

# GEORGIA ELECTION INTEGRITY UPDATES

Part 1

July 2023

## DATA DISCLOSE IMPORTANT ELECTION SYSTEM ERRORS AND IRREGULARITIES

Valuable data and research continue to be released that show irrefutable errors and irregularities experienced with Georgia's electronic voting systems during recent elections. We are encouraged that election officials and government representatives are becoming more aware of these disclosures, generated via careful and dedicated research. Given this information, we remain confident that officials will remedy errors and irregularities that are so clearly evident. After all, the 14<sup>th</sup> and 15<sup>th</sup> Amendments of the Constitution ensure our rights to voting integrity, as evidenced by the stiff penalties or imprisonment imposed on any trespass of these civil rights.

The following are examples of errors and inconsistencies discovered in Georgia's electronic voting equipment and in election results reporting. The focus here addresses striking findings in Fulton County (FC) alone, obtained via open records requests (ORR). It is clear that, going forward, these errors and irregularities can be avoided by using a paper ballot system of voting, counting, and verifying votes.

### **1. Inflated or erroneous reporting of ballots cast**

In this series, we begin with clearly visible irregularities in reported election results from Fulton County, Georgia during the 2020 presidential election. These irregularities remain unresolved and unanswered. Organizations such as GaBallots.com and VoterGa.org are dedicated to research and analyses of ongoing voting issues, and we direct our readers to their websites for periodic updates.<sup>1,2</sup> Learning from history, we know that even small numbers of improper or illegally cast ballots scattered in key locations, counties or precincts, can change election outcomes entirely.

Following the installation of the new voting system, termed D-Suite, which included Dominion machines, initiated under then Secretary of State (SOS) Kemp, SOS Raffensperger presided over the 2020 election system and reporting of results.

Initial irregularities were evident during the very first days of election result reporting. (For a video presentation of these events, see [www.GaBallots.com](http://www.GaBallots.com)). As the country eagerly awaited election results overnight and into the morning, especially from swing states, SOS Raffensperger appeared on the NBC Today show the morning of November 4, 2020 to present Georgia voting results. At the time of that presentation, Raffensperger was already well aware of the total number of votes cast, the number of registered voters in Georgia, and he stated that all but one county – Fulton County - had reported final results. At this time, the SOS stated that 4.7 million voters had voted in Georgia, a substantial increase over the 4.1 million voters during the 2016 election, that average wait times statewide in voting lines had been approximately only 2 minutes, and that the election had gone smoothly. With all but Fulton County counted, Trump was in the lead at 50.5%, with 2,384,312 votes, compared to Biden at 48.3%, with 2,280,607 votes. That same morning, the SOS stated that only 2% of votes remained uncounted, and these were unlikely to change the outcome. Quite oddly, and surprisingly to the broadcasters, his news feed was abruptly cut off after he made this statement (see video link below)!

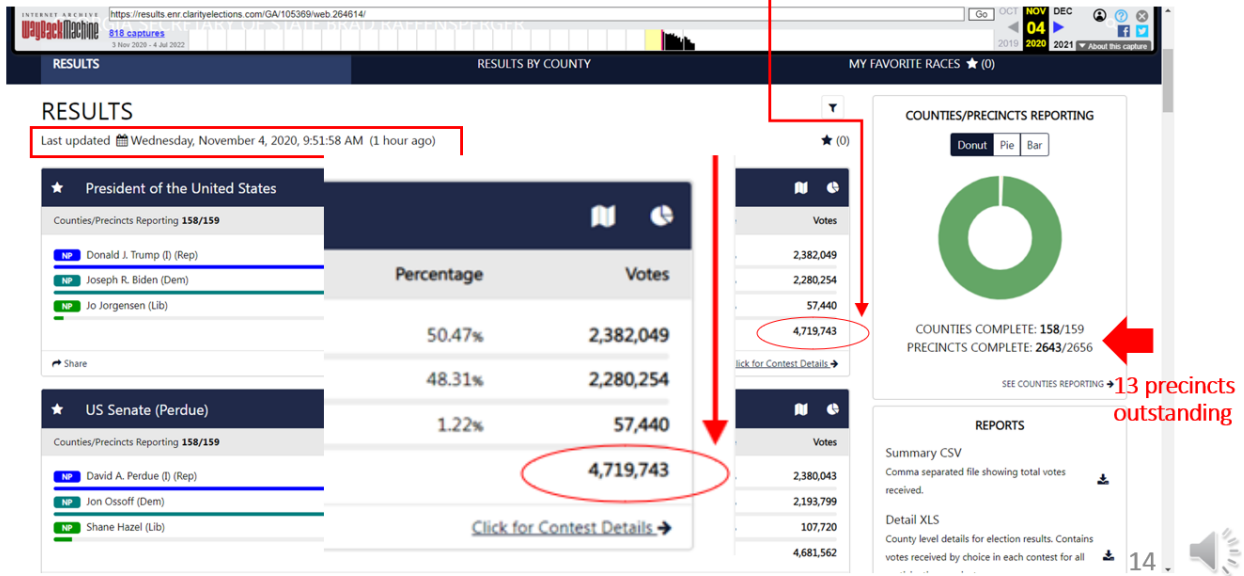


The Today Show, November 4, 2020  
Video Link: <https://tinyurl.com/BradReport>

**MATH CHECK:** Let's note some math at this point: According to the SOS, the 2% remaining of the approximately 4.7 million votes cast suggests approximately 94,000 votes were still uncounted on the morning of November 4.

Using the Wayback machine, where website data can be recaptured, we see that on the morning of November 4, 9:51 AM, the SOS website presented election results shown in the screenshot below; the comment and markings confirm that only 1 county and 13 precincts within it had not yet been counted. At this time, Trump remained ahead with 50.47% (2,382,049) of the votes and Biden had 48.31% (2,280,254). Trump led by 103,705 votes. Overall, about 4.7 million (4,718,743) votes were counted. These numbers are generally consistent with the SOS statements made on the Today show that same morning.

Raffensperger confirms on the Today Show 4.7 million ballots with about 2 % left to report. As of 9:51 am, there were 13 precincts left to report



**MATH CHECK:** The approximately 2% of votes remaining to be counted, about 94,000 votes, was less than Trump's lead of 103,705 votes on November 4 morning. Therefore, even if every single remaining uncounted vote was for Biden – which is an impossibility in real life – Trump would still retain his lead.

In addition, if we consider the maximum number of potential votes still available from Fulton County, and its 13 precincts not yet reporting final results, we see that only a maximum of 71,826 votes were still possible to count according to SOS data (Figure 1).

In fact, according to SOS election results, the 13 largest precincts in Fulton County added up to a total of 71,826 registered voters, with 50,116 ballots cast (Figure 1). These results would not have changed Trump's lead, even if every single Fulton County registered voter had actually voted, and even if every single ballot cast in Fulton County was for Biden – both not a reality in real life.

A few days later, on November 20, 2020, when the SOS published final election results, he claimed a total of almost 5 million voters had voted. This is almost 300,000 more votes than he had stated the day after the election! The question remains, where did all these 300,000 extra votes come from?

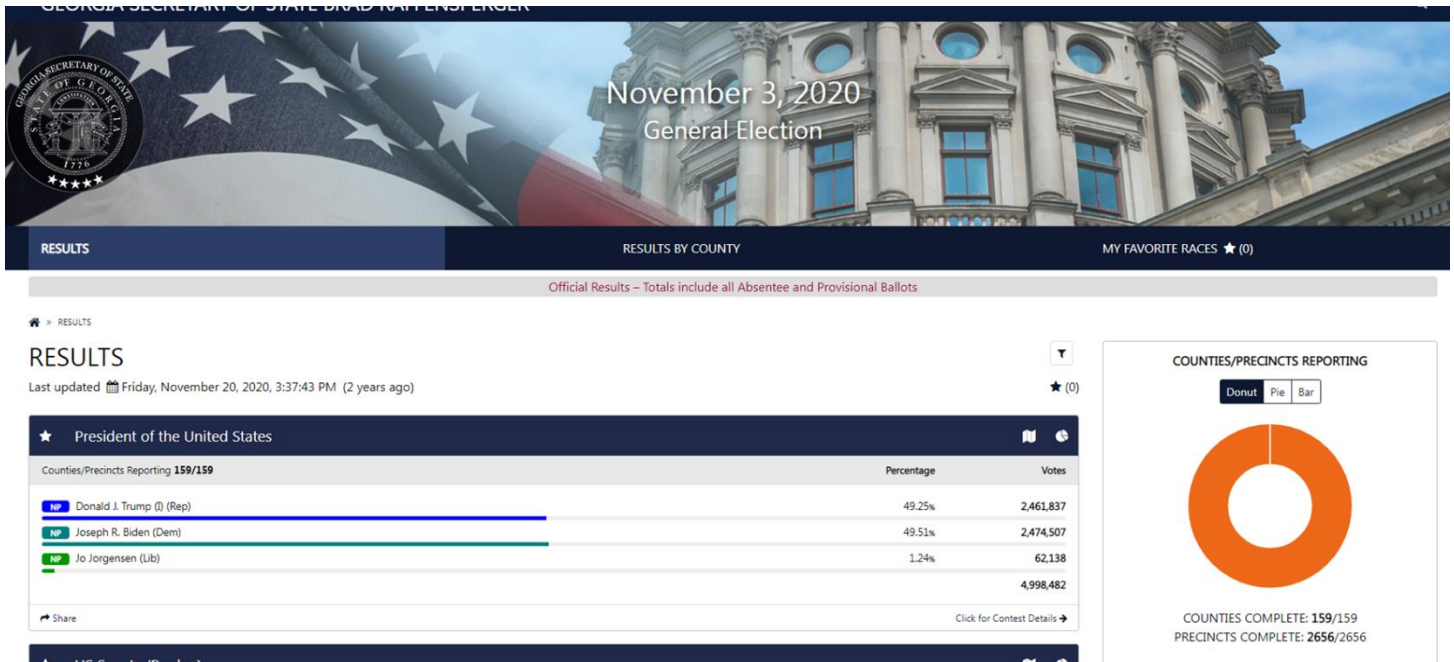
**Figure 1: SOS RECORDS OF FULTON COUNTY VOTER TURNOUT, NOVEMBER 2020 ELECTION**

Somehow 300,000 votes came from 13 precincts when the 13 largest precincts have only 50,000 ballots because...

SOS - ELECTION RESULTS				
SOS				
COUNTY	PRECINC T	REGISTERED VOTERS	SOS BALLOTS CAST	SOS % TURNOUT
FULTON	07A	7,691	5,533	71.94%
FULTON	06D	6,160	5,421	88.00%
FULTON	FA01B	5,860	3,798	64.81%
FULTON	UC02A	5,609	3,875	69.09%
FULTON	02L1	5,546	4,170	75.19%
FULTON	02D	5,539	3,700	66.80%
FULTON	AP01A	5,236	4,158	79.41%
FULTON	SC16A	5,175	3,729	72.06%
FULTON	RW03	5,041	3,431	68.06%
FULTON	EP04A	5,020	2,715	54.08%
FULTON	RW01	5,010	4,245	84.73%
FULTON	12A	4,971	2,987	60.09%
FULTON	10D	4,968	2,354	47.38%
		71,826	50,116	

Final election results were posted by the SOS on November 20, 2020, 16 days after November 4, where vote counts from the one remaining county, Fulton County, had been finalized (Figure 2) . Here, we see that total votes had now been increased by approximately 300,000 votes, to a total of about 5 million (4,998,482) (Figure 2). Now, we note the lead was switched to Biden, who led with 2,474,507 votes (49.5%) compared to Trump's 2,461,837 votes (49.25%).

**Figure 2: SOS Website: November 20, 2020, OFFICIALLY CERTIFIED 4,998,482 VOTES CAST**



## **2. Denial of proper audits of votes cast**

Because these numbers, and the sudden increase in votes, raised serious questions and doubts, open-record requests were made to attempt a verifiable audit against the actual paper ballots cast, especially in Fulton County. These requests have thus far been denied by the SOS office, claiming that only *images* of ballots created by a voting system are subject the Open Records Act and that ballots must remain sealed [Smith v. Dekalb County, 288 Ga. App. 574 (2007)]. This response is problematic to the public for several reasons, including the potential irrelevance of the case law cited to the current situation. In addition, VoterGa.org (Garland Favorito) found some ballot images had too low resolution, allowing errors to pass, compared with hand counts that detected counterfeit ballots; some ballot images had also been electronically altered ([VoterGA Challenges Raffensperger SOS Election Results – 6-23-22](#)). Current legislation, SB122 and HB426, is pending to resolve these problems and increase voting transparency.

The only ballot images offered for inspection by the SOS were those produced by the Dominion voting machines, which are the very machines suspected of producing the improper ballot counts in the first place. Therefore, it stands to reason that if erroneous images or counts are being produced by the machines, true inspection of voting results are being blocked by denying access to the original paper ballots cast.

A number of lawsuits have been filed to further investigate these undeniable election irregularities. The courts originally denied that the public had legal “standing” in such voting issues; fortunately, this was reversed in a December 2022 ruling (Georgia Supreme Court, Case No. S22C1299). Non-partisan organizations such as VoterGa.org continue to make great progress in this area of securing election integrity.

The delays and denials from SOS and official sources to the public are an enormous disappointment, if not more serious, and destroy public trust in our officials. Promises made by then SOS Kemp when the new “D-Suite” electronic voting system, including Dominion machines, were introduced, are being broken. SOS Kemp stated that the new voting system he introduced (D-Suite system) would be secured by allowing auditing “using paper ballots,” stating “They also create an auditable paper ballot, with other enhanced review capabilities for the public.” Furthermore, description of that voting system also stated, “For example, the state can make scanned images of all ballots cast in statewide elections available, allowing anyone to do a ballot count to check the accuracy of results.”<sup>1,3</sup>

The following examples of voting system irregularities continue to alarm the public:

- When original ballot images were requested by VoterGA.org, 74 Georgia counties could not produce original ballot images for the November 2020 election; 48% had destroyed the ballot images or refused to comply with the request, contrary to Election/ORR law.
- County officials claimed that images or records of ballots cast in the 2020 election were not available, and were not required to be made by the election equipment (Steve Rosenberg correspondence to Garland Favorito, dated Sept 27, 2021).
- In total, approximately 374,000 ballot images were missing from Fulton County election results in November 2020.
- Failure of the voting equipment or voting equipment handlers to provide adequate ballot casting and memory equipment. One example is the shortage of memory cards as part of the Dominion voting equipment, as described by Chris Harvey, Georgia elections Director (ref).
- In total, approximately 374,000 ballot images were missing from Fulton County election results in November 2020.
- Fulton County counted about 18,000 more votes than the ballot images indicated, meaning that Fulton County cannot certify or substantiate any results that were certified in the 2020 election. Statewide, 500,000 more votes were counted than indicated by ballot images.
- Early voting was started before ILogic and Accuracy testing for the machines was completed; for example, Fulton County started early voting on Oct. 8, but testing was complete on Oct. 31.
- None of the tabulator tapes provided by Fulton County were signed, as required by law. (315,000 votes were certified with unsigned tabulator tapes).

Experts have agreed that reported election results in 2020 were unreliable and/or showed errors. The public is encouraged by rulings, as in Curling vs. Raffensperger, in which Judge Totenberg stated “..the risks are neither hypothetical or remote under the current circumstances...there are serious problems and vulnerabilities”. Currently, an election report remains under seal, authorities claiming it is too dangerous for the public to see.

Election analyses and irregularities will continue to be discussed in this series on election integrity issues in Georgia. Excellent data is forthcoming from individuals who painstakingly analyze and research findings from recent elections, together with reports from experts in election machine technology. We look forward to continued scrutiny and improvements in our election systems, and are hopeful our elected officials and judiciary will join in our cause for verifiable election integrity. As a summary, the table below displays the remarkable reported election results from the November 2020 election. The only feasible solution at the moment is a change to paper ballots which offer a reliable solution to the serious problems described above.

**Part 1: TABULAR SUMMARY: SOS REPORTING OF VOTES AND VOTING OUTCOMES, NOVEMBER 2020 ELECTION**

DATE	NUMBER OF VOTES*	VOTES/PRECINCTS NOT YET COUNTED	TOTAL VOTES COUNTED/ REPORTED PER SOS**	OFFICIALLY CERTIFIED VOTES, SOS WEBSITE
Nov 4, 2020, AM Per SOS ON TV	Trump: 2,384,312 (50.5%) Biden: 2,280,607 (48.3%) Difference of 103,705 votes in favor of Trump, see Figure 2)	2%	"4.7 million" stated on television)	
Nov 4, 2020, 9:51 AM (perWayback)	Trump 2,382,049 (50.4%) Biden: 2,280,254 (48.31%)	1 county (Fulton) outstanding with 13 precincts not yet counted	4,719,743	
<b>NOTE: THE 13 LARGEST FULTON COUNTY PRECINCTS HAD 71,826 REGISTERED VOTERS, WITH 50,116 BALLOTS CAST PER SOS. THEREFORE, ONLY 50,116 VOTES WERE AVAILABLE TO UPDATE NUMBERS REPORTED ABOVE.</b>				
November 20, 2020 SOS website		100% (2,656 of 2,656 precincts)	4,998,482 <i>Note: This increase of 278,739 votes over Nov. 4, is over 5x more votes than were possible with the legally cast and counted Fulton County voter numbers (ie, 50,116).</i>	Trump: 2,461,837 (49.25%) Biden: 2,474,507 (49.51%) (Difference of 12,670 votes in favor of Biden)

\*Only Trump and Biden votes shown in this column. \*\* Total votes include a small number of votes for third-party candidate, Jo Jorgensen. Numbers displayed can be viewed at [www.GaBallots.com](http://www.GaBallots.com).

**References**

1. [www.GaBallots.com](http://www.GaBallots.com)
2. <https://voterga.org>
3. Archived at:  
<https://web.archive.org/web/20220126203921/https://sos.ga.gov/admin/uploads/voter%20FAQ.pdf>

# GEORGIA ELECTION INTEGRITY UPDATES

Part 2

July 2023

## OPEN RECORDS REQUESTS FOR BALLOTS CAST IN FULTON COUNTY: MISSING BALLOT IMAGES

We ended the previous issue noting that approximately 300,000 votes were counted from Fulton County alone between the morning of November 4, 2020 and the date the SOS published final election results on November 20, 2020. However, only a maximum of 71,826 were registered voters according to SOS records, with only 50,116 having cast votes per SOS records. This left an unexplained surplus of about 250,000 votes – and in Fulton County (FC) alone. The only way to reconcile this question was to examine the original paper ballots cast.

As we know, when a voter's ballot is printed by the voting machine, that paper ballot is fed into a scanner machine, which then creates ".tif" images and a verification scan (a ".sha" scan to authenticate the digital images). It is expected that the ".sha" file should match the ".tif" file. However, when the images of the original ballots cast in Fulton County (FC) were later examined pursuant to an Open Records Request, 374,000 ballot images were missing from the original November 3, 2020 (election day) results – of which 59,000 images were missing from election day alone (confirmed by FC attorney Steven Rosenberg)<sup>1</sup>. When these images were requested, the Fulton County response was that "Ballot imaging was not required for November 2020 election. No responsive records..." (Figure 1). This is faulty because the contract between Dominion and Fulton County stated that ballot images would be kept, and would create 256-bit encryption ".sha" files. Therefore, these were required to be available in Fulton County.

In addition, it was learned that FC was missing over 315,000 ballot images from Advance Voting (Figure 1) resulting in a total of about 374,00 missing ballot images.

Figure 1. FULTON COUNTY MISSING BALLOT IMAGES

And...  
Fulton  
is missing  
over  
315,000  
ballot  
images from Advance  
Voting – that's  
374,000 missing  
images total

GARLANDF@msn.com

**From:** Rosenberg, Steven <Steven.Rosenberg@fultoncountyga.gov>  
**Sent:** Monday, September 27, 2021 9:57 AM  
**To:** GARLAND FAVORITO  
**Cc:** Bodison, Mariska; Ringer, Cheryl; Lowman, David; McCray, Unique; Eatmon, Shana  
**Subject:** RE: VoterGA Open Records Request #1 - 09-27-21

Mr. Favorito,

I recall our conversation and I appreciate you emailing me your requests. I can confirm that the County maintains no records which are responsive to your request. The answer is the same for both the request contained in this email as well as the email you just sent seeking "Electronic Copy of the approximately 315,000 original In-Person Advance Voting ballot images for the November 3<sup>rd</sup>, 2020 election". The County maintains nothing responsive.



Steve Rosenberg  
Deputy County Attorney  
Office of the County Attorney



The apparent reason for these missing images was that an inadequate number of memory cards had been supplied by, or procured from, Dominion, prompting the Elections Director to allow wiping the existing memory cards to re-use them. This is a travesty of management by FC, and does imply that the election machine system itself is too complex.

Therefore, FC was missing nearly all authentication files. Over 500,000 “.sha” authentication files were missing, with FC having only 16,000 “.sha” files available to authenticate all 527,000 ballots. In addition, “.sha” files for 148,000 Absentee/by mail votes cast were not separately available from FC.

To review, three ballot counts were made in Georgia:

1) The initial count which did not produce any resolutions and is discussed in more detail in Part 3. In summary, the first count, conducted on Nov. 3, 2020, counted only absentee-by-mail and provisional ballot images. When a specific precinct in Fulton County, and the top 3 races on the ballot are examined, a large discrepancy was seen between the first count of Nov. 3, and the Recount.

2) The second audit, termed a “Risk-Limiting Audit” was conducted from Nov. 11 to Nov. 19. Because, according to machine counts, only a 0.3% margin separated votes for Biden and Trump, a full manual count of about 5 million ballots was required. As a result, audit boards from all 159 Georgia counties counted and hand-sorted 41,881 batches of ballots. This was the largest hand count of ballots in U.S. history. However, without ballot images being available, the “risk-limiting audit” could not really be performed.

This audit was fraught with errors. Examination of the SOS spreadsheet showed thousands of votes that were double counted; a batch of votes was triple-counted giving Biden nearly 800 illicit votes; batches of votes were missing; a stunning 950 votes for Biden and 0 for Trump were certified from a single batch of military votes cast, where the batch contained only 100 votes. Examination of the data showed that, for only the small sample size of Absentee Ballots in FC (which numbered about 148,000 out of 527,000 ballots), 6,617 duplicate ballots were counted, with 5,301 too many for Biden and 1,215 too many for Trump, producing a net 4,086 votes too many for Biden (Figure 2). The Risk-Limiting Audit was not accurate, with 59.9% of audit batch reports not matching actual image counts (Figure 3). These findings among others were verified by an independent examiner, and reported to the Governor’s office which notified the SOS and State Election Board that the inconsistencies were corroborated and required remedy.

**Figure 2. Duplicate Ballot Counting and Over-reporting**

	RLA totals							Image totals						
	Donald J. Trump	Joseph R. Biden	Jo Jorgensen	Invalid Write-in	Valid Write-in	Blank/Under vote	Overvote	Total Votes Counted by SOS	Trump	Biden	Jorgensen	Blank	Unknown	Total Ballots Provided by SOS
Original Count	947	4,224	35	-	4	11	4	5,225	449	1,969	15	5	18	2,457
Dupes	525	2,353	19	-	-	7	2	2,906	-	-	-	-	-	-
Original Count	2,009	8,557	119	8	9	61	7	10,770	1,296	5,603	93	35	37	7,060
Dupes/Mistakes	690	2,948	45	-	-	24	4	3,711						
<b>Total Dupe Reported</b>	<b>1,215</b>	<b>5,301</b>	<b>64</b>	<b>-</b>	<b>-</b>	<b>31</b>	<b>6</b>	<b>6,617</b>						
<b>Biden Over-reported by</b>		<b>4,086</b>												
<b>(4,086 over-reported just in the Absentee by mail for Fulton County which is only 2.6% of all the votes in Georgia)</b>														

**Figure 3. Failure to Match Image Counts in Risk Limiting Audit**

##### ELECTION INFO #####				Reported by Secretary of State										59.9%	Actual Ballot Image Totals				
Jurisdiction Name	Batch Name (original per SoS)	ICC Tabulator	Batch ID	Donald J. Trump	Joseph R. Biden	Jo Jorgensen	Invalid Write-In	Valid Write-In	Blank/Undervote	Overvote	Total Votes Certified by SO	Match or Fail	Trump	Biden	Jorgensen	Blank	Unknown	Total Ballots Provided by State	
FULTON	AbsenteeScanner3Batch172	5162	172	34	62	1	0	0	1	0	98	Match	34	62	1	1	0	98	
FULTON	AbsenteeScanner3Batch173	5162	173	27	71	1	0	0	0	0	99	Match	27	71	1	0	0	99	
FULTON	AbsenteeScanner3Batch174	5162	174	96	392	3	0	0	0	0	491	Fail	96	392	3	1	0	492	
FULTON	AbsenteeScanner3Batch175	5162	175	96	392	3	0	0	2	0	493	Fail	0	0	0	0	0	0	
FULTON	AbsenteeScanner3Batch174	5162	174									Fail	22	75	1	0	1	99	
FULTON	AbsenteeScanner3Batch175	5162	175									Fail	26	67	0	1	0	94	
FULTON	AbsenteeScanner3Batch176	5162	176									Fail	31	70	0	0	0	101	
FULTON	AbsenteeScanner3Batch177	5162	177	96	392	3	0	0	0	0	491	Fail	9	89	0	0	1	99	
FULTON	AbsenteeScanner3Batch178	5162	178									Fail	8	91	2	0	1	102	
FULTON	AbsenteeScanner3Batch179	5162	179									Fail	33	84	2	0	0	119	
FULTON	AbsenteeScanner3Batch180	5162	180									Fail	5	93	1	0	0	99	
FULTON	AbsenteeScanner3Batch181	5162	181									Fail	47	47	2	2	1	99	
FULTON	AbsenteeScanner3Batch182	5162	182									Fail	31	62	1	2	2	98	
FULTON	AbsenteeScanner3Batch183	5162	183	31	62	1	0	0	2	0	96	Fail	6	89	2	2	1	100	
FULTON	AbsenteeScanner3Batch184	5162	184	6	90	2	0	0	2	0	100	Fail	43	55	1	0	1	100	
FULTON	scanner 3/185	5162	185	47	51	1	0	0	0	1	100	Fail	23	73	2	0	1	99	

The Risk Limiting Audit was not Accurate. Not even close.

59.9% of the Audit Batch Reports did not match the actual image counts.

3) An official final recount in FC by the SOS was conducted on Dec. 9, 2020, but even in this last recount, FC was missing 17,724 ballot images. The difference between the total ballots cast in FC (527,925) and the total number of ballot images (510,201) indicates there were 17,724 more votes cast than ballot images could substantiate (Figure 4; <http://seeforyourself.us:8080/> [website undergoing reopening]).

**Figure 4. Missing Ballot Images in Final Recount, Fulton County**

Recount					
<b>Fulton County SOV Recount</b>	Election Day	Advanced Voting	Absentee by Mail	Provisional	Total
Times Cast	56,106	320,338	148,673	2,808	527,925
Undervotes	355	1,890	1,539	65	3,849
Overvotes	-	-	136	3	139
<b>Total SOV Votes Counted</b>	<b>55,751</b>	<b>318,448</b>	<b>146,998</b>	<b>2,740</b>	<b>523,937</b>
<b>Fulton County Recount POTUS</b>	Election Day	Advanced Voting	Absentee by Mail	Provisional	Total
Donald J. Trump (I) (Rep)	18,701	88,312	29,506	684	137,203
Joseph R. Biden (Dem)	35,662	226,824	115,600	1,985	380,071
Jo Jorgensen (Lib)	1,367	3,154	1,726	71	6,318
Write-In	21	158	166	-	345
<b>Total POTUS Recount Votes</b>	<b>55,751</b>	<b>318,448</b>	<b>146,998</b>	<b>2,740</b>	<b>523,937</b>
<b>MC2 Ballot Images</b>	Election Day	Advanced Vote	Absentee by Mail	Provisional	Total
Donald J. Trump (I) (Rep)	18,741	83,994	29,499	683	132,917
Joseph R. Biden (Dem)	35,746	213,431	115,580	1,982	366,739
Jo Jorgensen (Lib)	1,367	3,047	1,724	71	6,209
Write-In	-	-	-	-	-
<b>Total POTUS Ballots</b>	<b>55,854</b>	<b>300,472</b>	<b>146,803</b>	<b>2,736</b>	<b>505,865</b>
Undervotes	-	-	-	-	-
Overvotes	-	-	-	-	-
Nota*	380	2,018	1,870	68	4,336
<b>Grand Total Ballots</b>	<b>56,234</b>	<b>302,490</b>	<b>148,673</b>	<b>2,804</b>	<b>510,201</b>

\*Nota needs Under/Over Assigned\*

This slide shows that the RECOUNT had 527,925 ballots cast but there are only 510,201 ballot images.

**There are 17,724 missing ballot images from the recount!**

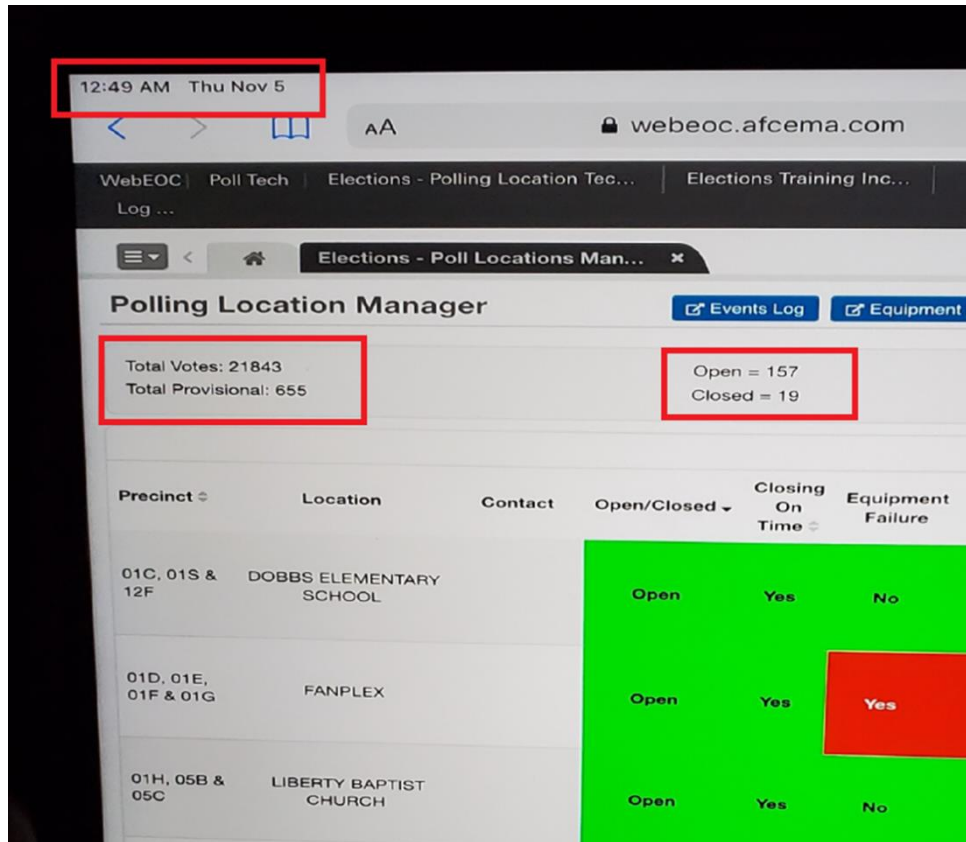
### **Errors in Tabulator Tapes**

In addition, FC provided “tabulator tapes” affecting over 315,000 votes, none of which were signed as required by law. With proper procedures, three witnesses attest to the fact that tabulator tapes were properly printed and signed. Examples were found of polls closing late, with duplicate serial numbers on tabulator tapes. Therefore, in FC, about 315,000 votes were certified without the required signatures. Furthermore, some of these tabulator tapes had duplicate serial numbers, meaning they were printed by the same machines. The explanation offered by FC officials was that there were an insufficient number of machines (although about 300 machines were unused, in storage).

### **Election Day Reporting Errors**

Lastly, on election night, November 3, 2020, election officials in FC reported that as of 5PM, a total of 14,152 in-person ballots and 598 provisional ballots had been cast, a comparatively low number of votes for election day. However, the SOS certified that 59,143 people had voted on Election Day (Nov. 3). This would suggest that, in the last 2 hours of voting, between 5PM and 7PM, a total of about 45,000 people would have rushed to the polls. This is unlikely, and not consistent with reports of the very short-to-nonexistent waiting times at the polls. In fact, the Election Day 1,457-page list of voters provided by Fulton County showed a total of 59,186 voters. This history file, which shows times of voting, does not reflect any such rush to the polls between 5PM and 7PM, but rather shows that only 6,931 people voted between 5 and 7:30PM. The sum of these 6,931 voters, plus the 14,152 in-person, and final 655 provisional ballots is 21,738 – a figure similar to that found by previous examiners of the data. A report (Figure 5), however, showed in unredacted notes that only a total of 21,843 votes were cast in FC, not 59,143 votes. It appears that about 37,300 votes were inserted. Therefore, there is serious doubt that 59,143 people actually voted on Election Day in FC, *but this cannot be examined or verified without seeing the actual paper ballots.*

Figure 5. Election Day Results: Fulton County Vote Count, Carter Jones Report\*



\*Page 16 of Carter Jones Report. Carter Jones was a consultant hired by FC to identify problems with voting processes.

*In conclusion, Fulton County could not recreate or substantiate the voting outcome that was certified in the 2020 election results.*

**PART 2: TABULAR SUMMARY OF FINDINGS: OPEN RECORDS REQUESTS FOR BALLOTS CAST IN FULTON COUNTY**

After 3 recounts or audits through December 2020, Fulton County (FC) counted 18,000 more votes than could be substantiated by ballot images for the 2020 presidential election.
Examination of Absentee Ballots in Fulton County in a "Risk-Limiting Audit" showed multiple errors and inconsistencies resulting in a net 4,086 votes too many for Biden. Over 3000 votes were double counted in FC.
The number of votes cast on Election Day in FC, as reported by the SOS, is approximately 15,900 more votes than reported by election workers or on poll location documents.
These discrepancies can only be resolved by examining the actual paper ballots.
Georgia's SOS spent \$107 million on the voting system where votes were not counted properly, and has also committed Georgia to an additional \$100 million in payments over the next 20 years for the system.

<b>Open Records Requests (ORR)</b>	<b>Election Ballot Images/Data Requested for Nov. 3, 2020 election</b>	<b>Fulton County Response</b>	<b>Ballot Images/Data Missing</b>	<b>Total Ballot Images/Data Missing</b>
VoterGA ORR #1-09-27-21 (Sept. 27, 2021)	Electronic copy of all original Election Day ballot images	FC attorney office confirmed images were not available	Over 59,000	Over 59,000
GaBallots ORR #000 333-011322 (May 4, 2022)	Electronic copy of all original Election Day ballot images	FC attorney office stated images were not required, confirmed images not available	Over 59,000	Over 59,000
VoterGA ORR #1-09-27-21 (Sept. 27, 2021)	Electronic copy of approximately 315,000 in-person Advance Voting ballot images	"The County maintains nothing responsive"	Approx. 315,000	Approx. 374,000
GaBallots request for .sha authentication files for 527,000 ballots	".sha" authentication files for 527,000 ballots cast	Only 16,000 were available in FC	Over 500,000 .sha authentication files	Over 500,000 .sha authentication files
GaBallots request for .sha files for absentee/by mail ballots	Absentee/by mail votes cast images numbered about 148,000	Only the total of 16,000 .sha files were available from FC		

# GEORGIA ELECTION INTEGRITY UPDATES

Part 3

July 2023

## LACK OF VOTE COUNT MATCHING ON A PRECINCT LEVEL, L&A TESTING

The first count, conducted on Nov. 3, 2020, counted only absentee-by-mail (ABM) and provisional ballot (PV) images. When a specific precinct in Fulton County, and the top 3 races on the ballot were examined, a large discrepancy was seen between the first count of Nov. 3, and the Recount (see also Part 2). While the ballots counted during these two ballot counts should be the same, they were not. The ballots changed, with some removed or thrown away, and some completely different that did not exist on the Nov. 3 count. For example, in Precinct 01G, there were 16 ballots in the original count on Nov. 3. In the Recount, 5 ballots had been removed, and 3 images inserted, causing a change in 8 of 16 ballots or a 50% difference in counts and accuracy! Similar changes were seen in other precincts: Precinct RW03 showed a 54% difference in ballot counts; 03F showed a 42% difference in counts; 01R showed a 92% difference; 02C showed a 34% difference; 02A showed a 37% difference; RW01 showed a 22% difference.

For the November 3 Recount, statewide in Georgia, a total of 500,000 more votes were counted than the number of ballot images available – that is, over 500,000 ballot images remain missing or unexplained.

*These discrepancies indicate that voting results in Georgia should not have been certified without pulling out the original paper ballots on a county-by-county basis.*

### **Logic and Accuracy (L&A) Testing:**

L&A testing should have been performed 2 weeks before early voting began to assure accuracy, that is, on October 5, 2020 at the latest. However, it was not completed until Oct. 31, 2020, which was *after* early voting had ended. The screenshot below (Figure 1) shows completion dates for L&A in precincts that voted early, indicating that accuracy of votes cast before the completion dates shown could not be assured.

We recall the many video segments in the documentary “2000 Mules” showing what certainly appeared to be individuals casting multiple ballots, and photographing what appears to be ballot harvesting – certainly more ballots than seems reasonable for a single individual to cast.

**Figure 1 Logic and Accuracy Testing Log, Early Voting Precincts**

**Early Voting Precincts – Logic & Accuracy Testing Log**

Precinct Delivery Date	Precincts	Location	Total # of Registered Voters	% of RVs	BMDs Needed (1 per 250 RV)	2-Unit Carries	4-Unit Carries	TOTAL # of Scanned	Cards Sent for Upload	Sent to Upload Date	Deliver y Person	Cards Returned from Upload	Return from Upload Date	Return Person	Co mpl ete d	Complete d Date	comments
11/27/2020	021/K & 06G	Park Tavern	4205	0.54%	17	2	4	2									
10/30/2020 7pm	100	C.T. Martin Natatorium & Recreation Center	4881	0.81%	20	2	4	3	3	10/23/2020	Brandon	3	10/23/2020	Brandon	x	10/27/2020	
10/30/2020 7pm	PA01	Palmetto Library	2964	0.37%	12	2	2	2	2	10/22/2020	Brandon	2	10/22/2020	Brandon	x	10/28/2020	
10/30/2020 7pm	08D	Northside Library	1064	0.13%	4	1	1	1	1	10/22/2020	Mitch	1	10/22/2020	Mitch	x	10/29/2020	
10/30/2020 7pm	06F	Ponce De Leon Library	2770	0.35%	11	1	3	2	2	10/24/2020	Stephanie	2	10/24/2020	Stephanie	x	10/29/2020	
10/30/2020 7pm	07D	Buckhead Library	4788	0.60%	19	2	4	3	3	10/27/2020	Stephanie	3	10/27/2020	Stephanie	x	10/29/2020	
10/30/2020 7pm	AP10	Alpharetta Library	997	0.12%	4	1	1	1	1	10/31/2020	Stephanie	1	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	FA01D	New Beginning Senior Center	310	0.04%	2	1	0	1	1	10/31/2020	Stephanie	1	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	SC02	Southwest Arts Center	1426	0.18%	6	1	1	1	1	10/31/2020	Stephanie	1	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	SC08 C/D/E/F/G	Alabys Deaneard Library	2189	0.28%	9	1	2	1	1	10/31/2020	Stephanie	1	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	SC17 A/B/C	Welcome All Recreation Center	1329	0.17%	5	1	1	1	1	10/31/2020	Stephanie	1	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	09K	Northwest Library at Scotts Crossings	3952	0.50%	16	2	3	2	2	10/29/2020	Jake	2	10/29/2020	Jake	x	10/30/2020	
10/30/2020 7pm	11G & 12I	Adams Park Library	3582	0.45%	14	2	3	2	2	10/31/2020	Stephanie	2	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	AC12	Northwest Spruill Oaks Library	2185	0.28%	11	1	3	2	2	10/31/2020	Stephanie	2	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	M101 A/B	Milton Library	3441	0.43%	14	2	3	2	2	10/31/2020	Stephanie	2	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	RW11A	Roswell Library	2835	0.36%	11	1	3	2	2	10/31/2020	Stephanie	2	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	RW20	East Roswell Branch Library	2680	0.34%	11	1	3	2	2	10/31/2020	Stephanie	2	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	RW21	Johns Creek Environmental Campus	3339	0.42%	13	2	3	2	2	10/31/2020	Stephanie	2	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	SC20	Wolf Creek Branch Library	2537	0.32%	10	1	2	2	2	10/31/2020	Stephanie	2	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	SS06 & SS31	Sandy Springs Library	3317	0.42%	13	2	3	2	2	10/31/2020	Stephanie	2	10/31/2020	Stephanie	x	10/31/2020	
10/30/2020 7pm	SS19B	North Fulton Annex	2325	0.29%	9	1	2	2	2	10/31/2020	Stephanie	2	10/31/2020	Stephanie	x	10/31/2020	

Fulton County Logic & Accuracy Testing (L&A)

Logic and Accuracy testing is to be completed weeks BEFORE voting begins. Fulton County started early voting on Oct 8 but did not complete testing until October 31<sup>st</sup>.

**Analytic Reports Showing Inadequacies Of The Current Voting Machine System**

Reports such as the Halderman Report, and the rebuttal offered by the SOS in the MITRE Report are discussed in Part 4. These indicate no conclusive proof is available on the security of the voting equipment used in Georgia.

**Lawsuits and Legal Proceedings That Address Problems With Georgia Election Machine Systems**

Furthermore, important legal actions have been undertaken in the form of court cases to challenge the legality and security of the voting machines. Cases such as Curling vs. Raffensperger are discussed in Part 4 as well; here the judge noted the new voting system contained fundamental deficits, and this remains an ongoing problem.

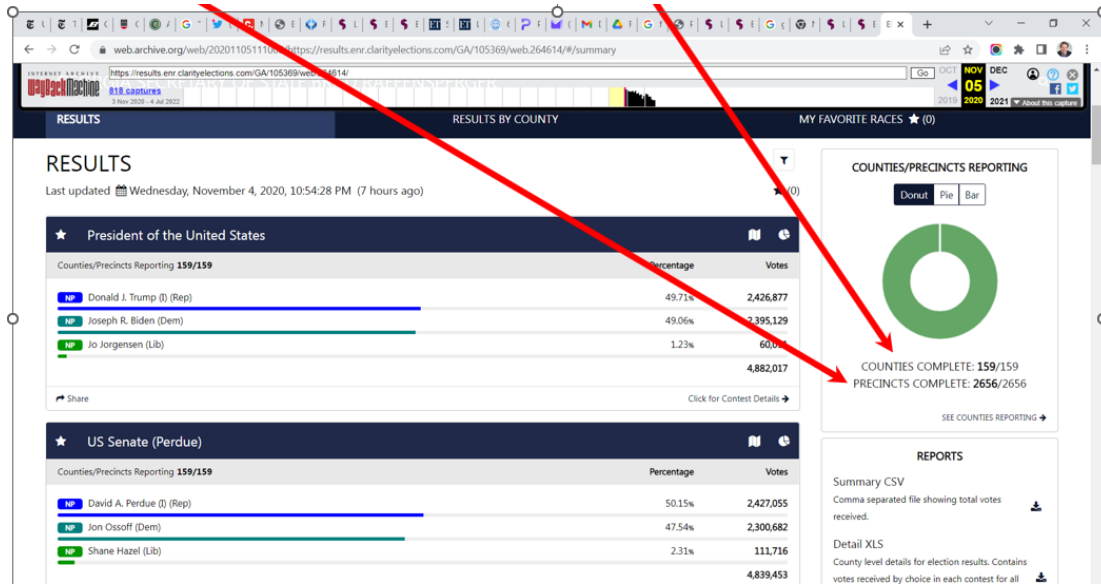
**Illegal Aspects of Current Voting System in Georgia**

An essential point to highlight is that the QR code, which is present on all ballots in Georgia elections, is a major problem and is, in fact, technically an illegality according to Georgia law (see Ga. Code § 21-2-300). The Halderman Report (Part 4) addresses this serious vulnerability. While SOS staff claimed these QR codes were encrypted (for purposes of safety), VoterGa testified they were *not encrypted*, meaning that voters cannot verify that their vote selection is reflected in the QR code, and also that the QR code can be decoded by attackers and can be replaced or manipulated to steal voters' votes (<https://voterga.org/wp-content/uploads/2023/07/Halderman-Dominion-ICX-BMD-Security-Analysis-Overview-.pdf>).

## SOS Data Observed Which Conflicts With Final Reported Election Results

A stunning document, obtained via the Wayback machine, where SOS data results were displayed on November 4, 2020, at 10:54 PM, with 100% of precincts and 100% of counties having reported, showed the election winners to be Trump and Perdue (Figure 2).

**Figure 2 Georgia Election Results, November 4, 2020, All Precincts and Counties Reporting**



The Secretary of State's own data shows 100% of counties and 100% of precincts complete. Trump won. Perdue Won.

Without doubt, such inconsistencies are serious. At the current time, only a hand recount of actual ballots cast can find much-needed answers. For the upcoming elections, only paper ballots and hand counting can prevent such serious problems from occurring again.



# GEORGIA ELECTION INTEGRITY UPDATES

Part 4

July 2023

## LEGAL ACTIONS AND OFFICIAL REPORTS ADDRESSING VOTING IRREGULARITIES

Legal actions that address flaws in Georgia's various voting systems date back years.

**A) HALDERMAN REPORT:** The recent Halderman Report is a 96-page document issued in July 2021 by Professor J. Alex Halderman, PhD, of the University of Michigan, in conjunction with Professor Drew Springall of Auburn University, issued in support of the *Curling v. Raffensperger* lawsuit. The redacted (Case 1:17-cv-02989-AT/Document 1681/Filed 06/14/23) report is available at <https://www.documentcloud.org/documents/23846675-halderman-report>. This report was kept under seal for over two years by Judge Totenberg as part of discovery, but was recently unsealed for ongoing motions. Important findings relating to security flaws in the Dominion ICX Ballot Marking Devices, and flaws in the Dominion ICP scanners are addressed. An overview of this report and related cases can be found at <https://voterga.org/wp-content/uploads/2023/07/Halderman-Dominion-ICX-BMD-Security-Analysis-Overview-.pdf>.

The redacted Halderman Report overview included the following:

“In 2020, Georgia replaced its insecure, decades-old DRE voting machines with new ballot scanners and ballot marking devices (BMDs) manufactured by Dominion Voting Systems. Although the same BMDs are used for accessibility in parts of approximately 15 other states, Georgia is unique in using them statewide as the primary method of in-person voting [89]. This unusual arrangement places potentially malicious computers between Georgia voters and their paper ballots. In contrast, in most of the United States, voters mark paper ballots directly by hand, and BMDs are reserved for those who need or request them [87]. Georgians who vote at a polling place generally have no choice but to use the BMDs.” .... “Curling Plaintiffs contend that Georgia's universal-use BMD voting system is *so insecure* that it violates voters' constitutional rights.”

“Using an ICX provided by Fulton County, I played the role of an attacker and attempted to discover ways to compromise the system and change votes. I, along with my assistant, spent a total of approximately twelve person-weeks studying the machines, testing for vulnerabilities, and developing proof-of-concept attacks. Many of the attacks I successfully implemented could be effectuated by malicious actors with very limited time and access to the machines, as little as mere minutes. This report documents my findings and conclusions.”

The principal findings of this redacted report included the following (emphasis added):

“... the ICX suffers from critical vulnerabilities that can be exploited to **subvert all of its security mechanisms**, including: user authentication, data integrity protection, access control, privilege separation, audit logs, protective counters, hash validation, and external firmware validation” and...“these vulnerabilities provide multiple routes by which attackers can install malicious software on Georgia's BMDs, either with temporary physical access or remotely from election management systems (EMSs). I explain how such malware can alter voters' votes while subverting all of the procedural protections practiced by the State, including acceptance testing, hash validation, logic and accuracy testing, external firmware validation, and risk-limiting audits (RLAs).”

“The most serious vulnerabilities I discovered include the following:

1. **Attackers can alter the QR codes on printed ballots to modify voters' selections. Critically, voters have no practical way to confirm that the QR codes match their intent, but they are the only part of the ballot that the**

**scanners count.** I demonstrate how the QR codes can be modified by compromising the BMD printer (Section 5) or by installing malware on the BMD (Section 7).

2. The software update that Georgia installed in October 2020 left Georgia's BMDs in a state where **anyone can install malware** with only brief physical access to the machines. I show that this problem can potentially be exploited in the polling place even by non-technical voters (Section 8).

3. Attackers can **forge or manipulate the smart cards** that the ICX uses to authenticate technicians, poll workers, and voters. Without needing any secret information, I created a counterfeit technician card that can unlock any ICX in Georgia, allowing anyone with physical access to install malware (Section 6).

4. I demonstrate that attackers can execute arbitrary code with root (supervisory) privileges by altering the election definition file that county workers copy to every BMD before each election. Attackers could exploit this to **spread malware to all BMDs across a county or the entire state** (Section 9).

5. The ICX contains numerous unnecessary Android applications, including a Terminal Emulator that provides a "root shell" (a supervisory command interface that overrides access controls). **An attacker can alter the BMD's audit logs** simply by opening them in the on-screen Text Editor application (Section 10).

6. In a given election, all BMDs and scanners in a county share the same set of cryptographic keys, which are used for authentication and to protect election results on scanner memory cards. **An attacker with brief access to a single ICX or a single Poll Worker Card and PIN can obtain the county-wide keys.**

7. The ImageCast Precinct (ICP) scanner stores ballot scans in the order they were cast. A dishonest election worker (like that emphasized by the Defendants and their expert Michael Shamos) with just brief access to the scanner's memory card **could violate ballot secrecy and determine how individual voters voted** (Section 11).

The Halderman Report continues:

**"Proof-of-Concept Attacks** In addition to discovering and validating the vulnerabilities described above, I developed a series of proof-of-concept attacks that illustrate how vulnerabilities in the ICX could be used to change the personal votes of individual Georgia voters."

Halderman's Main Conclusions include:

**"In my view, it would be extremely difficult to retrofit security into a system that was not initially produced with such a process.....**My technical findings leave Georgia voters with greatly diminished grounds to be confident that the votes they cast on the ICX BMD are secured, that their votes will be counted correctly, or that any future elections conducted using Georgia's universal-BMD system will be reasonably secure from attack and produce the correct results. No grand conspiracies would be necessary to commit large-scale fraud, but rather only moderate technical skills of the kind that attackers who are likely to target Georgia's elections already possess. Unfortunately, even if such an attack never comes, the fact that Georgia's BMDs are so vulnerable is all but certain to be exploited by partisan actors to suppress voter participation and cast doubt on the legitimacy of election results."

**Here, Dr. Halderman emphasized that the current voting system equipment in Georgia cannot be "fixed".**

## **B) SOS REBUTTAL TO THE HALDERMAN REPORT**

As rebuttal by the SOS, the "MITRE Report" was issued (<https://sos.ga.gov/sites/default/files/2023-06/MITRE%20Report.pdf>). This document was commissioned by Dominion Voting Systems in March 2022 and issued in July 2022. Subsequently, the SOS made this statement, "The MITRE report confirms that Georgia's election infrastructure is secured by the toughest safeguards.... Georgia elections are secure" (<https://sos.ga.gov/news/raffensperger-update-mitre-report>).

However, an analysis and subsequent report signed by 29 recognized experts in cybersecurity and election security, discredited the MITRE report, stating that the MITRE laboratory was not provided access to Dominion's equipment and did not perform any security testing. Rather, it was an attempt to assess risks without access to the source information – that is, the MITRE report can be termed a “hypothetical” counterargument, not a real-world testing of risk. The authors continued that the MITRE analysis applied “faulty reasoning and dangerously understates the risk of exploitation” ....”This contradicts CISA’s determination that “these vulnerabilities present risks that should be mitigated as soon as possible.”

Other election audit experts have agreed that the post-election audit procedures conducted in Fulton County did not detect documented double and triple counting, making it impossible to determine the winner of an election contest. A variety of serious errors have been reported, where it is clear the only remedy is a hand count of the original paper ballots. Legal actions that have been ongoing in Georgia regarding election issues can be viewed at <https://voterga.org/legal-action/>.

### **C) CURLING v RAFFENSPERGER**

Curling vs. Raffensperger, Civil Action No. 1:17-cv-298-AT (Document 918, filed 09/28/20) is a lawsuit filed in the US District Court for the Northern District of Georgia, Atlanta Division. The opening statements include:

“This case requires the Court to consider whether Georgia’s practices and procedures for administering voter access to the ballot at the polls unconstitutionally impact the voting process and unduly burden the exercise of qualified citizens to choose their elected representatives.”

The lawsuit outlined several major systemic deficiencies in Georgia’s voting system that negatively impacted the voting process. The Plaintiffs requested paper back-up of pollbook use in polling places, other assurances regarding emergency and provisional ballots, and training of poll workers in these regards. The reader is encouraged to view these documents, which also detail a number of the serious problems experienced in Georgia’s voting system, malfunctions of electronic poll pads, and lack of coordinated training on new equipment and SEV emergency procedures. These documents are generally available at VoterGa.org.

An important ruling issued August 16, 2019, by Judge Totenberg in the Curling v Raffensperger case noted “Given the entire course of events described here, the Defendants’ contention that the servers were simply ‘repurposed’ and not intentionally destroyed or wiped is flatly not credible.” In her opinions, the judge also stated that the new voting system “presents serious security vulnerability and operational issues” caused by “fundamental deficits and exposure,” stating “these risks are neither hypothetical nor remote under the current circumstances”. An important report remains under seal to this date, claiming contents are too dangerous for the public to see.

**Given these profound findings regarding errors and vulnerabilities documented in the current Georgia electronic voting system, it is clear the only reliable solution for the upcoming election in 2024, is to initiate a hand-count program that is verifiable. Please join efforts outlined at VoterGa.org and other citizen initiatives to restore accurate elections, and trust in our electoral system in the State of Georgia.**