issues in future elections.
Figure 33: Further Analysis of Machine Malfunctions

**Spoiled Ballots**

If a voter mismarks, damages, or otherwise spoils a ballot in the process of voting, the voter is entitled to receive a new ballot by returning the spoiled ballot to the election officer. However, a voter is not entitled to receive more than 3 ballots. The election officer must maintain a register of spoiled ballots at the polling location that includes the voter’s name and the spoiled ballot serial number.

Harris County did not provide a cumulative report listing the number of spoiled ballots for the November 8, 2022 General Election. However, the county provided copies of the Register of Spoiled Ballot Envelopes that were turned in from each polling location for early voting and on election day.

The audit team reviewed the election day envelopes for 768 of the 782 polling locations operating on election day. With no documentation provided for 14 locations, the audit team must assume that either the files were not turned in to the general custodian, as appropriate, or there were no forms completed at those locations.

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74 Tex. Elec. Code § 64.007.
Of the 768 envelopes reviewed, 12,833 spoiled ballots were listed in total as reported on the Register of Spoiled Ballot forms received from individual polling locations during the November 8, 2022 General Election. An analysis of the forms revealed the following reasons listed as the causation of having to spoil those ballots.
Ballots Deposited in the Emergency Slot

As indicated in this report, multiple polling locations experienced equipment issues on November 8, 2022. Harris County has indicated that the emergency procedure was used and ballots were placed in the emergency ballot slot due specifically to issues with the second page of the two-page ballot not scanning.

Harris County provided a Hart Verity Central Batch Report to identify the number of ballots that were placed in the emergency slot. During the early voting period, 73 locations reported having emergency ballots as recorded on their respective vDrive. However, the audit team was unable to determine the exact number of ballots deposited in the emergency slot based on the documentation provided. On election day, a total of 328 polling locations reported the use of emergency ballots. In total, 1,073 ballots were recorded as having been deposited in the emergency slot and being cast on November 8, 2022.

ePollbook Issues

Of the 1,659 calls related to equipment issues during the November 8, 2022 General Election, 227, or 14%, were directly related to the ePollbook. Multiple calls indicated difficulties with the ability of the ePollbooks to maintain a positive charge. Other complaints included issues relating to internet connections, faulty cables, sluggish application response times, and intermittent freezing of screens particularly when attempting to document spoiled ballots. Examples of reported issues include:

- “Called in to report that the e-poll book was not charging.”
- “AJ/PJ (Alternate Judge/Presiding Judge) called, said it was 2nd call, ePollbook not getting a MiFi signal. They have both MP 70 and MiFi connected.”
- “EPollbooks are experiencing very slow reaction time if they don’t freeze up.”
- “PJ (Presiding Judge) had requested new ePollbook due to charging issues, but found out it was a faulty cord and replaced it.”
- “The issue is that she is attempting to spoil a ballot and it freezes on the last screen. I instructed her to try to do it on all ePollbooks at the location. She did and was still unsuccessful. I had her check the connection on the ePollbook as well as the MiFi. Connection was great. This issue was escalated.”

Study of Gap Locations

To further assess the impact of ballot paper shortages and equipment malfunctions on voting activity in Harris County, the audit team conducted an analysis of the ePollbook check-in timestamps by polling location to locate any possible gaps in voter check-ins or possible periods of no voting activity. Though it is not unusual to see small gaps, particularly at locations with lower voter turnout, periods of no voting activity for an hour were highlighted for further review. Therefore, the audit team analyzed all polling locations operating on election day specifically identifying those polling locations that reflected an hour or more with no voter check-ins to
attempt to ascertain the impact, if any, voting equipment malfunctions had on voting in Harris County on November 8, 2022.

The audit team discovered 38 locations with an identified gap or cessation of voter check-ins of one hour or more. Further, the audit team focused on these polling locations to clearly identify the causation for the period of inactivity and any resolution efforts.

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<td>13</td>
<td>39</td>
<td>38</td>
<td>90</td>
<td>53</td>
<td>60</td>
<td>51</td>
<td>12</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>5 PM</td>
<td>87</td>
<td>28</td>
<td>24</td>
<td>45</td>
<td>18</td>
<td>14</td>
<td>12</td>
<td>102</td>
<td>54</td>
<td>31</td>
<td>20</td>
<td>45</td>
<td>64</td>
<td>74</td>
<td>52</td>
<td>59</td>
<td>84</td>
<td>12</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>6 PM</td>
<td>84</td>
<td>31</td>
<td>16</td>
<td>19</td>
<td>24</td>
<td>17</td>
<td>9</td>
<td>102</td>
<td>92</td>
<td>29</td>
<td>10</td>
<td>41</td>
<td>42</td>
<td>89</td>
<td>56</td>
<td>56</td>
<td>76</td>
<td>8</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

* Secretary of State did not receive complete data on these sites.
** Reported closure due to emergency in area.

Figure 36: Locations Identified with Gaps in Voter Check-Ins
Voting System Issues

The audit team was unable to locate any information or confirmation of the issues that resulted in no voting during identified times throughout election day for 7 locations. Though 2 of the locations reported equipment issues throughout the day, the timing of the reported issues did not directly coincide with the gaps in voters checking in to vote.

Based on an analysis of overall voter turnout by hour, the audit team concluded that it is probable that 5 of the identified polling locations conceivably had no voters during that time period due to lower turnout numbers. Additionally, the voter check-in data provided by Harris County for 2 of the locations was blank and prevented further analysis. One polling location was closed due to an emergency in the area. Proper notice of the closure was provided.

Of the remaining gap locations identified, 10 polling locations experienced delays directly related to equipment issues. Specifically, the locations reported issues with controller connection, paper jamming, printer smudging, and inability to power up machines. Four of the locations were delayed in opening due to equipment not being set-up prior to the time the polling locations were supposed to open. It is unclear if this was due to equipment issues, a lack of preparation time, or training in setting up the polling location.
**Ballot Paper Issues**

In an effort to identify how many locations experienced critically low ballot supply issues, the audit team reviewed the Ballot & Seal Certificate/Register of Official Ballots form provided to and returned by election judges at the close of the polling locations. This form includes the number of blank ballots in their possession when the polls open, the number of ballots received in a subsequent supplemental delivery, and the number of unused ballots at the close of the polling location. However, a review of the documentation revealed that 67 polling locations did not return the form and an additional 180 did not thoroughly complete the section related to the provision of ballot paper. Therefore, the audit team was unable to determine, based on the analysis of this form, exactly how many locations ran out of ballot paper or experienced a critically low supply on election day.

Of the forms that were completed and returned on election night, the audit team learned that at least 238 polling locations noted the receipt of additional ballot paper during the day. Though it appears that most locations received additional ballot paper from the elections office, some locations noted that the additional ballot paper was obtained from a neighboring polling location. Though the locations documented the receipt of additional supplies, the audit team cannot confirm that all of these locations were experiencing a shortage of ballot paper. In an interview with county officials, the election administrator indicated that the reallocation of ballot paper is tracked during early voting using the Record of Ballot Distribution. However, when asked about the process for election day, the election administrator indicated that he did not know how the reallocation was documented. The audit team then cross-referenced the call times with the polling locations identified to have gaps in voting based on the voter check-in process.

Of the 38 locations that were identified as having gaps in voter check-ins included in the study, at least 4 of the locations reported paper shortages that directly coincide with the gaps of voter check-in according to the documentation provided. Though these 4 locations are certainly not the only polling locations that experienced a shortage of ballot paper, the audit team was able to confirm through this analysis that the shortage in these locations had a direct impact on voting.

Using the turnout by polling location as reported by Harris County in 2020, the audit team was able to project turnout by using the state required formula for minimum distributions above. Though some locations were not used in 2020, the audit team selected geographical locations nearest to the area housing a polling location in 2022. Applying this methodology to the 38 locations showing a gap in voter check-in, the audit team identified the minimum allotments as listed below to attempt to determine if the standard paper allocations provided by Harris County matched turnout projections for specific locations. Of only 38 locations included in this projection, 5 locations (13%) were not provided enough ballot paper based on the voter turnout estimation.
<table>
<thead>
<tr>
<th>Polling Location Address</th>
<th>Polling Location Address</th>
<th>2020 Voter Turnout by Location</th>
<th>2020 Voter Turnout Percentage</th>
<th>2022 Anticipated Turnout</th>
<th>Minimum Paper Allotment Basis</th>
<th>Amount of Actual Ballot Distribution</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Knox Presbyterian Church</td>
<td>2525 Gessner Road</td>
<td>436</td>
<td>0.0179%</td>
<td>408</td>
<td>510</td>
<td>600</td>
<td>90</td>
</tr>
<tr>
<td>Northpointe Intermediate School</td>
<td>11855 Northpointe Boulevard</td>
<td>530</td>
<td>0.0218%</td>
<td>496</td>
<td>620</td>
<td>600</td>
<td>20</td>
</tr>
<tr>
<td>John F Kennedy Elementary School</td>
<td>400 Victoria Drive</td>
<td>123</td>
<td>0.0051%</td>
<td>115</td>
<td>144</td>
<td>600</td>
<td>456</td>
</tr>
<tr>
<td>Josie Ruth Smith School</td>
<td>5815 West Little York Road</td>
<td>136</td>
<td>0.0056%</td>
<td>127</td>
<td>159</td>
<td>600</td>
<td>441</td>
</tr>
<tr>
<td>Wainwright Elementary School</td>
<td>5330 Milliwee Street</td>
<td>387</td>
<td>0.0159%</td>
<td>362</td>
<td>453</td>
<td>600</td>
<td>147</td>
</tr>
<tr>
<td>G W Carver Contemporary High School</td>
<td>1100 South Victory Drive</td>
<td>74</td>
<td>0.0030%</td>
<td>69</td>
<td>87</td>
<td>600</td>
<td>533</td>
</tr>
<tr>
<td>Image Church</td>
<td>20402 Chappell Knoll Drive</td>
<td>130*</td>
<td>0.0053%</td>
<td>122</td>
<td>152</td>
<td>600</td>
<td>448</td>
</tr>
<tr>
<td>Spring First Church</td>
<td>1851 Spring Cypress Road</td>
<td>205*</td>
<td>0.0084%</td>
<td>192</td>
<td>240</td>
<td>600</td>
<td>360</td>
</tr>
<tr>
<td>Melrose Park Community Center</td>
<td>1001 Canino Road</td>
<td>177</td>
<td>0.0073%</td>
<td>166</td>
<td>207</td>
<td>600</td>
<td>393</td>
</tr>
<tr>
<td>Richard and Kitty Spence Elementary School</td>
<td>1300 Gears Road</td>
<td>138</td>
<td>0.0057%</td>
<td>129</td>
<td>162</td>
<td>600</td>
<td>438</td>
</tr>
<tr>
<td>The Victory International Church Houston</td>
<td>170 Rittenhouse Street</td>
<td>77</td>
<td>0.0032%</td>
<td>72</td>
<td>90</td>
<td>600</td>
<td>510</td>
</tr>
<tr>
<td>Plummer Middle School</td>
<td>11429 Spears Road</td>
<td>84*</td>
<td>0.0035%</td>
<td>79</td>
<td>98</td>
<td>600</td>
<td>502</td>
</tr>
<tr>
<td>Grace Church International</td>
<td>5775 Little York Road</td>
<td>136*</td>
<td>0.0056%</td>
<td>127</td>
<td>159</td>
<td>600</td>
<td>441</td>
</tr>
<tr>
<td>Key Middle School</td>
<td>4000 Kelley Street</td>
<td>84</td>
<td>0.0025%</td>
<td>77</td>
<td>71</td>
<td>600</td>
<td>529</td>
</tr>
<tr>
<td>Kashmere Senior High School</td>
<td>6900 Wileyvale Road</td>
<td>34</td>
<td>0.0014%</td>
<td>32</td>
<td>40</td>
<td>600</td>
<td>560</td>
</tr>
<tr>
<td>Shadow Forest Elementary School</td>
<td>1300 Mills Branch Drive</td>
<td>253</td>
<td>0.0104%</td>
<td>237</td>
<td>296</td>
<td>600</td>
<td>304</td>
</tr>
<tr>
<td>Fellowship of Enlightenment Church</td>
<td>8005 Wayside Drive</td>
<td>126*</td>
<td>0.0052%</td>
<td>118</td>
<td>147</td>
<td>600</td>
<td>453</td>
</tr>
<tr>
<td>Cleveland Ripley Neighborhood Center</td>
<td>720 Fairmont Parkway</td>
<td>228*</td>
<td>0.0094%</td>
<td>214</td>
<td>267</td>
<td>600</td>
<td>333</td>
</tr>
<tr>
<td>University of Houston Clear Lake</td>
<td>1700 Bay Area Blvd</td>
<td>259*</td>
<td>0.0107%</td>
<td>243</td>
<td>303</td>
<td>600</td>
<td>297</td>
</tr>
<tr>
<td>Forest Bend Homeowners Association Inc</td>
<td>4300 Laura Leigh Drive</td>
<td>332*</td>
<td>0.0137%</td>
<td>311</td>
<td>389</td>
<td>600</td>
<td>211</td>
</tr>
<tr>
<td>Park View Intermediate School</td>
<td>3003 Danby Drive</td>
<td>253</td>
<td>0.0104%</td>
<td>237</td>
<td>296</td>
<td>600</td>
<td>304</td>
</tr>
<tr>
<td>Jensen Elementary School</td>
<td>3514 Tulip St</td>
<td>169*</td>
<td>0.0070%</td>
<td>158</td>
<td>198</td>
<td>600</td>
<td>402</td>
</tr>
<tr>
<td>Seabrook Intermediate School</td>
<td>1401 North Meyer Road</td>
<td>512</td>
<td>0.0211%</td>
<td>479</td>
<td>599</td>
<td>600</td>
<td>1</td>
</tr>
<tr>
<td>Jimmy Burke Activity Building</td>
<td>500 West 13th Street</td>
<td>180</td>
<td>0.0115%</td>
<td>162</td>
<td>198</td>
<td>600</td>
<td>272</td>
</tr>
<tr>
<td>Jennie Reid Elementary School</td>
<td>10001 West Fairmont Parkway</td>
<td>384</td>
<td>0.0076%</td>
<td>346</td>
<td>438</td>
<td>600</td>
<td>385</td>
</tr>
<tr>
<td>Sunnyvale Multi Service Center</td>
<td>9114 Cullen Boulevard</td>
<td>717</td>
<td>0.0295%</td>
<td>671</td>
<td>839</td>
<td>600</td>
<td>239</td>
</tr>
<tr>
<td>The Crossing Community Church</td>
<td>325 West Orem Drive</td>
<td>305*</td>
<td>0.0126%</td>
<td>287</td>
<td>358</td>
<td>600</td>
<td>242</td>
</tr>
<tr>
<td>Paul Revere Middle School</td>
<td>10502 Briar Forest Drive</td>
<td>355*</td>
<td>0.0064%</td>
<td>345</td>
<td>418</td>
<td>600</td>
<td>419</td>
</tr>
<tr>
<td>RCC Alief hayes Campus Building C</td>
<td>3811 Hayes Road</td>
<td>639</td>
<td>0.0255%</td>
<td>580</td>
<td>725</td>
<td>600</td>
<td>125</td>
</tr>
<tr>
<td>Neighborhood Centers Inc Ripley House Campus</td>
<td>4410 Navigation Boulevard</td>
<td>620</td>
<td>0.0214%</td>
<td>487</td>
<td>609</td>
<td>600</td>
<td>9</td>
</tr>
<tr>
<td>Kashmere MultiService Center</td>
<td>4802 Lockwood Drive</td>
<td>315</td>
<td>0.0212%</td>
<td>242</td>
<td>603</td>
<td>600</td>
<td>34</td>
</tr>
<tr>
<td>St. Luke the Evangelist Episcopal Church</td>
<td>3530 Wheeler Street</td>
<td>53</td>
<td>0.0021%</td>
<td>48</td>
<td>60</td>
<td>600</td>
<td>540</td>
</tr>
<tr>
<td>Tijerina Elementary School</td>
<td>3501 Sherman Street</td>
<td>374*</td>
<td>0.0072%</td>
<td>163</td>
<td>204</td>
<td>600</td>
<td>396</td>
</tr>
<tr>
<td>Gross Elementary School</td>
<td>12583 S Gessner Road</td>
<td>140*</td>
<td>0.0058%</td>
<td>131</td>
<td>164</td>
<td>600</td>
<td>436</td>
</tr>
<tr>
<td>Lora B. Peck Elementary School</td>
<td>5001 Martin Luther King Boulevard</td>
<td>70</td>
<td>0.0029%</td>
<td>66</td>
<td>82</td>
<td>600</td>
<td>518</td>
</tr>
<tr>
<td>Sinclair Elementary School</td>
<td>6410 Grovewood Lane</td>
<td>302*</td>
<td>0.0124%</td>
<td>283</td>
<td>354</td>
<td>600</td>
<td>246</td>
</tr>
<tr>
<td>Montrose Branch Houston Public Library</td>
<td>4100 Montrose Boulevard</td>
<td>173</td>
<td>0.0071%</td>
<td>162</td>
<td>203</td>
<td>600</td>
<td>397</td>
</tr>
<tr>
<td>Norton Memorial Temple Church of God in Christ</td>
<td>7008 Lucille Street</td>
<td>120*</td>
<td>0.0049%</td>
<td>112</td>
<td>140</td>
<td>600</td>
<td>480</td>
</tr>
</tbody>
</table>

*Calculations based on nearest 2020 geographical location.

**1,200 sheets distributed for 2-page ballot

Figure 38: Audit Team Estimated Distribution based on State Requirements

The preliminary findings in this section are based on data and documentation provided by Harris County. Additional findings may be included in the comprehensive report if the Secretary of State’s office becomes of aware of new information related to equipment malfunctions or ballot supply issues. Individuals with this information may submit a complaint to the Secretary of State’s office.
Chain of Custody

Findings

- A high volume of missing and incomplete paperwork made it difficult to validate polling place activities.
- Harris County did not have consistent procedures for reviewing paperwork completed by Election Day Presiding Judges. The county should consider incorporating a more substantial review of paperwork on election night when supplies are delivered to the central counting station. This would allow the county to validate electronic records, complete a more thorough reconciliation, and troubleshoot missing data while in the presence of polling place workers who can answer questions related to the polling place paperwork.

Overview

Establishing a detailed and transparent chain of custody documentation trail for election systems and ballots is critical to the security and integrity of the entire election process. Election officials must develop a procedure for tracking the custody of election system equipment and electronic storage media from storage location, to programming, through the entire election process, and final return to storage. Documentation of these events must include a two (or more) person validation at every transfer point and should accurately capture the chronological movement and use of all election systems and ballots.

The audit team conducted a comprehensive examination of the chain of custody documentation used in Harris County for the November 8, 2022 General Election by reviewing 10 locations throughout the entire election process. Of the locations selected, 3 were early voting locations and the remaining 7 were election day locations. Though the team will report findings from all 10 locations, the report will demonstrate the overall process by presenting the documentation from one early voting location and one election day location. The selected early voting location is Metropolitan Multiservice Center (SRD134M). This location was also used as an election day polling location. The election day location is Jimmy Burke Activity Building (52056), which was operational on November 8, 2022.

The locations selected for this review include:

<table>
<thead>
<tr>
<th>Poll Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRD142W</td>
<td>North Channel Branch Library</td>
</tr>
<tr>
<td>SRD137B</td>
<td>Bayland Park Community Center</td>
</tr>
<tr>
<td>SRD134M</td>
<td>Metropolitan MultiService Center</td>
</tr>
<tr>
<td>82050</td>
<td>Eighth Church of Christ Scientist</td>
</tr>
<tr>
<td>72071</td>
<td>Burnett Bayland Community Center</td>
</tr>
<tr>
<td>62044</td>
<td>James Madison High School</td>
</tr>
<tr>
<td>52056</td>
<td>Jimmy Burke Activity Building</td>
</tr>
<tr>
<td>12131</td>
<td>Salyards Middle School</td>
</tr>
<tr>
<td>12029</td>
<td>Rosehill Elementary School</td>
</tr>
<tr>
<td>92090</td>
<td>River Oaks Recreation Center</td>
</tr>
</tbody>
</table>

Figure 39: Polling Locations Selected for Chain of Custody Review

**Methodology**

For the purpose of this analysis, the audit team categorized required election activities into 6 groups. In auditing each phase of the election, the team inspected the chain of custody documentation provided by Harris County to ensure compliance with the law as well as the implementation of best practices related to election security to protect the integrity of voting system equipment, ballots, and election results.

The audit team located and reviewed all files provided by Harris County relating to the assigned polling place equipment. For Harris County, that includes the equipment types listed below:

- Verity Scan (Hart);
- Verity Scan Ballot Box (Hart);
- Verify Duo (Hart);
- Verify Duo Go (Hart);
- Verify Controller (Hart); and
- ePollbooks (ContentActive).
Likewise, the audit team collected and inspected all polling location reports and procedural forms that track the location and security of this equipment throughout the election process. Documents reviewed include, but were not limited to, the following:

- Register of Official Ballots/Ballot and Seal Certificates;
- Seal Logs;
- Zero Reports;
- Ballot Count Summary Reports/Results Tapes;
- Delivery Tickets;
- Audit Logs;
- vDrive Media Status Reports;
- Inventory/Distribution of Voting Equipment;
- Travel Logs; and
- Chain of Custody Forms.

Pre-Election Testing

A public test of logic and accuracy must be conducted before all elections and must be completed no later than 48 hours before voting begins on the voting system. L&A testing is intended to verify that votes cast for a given race, contest, or measure are tabulated to produce accurate results. This ensures that a selection made by a voter is counted as intended by that voter. During the public L&A test, the general custodian of election records is also required to demonstrate, using a representative sample of voting system equipment, that the source code of the equipment has not been altered. This software validation process occurs through hash validation.

Harris County conducted logic and accuracy testing on September 15-21, 2022 at the NRG Arena, Hall D. A public notice was posted on September 14, 2022 by the Harris County Election Administrator. The audit team was not able to confirm whether the equipment used at this polling location was included in the representative sample required for the accuracy testing.

---

Figure 40: Public Notice for Logic & Accuracy Testing for the November 8, 2022 General Election
Figure 41: Certification of 1st Test of Automated Tabulating Equipment for Harris County

Distribution of Equipment & Supplies

The audit team was able to review the county distribution logs and identify the equipment assigned to all 10 locations. The log details equipment type, barcode or serial number, poll code, current status, linked seal numbers for assigned equipment, and the assignment date. As an
example, the distribution log pertaining to Metropolitan Multiservice Center (SRD134M) is included below.

<table>
<thead>
<tr>
<th>Barcode</th>
<th>Type</th>
<th>UpdatedStatus</th>
<th>pollcode</th>
<th>electioncode</th>
<th>LinkedType</th>
<th>LinkedBarcode</th>
<th>CreatedOn</th>
</tr>
</thead>
<tbody>
<tr>
<td>X20001073110</td>
<td>Ballot Box</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-18 13:28:49.863</td>
</tr>
<tr>
<td>X20001082910</td>
<td>Ballot Box</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-18 13:29:17.527</td>
</tr>
<tr>
<td>X21001082002</td>
<td>Ballot Box</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-18 13:27:59.863</td>
</tr>
<tr>
<td>X21001021202</td>
<td>Ballot Box</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-18 13:28:30.073</td>
</tr>
<tr>
<td>C2014001204</td>
<td>Controller</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-13 09:42:13.140</td>
</tr>
<tr>
<td>C2014019106</td>
<td>Controller</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-13 09:42:45.983</td>
</tr>
<tr>
<td>C2014041006</td>
<td>Controller</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-13 09:42:34.370</td>
</tr>
<tr>
<td>C2114700501</td>
<td>Controller</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-13 09:43:25.967</td>
</tr>
<tr>
<td>C2115326107</td>
<td>Controller</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-13 09:43:00.803</td>
</tr>
<tr>
<td>C2115341807</td>
<td>Controller</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-13 09:43:14.120</td>
</tr>
<tr>
<td>37941</td>
<td>Door Seal</td>
<td>Assigned</td>
<td></td>
<td></td>
<td></td>
<td>SRD134M</td>
<td>2022-10-13 09:43:19.697</td>
</tr>
<tr>
<td>37943</td>
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<td></td>
<td></td>
<td>Scan S2013767601</td>
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</tr>
<tr>
<td>37944</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>37945</td>
<td>Door Seal</td>
<td>Assigned</td>
<td></td>
<td></td>
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<td>Controller C2104010204</td>
<td>2022-10-13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V7285</td>
<td>vDrive Assigned SRD134M 1122</td>
<td>Scan</td>
<td>S1903071809</td>
<td>2022-10-13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V8211</td>
<td>vDrive Assigned SRD134M 1122</td>
<td>Scan</td>
<td>S2014264510</td>
<td>2022-10-13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 42: Equipment Distribution List for Equipment Assigned to Metropolitan Multiservice Center (SRD134M)
Harris County completes a delivery ticket listing the equipment for each polling location. The audit team was able to locate and review the delivery tickets for all 10 locations. According to the delivery ticket below, Harris County transported the listed equipment to Metropolitan Multiservice Center (SRD134M) on October 19, 2022. Though the delivery ticket outlines the quantity of items received, it does not specify the serial numbers specifically for the voting equipment.

![Figure 43: Harris County Delivery Ticket for Metropolitan Multiservice Center (SRD134M)](image)

Harris County officials provided an overview of the transport process of all election equipment. Voting machines and equipment are packed into a transport caddy. Once packed, the caddy is locked and sealed for transport. The county uses a trucking vendor to move equipment to polling locations prior to elections. However, all trucks are also accompanied by county election personnel to monitor delivery and ensure arrival at correct polling location. All trucks are loaded, locked, and sealed with equipment being delivered the same day. The county does not authorize overnight storage in transport vehicles. Chain of custody documentation is maintained throughout the process as well as delivery tickets and seal logs.

Seals are utilized on all election equipment during the transport process to ensure no unauthorized access. Each seal, containing a specific seal number, should be logged upon application and used as verification at the polling location or transport of the equipment or ballots. All seals are maintained in envelopes dedicated for that purpose as an added security measure.
The documentation for Metropolitan Multiservice Center (SRD134M) includes an equipment caddy seal log as indicated below. This information includes the date, the seal numbers, and the signature of both the presiding and alternate judge. According to Harris County procedures and the instructions listed on the actual form, the judge is responsible for verifying the seal on the first day of early voting and the seal is retained in an envelope. The caddy remains unsealed throughout the duration of early voting and is locked and sealed at the conclusion of early voting. The log is updated with the final seal number and returned to allow for verification when the equipment is picked up by county personnel and transported back to the storage facility.

The audit team was able to review the caddy seal log for all 3 early voting locations. However, the team was unable to locate or review the caddy seal log for any of the election day locations based on the documentation provided by Harris County.

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79 Election Manual 2022-2023, Harris County Election Administrator’s Office.
Ballot paper and supplies are delivered to the early voting locations in the same method as the election system equipment. Rather than being housed in a portable caddy, the supplies are locked in mobile supply cabinets. These cabinets, like the voting equipment, are sealed for security for transport to the polling location and prior to the first day of early voting.

![Early Voting Supply Cabinet](image)

Figure 46: Harris County Supply Cabinet

During the early voting period, the supply cabinets must be locked and sealed at the end of each day once voting for the day is complete. This is to ensure there is no tampering of any voting equipment or supplies in the location overnight. The seal numbers are maintained in a log that can be validated each morning to ensure there has been no access to the ballot paper or additional supplies.

On election day, supplies and ballot paper are picked up at a designated location by the presiding judge of each polling location. The supplies are packaged in bins or tubs. According to Harris County, supplies are verified by Harris County staff and the presiding judge prior to leaving the pick-up location. The audit team reviewed the tracking documentation provided, which included polling location number, first and last name of person picking up the supplies, date and time the recipient arrived to retrieve the supplies, and the date and time of check-out. No documentation was provided that verified that the supplies were adequately reviewed to ensure accuracy or any signature of the receipt.

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80 Election Manual 2022-2023, Harris County Election Administrator’s Office.
<table>
<thead>
<tr>
<th>Election Code</th>
<th>Poll Code</th>
<th>FirstName</th>
<th>LastName</th>
<th>Job Type</th>
<th>CheckIn</th>
<th>CheckOut</th>
</tr>
</thead>
<tbody>
<tr>
<td>1122</td>
<td>92033</td>
<td>JAMES</td>
<td>ROTH</td>
<td>PJ</td>
<td>11/5/2021 9:26</td>
<td>11/5/2021 10:08</td>
</tr>
<tr>
<td>1122</td>
<td>92033</td>
<td>PATRICIA</td>
<td>GOVAN</td>
<td>PJ</td>
<td>11/5/2021 9:26</td>
<td>11/5/2021 10:00</td>
</tr>
</tbody>
</table>

Figure 47: Harris County Election Day Supply Distribution
Opening the Polls

Prior to opening a polling location for voting, the election workers must set up all equipment, supplies, and place required signage in the polling location. The Harris County Training Manual provides instructions on the arrangement of the polling location.

After breaking the equipment seals and logging the seal numbers, the voting equipment must be prepared for voting. The Harris County Training Manual includes instructions and pictures to assist with the process. Proper assembly of equipment is essential to the operation of the voting system components. As previously reported, some locations experienced technical difficulties on election day. Though some of these issues were equipment malfunctions, some issues were related to improper connection during the set-up process.

Two of the ten locations in the chain of custody review experienced and reported equipment issues on election day. Rose Hill Elementary School (12109) encountered difficulties with the Verity Controller not printing access codes. Jimmy Burke Activity Building (52056) reported an issue with the connectivity of the Verity Controller. A technician responded to Jimmy Burke Activity Building (52056) and, after attempting to correct the issue, the controller was taken out of service.

Once the equipment is set-up and prior to any ballots being cast, the presiding judge must print a report from the Verity Controller and the Verity Scan to ensure that the counter is set to zero. This report, known as a “zero” report, is printed on the first day of early voting and on election day. In looking at the 3 early voting locations, none of the locations printed all of the required zero tapes.

- One location printed and signed the zero tapes for all Verity Scans, but did not print zero tapes for any of the Verity Controllers.
- One location printed and signed the zero tapes for all Verity Scans, but did not produce a zero tape for one Verity Controller.
- One location printed zero tapes for 3 of 4 Verity Scans, but did not print zero tapes for any of the Verity Controllers as seen below. Of the 3 Verity Scan zero tapes printed, one was not signed.
For the election day locations, 3 locations printed and signed zero tapes for the Verity Scans and Verity Controllers. However, issues were identified when reviewing the zero tapes at the remaining locations.

- Two locations printed all zero tapes for all Scans and Controllers. However, the zero tapes for the Verity Scans were not signed.
- One location printed all zero tapes for all Scans and Controllers, but did not sign the zero tapes for any of the Verity Controllers.
- One location printed the Verity Scan zero tape and one out of the two Verity Controllers. No zero tapes were signed.
Additionally, the audit team noted that one location did not print the zero tape for the Verity Controller until 7:58 a.m. The Verity Scan zero tape was printed at 8:16 a.m. A second location did not print the Verity Controllers zero tapes until 12:27 p.m. and 12:29 p.m. Both of these locations reported equipment issues and received support from a technician. Based on the time of the technician notes, the delay in the printing of the zero tapes is likely due to the equipment issues experienced.

Securing the Polls

The Harris County Training Manual instructs the election workers to seal the handle of each Verity Controller and the Verity Scan at the conclusion of voting each day for security purposes. The seal numbers are logged and verified the following morning. Harris County provided seal log forms for early voting as seen below. The audit team reviewed the seal logs for all three early voting locations.

![Figure 50: Harris County EV Scan Seal Log for Metropolitan Multiservice Center (SRD134M)](image-url)
As seen above, the audit team identified 2 early voting locations that did not include an entry on the seal log for the last day of early voting. The Harris County Training Manual instructs the workers to break down the Verity Controller and place in the equipment caddy. The equipment caddy is then sealed, seal number entered on the caddy seal log, and secured for transport back to the storage facility. The Verity Duos and booths are placed in the equipment caddy as well.

Additionally, to secure the equipment and supplies during early voting, seals are placed on the ballot boxes, provisional ballot tubs, and the supply cabinets. Though all 3 locations maintained the required documentation, some paperwork was incomplete or unclear as seen below. One location did not include seal numbers for the provisional ballot tub but the log was signed by both judges.
Figure 53: Harris County EV Provisional Tub Seal Log for Bayland Park Community Center (SRD137B)

<table>
<thead>
<tr>
<th>Set-up</th>
<th>Left Side Seal #</th>
<th>Right Side Seal #</th>
<th>Signature of EV Presiding Judge</th>
<th>Signature of EV Alternate Judge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This is a true list of the seals used to seal the doors of the Provisional Tub during Early Voting. The seals do not need to be changed, but both judges should check each morning to be sure the seal numbers on the Provisional Tub match the numbers on the log from the day before. If the seals need to be changed for some reason, put the new seal numbers on the log and have both judges sign for the new seals. Put the removed seal numbers inside this envelope.

Signature of Poll Watcher (if present):

Figure 54: Harris County EV Supply Cabinet Seal Log for Metropolitan Multiservice Center (SRD134M)

<table>
<thead>
<tr>
<th>Set-up</th>
<th>Seal Number</th>
<th>Signature of EV Presiding Judge</th>
<th>Signature of EV Alternate Judge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 24</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Oct 25</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Oct 26</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Oct 27</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Oct 28</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Oct 29</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Oct 30</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Oct 31</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Nov 1</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Nov 2</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Nov 3</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td>Nov 4</td>
<td></td>
<td>Lee</td>
<td></td>
</tr>
</tbody>
</table>

Judges seal cabinet each night with green seal. Enter seal # on log. In morning match seal # to log, then cut off seal # and put in this envelope.
Closing the Polling Location

Once voting has completed, there are multiple steps required to accurately and securely close a polling location. These steps include the printing of reports, securing the ballots for transport, and securing the remaining equipment and supplies. The Harris County Training Manual includes instructions and pictures to assist with the process.

At the close of voting on the last day of early voting, each location must print a ballot count summary report. As noted in the Harris County Training Manual, the ballot count report is extremely important as the central counting station worker reviews this printed report and the chain of custody log for verification. For early voting, all locations printed the required ballot summary report and the reports were signed by both the presiding judge and the alternate judge.

Figure 55: Harris County Ballot Count Summary Report for Metropolitan Multiservice Center (SRD134M)
For early voting, 2 of the 3 locations printed the required reports and the reports were signed by both judges. However, one location failed to print one report for a Verity Scan. For election day, all locations printed the required ballot summary report. However, no reports were signed by the presiding judge or the alternate judge.

Figure 56: Harris County Ballot Count Summary Report for Jimmy Burke Activity Building (52056)

During early voting, based on instructions provided in the Harris County Training Manual, the election judge should print a suspend polls report for the Scan and the Controllers and complete the daily reconciliation report. This report logs ballot counter numbers for the beginning and end of each day as well as the final counts on the final day of early voting. This form should be signed by the presiding judge and the alternate judge. A review of this documentation for the early voting locations revealed that all daily reconciliation forms and the forms for the last day of early voting were complete and signed.
On election day, after printing the final tapes, the information is listed on the Ballot and Seal Certificate/Register of Official Ballots form, which includes a breakdown of the number of voters who checked in on the pollbook, number of spoiled ballots, number of unused ballots, number of unused ballots already signed, and number of provisional ballots. Additionally, this form includes a log of the zero tape and the total number of votes cast according to the Verity Scan and the Verity Controller. The form requires a signature of both the presiding judge and alternate judge.

For election day, though the other 8 locations returned a form, there was no Register of Official Ballots form provided for 2 locations.
For one location, the form was returned with the reconciliation portion filled in but the remaining information on the form was incomplete, including the number of spoiled ballots and provisional ballots.

Figure 59: Reconciliation Logs for Rosehill Elementary School (12029)

For early voting, the ballot bag containing all voted ballots, ballot box, and Verity Scan are packed together for return. Additionally, the pollbooks, provisional ballots, and completed early voting envelopes containing all required chain of custody and reconciliation forms are returned. All equipment and ballots are sealed and seal numbers are logged and signed by the presiding judge and alternate judge. These materials are picked up and returned by a constable.
Figure 60: Harris County Chain of Custody Form – Early Voting for Metropolitan Multiservice Center (SRD134M)
On election day, the ballot bag containing all voted ballots, ballot box, and Verity Scan are packed together for return. Additionally, pollbooks, routers, unused ballot paper, judge’s supply box, and all required completed election day voting envelopes containing required chain of custody forms are returned. All equipment and ballots are sealed and seal numbers are logged and signed by the presiding judge and alternate judge. These materials are returned by the presiding judge or may be returned by a deputized elections representative or constable. If someone other than the presiding judge returns these materials, the transporter must be given an oath, which is documented and signed by both the judge and the person transporting the ballots and equipment.
Figure 62: Harris County Chain of Custody Form – Election Day for Jimmy Burke Activity Building (52056)

Figure 63: Harris County Election Day Travel Log Chain of Custody Form for Jimmy Burke Activity Building (52056)
Of the 10 polling locations reviewed, all locations submitted a completed Chain of Custody Form – Election Day. However, a review of the documentation submitted indicated that 4 election day locations did not submit the Election Day Travel Log Chain of Custody form.

Finally, the Audit Log Report is a log that shows when the vDrives containing the cast ballots are read into the Hart Verity Count system.

![Figure 64: Harris County Audit Log Report for Metropolitan Multiservice Center (SRD134M)](image1)

![Figure 65: Harris County Audit Log Report for Jimmy Burke Activity Building (52056)](image2)
Return of Voting Equipment and Supplies

At the conclusion of early voting, all remaining supplies not specifically mentioned above are placed in the early voting supply cabinet, which is locked and sealed. Voting equipment is placed in the equipment caddy and locked and sealed. Once secured, these remain in the polling locations until collected by Harris County staff.

On election day, all remaining supplies are placed in the supply cabinet which is locked and sealed. Voting equipment is placed in the equipment caddy and locked and sealed. Once secured, these remain in the polling locations until collected by Harris County staff. For the election day locations reviewed, based on the documentation submitted, no locations completed a seal log documenting the seal numbers for the equipment caddy or the supply cabinet at the conclusion of voting.
Voting by Mail

Findings

- The passage of House Bill 1382 (87th Leg., Regular Session) required counties to provide more specific detail on ballot by mail statuses to populate the ballot by mail tracker, resulting in a marked improvement in the ballot by mail data.
- However, the audit team was unable to validate with a high degree of certainty the accuracy of the data related to voting by mail because of the data inconsistencies across vendor systems.
- Harris County must ensure that all voters have the ability to timely correct identified defects in applications for ballot by mail and carrier envelopes.

Eligibility

An eligible voter may apply for a ballot by mail if the individual falls into one of the following categories:

1) 65 years or older on election day;\(^{81}\)
2) Sick or disabled and unable to appear at a polling location or expected to give birth three weeks before or after election day;\(^{82}\)
3) Absent from the county of registration during the early voting period and on election day;\(^{83}\)
4) Participation in the address confidentiality program administered by the Attorney General;\(^{84}\)
5) involuntarily civilly committed;\(^{85}\) or
6) Confined in jail, but otherwise eligible.\(^{86}\)

Application for a Ballot by Mail

To be entitled to vote an early voting ballot by mail, a person who is eligible for early voting must apply in writing and sign the application. An electronic signature is not permitted.\(^{87}\)

For any registered voter who meets the eligibility requirements, a completed application for ballot by mail (ABBM) must be submitted to the early voting clerk in their county of residence and included in their voter registration record.

\(^{81}\) Tex. Elec. Code § 82.003.
\(^{82}\) Tex. Elec. Code § 82.002.
\(^{83}\) Tex. Elec. Code § 82.001.
\(^{84}\) Tex. Elec. Code § 82.007.
\(^{85}\) Tex. Elec. Code § 82.008.
\(^{86}\) Tex. Elec. Code § 82.004.
\(^{87}\) Tex. Elec. Code § 84.001(b).
Applications for mail ballots must be received by the early voting clerk no later than the 11th day before election day.\textsuperscript{88} For the November 8, 2022 General Election, the deadline for receipt of applications was Friday, October 28, 2022.

**Annual Applications for Ballot by Mail**

A voter may submit one application, known as an annual application, for all elections in a calendar year if:\textsuperscript{89}

1) the voter indicates the ground of eligibility is age or disability; and  
2) the voter does not specify the election for which a ballot is requested or it has been marked by the applicant as an application for more than one election.\textsuperscript{90}

The first day a voter may submit an annual ABBM is January 1 of the calendar year. That application is intended to be effective for all elections within that year.

**Single-Use Applications for Ballot by Mail**

Any voter eligible to vote by mail may submit a single-use ABBM requesting ballots for an election and any resulting runoff. If an application is received past the deadline for an election, it will still be considered timely for the runoff as long as it is received by the deadline for the runoff election.\textsuperscript{91}

**Federal Post Card Applications (FPCA)**

An eligible voter may apply for a ballot by mail by submitting a Federal Post Card Application (FPCA). The first day a voter may submit an FPCA is January 1 of a calendar year and is in effect for all elections the same calendar year. To be eligible to submit an FPCA, a voter must be:\textsuperscript{92}

- A member of the armed forces of the United States, or the spouse or a dependent of a member voting from outside their home Texas county;  
- A member of the merchant marine of the United States, or the spouse or a dependent of a member voting from outside their home Texas county;  
- A member of the Texas National Guard or the National Guard of another state or a member of a reserve component of the armed forces of the United States serving on active duty under an order of the president of the United States or activated on state orders, or the spouse or dependent of a member voting from outside their home Texas county; or

\textsuperscript{88} Tex. Elec. Code § 84.007(b).  
\textsuperscript{89} Tex. Elec. Code § 86.0015.  
\textsuperscript{90} Tex. Elec. Code § 86.0015(a).  
\textsuperscript{91} Tex. Elec. Code § 84.001(e).  
\textsuperscript{92} Tex. Elec. Code § 101.001.
Domiciled in this state but temporarily living outside the territorial limits of the United States and the District of Columbia.

The FPCA serves a dual function in that it serves to register the voter 30 days after receipt of the application by the early voting clerk and also functions as an application for ballot by mail.93 Voters who submit an FPCA must use the official application prescribed by the Federal Voting Assistance Program (FVAP). Once received, the early voting clerk must make a copy of the FPCA and forward the original application to the county voter registrar so that they may process the application for voter registration purposes.

Applications Received in Harris County

According to the statewide voter registration system and data provided by the individual counties, there were a total of 431,571 applications for ballot by mail submitted statewide for the November 8, 2022 General Election. Though Harris County did not provide documentation related specifically to the receipt and final status of the submitted applications as part of this audit, the audit team was able to review the data in the statewide voter registration system as reported by Harris County.

Of the 431,571 statewide applications for mail ballots submitted statewide, 80,251 applications were submitted in Harris County alone.

Applications Accepted in Harris County

Based on information reported by Harris County to the statewide system, of the 80,251 applications received in Harris County, 77,498 voter applications were accepted to receive a mail ballot for the November 8, 2022 General Election.

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Applications Rejected in Harris County

As reported in the 2020 Full Forensic Audit, Harris County has not historically retained or submitted data to the statewide voter registration system related to the rejection of applications for ballot by mail. However, in a review of data from the statewide system for the November 8, 2022 General Election, the audit team was able to confirm that Harris County is now tracking and submitting some of this information to the state system.

Based on a review of this data and specifically the 80,251 applications received by Harris County for the November election, the audit team identified a total of 2,754 applications that were rejected by Harris County. This total represents 3.43% of all applications received. This calculation is based on rejected applications as reported by Harris County through the statewide system.

Further analysis indicated that the most prominent reason for rejection was that the application was not received prior to the application deadline which accounted for 56.6% of the total applications rejected. Missing or incorrect Texas Driver License (TDL)/Social Security Number (SSN) and applications received for an in-county address were the two other most common reasons for rejection.
Additionally, Harris County provided documentation of the number of rejected applicants who provided a new application for ballot by mail correcting the original defective applications. A review of this information indicated that of the 2,754 rejected applications, 732 voters submitted a new application form that was subsequently accepted, which allowed these voters to receive a ballot by mail for the November 8, 2022 General Election.

**Opportunity to Correct Certain Defects**

If an early voting clerk rejects an application for a voter failing to include the required personal identification information or if the information provided did not match the information as listed in the voter’s voter registration record, the early voting clerk must offer the voter an opportunity to correct this information. The voter may correct this information by submitting a new Application for Ballot by Mail or by using the Secretary of State’s Ballot by Mail Tracker to validate their personal identification numbers. The early voting clerk shall provide written notice of the opportunity to correct defects.

**Applications Corrected through Ballot by Mail Tracker**

A review of the Ballot by Mail Tracker data indicated that 99 Harris County voters utilized the online application to correct rejections due to missing or incorrect personal identification. This information is provided to Harris County officials for review and processing through the statewide voter registration system. Of those that verified this information using the online tool, 91 of the records were processed by Harris County. However, 8 records appear to have not been processed by the Harris County early voting clerk. Further investigation into these unprocessed records revealed that 7 of the voters successfully cast a ballot in the November 8, 2022 General election. The voter of the remaining unprocessed record does not show a voting record for the election.
Ballots Mailed in Harris County

Due to the limited insight into the ballot by mail records maintained in the Harris County third-party vendor system, the audit team was unable to ascertain the causation of the discrepancies identified in this section.

A review of Harris County ballot by mail reports produced by Harris County revealed that 81,070 ballots were mailed for the November 8, 2022 General Election. However, a comparison of this information maintained in Harris County to the data reported to the statewide voter registration system, as required, showed a difference of 3,583 ballots. Additionally, the Harris County Post Election Report indicated that 81,064 ballots by mail were sent to voters in Harris County.

Ballots by Mail Mailed

![Bar chart showing ballots by mail mailed: 81,070 from Harris County mail list report, 77,487 reported to statewide system.]

Figure 69: Total Number of Ballots Mailed

Ballots Received in Harris County

Based on documentation provided by Harris County, of the 81,070 ballots mailed to voters, 64,694 of those ballots were received from voters resulting in a return rate of nearly 80%. In comparison to data submitted by Harris County to the statewide voter registration system, the state system shows 62,521 ballots received by Harris County producing a difference of 2,173. The Harris County Post Election Report showed that 64,259 mail ballots were received for the November 8, 2022 General Election.
Figure 70: Total Number of Ballots Received

**Surrendered and Cancelled Mail Ballots**

A voter may cancel their application for a ballot to be voted by mail by submitting a written request to the early voting clerk to cancel their mail ballot application. A voter may also appear in person at an early voting polling place or an election day polling place and surrender the ballot that the voter received by mail, complete a cancellation request, and vote a regular ballot in person. A voter who originally requested a mail ballot and does not have their ballot to surrender, but wishes to vote in person, can still appear in person to a polling location and complete a cancellation request. The voter who does not have the ballot to surrender will be offered a provisional ballot.

Harris County provided a report of mail ballots surrendered during early voting and on election day at a polling location. The report indicates that 5,667 mail ballots were surrendered in-person during the early voting period and 885 mail ballots were cancelled on election day. The Harris County Post Election Report indicates that 5,786 ballots were surrendered during the November 8, 2022 General Election.

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The total number of mail ballot cancellations for the November 8, 2022 General Election as reflected on the Harris County mail list report, was 7,925. By comparison, the data submitted to the state system by Harris County indicates a total of 7,691 cancelled mail ballots.
Undelivered Mail Ballots

Though voters complete the application for ballot by mail process and counties mail the balloting material, some mail ballots are returned by the postal service to the early voting clerk as undeliverable. The Harris County report includes 535 ballots marked as undelivered while data submitted to the state system indicates 424 ballots were returned as undeliverable.

![Bar Chart](image)

**Figure 73: Total Number of Ballots Returned as Undeliverable**

Signature Verification Committee (SVC)

The signature verification committee is charged with comparing the signature on each carrier envelope with the signature on the application for ballot by mail to determine whether those signatures are those of the voter. The committee may also compare these signatures to any known signature of the voter in the voter registration record.

If a signature verification committee is appointed to serve, a written order must be issued by the early voting clerk no later than October 15. The order must include the location, dates, and times of the meetings. The order must be posted at least 10 days before the first meeting.

Harris County posted an order calling for the signature verification committee on October 7, 2022. The order indicated that the committee would consist of up to 50 committee members and would convene at 9:00 a.m. on Wednesday, October 19, 2022 at the NRG Arena.

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95 Tex. Elec. Code § 87.027(i).
97 Tex. Elec. Code § 87.027(g).
ORDER CALLING FOR SIGNATURE VERIFICATION COMMITTEE

I, the Early Voting Clerk for the November 8, 2022 General and Special Elections, do hereby order the appointment of a Signature Verification Committee for said election to be held on Tuesday, November 8, 2022. The committee shall consist of up to 50 members. The Signature Verification Committee shall convene at NRG Arena, Hall B, 1 NRG Pkwy, Houston, TX 77054, at 9:00 A.M., on Wednesday, October 19, 2022. The workday will affect the schedule as determined by the committee chair. I shall immediately notify the county chairpersons of their duty to nominate members to be appointed to committee.

ORDRE CONVOCATUYA PARA EL COMITÉ DE VERIFICACIÓN DE FIRMAS

Yo, el Secretario de Votación Anticipada para las Elecciones Generales y Especiales del 8 de noviembre de 2022, pongo en presente el nombramiento de un Comité de Verificación de Firmas para la elección del martes 8 de noviembre de 2022. El comité estará formado por un máximo de 50 miembros. El Comité de Verificación de Firmas se reunirá en NRG Arena, Hall B, 1 NRG Pkwy, Houston, TX 77054, a las 9:00 A.M., el martes 19 de octubre de 2022. La agenda de trabajo afectará el horario según lo determine el presidente del comité. Notificaré inmediatamente a los presidentes de los condados su deber de nombrar a los miembros que serán nombrados para el comité.

Figure 74: Order Calling for Signature Verification Committee for November 8, 2022 Election
If a committee is appointed, the early voting clerk must deliver all received mail ballots in their jacket envelopes to the signature verification committee. Delivery of the ballots may only be made at times scheduled in advance by the early voting clerk. A notice of delivery of the mail ballots must be posted prior to each delivery and must be posted for at least 2 days prior to the delivery.

Harris County did not provide any documentation of a notice of delivery to the signature verification committee. Therefore, the audit team was unable to verify that the notice was provided or that the notice was posted for the required timeline.

However, Harris County provided transmittal logs detailing the date and time that ballots were delivered to the committee as well as the number of ballots being delivered.

Figure 75: Sample Mail Ballot Transmittal from Early Voting Clerk to Signature Verification Committee

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Early Voting Ballot Board (EVBB)

For the November 8, 2022 General Election, the Harris County Early Voting Ballot Board met from October 19 – 21, 2022 from 9:00 a.m. to 5:00 p.m. each day. The notice of these meetings was posted on October 14, 2022.

Figure 76: Notice of Convening the Early Voting Ballot Board for November 8, 2022 Election
The early voting clerk must post notice at the main early voting polling place of each delivery of the mail balloting materials to the early voting ballot board for at least 24 hours prior to the delivery.99

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Harris County provided transmittal logs detailing the date and time that ballots were delivered to the early voting ballot board as well as the number of ballots being delivered.

Figure 78: Sample Mail Ballot Transmittal from Early Voting Clerk to Early Voting Ballot Board

**Opportunity to Correct Certain Defects**

If the signature verification committee or early voting ballot board reviews a carrier envelope that does not comply with the applicable requirements, the committee or board must send the voter a notice of the defect and a corrective action form that must include:

1) A brief explanation of the identified defect; and
2) A notice that the voter may cancel their application to vote by mail, return the corrected carrier envelope by the close of polls on election day, or come to the early voting clerk’s office to correct the defect no later than the sixth day after the election.\(^\text{100}\)

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\(^{100}\) Tex. Elec. Code § 87.0411.
If the committee or board determines that it would not be possible for the voter to receive such notice in time to correct their ballot, the notifications may be made by telephone or email.

If a defect is identified with the carrier envelope for a voter failing to include their required personal identification information or if the information provided did not match the information as listed in the voter’s voter registration record, the committee or board must permit the voter to correct this information using the Ballot by Mail Tracker developed by the Secretary of State.\(^{101}\)

**Corrective Action Process**

Based on a review of documentation and data provided by Harris County, at least 4,984 voters were notified of defects on their carrier envelopes. The documentation shows that 2,003 voters returned a corrected carrier envelope in-person as part of the corrective action process.

**Ballots Corrected through Ballot by Mail Tracker**

A review of the corrected mail ballots indicated that 410 voters used the Ballot by Mail Tracker to correct rejections due to missing or incorrect personal identification. Of those, records indicate that Harris County received the corrected information and accepted the mail ballot. However, 9 Ballot by Mail Tracker records do not appear to have been reviewed by Harris County following the November 8, 2022 Election. A further look at these voters indicate that 2 voters cancelled their mail ballots and successfully voted in person on Election Day. Seven voters do not show any record of the ballots being accepted by Harris County.

**Accepted Ballots by Mail**

Following the review by the EVBB and the corrective action process deadline, the Harris County mail ballot lists indicate that 61,508 mail ballots were accepted after review. Data provided by Harris County to the statewide system indicated that 59,707 mail ballots were accepted for the November 8, 2022 General Election.

\(^{101}\) Tex. Elec. Code § 86.015.
Rejected Ballots by Mail

Additionally, the Harris County mail ballot lists indicated that 3,186 mail ballots were rejected after review. Data provided by Harris County to the statewide system indicated that 2,788 mail ballots were rejected for the November 8, 2022 General Election. Due to the limited insight into the ballot by mail records maintained in the Harris County third-party vendor system, the audit team was unable to ascertain the causation of the identified discrepancy.
Return to Early Voting Clerk

The early voting ballot board must deliver the accepted mail ballots to the central counting station to be counted by automatic tabulating equipment.\textsuperscript{102} The early voting ballot board shall complete a mail ballot transmittal form showing the number of accepted mail ballots that were transferred to the Central Counting Station for counting.

The audit team was unable to locate any notification or documentation of the delivery or transmittal of mail ballots to the Central Counting Station during a review of the public notices and chain of custody documentation provided by Harris County.

\textbf{Figure 81: Mail Ballot Transmittal Form from Early Voting Ballot Board to Early Voting Clerk}

\textsuperscript{102} Tex. Elec. Code § 87.101.
Voting in Person

Findings

- Harris County must ensure that procedures are clearly defined, effective training is provided, and that all processes related to the handling and documenting of provisional ballots and emergency ballots are implemented consistently in all polling locations.

Overview

Voting in person was the most common method of voting utilized in Harris County for the November 8, 2022 General Election. Based on the official reconciliation report provided by the county, of 1,113,016 voters, 692,486 (62%) appeared to vote in person during the early voting period while 349,969 (31%) appeared to vote in person on election day. Overall, 93% of the voters voting in the election appeared in person to cast a ballot while 6% of voters chose to vote by mail.

These figures emphasize the importance of understanding the laws governing casting a ballot in person. More specifically, for voters in Harris County, these percentages represent the importance of understanding how voting in person works in Harris County. The choice to cast a ballot in person, whether during the early voting period or on election day, begins with understanding where to vote.

Polling Locations

Since 2019, Harris County has participated in the Countywide Polling Place program that allows voters to vote at any election day polling location that is open in the county. For the November 8, 2022 General Election, Harris County reported 1,165 precincts and 782 polling locations meeting the requirements of the Countywide Polling Place Program.

Early Voting

The period for early voting in person begins on the 17th day before an election day and continues through the 4th day before election day.103 For the November 8, 2022 General Election, the early

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voting period was conducted beginning Monday, October 24, 2022 and ended on Friday, November 4, 2022.

Based on a review of information provided by Harris County, 99 polling locations were available for early voting during the November 8, 2022 General Election. The documentation provided did not specify a main early voting polling place; nor was the audit team able to locate the Notice of Election containing this information on the Harris County website.\textsuperscript{104} However, early voting dates, times, and locations were included on the November 8, 2022 Elections Early Voting Schedule provided by the county.

<table>
<thead>
<tr>
<th>Days</th>
<th>Dates</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday – Saturday</td>
<td>October 24 – 29</td>
<td>7:00 am – 7:00 pm</td>
</tr>
<tr>
<td>Sunday</td>
<td>October 30</td>
<td>12:00 pm – 7:00 pm</td>
</tr>
<tr>
<td>Monday – Wednesday</td>
<td>October 31 – November 2</td>
<td>7:00 am – 7:00 pm</td>
</tr>
<tr>
<td>Thursday</td>
<td>November 3</td>
<td>7:00 am – 10:00 pm</td>
</tr>
<tr>
<td>Friday</td>
<td>November 4</td>
<td>7:00 am – 7:00 pm</td>
</tr>
</tbody>
</table>

Figure 83: Early Voting Dates and Hours for November 8, 2022 General Election

\textsuperscript{104} Tex. Elec. Code § 85.004.
Figure 84: Early Voting Map for November 8, 2022 General Election
Figure 85: Early Voting Schedule for November 8, 2022 General Election
Election Day

As part of the countywide polling place program, voters in Harris County could cast a ballot at any polling location in the county. Based on information provided by Harris County, 782 polling locations were available for voting on Election Day for the November 8, 2022 General Election.

Figure 86: Election Day Voting Locations for November 8, 2022 General Election
Additional Notice Requirements

In addition to the notice requirement of polling locations and dates and times of operation for an election, counties are required to post certain information regarding previous polling locations, changes to polling locations, and information related to polling locations in proximity to each polling place.

Notice of Change of Polling Place Location

If a polling location is relocated after notice of the election has been given as required, the county election official must post a notice of the change on the county website. This notice must be posted not later than 24 hours after the location was changed or 72 hours before the polls open on election day, whichever comes earlier.\(^{105}\)

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\(^{105}\) Tex. Elec. Code § 43.061.
For the November 8, 2022 General Election, Harris County generated 172 notices related to a change in polling location. Of those, 42 notices were provided for early voting polling locations and 130 notices were related to changes in polling locations for election day.

**Notice of Nearest Four Countywide Polling Locations**

As part of the countywide polling place program, each countywide polling place must post a notice, at that location, of the four nearest locations, by driving distance. Based on a review of the information submitted, Harris County posted this notice at all polling locations as required.

![Sample Notice of Four Nearest Countywide Polling Place Locations](image)

**Figure 88: Sample Notice of Four Nearest Countywide Polling Place Locations posted at Polling Locations for November 8, 2022 General Election**

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Curbside Voting

If a voter is physically unable to enter the polling place without personal assistance or the likelihood of injuring the voter’s health, on the voter’s request, an election officer must deliver a ballot to the voter at the polling place entrance or curb.107

A review of the call log for the Harris County Help Desk revealed a number of calls from voters complaining of long wait times prior to receiving a response from an election worker when calling the number provided or pushing the buzzer to notify the election workers of their arrival and desire to vote. Additionally, of the 1,659 equipment issues reported on election day, 225 (14%) of those calls to the Harris County Help Desk were related specifically to the Duo Go voting device used for curbside voting. Based on the information provided, the audit team was unable to determine if this was an equipment malfunction or a lack of training regarding the use of the accessible device.

Qualifying and Accepting a Voter

Upon arrival at a polling location, a voter must present an acceptable form of voter identification.108 The following documentation represents an acceptable form of photo identification:109

1) Texas Driver’s License issued by the Texas Department of Public Safety (DPS);
2) Texas Election Identification Certificate issued by DPS;
3) Texas Personal Identification Card issued by DPS;
4) Texas Handgun License issued by DPS;
5) United States Military Identification Card containing a photograph;
6) United States Citizenship Certificate containing a photograph; or
7) United States Passport (book or card).

With the exception of the U.S. Citizenship Certificate, for voters aged 18-69, the acceptable form of photo identification must be current or have expired no more than 4 years before being presented at a polling place. Voters over the age of 70 may use a form of acceptable photo identification that has expired if the identification is otherwise valid.110 Additionally, voters with disabilities may apply through the county voter registrar for a permanent exemption from showing an acceptable form of photo identification.111 Voters with a permanent exemption are notated as such on the official list of voters.

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107 Tex. Elec. Code § 64.009.
108 Tex. Elec. Code § 63.001(b).
110 Tex. Elec. Code § 63.0101(c).
If the identification requirements are not verifiable or if the voter possesses an acceptable form of identification but failed to bring it to the polling location, the voter may be accepted to cast a provisional ballot.\textsuperscript{112} If a voter does not possess and cannot reasonably obtain an acceptable form of photo identification, the voter must supply a supporting form of identification and complete a Reasonable Impediment Declaration (RID).\textsuperscript{113}

If the voter’s registration status is in suspense, indicating the voter may have moved, or if the voter states that they have moved within the county, the voter must complete a Statement of Residence form before being permitted to cast a ballot.\textsuperscript{114} A voter who has moved within the county must vote a ballot based on the precinct listed on their current residential address as in the voter registration record.\textsuperscript{115}

Once the voter’s name is located and registration information has been verified, all voters must sign the signature roster prior to voting.\textsuperscript{116} If the voter is unable to sign the voter’s name, an election officer must enter the voter’s name with a notation of the reason for the voter’s inability to personally sign the roster.\textsuperscript{117} Following the signature, the election officer must enter the accepted voter’s name on the poll list in the same order in which they appear on the signature roster.\textsuperscript{118} Both the signature roster and poll list may be handwritten or captured on an electronic device if approved by the Secretary of State. A form combining the poll list and the signature roster may be used for accepting voters to a polling location.\textsuperscript{119}

Once these steps are completed, and the voter is accepted for voting, the voter is offered the opportunity to cast a ballot.

**Reasonable Impediment Declarations**

If a voter does not possess one of the forms of acceptable photo identification listed above, and cannot reasonably obtain such identification, a voter may execute a Reasonable Impediment Declaration\textsuperscript{120} and present a copy or original of one of the following supporting documents:

1) a government document that shows the voter’s name and an address, including the voter’s voter registration certificate;
2) current utility bill;
3) bank statement;
4) government check;

\textsuperscript{112} See Provisional Ballot section.
\textsuperscript{113} See Reasonable Impediment Declaration section.
\textsuperscript{114} Tex. Elec. Code § 63.011(c).
\textsuperscript{115} Tex. Elec. Code § 63.0011(b).
\textsuperscript{116} Tex. Elec. Code § 63.002.
\textsuperscript{117} Tex. Elec. Code § 63.002(c).
\textsuperscript{118} Tex. Elec. Code § 63.003.
\textsuperscript{119} Tex. Elec. Code § 63.004.
\textsuperscript{120} Tex. Elec. Code § 63.001(i).
5) paycheck; or
6) a certified domestic (from a U.S. state or territory) birth certificate or a document confirming birth admissible in a court of law which establishes the voter’s identity (which may include a foreign birth document).
Harris County did not provide a report or summarization of the number of Reasonable Impediment Declarations that were completed for the November 8, 2022 General Election. However, the county provided copies of the envelopes and documents submitted from each polling location on election day to the Elections Division in an email dated November 21, 2022.

The audit team reviewed files for 766 of the 782 polling locations operating on election day. With no documentation provided for 16 locations, the audit team must assume that either the files were not turned in to the general custodian, as appropriate, or there were no forms completed at those locations. Of the 766 files reviewed, 583 did not contain any documentation or Reasonable Impediment Declarations.

Documentation from 183 election day polling locations included a total of 727 Reasonable Impediment Declarations. An analysis of the forms revealed the following descriptions listed as the reason for not having an acceptable form of voter identification.

![Figure 90: Reasons Necessitating the Use of Reasonable Impediment Declarations](image)

**Statements of Residence**

Harris County submitted a report showing that 43,732 voters completed a Statement of Residence as part of the voting process. Additionally, the audit team was able to review a list of 85 voters who completed a Statement of Residence as part of the voter confidentiality program. In total, 43,817 Statements of Residence were completed during the election.
Figure 91: Sample Statement of Residence for November 8, 2022 General Election
Limited Ballots

A registered voter who has moved from the Texas county in which he or she is registered, to a new county of residence in Texas, and who will not be registered to vote in the new county on or before election day, may be eligible to vote a “limited ballot.” Limited ballots, containing only statewide races and any district offices that are in common between the former and new county of residence, may vote in person or by mail in the new county of residence under the following conditions:

- The person seeking to vote a limited ballot would be eligible to vote in the former county of residence on election day if still residing there;
- The person seeking to vote a limited ballot is registered to vote in the former county of residence at the time the person (1) offers to vote in the new county of residence or (2) applies for registration in the new county; and
- The person’s voter registration is not effective in the new county of residence on or before election day.

Harris County provided the limited ballot applications for 633 voters who cast a limited ballot in the county for the November 8, 2022 General Election. Of those, 4 voters included addresses that appear to be within Harris County. However, a review of voting history records for these 4 voters does not reflect that the voters cast a ballot for the November 8, 2022 General Election.

A breakdown of the previous residence included 72 counties with 5 counties having more than 40 voters apply for a limited ballot. The 5 counties with the highest number of applicants were Bexar, Dallas, Fort Bend, Montgomery, and Travis.

Figure 92: Limited Ballot Applications for November 8, 2022 General Election

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Provisional Ballots

The Help America Vote Act (HAVA) requires that provisional ballots be offered to:

1) Any voter who declares that they are a registered and eligible voter of the precinct in which they are appearing; and
2) Any voter whose eligibility is called into question by an election official including a voter who may have voted by mail. ¹²²

Texas law echoes the federal requirements, but also allows that a voter may vote provisionally if the voter does not have the required photo identification at the time of voting.¹²³ Provisional ballots must be offered during voting in person hours and at all polling locations.

Harris County provided a list of provisional voters by polling location during the early voting period and on election day. Based on the data provided, the audit team was able to generate a list of the reasons provided for the use of a provisional ballot.

Pursuant to a court order, all polling locations in Harris County were required to remain open until 8:00 p.m. on election day. Voters casting a ballot after 7:00 p.m. were provided a provisional ballot as required in the court order. According to the ePollbook information, as seen below, 1,337 voters cast a provisional ballot after 7:00 p.m. on November 8, 2022.

![Figure 93: Reasons Listed for Provisional Ballots for November 8, 2022](image)

Provisional Ballot Process

Individuals voting provisionally must complete and sign an affidavit indicating that they are an eligible voter in the precinct in which they are seeking to vote. Upon submission of the affidavit, the voter may complete a provisional ballot. The voted ballot is placed in the provisional ballot affidavit envelope and placed in a separate and secure container clearly marked for provisional ballots. The presiding judge must deliver the secure container of provisional votes cast in person to the general custodian. Upon request of the general custodian, the secure container of affidavits and provisional ballots, accompanied by a required list identifying voters casting a provisional ballot, may be delivered daily or at the conclusion of the early voting period by the deputy early voting clerks. On Election Day, the election judge must deliver the provisional ballots in a closed and secure container to the general custodian of election records. The general custodian of election records must post notice 24 hours before the first delivery of provisional ballots to the voter registrar for eligibility verification. Following this review, the ballots are securely transferred back to the general custodian before transfer to the Early Voting Ballot Board (EVBB) for the final determination of each ballot.

Role of the Voter Registrar

The voter registrar must complete a review of the provisional ballot affidavits no later than the 10th day after election day. The eligibility review must include information from the following sources in an effort to ascertain the voter’s eligibility status:

- County voter registration records;
- Department of Public Safety;
- Volunteer deputy registrars;
- Other records that may establish the provisional voter’s eligibility.

Counting Provisional Votes

It is the responsibility of the early voting ballot board to verify and make a final determination on the outcome of each provisional ballot. This determination must be made no later than the 13th day after an election held on a general election date for state and county officers. During this process, the EVBB reviews the notes provided on the provisional affidavit envelope by the election judge and voter registrar to determine if the ballot should be accepted or rejected.

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Provisional Ballots in Harris County

In reviewing the provisional ballot documentation provided by the county, the audit team identified discrepancies between the VEMACS provisional ballot report, the ContentActive ePollbook provisional ballot report, and the Hart Count Official vDrive Status Report. The VEMACS report and the ePollbook report show a difference of 46 provisional votes. However, there is a difference of 209 provisional ballots between the VEMACS report and the official provisional vote total of 4,333 as reflected on the Official vDrive report. This inconsistency between the various reporting systems in Harris County prohibited the audit team from validating the total number of provisional votes cast and their final disposition.

<table>
<thead>
<tr>
<th>Hart Count Official vDrive Status Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV Provisionals</td>
</tr>
<tr>
<td>ED Provisionals</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Figure 94: Count Official vDrive Status Report
Election Results

Findings

- Harris County must ensure that the Central Counting Station is producing all of the required reports and documenting the production of such reports as required.
- Harris County must establish appropriate procedures to ensure that all election day counting has been completed and precinct returns have been prepared no later than 24 hours after the polls close.

Central Counting Station Compliance

A central counting station (CCS) is a location where ballots are counted, vote totals are accumulated, and unofficial election results are generated on election night. The authority adopting a voting system is responsible for establishing one or more central counting stations.129

Tabulation at the central counting station must continue until all ballots are counted. Once completed, the central counting station judge must prepare:

- Precinct Returns;130
- Unofficial Results;131 and
- Unofficial Reconciliation Form.132

Notice Requirements

Harris County did not provide a copy of any documentation related to the time of convening of the central counting station or the time ballots were counted on election day. The county provided the audit team a link to the Harris County website for the retrieval of notices and information. However, the audit team was not able to locate any notifications related to the central counting station.

Central Counting Station Plan

The Texas Election Code requires the manager of the central counting station to develop a written plan for the orderly operation of the central counting station.133 The Central Counting Station Plan must outline the process for comparing the number of voters who signed the combination form with the number of votes cast for an entire election.134 This plan must be made available

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for public inspection not later than 5 p.m. on the 5th day before the date of the election. For the November 8, 2022 election, that date was Thursday, November 3, 2022.

A review of the Harris County Central Counting Station Plan revealed compliance of required elements and inclusion of best practices as prescribed by the Secretary of State. The plan design clearly enumerates and addresses all aspects of the recommendations provided by the Secretary of State. The plan identifies key personnel and associated duties, oath administration, time and dates of convening the central counting station, and logistical considerations to accommodate poll watchers for the November 8, 2022 General Election. Additionally, the plan includes a step by step guide on duplicate ballot process, detailed instructions for reconciliation, and how to obtain technical support from county vendors, as needed.

Figure 95: Harris County Central Counting Station Plan

**Livestreaming Requirements**

A county with a population over 100,000 must establish a video recording and live streaming system that captures all areas containing voted ballots from the time they are delivered to the signature verification committee, early voting ballot board, or central counting station until the canvass of the election.
Harris County complied with the live streaming requirement for the November 8, 2022 General Election. The county posted links to 8 cameras live streaming all activities of the central counting station and ballot processing activities at the NRG Arena.

Testing of Tabulation Equipment

The automatic tabulating equipment used for counting ballots at a central counting station must be tested immediately before the counting of ballots with the equipment begins.\textsuperscript{135} Certification of the second test was completed on November 8, 2022 at 11:44 a.m.

\textsuperscript{135} Tex. Elec. Code § 127.093(b).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure96.png}
\caption{Certification of 2\textsuperscript{nd} Test of Automated Tabulating Equipment}
\end{figure}
A third test of the automatic tabulating equipment used for counting ballots at a central counting station must be tested immediately after the counting of ballots with the equipment is completed. Certification of this test was completed on November 18, 2022 at 9:37 p.m.

Figure 97: Certification of 3rd Test of Automated Tabulating Equipment

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Precinct Returns

After the automatic counting of ballots for each precinct is completed, the presiding judge of the central counting station shall prepare the election returns. The returns must include:\textsuperscript{137}

- The total number of voters who voted at the precinct or polling location as indicated on the poll list; and
- The total number of votes counted for each candidate and for and against each measure.

Harris County provided a copy of the precinct results report as part of this audit. However, the audit team was unable to confirm that the report was signed by the presiding judge based on the documentation provided. The presiding judge of the central counting station is required to prepare election returns for each precinct and sign the returns to certify their accuracy.\textsuperscript{138} While precinct level reporting in Harris County may produce a report that is too lengthy to print, this report, at a minimum, must be generated and retained by the general custodian of election records.

Unofficial Results

County election officials must transmit election night returns to the Secretary of State on election night.\textsuperscript{139} The Secretary of State requests that county election officials submit the unofficial results for early voting in person and early voting by mail as soon after 7:00 p.m. as possible. Additionally, the office requests that counties provide periodic updates throughout the evening as election day votes are tabulated by polling location. No results may be submitted prior to 7:00 p.m.

For the November 8, 2022 General Election, Harris County reported all early voting totals at 10:37 p.m. on election night. The county’s final unofficial vote totals for 1,166 precincts and 782 polling locations was submitted on November 9, 2022 at 7:48 p.m. The data, as submitted through the statewide system, reported a total of 1,102,418 votes cast and 42.92% voter turnout.

\textsuperscript{137} Tex. Elec. Code § 65.014.
\textsuperscript{138} Tex. Elec. Code § 127.131
\textsuperscript{139} Tex. Elec. Code § 68.034.
Figure 98: Harris County Election Unofficial Results Report for November 8, 2022

<table>
<thead>
<tr>
<th>Office Name</th>
<th>Candidates Name</th>
<th>Early Voting By Mail</th>
<th>Early Voting In Person</th>
<th>Election Day Count</th>
<th>Early Voting Count</th>
<th>Total Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. REPRESENTATIVE DISTRICT 1</td>
<td>DAN CRUGЛАS</td>
<td>3,390</td>
<td>50,916</td>
<td>23,156</td>
<td>51,271</td>
<td>77,381</td>
</tr>
<tr>
<td></td>
<td>JUDY POLFORD</td>
<td>2,640</td>
<td>28,424</td>
<td>14,840</td>
<td>32,064</td>
<td>46,904</td>
</tr>
<tr>
<td>U.S. REPRESENTATIVE DISTRICT 7</td>
<td>RACHEL TIAAKE</td>
<td>2,190</td>
<td>28,176</td>
<td>10,297</td>
<td>30,373</td>
<td>40,670</td>
</tr>
<tr>
<td></td>
<td>LIZZIE LUTTERER</td>
<td>5,217</td>
<td>53,289</td>
<td>26,334</td>
<td>50,473</td>
<td>66,887</td>
</tr>
<tr>
<td>U.S. REPRESENTATIVE DISTRICT 8</td>
<td>MORGAN LUTTERELL</td>
<td>1,290</td>
<td>29,624</td>
<td>13,982</td>
<td>30,290</td>
<td>44,182</td>
</tr>
<tr>
<td></td>
<td>LAURA JONES</td>
<td>1,608</td>
<td>28,922</td>
<td>15,666</td>
<td>30,490</td>
<td>46,158</td>
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<tr>
<td></td>
<td>RYAN EDMUN</td>
<td>24</td>
<td>713</td>
<td>730</td>
<td>797</td>
<td>5,538</td>
</tr>
</tbody>
</table>

Figure 99: Harris County Unofficial Voter Turnout Report for November 8, 2022
Reconciliation

Findings

- Harris County updated the preliminary reconciliation report that was posted on their website, but provided no explanation or context as to why the report was updated. Additionally, Harris County has no records explaining what transpired that led the county to revise their preliminary reconciliation report.
- Anytime an official election record is updated, the county should provide an explanation as to the reason for the update and should document the reasoning behind the updated records. This documentation should be retained with their election records.
- Discrepancies between ePollbook data and vote totals made it difficult to validate vote totals; however, the audit team was able to validate the accuracy of the final reconciliation report.

Preliminary Reconciliation

The presiding judge of the central counting station must attest to an unofficial written reconciliation of votes and voters at the end of the tabulation process on election day. Likewise, the presiding judge must attest to an official reconciliation after the inclusion of any late arriving or provisional ballots following the canvass.

Harris County posted the unofficial reconciliation report on the county website on November 9, 2022.

However, this report was subsequently replaced on November 10, 2022. The second form, seen below, included an increase in the number of mail ballot voters and a reduction in the number of rejected or pending mail ballot voters. The second unofficial reconciliation form also included a reduction in the number of counted mail ballots of 1,461 ballots.
The audit team requested an explanation for the second posting during two phone interviews. However, Harris County was unable to provide further insight or explanation into the reason for the subsequent update of the unofficial reconciliation form.

The unofficial reconciliation report reflected a discrepancy between the number of voters voting and the number of ballots of 2,712 (.247%). However, the county indicated a total of 20,686 mail ballots had not yet been received and a total of 3,828 provisional ballots were yet to be reviewed.

Based on a comparison of this report to the unofficial results submitted to the Secretary of State, the total number of votes counted and reported indicates a discrepancy of 2,900 votes.
Final Reconciliation

The presiding judge must attest to an official reconciliation after the inclusion of any late arriving or provisional ballots following the canvass.\textsuperscript{141} Harris County completed and posted the final reconciliation report on November 18, 2022.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Figure_102}
\caption{Harris County Official Reconciliation Report for November 8, 2022}
\end{figure}

The final reconciliation report reflected a discrepancy between the number of voters voting and the number of ballots of 1,190 (.107%).

\textsuperscript{141} Tex. Elec. Code § 127.131(f).
**Votes Cast vs. Votes Counted**

The audit team conducted an analysis of Harris County data to reconcile the number of voters who checked in to vote at each polling location compared to the number of votes reported by each polling location through the vDrives. This reconciliation included a detailed analysis of several reports produced by the ContentActive ePollbook and the Hart Verity System as well as the Harris County Final Reconciliation Report. The reports included the:

1) Hart Verity Count Audit Log Report;
2) Hart Verity Final Cumulative Report;
3) Hart vDrive Status Report;
4) Hart Verity Polling Place Report;
5) ContentActive ePollbook Voter Roster Report; and
6) ContentActive ePollbook Signature Report.

**Total Number of Voters**

To reconcile the total number of voters who cast a ballot, the audit team compared the ContentActive ePollbook Signature Report and the ContentActive ePollbook Voter Roster Report. The signature report included a total of 693,321 voters for early voting and 350,815 voters for election day that signed in to cast a vote. The voter roster showed a total of 692,614 voters for early voting and 349,672 voters for election day that completed the check-in process. This produced a discrepancy of 707 voters for early voting and 1,143 voters for election day between the two reports.

Figure 103: Signature Report vs. Voter Roster Report for Early Voting
Further analysis revealed a total of 82 early voting and 184 election day polling locations showing a difference between the two reports. Of the 82 early voting locations, 18 locations showed a difference of 12 voters or more between the two reports. Of the 184 election day locations, 7 locations showed a difference of 12 voters or more between the two reports.
In an effort to validate which report provided the most accurate number, the audit team reviewed the daily Reconciliation Log which also serves as the Ballot & Seal Certificate/Register of Official Ballots form in Harris County on election day. The completion of this form is part of the standard procedure listed in the Harris County Training Manual for closing the polls as seen below.
Though the team was able to locate information for some polling locations, this effort did not produce clarity related to this discrepancy due to inconsistent and missing paperwork. Specifically, in an attempt to review the reconciliation documentation provided, the audit team discovered that 67 polling locations did not complete or return the reconciliation form. Additionally, excluding the 67 locations with no forms, the audit team identified the following concerns with the forms returned:

- 119 locations did not include the number of voters who cast a ballot;
- 148 locations did not include the number of provisional votes cast;
- 79 locations did not include information for the start of day counts for the individual pieces of equipment; and
- 99 locations did not include information for the end of day counts for the individual pieces of equipment.

For purposes of the analysis of the total number of voters who voted, the audit team concluded that the Signature Report appeared to be a more accurate representation of the total number of voters who checked in to vote at the polling locations. The team further concluded that, for some polling locations, the numbers reflected on this report may include provisional voters, which could contribute to the discrepancies listed above.

**Total Number of Ballots**

The next objective was to validate the total number of ballots counted by Harris County for the November 8, 2022 General Election. By comparing the Hart Verity Count Audit Log Report to the Hart Verity Final Cumulative Report, the audit team identified a significant discrepancy in the total number of ballots. In reviewing the total counts for all early voting and election day polling locations, the audit team identified vDrive counts on the audit log report for 5 early voting locations and 11 election day locations that did not include a polling location code number or naming convention. Those vDrives are listed as (No Poll Code/No Naming Convention) below. However, the audit team was able to use the Hart Verity County Official vDrive Status Report to locate the missing naming convention by searching the matching vDrive ID number on the audit log report to the Device Data ID on the vDrive status report. When added to the appropriate voting period, the total number of ballots cast showed a discrepancy of 2,073 ballots.
Further analysis revealed that one vDrive appeared to be a duplication or double count of the election day provisional vote count on the Hart Verity Count Audit Log Report as indicated below. The same device ID was used and the total was counted twice in the total number of ballots. Therefore, with the deduction of this duplication, the two Hart reports reconciled and matched the total number of ballots counted as listed on the Harris County Final Reconciliation Report.

### Ballots Tabulated

<table>
<thead>
<tr>
<th>Type of Ballots</th>
<th>Hart Verity Count - Audit Log</th>
<th>Hart Final Cumulative Report</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballots by Mail</td>
<td>61,264</td>
<td>61,264</td>
<td>0</td>
</tr>
<tr>
<td>Early Voting In-Person Ballots</td>
<td>691,340</td>
<td>692,748</td>
<td>1,408</td>
</tr>
<tr>
<td>EV (No Poll Code Listed)</td>
<td>1,408</td>
<td>-1,408</td>
<td>-553</td>
</tr>
<tr>
<td>Election Day In-Person Ballots</td>
<td>348,492</td>
<td>349,045</td>
<td>553</td>
</tr>
<tr>
<td>ED (No Poll Code Listed)</td>
<td>553</td>
<td>-553</td>
<td>0</td>
</tr>
<tr>
<td>EV - Provisional Ballots</td>
<td>1,778</td>
<td>1,778</td>
<td>0</td>
</tr>
<tr>
<td>ED - Provisional Ballots</td>
<td>2,555</td>
<td>2,555</td>
<td>0</td>
</tr>
<tr>
<td>Blanks (No Naming Convention)</td>
<td>2,073</td>
<td>-2,073</td>
<td>-2,073</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>1,109,463</strong></td>
<td><strong>1,107,390</strong></td>
<td><strong>-2,073</strong></td>
</tr>
</tbody>
</table>

Figure 108: Hart Verity Count Audit Log Report vs. Hart Verity Final Cumulative Report

Figure 109: Duplicated vDrive Entry on Hart Verity County Audit Log Report

Figure 110: Final Reconciliation Report vs. Hart Verity Final Cumulative Report
Total Voters vs. Total Votes

The audit team compared the total number of voters as reflected on the ContentActive Signature Report to the Hart Verity Count Audit Log by polling location. Upon initial review, a discrepancy of 4,304 votes was identified.

![Voter Check-ins vs. Votes Cast](image)

**Figure 111: ContentActive Signature Report vs. Hart Verity Count Audit Log**

Based on this analysis, the audit team identified the discrepancy by polling location. The following chart is categorization of the total number of discrepancies.

<table>
<thead>
<tr>
<th>Total Number of Polling Locations</th>
<th>Discrepancies of Voter Check-ins vs. Votes Tabulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>40</td>
<td>1-10</td>
</tr>
<tr>
<td>48</td>
<td>11-50</td>
</tr>
<tr>
<td>8</td>
<td>51-100</td>
</tr>
<tr>
<td>1</td>
<td>101-200</td>
</tr>
</tbody>
</table>

**Figure 112: Breakdown of Discrepancies by Polling Location**

However, as mentioned above, the audit team determined that some of the polling locations as listed on the Signature Report may have included the provisional ballots cast. Additionally, the audit team has reported, based on documentation provided by Harris County, that an elevated number of ballots were placed in the emergency slot during the early voting and election day. While these are plausible explanations for the identified discrepancies in this data, the audit team cannot conclusively determine the exact cause of these discrepancies.
Post-Election Reporting

Findings

- Harris County submitted incomplete documentation containing previously unreported discrepancies in their partial manual count.
- Harris County failed to submit the statutorily required precinct by precinct report to the Secretary of State.
- Discrepancies between the number of votes cast and the number of voting history records in the statewide voter registration system reflect a difference of 2,978 voters. This results in voters being unable to validate their voting participation record despite their vote being counted in the November 2022 election.

Partial Manual Count

To ensure the accuracy of the tabulation of electronic voting system results, the general custodian of election records must conduct a partial manual count of selected races in at least one percent of the election precincts or in three precincts, whichever is greater, in which the electronic voting system was used.\(^{142}\) The partial manual count includes all applicable paper voting system ballots that were counted through an optical or digital scanner and reported as part of the unofficial results on election night. This count encompasses all early voting in person, by mail, and election day ballots that were counted using a precinct scanner or central scanner.\(^{143}\)

In a general election for state and county officers, the Secretary of State must notify the election official, on the day after the election, of the selected precincts that must be manually counted. The Secretary of State also designates which races must be counted as part of the partial manual count. The election official must begin the manual count within 72 hours after the polls close. The count shall be completed no later than the 21st day after Election Day.\(^{144}\) Additionally, the general custodian of election records is required to post a notice of the date, hour, and place of the count.\(^{145}\) Though notice is required to be posted in a public location, the partial manual count is not open to the public. Only authorized individuals may be present during the partial manual count.

A review of documentation submitted by Harris County included the public notice of the required manual count for the 2022 November General Election. The notice indicated that the partial manual count was held on November 14, 2022 at 3:00 p.m. at 11525 Todd St., Suite 100, Houston, Texas 77055.

\(^{142}\) Tex. Elec. Code § 127.201.
\(^{144}\) Tex. Elec. Code § 127.201(b).
\(^{145}\) Tex. Elec. Code § 127.201(c).
The audit review of the sign-in sheets for the manual recount did not include any information for November 14, 2022. However, the county provided sign-in sheets for November 15-19, 2022.

A total of 7 precincts were included in the count for early voting and mail ballots for Harris County. No discrepancies were reported by Harris County.
Harris County participates in the Countywide Polling Place program and selected to conduct the partial manual count for Election Day using the Secretary of State’s alternate polling location assignments.
The results of the post-election activity were submitted to the Secretary of State on November 30, 2022.

The audit team reviewed the individual tally sheets associated with the partial manual count conducted following the November 8, 2022 General Election. This review revealed that the majority of the documentation lacked clarity. The names of the tally takers and signatures were not visible on most sheets. Though some paperwork appears to reflect a lack of instruction on how to thoroughly document the counting activities, the audit team could not identify any
specific procedural error. However, upon a review of the tally sheet for the ballot by mail votes, the audit team identified a mathematical error that resulted in inaccurate reporting to the Secretary of State. The discrepancy, for precinct 435, was identified in the total number of votes cast for candidate Mike Collier. The total reported to the Secretary of State was 132 votes but the single tally taker for ballot by mail reported only 129 votes.

![Tally Sheet](image.png)

Figure 116: Comparison of Total Votes reported for Precinct 435.
Canvass

For each election for a statewide, district, county, or precinct office, a statewide measure, or president and vice-president of the United States, the county clerk or election administrator of each county in the territory covered by the election shall prepare county election returns.¹⁴⁶ The county election returns shall state, for each candidate and for and against each measure, the total number of votes received in the county as stated by the local canvassing authority's tabulation of votes. Not later than 24 hours after completion of the local canvass, the county clerk shall submit the official results to the Secretary of State.

Harris County reported the county official canvass on November 22, 2022. The official canvass was submitted by a senior county official and included the required information for each race included in the November 8, 2022 General Election.

Figure 117: Harris County Canvass Report for the November 8, 2022 General Election

The report indicated a total of 1,170,390 total votes cast and a total of 4,333 accepted provisional ballots. This information matches the final reconciliation form submitted by Harris County as part of the audit documentation.

**Precinct by Precinct Report**

After each election for a statewide office or the office of the United States representative, state senator, or state representative, a district office, a county office, or a precinct office, the county clerk or election administrator must prepare a report of the number of votes received in each precinct for each candidate for each of those offices.\(^{147}\)

The report must reflect early voting votes cast by personal appearance, received in each precinct for each candidate for each of those offices. The county clerk or election administrator must deliver the report to the Secretary of State not later than the 30th day after election day in an electronic format.

Harris County did not provide a precinct by precinct report for the November 8, 2022 General Election within the specified timeframe as required.

**Voting History Report**

Not later than the 30th day after the date of the primary, runoff primary, or general election or any special election ordered by the governor, the general custodian of election records shall electronically submit to the Secretary of State the record of each voter participating in the election.\(^{148}\) The record must include a notation of whether the voter voted on election day, voted early by personal appearance, or voted early by mail.

This information is submitted to the Secretary of State through the statewide voter registration system. As part of this process, using a comparative report available in the system, county officials are encouraged to reconcile the total number of voter history records with the total number of voters voting in each election.

Harris County completed the voter history submission on December 16, 2022. The comparative report indicates a difference of 2,978 between the number of votes cast as reflected in the canvass report and the number of voting history files present in the statewide system for the election as submitted by Harris County. As previously reported, there was also a discrepancy between the number of mail ballots returned and accepted between the county voter registration system and the statewide voter registration system. The difference identified during the voting history review is likely due to the inconsistency of the reporting of mail ballot activity by the county or late arriving voter registrations that were processed by the county but not submitted to the state system.

\(^{147}\) Tex. Elec. Code § 67.017.

Additional Vote History Reporting

The early voting clerk must maintain a roster of voters who vote by mail, in-person during the early voting period, and on election day. Additionally, for general elections for state and county officers, this information must be submitted to the Secretary of State to be posted on the Secretary of State’s website by 11:00 a.m. the following day in a downloadable format.

Early voting and election day rosters are submitted to the Secretary of State through the statewide system. Therefore, all counties must submit updated voting history records within 24 hours after receipt of a mail ballot and within 24 hours after a person has cast a ballot during the early voting period or on election day.

Information displayed on the Secretary of State’s website is dependent on the provision of accurate and timely information by each county. For counties using a third-party voter registration system, the submission of this information requires the submission of a daily voting history file and an analysis of any error records received after the process is complete. Records and error messages not reviewed and corrected at the time of submission and addressed at a later time may result in a fluctuation of published early voting or election day roster. Likewise, duplicate submissions will cause the total number of voters listed as having voted on a given day to appear inflated or inaccurate. The posted information is merely a reflection of the actual voting history record assigned to each voter as submitted by each county. Therefore, it is the early voting clerk’s responsibility to ensure that all voting history is submitted successfully and displays accurately on the Secretary of State’s website.

According to Harris County staff, at the conclusion of each day of early voting and on election day, voter participation is submitted from the ContentActive ePollbook to the VEMACS voter registration system. Once this transfer is complete, the information is then submitted to the statewide system for posting on the Secretary of State’s website. A review of submissions for the November 8, 2022 General Election reflected compliance with the submission of this information.

Voting Participation Review

The Secretary of State, in collaboration with other states, is currently conducting a thorough review of voters who may have voted in more than one state or jurisdiction as well as those who may have been deceased at the time of the election. This extensive review includes the sharing of information such as voter identification verification and voter participation records.

While this collaborative work is still in progress with other states or jurisdictions, the Secretary of State is actively engaged in a review of 164 voter records in which the voter may have cast a vote in the November 8, 2022 General Election in more than one state or jurisdiction. Upon completion of the review process, all records indicating potential illegal voter participation across more than one state or jurisdiction will be referred to the Office of the Attorney General for

further investigation. The Secretary of State is reviewing 22 records of potential double voting in Harris County during the 2022 November General Election.

As part of this voter participation review, the Secretary of State also identifies any voter who may have cast a vote in more than one county within Texas. The office has identified 9 cases and is actively investigating these records. Of those, none of the potential cases are in Harris County.

Additionally, the Secretary of State has completed an initial review of 75 potentially deceased voters who were recorded as having voted in the 2022 November General Election. Like the cross-state review process, the initial work involves the elimination of any records that were erroneously matched due to missing or incomplete data or data entry errors to clearly identify remaining records that warrant further investigation. Of the 75 potential deceased voters included in the initial review, 48 have been eliminated as erroneous matches. Of the remaining 27 being reviewed, one case is from Harris County.
Training

Findings

- Harris County is urged to conduct a comprehensive review of their training program to ensure that curriculum, instructional presentations, and procedural resources clearly define expectations and promote a depth of understanding for election workers to successfully and securely administer elections within the county.
- Harris County is encouraged to routinely conduct post-election audits of documentation and procedural compliance to measure the effectiveness of the county training program related to the administration of elections.

Methodology

The audit team conducted a preliminary review of all training materials provided by Harris County to understand county procedures and to ascertain if those procedures were legally compliant. The preliminary review included a review of all training manuals, instructional presentations, and the included forms related to chain of custody documentation, polling place operations, and the reconciliation of voting activity.

In light of the findings outlined in this report, the audit team conducted a secondary review to assess the curriculum and instructional depth of the training material as it related to the issues experienced in Harris County during the November 8, 2022 election. Specifically, the audit team reviewed the training materials to identify the instruction related to the completion of essential paperwork and the assembly of election systems.

Findings of Audit Review

Roles and Responsibilities

The Harris County Training Manual provides a good overview of the role of the presiding judge, alternate judge, and election clerk. Though responsibilities are referenced in the training material, there is a little emphasis on the importance or significance of each task or clear expectations on how to thoroughly complete essential documentation.

Equipment Assembly and Troubleshooting

The Harris County Training Manual provides illustrations and pictures enumerating the steps involved in setting up voting equipment at the polling location. Likewise, the Harris County training program indicates that much of the in-person training time is spent on how to successfully assemble the voting systems. However, as evidenced in this report, some locations experienced technical delays and issues that suggest more in-depth training is needed.
Harris County has technical staff available to respond to issues reported by election workers. However, election judges and clerks must be equipped with basic troubleshooting information to address the most common issues that might occur. The Harris County training manual includes some troubleshooting tips in the county manual. However, based on the audit team review, the training material does not include detailed information related to:

- Basic connection issues with hooking up and plugging in the voting equipment;
- Steps to address the Verity Controller when it does not recognize the Verity Duo;
- Detailed steps to address paper jams or misfeeds; and
- Corrective steps when the scanning of the ballot occurs.

Polling Location Procedures

Polling place procedures are outlined in the training manual. However, some topics do not appear to be included or are minimally addressed. The county includes well designed checklists but, in some cases, do not provide specific instruction on the individual activities listed on the checklist. Specifically, the county training manual used for the November 8, 2022 General Election did not include an in-depth explanation or, in some cases, no instruction related to the following requirements:

- Instructions to inspect all inventory lists and supplies prior to the opening of a polling location to ensure all needed materials are present;
- A complete listing of all required polling place signage;
- Procedures in processing voters in one of the confidentiality programs to ensure privacy and protection of confidentiality;
- Expectations in addressing electioneering or the possession of certain devices in the polling location;
- Ballot security procedures specifically addressing how to keep a heightened level of security while the polling location is opening and voters are present as well as storage when the polling location is closed; and
- Specific procedures for full ballot boxes, including expectations related to chain of custody documentation and the secure transfer of those ballots.

Chain of Custody Documentation

All counties must ensure that appropriate documentation is completed to ensure the secure transfer of election equipment, electronic media, ballots, and supplies. As reflected in the chain of custody review conducted by the audit team, much of this documentation was missing, illegible, or incomplete. The Harris County training material includes a copy of most forms and makes a reference to the need to complete most forms. However, there are no samples or instructions on how to complete some of the most critical forms. The training manual also does not detail the signature requirements for each form. The audit team did not find detailed instructions specifically related to the following forms in the Harris County Training Manual:
• Chain of Custody Form – Election Day/ Chain of Custody Form – Early Voting: This Harris County form tracks the chain of custody on the Verity Scan from supply pick up to the return of the equipment back to the storage facility. Based on the review conducted by the audit team, these forms were largely incomplete or missing. Further, the form clearly indicates a “for office use only” section at the bottom to be completed by central counting station workers upon the return of equipment and supplies. The audit team observed that most of these chain of custody forms, especially on election day, were not completed at the central counting station.

• Chain of custody form for the Verify Controller, Verify Duo and the ContentActive ePollbook: The audit team was unable to locate any instructions or paperwork tracking the transport of this equipment specifically.

Reconciliation Documentation

Harris County utilizes ePollbooks and voting systems to electronically register voter check-ins and record cast vote records. As suggested by best practices, the county also maintains hardcopy documentation from each polling location as a measure of validation between the electronic reports and polling location records as confirmed by the election judges. However, when that paperwork is incomplete, illegible, or missing entirely, this reconciliation reporting can have the opposite impact. The audit team was largely unable to utilize the documentation returned from the polling locations as verification of election results or voter turnout as referenced in this report. A review of the training manual has minimal information related to the critical reconciliation paperwork listed below.

• Register of Official Ballot/Ballot and Seal Certificate
• Early Voting Daily Reconciliation Forms/Election Day Reconciliation Forms

Conclusion

The Harris County Training Manual and instructional resources communicate county procedures for the transport of election equipment and supplies, operation of a polling location, and responsibilities of election workers. However, the training manual does not include the needed specificity of those procedures and responsibilities. Examples of properly completed documentation, troubleshooting guidance on common equipment issues, and signature requirements which verify the essential two-person verification of chain of custody and reconciliation activities would help remedy the issues identified in this report.

It is important to note that these recommendations are based strictly on a review of the documentation and presentations provided as part of this audit. The audit team has no way to assess additional instruction included in the in-person training, but not listed in their training documentation.

Performance is the assessment of a training program. The issues experienced during the November 8, 2022 election suggest a strong need for a county assessment of the training material
and presentations to better prepare election judges and workers to successfully administer elections at polling locations across Harris County. Equipping election workers with the knowledge and resources needed ensures election security and integrity and increases public confidence in the election process. Much of the documentation, as noted in other sections of this report, was incomplete, missing, or illegible. Though the training program references hands-on training of completing election forms, the audit team was unable to validate the effectiveness of this training or verify that county officials reviewed documentation upon return to ensure accurate and complete information was submitted.