



**THE PROBLEM WITH VOTE CENTERS:
UNDERMINING THE LAW, PREVENTING ELECTION INTEGRITY
AND RESTRAINING VOTER FREEDOMS**



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Executive Summary**

Question:

Given declarations in the Tennessee Constitution and the Tennessee Code Annotated that voters are to vote in the “precincts in which they reside,” and that the machines that count the votes are “precinct-based optical scanners” that are supposed to be used in neighborhood precincts, yet are used in now far-flung vote centers instead, and the Tennessee Attorney General has not directly addressed the constitutionality of vote centers, how are they constitutional? Here are problems with vote centers per lessons we’ve learned after suffering through five years of their use.

All election integrity discussions must start with this foundational fact: Voting machines (software/hardware) – computerized machines which produce and count votes -- aren’t allowed to be internally inspected for nefarious components, yet they can be hacked, destroy trust in elections and no one seems to be doing anything about it.

- An abundance of professional cyber experts affirm that today’s voting machines can be hacked and change election results.
- No one is allowed to inspect these machines for nefarious components as they enter Tennessee, our counties or before/after an election... despite several laws implying that machine technicians are allowed to do so.
- Current machines do not meet US Election Assistance Commission (EAC) security/standards above what was in place in 2005.... more than twenty years ago.
- Williamson County’s own experience agrees that machines can mis-perform despite L&A testing.
- Studies have shown that 60% of voters using ballot marking devices (BMDs) don’t check their ballots for mistakes, much less report the issues to poll officials.
- The Williamson County Election Commission (WCEC) and Tennessee State Election Commission (SEC) refuse to implement key security steps – such as a hash validation or penetration testing -- to protect against hacks, as well as machine & election issues.
- The storage room in Williamson County where these machines spend much of their downtime does not have video surveillance that monitors what occurs in the room should someone enter or touch the machines. One “wall” of the room is a garage door that can be easily pried open.
- The WCEC does not vet the school computer jockeys who set up/tear down the computer voter registration system in school election precincts, nor require them to take an oath for their conduct. For that matter, the WCEC most likely doesn’t know the individuals/backgrounds.

Forcing citizens to vote in vote centers vs. precincts exponentially escalates election risks because of a greater dependence on hackable machinery and the internet.

- Williamson County lost 42% of neighborhood voting sites when VC’s entered the county. So, more voters are being forced into fewer voting locations, possibly disenfranchising some voters.
- Vote centers require the internet to be piped into the voting site and placed close to hackable voting machines in every location.
- The WCEC says their VPNs protect election data, but our research shows VPNs are weak.
- Vote centers require ballot marking devices and electronic pollbooks and other technology.

- Our computer registration system uses a machine – an ExpressVote Activation Card Printer -- that’s not certified by the EAC. So, we have no idea what nefarious components are inside.
- It is impossible to bring hand-marked paper ballots into vote centers without adding an entirely different machine – ballot on demand -- that, likewise, is not EAC-certified. And costly.
- Eight Tennessee counties force vote centers on their citizens (15% of Tennessee voters).
- Per Secretary of State’s voter turnout numbers and Tennessee Election Coordinator Mark Goins’ report, vote centers aren’t increasing voter turnout or save counties money.
- Following a December 2020 outcry from Williamson County citizens about the Dominion voting machines used in the county, the WCEC requested the SEC reconfirm the county’s voting machines. There was no report on the process, nor findings. It took the SEC two-plus years to recertify four of the five machine brands in the state.
- In October 2021, Tennessee Voters for Election Integrity presented to the SEC its security findings surrounding machines and other issues in the Williamson County and Tennessee election systems. The SEC has never done anything with the evidence provided.
- Also in October 2021, in the Franklin city election, 7 of 19 vote center tabulators stopped counting votes on the tabulator machine tapes. Winners were determined via a hand recount. Subsequently, election officials couldn’t determine the root cause of the issue. Dominion claimed “erroneous code” was present. The problem has since been found throughout Georgia.
- Ten months after the SEC approved the Dominion machines for election use, the county ultimately had to jettison the Dominion machines, moving to ES&S machines. From the frying pan to the fire.

The Republican National Committee agrees that vote centers are not secure... and issued a resolution in 2023 to urge communities to move back to safer precinct voting.

- The resolution argues against machines and vote centers and supports hand-marked paper ballots, among other needed security upgrades.

More importantly, by all accounts, voting in vote centers is unconstitutional in Tennessee, against the Tennessee Code Annotated, challenges the US Constitution’s equal protection clause and has not been approved via an Attorney General ruling.

- Both the state Constitution and Tennessee Code Annotated (TCA) affirm we should vote in precincts. Neither says a word about voting in vote centers.
- Vote centers violate the US Constitution’s equal protection clause stating that elections must be equal. The random placement of vote centers in various Tennessee counties ensures the voting process is now unequal for voters. Unidentical voting processes. They have also forced rural voters to travel greater distances from neighborhood precincts.
- Three TCA codes state the tabulators are supposed to be used in a precinct, not a vote center.
- The Tennessee State Election Commission (SEC) affirms that as long as election results are REPORTED by precinct, it’s okay to vote in vote centers. However, election commissions REPORTING election results by precincts is not the same as citizens VOTING in precincts.
- No Tennessee Attorney General has issued a ruling on the direct constitutionality of vote Centers. Only issue studied: Combining VCs/precincts (Opinion No. 05-045 [April 12, 2005]).

Given the risks of vote center voting, there are far more reasonable advantages to precinct voting.

- Voter turnout has actually diminished under vote centers. Highest turnouts are in precincts.
- State election coordinator confirms neighborhood precinct voting is safe, secure; supports it.
- Smaller, fixed number of voters in precincts equal fewer needed poll workers, fixed supplies and ballots, little-to-no crowds, calm voting, undistracted poll workers focused on security.
- With precinct voting, BMDs can be removed and hand-marked paper ballots substituted.
- Paper ballots can integrate innovative technology -- like that in our money -- into precinct voting.

Williamson County voters want to move to hand-marked paper ballots for higher election security and as a hedge against the untrustworthy voting machines.

- 68% of the nation votes using hand-marked paper ballots (HMPBs).
- The National Academies recommend HMPBs over ballot marking devices (BMDs) for security.
- Tennessee Secretary of State approves of/supports counties moving to HMPBs.
- But we need to move back to precinct voting first in order to bring in HMPBs with no machines.

At one point the Williamson County Election Commission (WCEC) agreed to bring in HMPBs, but in 2023 quickly dropped their promise to the County Commission/citizens for a study about adding HMPBs after the County Commission denied them the \$100K consultant's price tag. The WCEC has since refused to consider other ways to make their promise good. At this point nothing is being done.

- Pushed by citizens and county commissioners, in 2023 the WCEC promised a HMPB study if the Williamson County Commission would approve the WCEC's purchase of ES&S voting machines.
- Their first recommendation in their "study:" Bring in a costly, non-EAC-certified new machine system: Ballot on demand.
- Their second: Bring in a Leftist Chicago election firm -- The Elections Group at a cost of \$100K -- to tell the WCEC what to do. Fortunately, the County Commission did not approve the \$100K.
- So, the WCEC reneged on their promise and halted their study to bring in HMPBs. The WCEC got machines; but the people/commissioners got nothing. And there is no HMPB study in process.

Since bringing hand-marked paper ballots for every race in the county into every vote center in the county would be a physical, financial and security nightmare, and adding more uncertified, costly machines to accommodate HMPBs in vote centers is highly risky, the safest first step is to move from voting in vote centers back to voting in precincts.

- Voting in precincts without the internet or BMDs and with high-security hand-marked paper ballots is far safer, secure, accurate and transparent than voting with opaque black box voting machines that can't be inspected and have proven to be hackable and/or mis-perform.
- Maury County proved the safety and security of using hand-marked paper ballots, removing the internet and risky ballot marking devices in a 2023 election.

We believe that voting in vote centers is both unconstitutional and highly risky. If we want to adhere to the Tennessee and US Constitutions, as well as our election laws, and if we believe that election integrity is paramount for our citizens and our Republic, moving from voting in vote centers back to simple neighborhood precincts can and should be done.

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**THE PROBLEM WITH VOTE CENTERS:
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Research

Question:

Given declarations in the Tennessee Constitution and the Tennessee Code Annotated that voters are to vote in the “precincts in which they reside” and that the machines that count the votes are “precinct-based optical scanners” and are supposed to be used in neighborhood precincts, yet are used instead in vote centers, and the Tennessee Attorney General has not directly addressed the constitutionality of vote centers, how is it that vote centers are constitutional? Here are lessons we’ve learned in dealing with vote centers through five years of use.

Background:

[Article IV, Section I of the Tennessee Constitution](#) states: “The General Assembly shall have power to enact laws requiring voters to VOTE in the election PRECINCTS in which they may reside...” The Constitution says nothing about citizens voting in vote centers – which are voting locations across a county that allow county voters to vote in ANY of the “convenience” vote centers instead of in an assigned, geographic precinct. By definition, these are two different things. Additionally, vote centers require the presence of the internet at registration inside the poll to facilitate vote center voting. And that is right next to voting and registration machines that have been proven to be unsafe.

Additionally, [Tennessee Code Annotated 2-7-115\(a\)](#) states that “a voter may vote ONLY in the precinct where the voter resides and is registered.” This is in direct conflict to the concept of vote center voting, which has unlimited geographic expanse and disregards where voters live and are registered.

According to [Tennessee Code Annotated 2-20-101\(b\)\(2\)](#) and [TCA 2-20-101\(b\)\(6\)](#), the optical scanners/tabulators are supposed to be located in a precinct, not a vote center. The election commission has even ceased calling these voting locations precincts. In all WCEC documentation, they now have vote center numbers that identify them (i.e., VC-16 Brentwood Library; VC-6 Legacy Elem).

Vote centers also violate the [U.S. Constitution’s 14th amendment \(the equal protection clause\)](#) which states that elections must be free and EQUAL. However, the random placement of vote centers throughout the state and counties ensures the voting process is now UNEQUAL for voters in all Tennessee locations. Some voters vote in precincts; some vote in vote centers; two distinctly different voting arrangements that are not identical, as all Tennessee voters do not vote in the same system. Voting locations in a county are actually now inconvenient for rural voters who must travel away from their previous neighborhood voting locations to more distant vote centers.

Williamson County voters have been forced to use vote centers since the March 2020 primary election.

In a Williamson County Election Commission (WCEC) meeting earlier in 2023, we learned from Commission Chairman Jonathan Duda that because election commissions report election results by

precincts – [which Williamson County does](#) -- vote centers are, supposedly, constitutional. But there was no statement as to the grounds on which that process/belief is based.

In a normal citizen's reading of the state's Constitution, one would suspect that citizens understand that REPORTING ELECTION RESULTS BY PRECINCTS is not the same as actually VOTING IN PRECINCTS. The two are entirely different actions – entirely different verbs -- requiring different behaviors by voters.

To the best of our knowledge, no Tennessee Attorney General has issued a ruling on the direct constitutionality of vote centers. The only known AG opinion addressing vote centers vs precincts is [Opinion No. 05-045 \(April 12, 2005\)](#) focusing on combining VCs and precincts in a county's singular election. It does not appear to address a direct ruling as to the constitutionality of vote centers against what is said concerning precinct voting in the state constitution. (By the way, in his report to state legislators about the vote center pilot, Tennessee Coordinator of Elections Mark Goins now affirms that [vote centers do not save counties money](#), as then-AG Paul Summers implied in his opinion was a goal of vote centers.)

We believe that vote center voting is unconstitutional and while supposedly meant to help election commissions save money and increase election turnout, neither is occurring. When discussing vote centers with the legislature, Tennessee Coordinator of Elections Mark Goins has not cited specific opinions or rulings affirming their constitutionality. We specifically witnessed him defending the vote center concept in the Spring 2023 General Assembly when Washington County was petitioning to become a vote center county. No policy foundation for vote centers was given by Goins or sought by senators.

At first, when vote centers entered the fray, the impression of them was probably good. However, after dealing with the concept here in Williamson County now for six years and witnessing their lack of meeting stated goals and, instead, heightening the risk to citizens in their voting, our experience has not been good given the problems vote centers have brought into a county's voting process. If election commissions are truly committed to safe, secure, accurate and transparent elections for their citizens, vote centers are a wrinkle that should never have been considered. They were initiated and encouraged by the State Election Office.

Here are eight well-researched, documented facts that support our concern, and some thoughts about moving back to precinct voting.

1. All election integrity discussions must start with this foundational fact: Voting machines (software/hardware) – computerized machines which produce and count votes -- aren't allowed to be internally inspected for nefarious components, yet they can be hacked, destroy trust in elections and no one seems to be doing anything about it.

- Whistleblowers and computer experts [say this is true](#). Cyber experts [agree](#). Other IT experts [say so](#). Software developers [say so](#). DNI Tulsi Gabbard [says so](#). Democrats [say so](#). Congressional testimony [says so](#). Court cases [say so](#). Georgia [says so](#). Even the ES&S Security SVP [says so](#).
- And from its October 2021 election when voting machines stopped counting votes on tabulator tapes, Williamson County, Tennessee definitely knows that [voting machines can malfunction and damage citizen trust in an election](#). Specifics:
 - Despite pre-election Logic & Accuracy testing, 7 of 19 Dominion tabulators stopped counting votes on the tabulator tapes in the Oct 2021 Franklin Municipal election.
 - Cyber experts dubbed the problem the “Tennessee Error” [here](#) and [here](#).
 - The same error has since been [found in 97% of all Georgia Dominion voting machines](#).
 - After inspecting the Dominion machines, the U.S. Election Assistance Commission (EAC) said the problem was a firmware [mis-match between the BMD QR code and tabulator](#), although they could not identify the root cause. Dominion said it was “erroneous source code.”
 - This is not just a Dominion problem; it’s also an ES&S problem as both machine brands have [significant similarities](#). (The county jettisoned Dominion voting machines in 2022 and moved to ES&S voting machines.)
 - In the same election and following pre-election inspection of the Oct 2021 machines, 19 of 20 tabulators were found to have run a different, unknown software.
 - Software # 5.5.3-0002 was tracked at inspection; Software # 5.5.31.1 was found post-election.
 - Customary IT processes say running a system on a mix of software is highly risky to system outcomes.
 - We alerted the WCEC in writing about the issue prior to their certifying the election, recommending it not be certified because of this unexplained abnormality. But the commission ignored us and quickly certified the election by not letting citizens speak before approval. The WCEC also never gave citizens answers about the problem because they knew it was an issue.
 - In a September 7, 2021 machine inspection ([see page 7-8 of this report](#)) we verified that the Dominion Election Management System (EMS) had a back door in their Results Tally & Reporting (RT&T) module where mass votes could be removed and different votes inserted by an individual with no dual-party authentication. Here are the specifics.
 - See Dominion User Manual Version 5.5.139 where one can delete results previously entered (Section 9.3 & 9.4) from secure removable media and replace them with data from a local file (Section 7.4) or NAS (indicating some form of network is supported) attached files (Section 7.5) or by manual entry (Section 9.2).
 - Additionally, the manual affirmed reports can be published to “Public” transfer points (Figure 65, Section 13.3), both “Local and Global” apparently including

- FTP sites (Figure 66) inferring that there is at least an indirect connection to the internet.
- Section 14.4 indicates that remote clients can communicate with the server through Dominion... again inferring a network connection.
 - We sought to verify this through the Tennessee State Election Commission and Tennessee Election Coordinator Mark Goins with questions, but we never heard anything back from either, despite multiple requests. It was, however, verified by the WCEC employee (Evelyn Watson), who manages the EMS that this is possible.
 - WCEC Chairman Jonathan Duda later verified this back door was a FEATURE of the Dominion and ES&S voting systems, not an abnormality. Conclusion: Machines don't solve security problems... they open the door to them.
- Despite [Tennessee Code Annotated 2-9-101\(b\)](#) and [TCA 2-20-104\(b\)](#), no one (neither election officials, local machine technicians, cyber techs nor citizens) is ever allowed to internally inspect voting machines as they enter Tennessee or a county, or before, during or after an election to ensure there are no nefarious components (like [Telit wireless chips](#), [Qualcomm chips](#) or [iDRAC chips](#) -- all of which can conduct wireless signals) in the machines. But [we know they're there. Here too.](#)
 - The WCEC Chairman once asked ES&S to show him where a modem would be located in ES&S machines; and he looked exactly where they told him to look. A modem wasn't in that spot. But they did not point him to other corners of the machine where wireless chips might be located, nor did he have a cyber tech with him when he did so to fully check [for disguised chips](#).
 - When equipment techs "set up election machines for an election," they're NOT inspecting inside the machine or checking software for questionable changes.
 - Election machine vendors are totally opaque: [Here](#), [here](#), [here](#) and [here](#).
 - The WCEC also refuses to implement a key security step recommended by the Election Assistance Commission and other computer experts – [performing a hash validation](#) on every voting machine before and after each election to ensure there has been no change in the machine's computer program or digital file during an election.
 - Our ES&S brand of voting machines do not meet any security standards [more current than those established in 2005](#), when the [Election Assistance Commission \(EAC\)](#) created the [Voluntary Voting System Guidelines \(VVSG\) 1.0](#). Tennessee still accepts these 1.0 security standards for all machines used in Tennessee. Meaning your smartphone, a product category that was first launched in 2007, meets more computer, technology and security standards than the machines on which we must vote. So, can today's voting machines blunt the efforts of today's hackers?
 - The 165 Dell laptops (Latitude 5490, 5400 & 3540) the WCEC purchased between 9/23/19 and 1/4/24 for use in all vote center registration steps are standard, off-the-shelf Dell computers, meaning they all contain either [iDRAC wireless chips](#) that are installed as customary or [Qualcomm chips](#). iDRAC chips and Qualcomm chips enable outside computers to remote in in order to repair the computer. These chips can receive and conduct wireless signals from machine to machine within the election ecosystem.

- In the Georgia 2020 election, cyber expert Harry Hursti documented a number of [security incidents](#) with the state's Dominion voting machines [that included off-site remote wireless access into the Georgia system by Dominion repair agents](#). This is indicative of what could happen with other voting machine systems since all are [similar in nature](#).
- A number of [incidents with the ES&S voting machines](#) have been reported during five recent Williamson County elections.
- Even [Leftists have pointed to machine and "election irregularities"](#) as a problem.
- The WCEC affirms it will be 2026 before the [SEC re-certifies new/current voting machines](#).
- No entity charged with protecting voting security (the [Williamson County Election Commission](#) [WCEC], the [Tennessee State Election Commission](#) [SEC] nor the U.S. Election Assistance Commission [EAC] [here](#) and [here](#) fights to ensure citizens have secure voting machines.
 - Though asked by WCEC Election Administrator Chad Gray in a [January 11, 2021 letter](#) to [recertify the county's Dominion machines](#) following citizen concerns in the county's November 2020 election, the SEC promised it would... and took two years to do so.
 - In 2021 with no public debate or review, the EAC instituted new, far more lenient guidelines/standards changes that helped the vendors' bottom lines but greatly weakened the security of all voting systems by allowing wireless networking devices in machines. <https://www.scribd.com/document/516851701/2021-07-13-complaint-4814-7096-7793-1#>. And it caused one Board Member to immediately quit the EAC and sue them for their lawless actions. <https://dailycaller.com/2021/07/14/election-assistance-commission-voting-lawsuit/> .
- The WCEC does not validate or vet the IT techs that install the computer voter registration system in school voting locations. The Chairman additionally refuses to demand that these [unknown computer jockeys – who have direct access into the voting registration system during set-up and operation – take the same oath](#) that poll workers take. So how can citizens be assured these people who have no allegiance to the county's election process will not pursue – or be bribed to pursue -- nefarious steps to change voter roll data or insert malware that can do the same?
- [Studies have shown](#) that when using ballots created by ballot marking devices (BMDs), clearly 60% of voters don't check their ballots before casting. They simply trust what was on the screen is now on the ballot. When it might not be. Because [BMDs can be hacked](#).
- Elections with mis-performing machines and the internet can turn elections on their head. [Here](#), [here](#), [here](#), [here](#) and [here](#).

- Here are a few more examples. [Here's one](#) from the November 2022 election in Maricopa County, AZ, where machines shutting down in 60% of voting locations, paper issues, even vote centers exacerbated the problem of using machines in elections. A [post-election report confirmed substantial voter suppression](#). Knowing this can happen, why do the Williamson County Election Commission and Tennessee State Election Commission continue to force citizens to vote on machines?
- A VoterGA (Georgia) [analysis of the 2020 Fulton County, Georgia election proved a myriad of electronic manipulation of ballots](#) by machines, including 17k+ final certified votes with no ballot image, 4k+ tabulator images with impossible duplicate time stamps, time stamps out of chronological order and a 20k vote surge for one candidate and vote decrease for another (vote tallies should never decrease).
- Because of more and more emerging research about the risk of using election machines, on March 25, 2025, President Trump issued Executive Order 14248 – [Preserving and Protecting the Integrity of Elections](#) -- that could have a major impact on machines like the ES&S machines used in Williamson County. The ballot used in these machines encases the voter's selections in a bar code that can't be read by voters to verify their selections. They are not voter verifiable.
- In late 2021, one Tennessee legislator [tried to get a bill into the General Assembly to eliminate voting machines](#).

2. Forcing citizens to vote in vote centers vs. precincts exponentially escalates election risks because of a greater dependence on hackable machinery that produce and count votes and the internet.

- When vote centers entered Williamson County, we immediately lost a number of voting locations (42%) – a standard casualty of vote center voting. Citizens were not told of this in advance; or if mentioned, it was buried. This loss drives higher voting wait and voting times.
 - With the move to vote centers, the county went from 43 voting locations in 2019 to 25 in 2020. We now have 27 vote centers.
 - This also suppresses the vote for some – especially rural voters -- who now must travel a distance away from what used to be their neighborhood precincts to vote in fewer “convenience” vote centers... that may now be convenient only for urban voters.
- Vote centers pipe the internet into every voting location so voters can be checked off the voter roll for having voted and not allowed to vote hop. But those internet connections in the vote centers are placed close to voting machines with questionable nefarious and wireless components. The machines can't be checked for such components.
- The WCEC says their VPNs are protecting election data from internet connections but current research shows that [they're actually weak in doing so](#).
 - Cyber experts affirm that there is a [sustained assault on VPNs](#) today.
- Look at [companies paying far more than Williamson County is paying to protect their data...](#) and are still being hacked.
- The cyber threat to the country today is [only getting worse](#).
- Fortunately, many states see the dangers of vote centers. Sixty percent of Americans [live in a state that does NOT allow vote centers](#). Why, then does Tennessee force them on us?
- There currently are eight Tennessee counties using vote centers. Hamblen (36,802 voters); Henry (19,514); Monroe (31,783); Rutherford (193,337); Washington (83,016); Weakley (16,912); Wilson (96,936) and Williamson (169,748).
 - Together, they comprise 648,048 active registered voters, 15% of active Tennessee registered voters.
- Some Tennessee towns and counties understand the risks of vote centers and have [chosen NOT to become a vote center county](#).
- Vote centers require that ballot marking devices and electronic pollbooks (reminder: Neither of which can be inspected internally for nefarious components) must be used, bringing more hackable machines into the process. The [ES&S ExpressVote Activation Card/Summary ballot printer](#) used in the registration process is [not even certified by the EAC](#). Again, we have no indication of what components are inside these machines that might affect the election process. No one is checking and the WCEC will not allow citizens or cyber experts to check.

- Some of the voting machines used in vote centers aren't certified by the EAC. That includes one new machine the WCEC is considering bringing into the process in the future – [ballot-on-demand](#). Each ballot-on-demand machine costs approximately \$19,000 [per the WCEC](#), meaning approximately a half million dollars to bring them into the county's 27 vote centers.
- Despite what is claimed and what has been proven by the state's numerous pilot tests of vote centers and Secretary of State election statistics, vote centers don't [save counties money](#) or [increase voter turnout](#). Turnout appears better when counties voted in precincts.
- We cannot find any evidence whereby the state has affirmed that Williamson County has been declared to be officially out of the pilot project like was done with Rutherford County. Williamson County approved entering a [vote center pilot program](#) on February 19, 2019. But their plan never identified a final decision point and possible exit from the pilot. Are we still in the pilot?

The [report to the Tennessee General Assembly](#) that Tennessee Elections Coordinator Mark Goins submitted on January 29, 2021 concerning the Williamson County pilot only states that Goins would support Williamson and the other two counties to be official vote center counties if the GA approves. [TCA 2-3-307](#) states that Goins's evaluation must state if voting centers should continue in these counties for the future. But Goins does not specifically state they SHOULD continue. And the General Assembly has not declared the county out of the pilot. Are these counties still technically in a pilot stage?

- Also [TCA 2-3-308\(a\)\(4\)](#) states that each center should have a secure electronic connection that could prevent unauthorized access to the computerized voter registration system. But our research into both the VPNs and the registration system with its iDRAC/Qualcomm-heavy Dell registration laptop computers affirms the system is not secure. And, therefore, the county's program doesn't meet the requirements for vote centers.
- When Rutherford County completed their pilot vote center program, the Tennessee General Assembly via [HB1078/SB0726 officially authorized them on May 9, 2019 as a vote center county listed in Public Chapter 234](#). That General Assembly-authorization doesn't appear to have been done with Williamson County. Again, is Williamson County still legally in the pilot stage?
- In October 2021, our organization [presented our documented concerns](#) about vote centers, machines and other issues to the Tennessee State Election Commission for addressing. The Commission did nothing with our research and recommendations.
- In 2023, two legislators – Senator Janice Boling and Representative Jody Barrett -- pushed a bill ([HB193/SB1108](#)) in the Tennessee General Assembly to eliminate convenience voting centers. It failed.
- But one of the most dramatic strikes against the establishment of vote centers in Williamson County is that by all available evidence, Williamson County citizens were NOT given the opportunity to voice any concerns they might have about this dramatic change to the election process because of what the WCEC didn't do and how they framed the change.

- In 2019, when the Williamson County Election Commission was pushing the county through the vote center effort, there was supposed to be a public meeting with public announcements inviting the public to learn about vote centers. There appears to have been neither.
- In answer to a December 20, 2023 public records request, [this is all that the WCEC could supply citizens as to public announcements about a public meeting about vote centers.](#)
- According to the WCEC, the public meeting was [held on March 14, 2019 for citizen input \(scroll down to March 14, 2019\).](#) Yet no statement or agenda item stating it was a public meeting is referenced in the minutes.
- No citizen was in attendance nor were there were any questions/statement summaries/comments from citizens – or commissioners -- about vote centers documented in the meeting. Probably because citizens didn't know about the meeting or the intent to transition to vote centers. Or even knew what vote centers were and the challenges they would bring beyond precinct voting.
- The meeting appeared to be simply a standard WCEC meeting.
- In fact, the only reference to vote centers in the minutes made it appear they were a forgone conclusion. No potential sites, rules, policies, processes, equipment changes, security discussions, next steps were apparently discussed or tracked for citizens to read.
- Afterwards, by law, there was also to be a 30-day period for the public/registered voters to comment on the closure of the polling locations ([TCA 2-3-302\(g\)](#)). But no information from the WCEC affirmed a comment period was even held. There was no information about or list of public comments about them. Probably because, once again, the public didn't know about the change because of the lack of announcement from the WCEC. And, again, the supplied November press materials implied that vote centers were a done deal. There was no information that affirmed citizens had – or exercised -- a voice in the matter.
- Despite the law for citizen involvement, this move to vote centers apparently was done without citizen awareness or input.

3. **The Republican National Committee agrees that vote centers are not secure... and issued a resolution in 2023 to urge communities to move back to safer precinct voting.**
 - Check what the [resolution says about vote centers, machines, hand-marked paper ballots and other changes](#) in the voting process that will improve election security, safety, accountability and transparency.

4. More importantly, by all accounts, voting in vote centers is unconstitutional in Tennessee, goes against the Tennessee Code Annotated and the US Constitution and has not been approved via an Attorney General ruling.

- Both the Tennessee Constitution ([Article IV Section I](#)) and Tennessee Code Annotated ([TCA 2-7-115](#)) affirm we are supposed to be voting in precincts in which we reside, not vote centers.
- Because vote centers now feature a voting process that changed a fair access to the polls and now provides differing access to polls between rural and urban voters, vote centers appear to violate the [equal protection clause of the 14 Amendment Section 1](#) of the US Constitution, as well as [Article 1 Section 5](#) of the Tennessee State Constitution stating that elections must be free and EQUAL.
- According to [TCA 2-20-101\(b\)\(2\)](#) and [TCA 2-20-101\(b\)\(6\)](#), the optical scanners/tabulators are supposed to be located in a precinct, but now they're located in a vote center which has different technology requirements, as well as a different purpose and constituent service.
- WCEC Chairman Jonathan Duda says the SEC affirms that as long as election results are REPORTED by precinct, it's okay to vote in vote centers. However, election commissions' REPORTING election results by precincts is not the same as citizens VOTING in precincts. Two different verbs, two entirely different actions.
- To the best that our research shows, no Tennessee Attorney General has issued a ruling on the direct constitutionality of vote centers. The only known AG opinion addressing VCs vs precincts is [Opinion No. 05-045 \(April 12, 2005\)](#) only about combining VCs and precincts in a county's election. Plus, in meetings where vote centers are discussed, legislators and bureaucrats have not cited any law or ruling that makes vote centers in sync with our laws or adequately protect election security for citizens.
- Once again, no action by the Tennessee General Assembly has been taken whereby they have officially authorized Williamson County to establish a vote center program [as they did for Rutherford County on April 30, 2019](#). It would appear that the Tennessee General Assembly must approve Williamson County for this action before the county becomes an official vote center county.
- See the chronology of pushing vote centers into Tennessee in Appendix A.

5. Given the risks of vote center voting, there are far more reasonable advantages to precinct voting.

- Greater security: Secure, hand-marked paper ballots can be easily added to precinct voting and offer [far stronger security options than machines](#). This ballot takes the technology and places it in the ballot, versus the machines. Plus, they can replace the need for ballot marking devices.
- Greater security: As emphasized by the Tennessee State Election Coordinator, [neighborhood precinct poll workers know local voters](#) and can better tell if out-of-the ordinary people/incidents are occurring in precincts. The Tennessee Coordinator of Elections affirm that [precincts are safe and secure](#).
- Voter turnout: Vote centers were supposed to increase voter turnout, but they actually have decreased voter turnout while the voter population has increased, [per these numbers from the Secretary of State](#). The highest turnout in a Williamson County election was 80% in 2004. When the county voted in precincts.
- Costs and citizen service: Fewer, fixed number of voters in a precinct mean fixed supplies, ballots and calm, easy voting.
 - The state recommends no more than 6,000 voters per precinct, but that number can be greatly reduced by increasing the number of neighborhood precincts.
 - It will also allow for hand-counting ballots on election night or the next day to verify the accuracy of the machines in the numbers they say voted and the candidates who won.
- Costs: Ballot marking devices and even hackable tabulators/scanners could be removed in precincts, eliminating the high costs of machines that must be licensed, insured, repaired and upgraded, as well as moved/transported for every election and early voting. (The removal of tabulators would require a change in the TCA.)
- Costs: Paper is far cheaper than machines and does not need to be upgraded every few years. There are some innovative ballot options in the marketplace to move the tech away from machines and into paper ballots, [such as this ballot](#) that an Arizona state senator has developed and recommended.
- Costs: Fewer poll workers are needed in small neighborhood precincts vs. vote centers. In fact, we calculate that up to half of existing poll workers per vote center (on average five of ten) can be removed because of smaller, limited turnout and redistributed to other smaller precincts.
- Voters had greater convenience when voting in precincts: Fewer vote center voting locations now make voting inconvenient – especially for many rural voters -- who must travel further away from their neighborhood precinct to vote. That may discourage some voters from voting, as seen in the reduced number of voter turnout under vote centers per the Secretary of State. Because what we have now is more voters being forced into 42% fewer locations meaning longer lines that require more time to vote. Thus, one-to-two-hour waits in some vote center situations in some elections.

6. Williamson County voters want to move to hand-marked paper ballots for higher election security and as a hedge against the untrustworthy voting machines.

- 68% of the nation votes using [hand-marked paper ballots \(HMPBs\)](#).
 - Recall that [BMD ballots are bar-coded/QR-coded](#), encasing voter choices in a non-human-readable code; so the ballot is NOT voter verifiable.
 - Here are [nineteen studies that validate the risk of using ballot marking devices](#).
 - Election security experts urge states to [swap out touchscreen ballot marking devices and move to paper ballots](#).
 - Hand marked paper ballots can be [state-of-the-art voting technology](#).
 - Here's another expert that affirms the [strength of paper ballots](#).
 - Here's one HMPB that is [ready to be produced](#) for an election. And [here's](#) where that ballot is gaining traction in Arizona.
- The National Academies of Sciences, Engineering, and Medicine (The National Academies) recommend HMPBs over BMDs for election security.
 - In their 2018 report "Securing the Vote," the National Academies affirm [HMPBs as the standard for usability in elections](#) and recommends them vs. using voting machines.
 - One National Academies panel has called [for all U.S. elections to be conducted in 2020 on \(no bar- or QR-coded\) paper ballots marked by hand](#). (It didn't happen.)
- The machines we currently use in Williamson County do not produce a voter-verifiable paper audit trail, [which is a requirement of TCA 2-9-101\(d\)\(1\)](#). Voters checking their ballot produced by an ES&S ballot marking device (BMD) machine CANNOT verify that their vote selections written on the ballot are actually the same selections in the bar code, which is what the tabulator reads to count the vote. People cannot read bar codes, so they can't verify their ballot. So, these ballots DO NOT produce a voter-verifiable paper audit trail and these current paper ballots used in Williamson County are out of compliance with the law.
- Moving to HMPBs will eliminate the need for ballot marking device machines (except for ADA needs) and Williamson County will then have a voter-verifiable paper audit trail.
- [Maury County approved](#) the use of hand-marked paper ballots with BMDs removed. In their April 2023 election they removed the machines (except for the tabulator) and [tested a HMPB that worked beautifully for them](#).
- Tennessee Secretary of State approves of/supports [counties moving to HMPBs](#).
- But in Williamson County, we MUST first move out of vote centers and back to precinct voting before adding HMPBs to prevent adding ANOTHER machine system that is expensive and is not certified by the US Election Assistance Commission. Doing so will better ensure election security and integrity.

7. **At one point the Williamson County Election Commission (WCEC) agreed to study bringing in HMPBs. But in 2023, once they got their money to purchase voting machines and the County Commission denied them the \$100K consultant they wanted, they quickly dropped their promise to the County Commission and citizens to perform a study. The WCEC has since refused to consider other ways to make their promise good. At this point, nothing has been done since.**
- While being pushed by citizens, requested by the Williamson County Commission and part of their “deal” to gain commission support for purchasing new voting machines, the WCEC in 2023 began work on a study to bring in HMPBs.
 - Their first recommendation in this study? Make no changes that would improve election security. Rather, bring in an entirely new costly opaque equipment system – [ballot-on-demand](#) containing off-the-shelf (OTS) Dell laptops with iDRAC/Qualcomm chips. Another system voters cannot inspect for nefarious components.
 - Here is (former) WCEC commissioner Bob Brown’s first recommendation in his [scope of work](#) document for bringing in HMPBs. The WCEC will consider no other option than ballot-on-demand because they want to keep the county in vote centers at all costs/risks.
 - Ballot-on-demand would, indeed, enable HMPBs in a vote center setting since blank 8-1/2” paper ballots for all races in the county would not need to be stored in every vote center. Each ballot is printed electronically as needed.
 - BUT this brings in an entirely new machine system that is costly (in excess of \$500,000) and [NOT certified by the Election Assistance Commission](#). Nor can it be internally inspected. So, we have no idea what wireless or nefarious components are inside.
 - [Here’s where Chairman Jonathan Duda \(52:44\)](#) abandoned his promise to commissioners and citizens of a study, when he didn’t get his \$100,000 to bring in [a leftist Chicago firm](#) that was implicated for their lawless actions in the Fulton County, GA 2020 election. In his answer, Duda promised to continue evaluation “of the tools to support elections.” But bringing in HMPBs is obviously not one of those tools since nothing has been said since that day (March 11, 2024) about a study to bring in HMPBs. He also told commissioners that the WCEC would “continue to evaluate those tools” yet they have done no such thing in the two years since his promise.
 - So, the WCEC got their purchased election equipment and in exchange the citizens and county commissioners got nothing. No study to bring in HMPBs has ever been conducted.

8. Since bringing hand-marked paper ballots for every race in the county into every vote center would be a physical, financial and security nightmare, and adding more uncertified, costly machines to accommodate HMPBs in vote centers is highly risky, the safest first step is to move from voting in vote centers back to voting in precincts.

- Voting in precincts without the internet or BMDs and with hand-marked paper ballots is far safer, more secure, accurate and transparent than voting with opaque black box voting machines that can't be inspected and have proven to be hackable, mis-perform and necessary in vote centers. VC's require the internet and election machines. Precincts don't.
- In 2023, the Maury County Election Commission [proved moving from machines to HMPBs is entirely possible in an election.](#)
- See Appendix B, D and E for deeper information about steps to moving from vote centers to precincts.
- Other high security moves that could be made to make the county's (and state's) election process much more secure and trustworthy include:
 - Return to **neighborhood precinct voting** with paper registration (no epollbooks) which Williamson County did up until 2020 and Maury County did in a 2023 election to prove it can be done;
 - **Removal of all ballot marking devices** (BMDs) (except for one/precinct for ADA needs);
 - **Take remaining equipment through stringent pre-election testing**, including a Security Risk Evaluation, L&A testing, hash validations before and after each election on every machine and black box penetration testing before both early and election day voting.
 - **High-security hand-marked paper ballots** – instead of BMDs – containing security technology similar to that used in our currency;
 - **Double or triple the number of privacy booths** per precinct in which voters can mark their ballots with a pen and greatly speed up the voting process;
 - Ballots **hand-counted the day after the election** to check the accuracy of all tabulator machines/election;
 - A **reduced number of voters per precinct** (from 6,000 to 2,000-3,000) and a return to/increase in the number of smaller, neighborhood voting precincts to better enable hand-counting ballots, especially since vote centers have NOT increased voter turnout or saved election commissions money;
 - **Smaller precincts with neighborhood voters** will also better enable poll workers to recognize and challenge unusual "voters"/actions before a suspicious voter votes;
 - A **reduced early-voting period** of three days prior to election day (versus the current 15 days early voting and 1 election day), which will save the county money (estimated to exceed \$192,000/election in Williamson County);
 - Ultimately **removing all electronic tabulators** (which, right now, by law, must be used in many counties) from the voting process because of their proven risks;

- **A full post-election audit after EVERY election.** Not only checking the ballots against the tabulator tapes, but rectifying the number of applications to vote against the public/protected counts on the machines, rectifying the number of initial blank ballots per precinct versus the number used (voted, provisional, voided, remaining) in the election, the cleanliness of the voter roll, the security of each machine and the various election processes.
- **Greater security steps**, such as:
 - Security video in the machine storage room (there is none there now);
 - Live streaming of precinct voting and counting of all election, absentee, nursing home and UOCAVA ballots;
 - Documenting the quantities of blank ballots issued to/returned from all precincts to ensure none are “floating around” for nefarious use;
 - The ability for poll watchers to view daily election registration-to-ballot reconciliation numbers;
 - Posting all ballot images/poll worker reports online the day following the election; and
 - Issuance of all election documentation to candidates and the public two days after election day so candidates can better decide if there were issues in the election against which they need to challenge the election.

CONCLUSION: We believe that voting in vote centers is both unconstitutional and proven highly risky given the use of un-inspected voting and registration machines that have been demonstrated to be hackable, the forced presence of the internet in vote centers and the fact that no government entity that is supposed to be protecting the safety and security of our elections is doing so given such evidence of risk.

It appears that Williamson County citizens never had the opportunity to voice their support or opposition to moving to vote centers, but should have since morphing from precincts to vote centers is a drastic change in the election process.

If we want to adhere to the Tennessee Constitution and our election laws and if we believe that election integrity is paramount for our citizens and our Republic, moving from voting in vote centers back to simple neighborhood precincts can and should be done.

APPENDICES

APPENDIX A
THE HISTORY OF PUSHING VOTE CENTERS IN TENNESSEE AND WILLIAMSON COUNTY

As best as we can tell from our research, five entities have been involved in the creation of vote centers and their rules – the [Tennessee General Assembly \(2015-2019\)](#), the [Tennessee Attorney General \(2005-2026\)](#), the [Rutherford County Election Commission \(2018\)](#), the [Williamson County Election Commission \(2019 -2023\)](#) and the [Tennessee State Election Commission \(2015-2020\)](#). The following is what we can document in chronological order.

- [April 12, 2005 \(Tennessee Attorney General\)\(AG\) – Tennessee Attorney General Opinion No. 05-045](#) – Addresses the question: “Would a dual voting system combining vote centers and precincts – seemingly in the same county election -- violate state constitutional law?” It was offered in response to HB1117/SB1635 in 2005. As we read it, the AG’s conclusion was that only if and until challengers could introduce evidence to show that use of the different systems has an impact on the exercise of the right to vote there is no issue here. But the ruling did not directly address the question of “vote center voting vs. precinct voting as dictated in the Tennessee Constitution and the TCA.” We cannot find other Attorney General rulings on this constitutional issue. Interestingly, this opinion was requested by Representative Mike McDonald, who at that time was a Tennessee State House Representative from Portland, Tennessee and who now sits on the Tennessee State Election Commission as a Commissioner.
- [June 11, 2008 \(Tennessee General Assembly \(GA\) – HB3687 \(Tindell\)/SB3894 \(Burchett\)](#) -- Subject to local approval, creates a pilot project to be implemented by the state election coordinator in one or more municipalities in Knox County holding a municipal election in 2009 to determine whether convenient voting centers could successfully be established for local and state elections. - Amends TCA Title 2, Chapter 3.
- [June 10, 2011 \(Tennessee General Assembly\) – HB1268 \(Sparks\)/SB0771 \(Ketron\)](#) -- Extends vote center pilot project to be in Knox, Hamblen, Shelby and Rutherford counties. - Amends TCA Title 2, Chapter 3. HB1268 has been assigned Public Chapter Number 455 by the Secretary of State.
- [December 1, 2015 \(Tennessee State Election Commission\)\(SEC\)](#) -- In his verbal report to SEC members, Goins tells the SEC that the [Rutherford County Election Commission \(RCEC\)](#) is working on legislation [to authorize vote centers in their county](#).
- [April 26, 2016 \(Tennessee General Assembly\) – HB2101 \(Terry\)/SB2125 \(Ketron\)](#) -- As enacted, allows Rutherford County to participate in a pilot project for establishing convenient voting centers for use on election day upon super majority vote of the county election commission. - Amends TCA Title 2, Chapter 3. Companion bill has been assigned Public Chapter Number 768 by the Secretary of State.
- [January 9, 2017 \(SEC\)](#) – SEC Commissioner Donna Barrett (who is from Rutherford County) discusses the [Rutherford County Election Commission](#) becoming a test center for vote centers in 2018.

- **January 8, 2018 (SEC)** – Barrett states she hopes [implementation of vote centers](#) and online voting registration will increase voter turnout. ([It ultimately doesn't, as these stats from the Secretary of State prove.](#))
- **November 9, 2018 (RCEC)** – News story about the initial use of vote centers in Rutherford County ([Here](#)).
- **February 19, 2019 (WCEC)** – ([Archived minutes](#)) -- WCEC discusses the viability of vote center legislation for Williamson County. The WCEC approved inclusion of WC in the pilot program. They plan to meet Alan Farley, Rutherford County Election Administrator, on 3/9/19 to review his experience with the concept.
- **March 14, 2019 (WCEC and RCEC)** – ([Archived minutes](#)) -- Rutherford County Election Commission Administrator of Elections Alan Farley presents to the Williamson County Election Commission his experience with the Rutherford County 2018 pilot. Per Williamson County's ([undated](#)) [plan for the vote center program](#), this meeting (page 3, point 2) was to be a public meeting to discuss the potential changes with the public. But there was no discussion about any announcements about the meeting (the WCEC cannot produce any evidence of such) and, as a result, there were no members of the public in attendance. In fact, the minutes never indicated public input was a key purpose of the meeting. There was no discussion about the public and no questions were submitted or fielded about this new, significant election-related process. Additionally, there was no documentation of any locations, process, policies, rules, equipment changes, staffing, etc., or next steps.
- **March 19, 2019 (GA)** – [HB1229 \(Casada\)/SB0560 \(Johnson\)](#) -- As introduced, it authorizes Williamson County to participate in a pilot project to use convenient voting centers upon approval by a supermajority of the county election commission for elections held in 2020 and thereafter.
- **April 22, 2019 (WCEC)** – ([Archived minutes](#)) – Chad Gray updates the commission on the status of the vote center legislation moving through the legislature, which includes Williamson County.
- **May 1, 2019 (GA)** -- [Public Chapter 445](#) – An act to amend Tennessee Code Annotated, Title 2, Chapter 3, Part 3, relative to convenience voting -- After the required approval of the project plan for the convenient voting centers, the county election commission may create a program that establishes convenient voting centers within the county pursuant to TCA 2-3-303 for local elections conducted in 2019, and for federal, state, and local elections held in 2020.
- **May 9, 2019 (GA)** – [HB1078 \(Rudd\)/SB0726 \(Reeves\)](#) -- As enacted, the Tennessee General Assembly authorizes Rutherford County to establish a program to operate convenient voting centers for federal, state, and local elections under certain conditions. Amends TCA Title 2, Chapter 3, Part 3. HB1077 has been assigned Public Chapter Number 445 by the Secretary of State.

- **May 22, 2019 (WCEC)** – [\(Archived minutes\)](#) The Commission discusses the implementation timetable and approvals, agreeing that it was not feasible to implement the program for the fall Franklin Municipal Election in October. That pushes implementation to the March 3, 2020 primary election.
- **June 24, 2019 (WCEC)** – [Williamson County Election Administrator Chad Gray appears before the Williamson County Commission to secure \\$300,000 for convenience vote center project](#). From the meeting's minutes: Gray stated that Williamson County will have election day voting centers that will allow voters to cast their vote at any location in the County. He stated that the goal will be to have two voting centers per Commission district or adjacent districts. Mr. Gray stated that the Early Voting procedures will remain the same.
- **July 9, 2019 (WCEC)** – [\(Archived minutes\)](#) WCEC votes to include Williamson County in the state's vote center project. A motion is made to approve the standards (not articulated in the minutes) for selection for vote center locations.
- **July 15, 2019 (WCEC)** – [\(Archived minutes\)](#) Chad Gray presents a preliminary list of vote center sites for review and discussion. The minutes contained no list of the sites, nor was anything mentioned about the sites being approved.
- **August 28, 2019 (WCEC)** – [\(Archived minutes\)](#) Gray provided an update on the vote center project and possible voting sites.
- **November 7, 2019 (WCEC)** – [\(Archived minutes\)](#) WCEC commissioner Jonathan Duda moved to adopt the vote center plan for 25 vote centers. [The undated plan can be found here](#).
- **December 19, 2019 (WCEC)** – [\(Archived minutes\)](#) WCEC Election Administrator Chad Gray affirms that he and his staff have met with Tennessee Elections Coordinator Mark Goins regarding Williamson County's vote center plan and he expects approval to enter the pilot program by the end of the year.
- **December 30, 2019 (SEC)** -- Mark Goins letter approving Williamson County's plan to participate in vote center pilot. [\(Here\)](#)
- **January 14, 2020 (WCEC)** – [\(Archived minutes\)](#) Gray tells the Commission that one vote center site has been sold and the Commission votes to replace the Gate Community Church vote center with Franklin Christian Church.
- **March 3, 2020 (WCEC)** – Primary election – where vote centers are first used in Williamson County.

- **March 13, 2020 (WCEC)** – ([Archived minutes](#)) March 3, 2020 presidential primary election was the first use of vote centers in Williamson County. A discussion of their performance ensued at this meeting of the WCEC. However, successes or failures weren't fully identified with any attempt to learn from the experience and nothing was listed in the minutes for the public to better understand the new process. Following the election, [Gray affirms here that he did NOT produce a summary report for Mark Goins](#). Rather, he verbalized his thoughts to Goins. So, there is no documentation that Williamson County citizens can review about how the entire pilot went. Additionally, with no documentation from WC, how does one know what Goins says about the WC pilot in [HIS report](#) is true?
- **August 6, 2020 (WCEC)** – Second primary election for vote center use.
- **November 3, 2020 (WCEC)** – General election – third election for vote center use.
- **December 3, 2020 (WCEC)** – ([Minutes here](#)) WCEC Secretary Dana Smyth moves to approve the Williamson County Convenient Voter Center plan for permanent adoption by the Tennessee General Assembly in the January 2021 session. However, we cannot find where the WCEC establishes an official program with documentation, program manual, etc., as per the May 1, 2019 General Assembly activity listed above. Nor where the General Assembly officially approved Williamson County as a vote center county like it did Rutherford County.
- **January 12, 2021 (Blount County)** – The Board of Mayor and Aldermen of the town of Louisville, Tennessee issued Resolution No. 2021-01 opposing Blount County's participation in the Vote Center experimental pilot program. Two other Blount County towns voiced similar concerns and the three stopped the county's move in 2023 to [become a vote center county](#).
- **January 29, 2021 (SEC)** – Tennessee Elections Coordinator Mark Goins issues a [report to the Tennessee General Assembly](#) concerning three counties that conducted pilot tests for vote centers – Monroe, Williamson and Wilson. An exit from the pilot is not officially mentioned. Need legal review of the December 3, 2020 WCEC minutes if that is an official exit. Or should it be blessed by the Tennessee State Election Commission and the Tennessee General Assembly, as was done for Rutherford County?
- **March 18, 2023 (GA)** – Tennessee State Senator Janice Boling and Tennessee Representative Jody Barrett pushed a bill ([HB193/SB1108](#)) in the Tennessee General Assembly to eliminate convenience voting centers. It failed.
- **March 10, 2026 (GA)** – Boling and Barrett attempt once again to get [HB2304/SB2564](#) (to eliminate convenience vote centers) approved in the House Elections & Campaign Finance Subcommittee but it failed, despite all members receiving specific documented/linked facts about the failures of vote centers in a March 8, 2026 email from Frank Limpus. Limpus and Subcommittee Chairman Rep. Tim Rudd had an email exchange later that evening with Limpus explaining the facts that Rudd ultimately ignored in the House meeting. He appeared to be reading from a page of talking points it is believed that Mark Goins gave him earlier.

Possible violations by the Williamson County Election Commission in moving toward vote centers.

- By their own process dictated in their [\(undated\) plan for vote centers](#), the Williamson County Election Commission was to have a public meeting about vote centers on March 14, 2019. The “public meeting,” turned out to be nothing more than the regular meeting of the WCEC and [their minutes from that meeting \(must scroll down to those meeting minutes\)](#) indicated no questions or statements from citizens or even commissioners about vote centers were heard/offered, or any conclusions thereof that would guide the WCEC in how to move forward per the will of the citizens. In fact, their list of meeting attendees listed no citizens attended the meeting and we can’t find an announcement about this “public meeting” different from the standard WCEC meeting. How are we to know if interested citizens even knew about the meeting or if the WCEC did all it could to elicit citizen input? [This, here, is the only public information about vote centers that the WCEC was able to supply us in response to our public records request – all from 2019 and discussing the 2020 elections, not the March 14, 2019 meeting.](#) **So, despite their plan, there appears to have been no true PUBLIC meeting for citizens to voice any concerns or questions about the concept and little effort seeking public comment.**
- Additionally, a plan for conducting the study was to be submitted by the WCEC to the Tennessee Coordinator of Elections. [We believe this is that plan here](#), although without a date on the plan, we are uncertain. It was not attached to any WCEC minutes or Coordinator of Elections report to the Tennessee State Election Commission so we’re assuming here. We obtained it from Chad Gray per a public records request.
- While we have found no correspondence from Williamson County to the State Coordinator of Elections announcing submission of the plan (as approved by the WCEC at their [November 7, 2019 meeting \(scroll to those meeting minutes\)](#)), Chad Gray states in their [December 19, 2019 meeting \(scroll to those meeting minutes\)](#) that he and others have met with Coordinator Goins about the plan.
- Upon State Coordinator of Elections Goins’ approval, we expected the Williamson County Election Commission, per [TCA 2-3-302 \(a\)](#), to officially “create a program” that would nail down policies and procedures establishing the vote center program ([per #8 of “Overview of the Process” in the plan](#)). **We cannot find such a plan, policies, procedures etc. for such a program.**
- [Per #10 in the “Overview of the Process” in WCEC’s plan](#) and [TCA 2-3-304](#), there was to be an ad placed in the Williamson Herald 30 days before the use of vote centers in their first election in 2020. (That would have been around February 1, 2020.) But after performing a public record request for this ad and following up with Chad Gray, [he has not found the requested ad](#) and ignored subsequent follow-ups to produce the ad to us. The only thing we can find are a [few 2019 news stories about vote centers that will be implemented in 2020](#). But these news stories were placed approximately 120 days before the election, long in advance of a normal person’s ability to remember specific locations of vote centers, if that was the purpose of the news stories. **So, the county apparently did a very poor job informing the public of the new vote centers and their purpose and locations per the specified law.**

- [Per #12 in the “Overview of the Process” in WCEC’s plan](#), by January 31 following any election conducted under the pilot project, Williamson County Administrator of Elections Chad Gray was to file a report with the State and Local Government Committee of the Tennessee Senate and the Local Government Committee of the Tennessee House of Representatives. The report was to contain possible changes in the plan/vote centers following lessons from the pilot. Gray has confirmed through an open records request [that he never wrote such a report... it doesn’t exist](#). Rather, he talked with Coordinator Goins and [Goins wrote the report here on January 29, 2021](#), combining Williamson with two other counties in an assessment of vote centers. **Of course, citizens have no idea what Gray’s (or WCEC’s) perception of the pilot project was vs. Goins’ written statements because that wasn’t reflected in any documentation. Nor were changes that Williamson County planned to make as a result of the pilot. And it is still uncertain if Williamson County ever established an official vote center program stating policies, procedures, equipment, next steps, etc.**

APPENDIX B
RE-PRECINCTING WILLIAMSON COUNTY FOR HAND-MARKED PAPER BALLOTS VOTED IN PRECINCTS

Here's why citizens need precinct voting for hand-marked paper ballots.

If hand-marked paper ballots are ADDED to the voting process while RETAINING vote centers, all 27 vote centers in Williamson County will need to have enough pre-printed paper ballots on hand to address races from throughout the county for every voter at every vote center. That could mean probably 100 or more different versions of pre-printed paper ballots maintained for use in each and every vote center to accommodate an unknown number of voters from throughout the county at each and every vote center. Certainly, a management, chain-of-custody and cost nightmare.

As this paper mentioned previously, the plan the WCEC would put in place to address bringing in hand-marked paper ballots would be to bring in [ballot-on-demand machines](#) to print ballots at each vote center. (Remember: There is no mention of hand-marked paper ballots in their scope of work.) Yes, ballot-on-demand machines would, admittedly, eliminate the need for all those paper ballots sitting around in vote centers. But, as also mentioned before, the ballot-on-demand system and other machines in use in our elections system [are not certified by the U.S. Election Assistance Commission \(EAC\)](#). So, we really have no idea what components are contained in them as there are no standards against which to [certify them](#). And the WCEC and ES&S will not allow an inspection of them by cyber experts. Plus, the current cost for those machines (one in each of 27 vote centers in Williamson County) is \$500,000+ according to the [WCEC, based on a previous estimate from ES&S \(see page 8\)](#).

However, if instead, we can move back to safer, more secure and transparent precinct voting, we could easily add pre-printed, high-security, hand-marked paper ballots as an option since each precinct would likely have only one ballot for its voters in most elections. Plus, moving back to more, smaller precincts mean fewer voters in each location and, therefore, fewer ballots needed. Plus, voter wait time in a precinct is reduced as only a limited number of voters can vote at a precinct. Plus, more voters [can skip over time-consuming BMDs](#) and mark their paper ballots with a pen in far more privacy booths. **No need for a huge supply of multiple pre-printed ballots and no need for ballot-on-demand printers.**

Re-precincting will be necessary.

Should we be able to return to neighborhood precinct voting as we voted prior to 2020, the county's voters will need to be reordered by precinct and district. The county could consider using the 55 precincts we currently have in place now. Over time, and to accommodate an added safety and security step of hand-counting ballots to verify the accuracy of the tabulators, we could increase the number of precincts to enable hand-counting as a check on the performance of the tabulators in more precincts. (Keep in mind that the law states at this time we must count ballots using tabulators.)

On the next couple of pages is a study of the re-precincting process the county went through in 2021 with the help of the state. It was written by Data colleague Chuck Shelton. An interesting result that is in contrast to the Tennessee Constitution, Williamson County's Election Commission now considers precincts to be virtually irrelevant. The voting locations are now referred to only as vote centers -- not precincts -- and have been given thVC identification numbers.

The process also appears to have been rushed, as little care was taken to the subsequent size or number of precincts to remain in accordance with state guidelines for redistricting.

SUBVERTING THE TENNESSEE CONSTITUTION TO ALLOW FOR VOTE CENTERS
An assessment of the questionable 2021 process to realign voters per the 2020 census

Summary

The Tennessee Constitution Art. IV, § 1 states “The General Assembly shall have the power to enact laws requiring voters to vote in the election precincts in which they may reside, and laws to secure the freedom of elections and the purity of the ballot box.” ([Tennessee Constitution Art. IV, § 1 | FindLaw](#))

Please note that the above statement declares that laws will be enacted “requiring voters to vote in the election precincts in which they may reside”. Our present system of voting in vote centers, rather than in precincts, is a clear violation of the Tennessee Constitution. What follows is a partial explanation of how the Tennessee Constitution was subverted to allow voting in “convenience” vote centers rather than precincts in Williamson County and multiple other counties. This was done by enacting Public Chapter 445 in 2019. If Public Chapter 445 had not been enacted, we would be still voting on paper ballots, which has been proven to be the best way to prevent election and voter fraud.

Public Chapter 445 was signed into law on May 22, 2019 from House Bill 1077. It allowed Williamson County to engage in a pilot program for vote centers. Please note that one of the county size parameters “of not less than one hundred eighty-three thousand one hundred (183,100) nor more than one hundred eighty-three thousand two hundred (183,200), according to the 2010 federal census or any subsequent federal census” was specifically designed for Williamson County.

Implementing Hand Marked Paper Ballots, a form of paper ballots, requires reasonable precinct sizes to implement. However, vote center voting does not require reasonable precinct sizes to implement. That is why, for example, after the 2020 redistricting in Williamson County, Precinct 1-4 went from 916 registered voters to 14 registered voters. With the implementation of vote center voting, precincts have become irrelevant (and they were so regarded by the Williamson County Election Committee).

This raises two questions:

- 1) How will Public Chapter 445 be rescinded?
- 2) How will precincts be redrawn so that adequate staff will be able to process and audit paper ballots?

The first question is: “How do we rid ourselves of Public Chapter 445?” The TN General Assembly could rescind Public Chapter 445 but I do not think this will happen. Too many people in Williamson and the other 7 counties listed at the end of this document prefer vote center voting. Also, the media and government officials seem to prefer vote center voting (also called “convenience voting”). Finally, the

General Assembly and the Governor are loathe to admit a mistake. That is why I believe a lawsuit is the only way to rid us of vote center voting and to return to paper ballots.

The second question is: "How will precincts be redrawn?" This is the responsibility of the county election committees. The force for doing this would be a court order. The precincts would then be redrawn (hopefully with public scrutiny) to have similar sizes to each other within a district so that they could be staffed adequately.

History of Re-districting in Williamson County

Every 10 years according to the US Constitution, America has a census which determines how the congressional districts are redrawn for the next 10 years. In Tennessee, this census formed the basis of realigning the 12 Williamson County districts. To do this, the population of the county is determined by the federal census. The federal government provides maps and data to the state governments. The state provides these to the counties.

County officials should be aware of the TN state requirements for redistricting. These are listed in the publication "A Guide to Local Government Redistricting in Tennessee" found at [GuideToRedistrict.pdf \(tn.gov\)](https://www.tn.gov/publications/2021/05/guide-to-local-government-redistricting-in-tennessee) published in May 2021 by the Division of Property Assessments within the Tennessee Comptroller of the Treasury [Redistricting \(tn.gov\)](https://www.tn.gov/publications/2021/05/guide-to-local-government-redistricting-in-tennessee) .

Discrepancies have been found between the way the guide specifies that redistricting should be done and the way it was carried out between November 2021 and May 2022 by the Williamson County Commission and the Williamson County Election Commission. Page 6 of the guide states that the law requires:

"County legislative bodies to be aware of voting precincts in the redistricting process. Tennessee Code Annotated §§ 2-3-101 through 106 governs the location and relocation of precinct polling places with the intent to make voting accessible and simple. The law authorizes county election commissions to designate the polling places where elections are held. The maximum size of a precinct should be 6,000 registered voters. Where voting machines are used, there should be, as nearly as practical, no more than 1,000 registered voters per voting machine. The law requires the county election commission to file written descriptions or maps of sufficient detail of precinct boundaries in the office of the clerk of the county and at the state level, with the Comptroller of the Treasury and the office of the Coordinator of Elections. The precinct maps are also required to be available for public inspection." (note: underlining mine)

The total population of Williamson County in 2020 as determined by the census was 247,726. The county government in Williamson then divided the population by 12 to find the average population for each of the districts and determined that the average district population should be 20,644.

In Williamson County, some districts grew and some declined. The county Geographic Information System (GIS) documented this growth. District 5 (east Williamson County) was 45% over the average of 20,644 while district 11 (downtown Franklin) was 22% under average.

Then the county commission and the county GIS went through the process of determining where the new district boundaries would fall to be within an average of 20,644. There were six county commissioners that oversaw the determination. These six were appointed by the commission by dividing the commission into six groups. The groups within themselves picked one of their commissioners to be on the committee. The groups were districts 1&2, districts 3&4, districts 5&6, districts 7&8, districts 9&10, and districts 11&12.

The committee then worked with the GIS department which has special software to do remapping. The process of input from the redistricting committee and the remapping of the district boundaries went through weeks of process. The precinct borders within a district were mapped at the same time.

When the committee determined that the process had been completed, the plan was voted on by the whole county commission and approved. This was done at the November 9, 2021 county commission meeting. Then the plan was presented to the State of Tennessee Comptroller's office who certified the plan.

The county election commission then changed the precinct numbers and precinct locations. After this, the election commission checked the voter rolls for every registered voter, changed the voter district and precincts as appropriate and notified every voter by postcard (whether or not the voter had a district and/or precinct changed.)

As mentioned above, at the same time that the district boundaries were examined, the precinct boundaries within the districts were also examined. However, the county election commission chose to change the precinct boundaries so that precincts were consolidated and some were dropped. Again, I presume that, since the implementation of Public Chapter 445, precinct location and size were considered irrelevant.

Thus, the county went from 43 precincts just before the redistricting process to 34 precincts. Changes were significant and hard to understand. Precincts 3-2 and 3-3 were consolidated into 3-1 and so the precinct 3-1 was now contiguous with District 3 itself which had approximately 14,000 voters. This was also the case with District 5 where precincts 5-2, 5-3, and 5-4 were put into precinct 5-1 which then had over 15,00 voters. Other districts had their precincts eliminated or changed.

However, 11 precincts were over the size limit of 6,000 voters. A citizen pointed this out to the TN State Election Commission (SEC) in January 2024. The SEC, in turn, informed the Williamson County Election Commission. This Commission hurriedly created 21 new precincts so that all precincts would be under the 6,000 limit. However, these changes were only made to conform to the limit and did not alter previous small precincts like:

- 1-2 123 voters
- 1-4 15 voters
- 9-5 284 voters
- 10-3 347 voters
- 11-2 343 voters

Questions

Why is the redistricting of districts and precincts not in line with the “A Guide to Local Government Redistricting in Tennessee”?

Why has the number of precincts decreased?

Who determined which precincts would be abolished?

Why have the names of precincts been eliminated?

Why have the sizes of the precincts been so varied?

Who determined the number and the locations of the voting centers and their determination?

What happened on the state level to push voting location voting?

Conclusion

Since voting centers were scheduled to be used for the first time after redistricting for the March 2020 presidential primary, the use of precincts was thought irrelevant and so no care was taken as to their size or number within a district when redistricting was done. This might explain the elimination of all precincts except for one precinct in districts 3 and 5 in the redistricting process. From the above, it appears that the thought of populating precincts was not examined according to the state guidelines when the county commission approved the redistricting plan.

Here is the list of counties with voting at voter locations as of 8/29/2023:

1. Henry
2. Monroe
3. Rutherford
4. Washington
5. Weakley
6. Wilson
7. Williamson
8. Hamblen (added 4/29/25)

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APPENDIX C
FOR PURPOSES OF MOVING FROM VOTE CENTER VOTING TO PRECINCT VOTING:
WHAT IS THE DEFINITION OF “VOTING MACHINES” PER THE TCA?

In looking at what is required for either vote center voting or precinct voting, a key legal question is what is a voting machine? How is it defined? Is it just the optical scanner/tabulator that counts the vote, or does it also mean the ballot marking device that prints the machine-generated ballot?

There does not appear to be a simple, concrete definition of “voting machines” in the Tennessee Code Annotated. Nor is “Ballot Marking Device” (BMD) defined at all in [TCA 2-1-104 \(a\) \(Title definitions\)](#). However, [TCA 2-1-104 \(a\)\(20\) & \(21\)](#) speaks about a “protective counter” (20) and a “public counter” (21) on the voting machine, which are only found on a scanner/tabulator to track the number of ballots that have been counted by the scanner/tabulator. BMDs, which help a voter produce and “mark” his/her ballot, do not have these two counters.

Plus, [TCA 2-9-105, “Preparation of machines for election,”](#) section (a) says:

The county election commission shall have the proper ballot labels placed on the voting machines and shall have the machines put in proper order for voting with the registering counters set at zero (000), the counting mechanisms locked, and each machine sealed with a pre-numbered seal.”

Ballot marking devices – especially those made by ES&S and used by Williamson County -- do not have registering counters that can be set at zero, nor do they have counting mechanisms that lock (affirmed with an ES&S technician) nor are they sealed with a pre-numbered seal. Therefore, a typical reading of the Tennessee Code Annotated by a normal citizen would affirm that the words “voting machine” mean a scanner/tabulator or a direct recording electronic (DRE) machine that is virtually all-in-one. “Voting machines,” therefore, do not include ballot marking devices.

[TCA 2-3-104](#) says that where voting machines are used, as nearly as practical, there should be no more than 1,000 registered voters per voting machine.

At this point, it appears that vote centers are out of compliance with TCA 2-3-104 and there’s no way they can get in compliance with the law because there is no way for an election commission to definitively predict how many voters per tabulator will vote in a vote center in an election. Since by practice, the WCEC places two scanners/tabulators in a vote center, that means a strict reading of TCA 2-3-104 would be there can be no more than 2,000 voters that vote in a vote center. But in many cases, that number is far surpassed in our vote centers. So, our vote centers are out of compliance.

A simple look at the 2020 election affirms the compliance issue. Since election results are reported by precincts and not by vote centers, we looked at the 2020 presidential (only) precinct vote in Williamson County’s 43 precincts and found that roughly 139,000 voters voted. Divided by 25 vote centers, that means that there were, on average, roughly 5,560 voters per vote center.

It could be that with each vote center having (by process) only two tabulators, that means the WCEC had only about half as many tabulators as they should have had for voters by law, as 86 tabulators are needed.

APPENDIX D
FOR PURPOSES OF MOVING FROM VOTE CENTER VOTING TO PRECINCT VOTING:
WHAT ABOUT EQUIPMENT NEEDS AND REALLOCATION OF EXISTING EQUIPMENT AND PEOPLE

If we are able to switch back to precinct voting, there are a number of advantages the county can immediately realize, especially if we also immediately move to hand-marked paper ballots.

First, we will **no longer need the bulk of the ballot marking devices (BMD) or the ES&S ExpressVote Activation Card Printer** that is used at registration to generate the ballot for the BMD. Only one BMD and card printer is legally needed per precinct for ADA needs. In truth, it appears these ADA BMDs are rarely used so our current supply of ADA BMDs and card printers can be greatly stretched over a much longer period of years because of minimal use. And lower costs for software, hardware, licenses, insurance and maintenance fees on these machines. (Plus, the ES&S ExpressVote Activation Card Printer isn't even certified by the EAC so we'll be rid of a possible wirelessness source since we have no idea what components are inside that machine and neither the vendor nor WCEC will allow a cyber expert to look.)

Second, it would be our recommendation that **we move from the current 27 vote centers back to at least 55 precincts, in which voters have already been divided.** Here's what that means.

- 198,287 registered active and non-active WC voters per November 2024 election documents.
- 146,562 WC voters voted in the November 2024 election (74%).
- In the last 25 years, voter turnout in Williamson County has never reached above 80%.
- Assume 85% voters will vote going forward (168,544 voters needing to vote; assigned precincts).
- Roughly 3,064 voters per precinct.
- Each DS200 holds 2,500 ballots so we will need 2 tabulators per precinct.
 - Need 110 tabulators for 55 election day precincts.
 - Need 16 tabulators for 8 early voting locations.
 - Need 4 tabulators as back up. Total: 130 tabulators are needed.
 - Minus existing 75 tabulators. Total needed to be purchased: 55 tabulators.
 - Rough cost is \$412,500 per [recent ES&S cost estimates](#). Cheaper than the [\\$475,000 the WCEC would spend](#) on ballot-on-demand machines.

Third, given roughly 3,064 voters per precinct, it is conceivable that we could easily **integrate two additional steps in the process to help verify the accuracy of the hackable, non-inspected tabulators** which, right now, by law, we must use in precincts.

- First, a [hash verification of every tabulator](#) is conducted prior to & immediately after an election.
 - A hash verification is a digital fingerprint (a checksum) created by performing a mathematical operation (a hash function) on the data comprising a computer program or other digital file. Any change in just one byte of the data comprising the computer program or digital file will change the hash value. The hash value is, therefore, a unique fingerprint for any program or digital file.
 - This will alert poll officials after the election if the machine has been tampered with or hacked.
 - The hash will need to be tracked and reported to poll watchers and others publicly monitoring the election.
- Second, USB sticks would be taken to the election office at the close of the poll so immediate results of the election could be determined as is done now. But in order to affirm if the

machines tallied the votes correctly, poll officials would hand count all precincts the next day to ascertain if there were any problems with the machine-created numbers. This would be critical since by law we're forced for now to keep the tabulators in the counting process. As in 2021, it would be the hand count that would be the official election results.

- Hand-counting all precincts would begin the next day and, depending upon the number of counters, take probably a day to confirm the results of the previous day's election.
 - The best location for counting could be where the 2021 hand count was held – the Williamson County Ag Center.
 - Development of the hand-counting process would be done using the expertise of several national entities that have successfully implemented this process in their elections.
 - All counters would be trained in advance and approved for service. Since it would occur the day after the election, the election's poll workers could serve as a counter if they so desired and if they had a sufficient night's rest.
 - The ballot boxes would be delivered to the Ag Center on the morning of the count with sufficient guards stationed there and video streaming started.
 - Counters would be divided into teams of 5 counters each (Ideally 3 R's & 2 D's). They will track the votes on paper counting forms.
 - Two workers will oversee each other, calling out and comparing the votes on each ballot and two workers would mark the selections on a counting form. They would rectify the totals at every 25 ballots. The fifth worker, a Republican, would hand the ballots to the team and generally oversee the counting.
 - The counting tables would be arranged as they were at the October 2021 re-count, with the public able to sit literally feet away from the counting tables to watch and hear the process. It would also be live streamed so that citizens who can't attend in person can watch the process while counters would know their actions are being watched.
- Both of these safety steps could be completed by the day following the election to assure candidates that the election experienced no nefarious activity that would have affected the vote totals. This would be a confidence builder for citizens.

Third, with smaller precincts and fewer voters than vote centers, we recommend **removing the computer-based poll book and returning to the paper-based voter roll** in each precinct as was used until 2020. This step has been previously proven effective by the [Maury County Election Commission](#). So, another high-cost machine/computer is removed (along with its iDRAC/Qualcomm wireless chip) as well as the internet connection into the precinct.

Fourth, as to **what equipment is needed** and where, consider:

- WCEC currently has 75 tabulators & uses 2 tabulators per vote center.
 - Tabulators are required by law.
- Retain two tabulators per precinct with maximum ballot capacity of 5,000 ballots.
- 55 precincts means 110 tabulators for election day; 16 tabulators for 8 early voting precincts; 4 back up tabulators.
 - Cost as calculated previously in this report: $130 - 75 = 55 \times \$7,500 \text{ ea.} = \$412,500$

- The ballot boxes currently used for absentee ballots as well as nursing home and UOCAVA ballots would continue to be used. All ballot receptacles will continue to employ numbered seals.
- More privacy cardboard partitions would need to be purchased, but not the expensive 4-seater, curtained partitions currently in use to support the weight of a ballot marking device. Partitions and tables (supplied by the precinct location) just like was used at the Williamson County Republican Party convention on March 4, 2025.
- The ES&S DS450 would probably need to be retained as it counts absentee ballots. However, a deeper study on those numbers might lead to removing that machine in favor of hand-counting. For instance:
 - 376 absentee ballots were cast in the March 2024 election in Williamson County.
 - 400 absentee ballots were cast in the August 2024 election.
 - 5,691 absentee ballots were cast in the November 2024 election.
 - 85 absentee ballots were cast in the May 6, 2025 Brentwood election.
 - Rough average of four elections: 1,636 ballots per election.
- In moving to specially marked/secure paper ballots, and the removal of the electronic pollbook computers to move back to paper-based voter rolls at each precinct, there will be some increase in paper charges that would most likely be captured in a supplies budget.
 - Different elections will demand a differing number of blank ballots because of overlapping jurisdictions.
- There would also be an increase in the need for poll workers/counters. However, we understand that there is a surplus of individuals who have stepped forward to the WCEC to be poll workers but have not yet been called. (I am one of them.) Additionally, because the precincts would be smaller than vote centers with far less voters coming in each location to vote, each current voting location could probably reduce by half the number of poll workers needed for each precinct. Five workers per precinct might be enough.

APPENDIX E
FOR PURPOSES OF MOVING FROM VOTE CENTER VOTING TO PRECINCT VOTING:
WHAT STEPS MIGHT BE REQUIRED TO GET BACK TO PRECINCT VOTING?

Here are the possible steps the county would need to walk through to go from vote center voting to precinct voting and then, bringing in hand-marked paper ballots (as the WCEC previously began looking into but stopped) without more machines.

- Declare we're moving from 27 vote centers back into 55 precincts/voting locations which we currently have now.
- Increase the number of voting locations from 27 Williamson County vote centers (168,544 probable voters for 6,242 voters on average per vote center) to 55 precincts (168,544 probable voters for 3,064 voters per precinct). (To compare: Hamilton County [reg voters: 229,838] has 113 precincts for 2,034 reg voters per precinct).
- Precinct boundaries, locations, numbers and district boundaries will need to be re-drawn.
 - This will be done by the Williamson County Election Administrator and a committee of the Williamson County Commission as was done in 2021.
 - Six county commissioners, one from each of two districts (districts 1&2, 3&4, 5&6, 7&8, 9&10, and 11&12) are appointed. Two Williamson County citizens are also appointed (1 R and 1 D). With the WC Election Administrator, that would make for a total of nine members of the committee.
 - The committee works with the county/state GIS to map out the precinct locations, numbers and district boundaries.
 - Divide the total Williamson County population per the 2020 census (247,726) by 12 to find the average population for each of the county districts: 20,644.
 - Re-districting begins and the final plan is approved by the whole county commission. It is also presented to the public for comment so the WCEC can affirm that citizens have "bought into" the process.
 - The plan is presented to the State of Tennessee Comptroller's Office for certification.
 - The Williamson County Election Commission changes the precinct numbers and precinct locations.
 - Additionally, they check the voter rolls for every registered voter, they change the voter district and precincts and notify every voter by postcard (regardless of if the voter's district/precinct changes).
 - All Williamson County voters are informed of their new voting location.
- Approach [Authentix](#), a Dallas, Texas, authentication & anti-counterfeiting vendor that is working with Arizona State Senator Mark Finchem on the development of a new [highly secure ballot that contains the same security as our country's currency](#).

- It might be helpful from a cost standpoint to see if other counties in Tennessee would like to join in the secure ballot effort to lower the per-ballot cost for everyone.
- If cost becomes an issue, we are aware that ES&S can produce a ballot that can be watermarked and numbered. However, it would probably be wise from a security standpoint to get the ballots produced by a firm other than the one that manufactures our machines to further diversify the voting process.
- Purchase 55 more tabulators so we end up with the 130 that we need for election day, early voting and back-up needs.
- Begin an aggressive program of educating citizens about the change from vote centers to precinct voting and the introduction of hand-marked paper ballots.

APPENDIX F
FOR PURPOSES OF MOVING FROM VOTE CENTER VOTING TO PRECINCT VOTING:
RECENT MEDIA THAT FACTUALLY AFFIRMS THE DANGERS OF VOTE CENTERS

- [Op-Ed — What legislators and bureaucrats aren't telling the people of Hamblen County — or Tennessee — about vote centers \(Tennessee Conservative News\).](#)
- [Op-Ed – Vote centers: The scourge that prevents hand-marked paper ballots from being added to a county without first adding more untrustworthy, non-certified voting machines.](#)
- [The Vote Center Dilemma series: \(#1\) The voting issue that will prevent hand-marked paper ballots from entering our elections.](#)
- [The Vote Center Dilemma series: \(#2\) Why hand-marked paper ballots are such a big deal.](#)
- [The Vote Center Dilemma series: \(#3\) Why moving from vote centers to precinct voting is best if you care about safe, secure, transparent and trustworthy elections.](#)
- [The Vote Center Dilemma series: \(#4\) In today's world convenience will never replace security.](#)
- [The Vote Center Dilemma series: \(#5\) Here's hoping county and state leaders can now give us safer, more secure elections.](#)

APPENDIX G
TENNESSEE IS NOT NUMBER 1 IN THE NATION FOR ELECTION INTEGRITY

The Tennessee Secretary of State and his Election Coordinator have claimed that Tennessee is number 1 in election integrity in the nation. Let's clear that up. It's not.

- Secretary of State Tre Hargett and Election Coordinator Mark Goins have hijacked the [Heritage Foundation scorecard](#), first released in 2022, that states Tennessee is, indeed, number 1 when it comes to ELECTION LAWS. But they've misconstrued it to imply that it says Tennessee is number 1 in everything election integrity. The scorecard DOESN'T say that.
- The scorecard says nothing about how the state runs elections, or the use of machines, or how clean our voter rolls are, or if we have a voter-verifiable paper ballot, or if we have complicated the election process by forcing citizens to vote in vote centers, or whether or not we perform audits after each election, or pursue other tactics to ensure safe, secure, accurate and transparent elections. [Here's research that totally disproves Hargett's claim.](#)
- But returning to precinct voting, adding hand-marked paper ballots that are both machine counted and hand-counted to ensure our election numbers are correct, as well as taking other steps mentioned in this research paper, while increasing the transparency of this entire process will begin to get Tennessee closer to this goal of truly being tops in election integrity.

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