

MARICOPA COUNTY

2020 GENERAL ELECTION DATABASE ANALYSIS

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SUMMARY

The data contained in the Dominion Voting Systems databases from the 2020 general election in Maricopa County, Arizona, displays both reckless disregard for proper, transparent election procedures and evidence of algorithmic tampering of the election data.

The contents of this report are derived from the files provided to me on January 16th, 2024. The files represent Dominion Voting Systems database and backup files from the 2020 general election in Maricopa County, Arizona.

This report will refer to the spreadsheet “Maricopa-Detail.xlsx”. This spreadsheet will be made available to anyone wishing to study it, as will the complete contents of the “Userlog” table from the election database.

DATA SOURCES

The following is a list of files provided and their significance.

- **20201103 General-2020-09-21-11-26-56.mdf**
- **20201103 General-2020-09-21-11-26-56.ldf**
These are the SQL Server data and log files from the election project reporting database. At one time they held the data from the November 2020 election, but the project was overwritten in February 2021, leaving the contents of this database worthless.
- **AdjudicableBallotStore_2018_Maricopa_General_2020-02-03_10_42_10.mdf**
- **AdjudicableBallotStore_2018_Maricopa_General_2020-02-03_10_42_10_log.ldf**
These are the SQL Server data and log files from the 2018 general election Adjudication database. As there is no reporting database to accompany it, no analysis was performed.
- **AdjudicableBallotStore_20201103_General_2020-10-20_08_39_45.mdf**
- **AdjudicableBallotStore_20201103_General_2020-10-20_08_39_45_log.ldf**
These are the SQL Server data and log files from the Adjudication database from the 2020 general election.
- **TabulationStore_20201103_General_2020-10-20_08_39_45.mdf**
- **TabulationStore_20201103_General_2020-10-20_08_39_45_log.ldf**
These are the SQL Server data and log files from the Tabulation database from the 2020 general election.
- **20201103 General-2020-08-29-14-36-48.bak**
A SQL Server backup file of the initial November 2020 election project reporting database. While the database appears to be set up to begin the election, no actual election vote data is contained within it.
- **20201103 General-2020-09-21-11-26-56.bak**
A SQL Server backup file of the operational November 2020 election project reporting database. This backup was created on November 16, 2020, and contains the complete election

results and data. As the purported database files from the election were invalid, the restored databases from this backup were used for this report.

FINDINGS

1. Purging of Election Data

The database files provided and purported to contain the complete and official November 2020 election data had been purged on February 1st, 2021, leaving the data in an incomplete and unusable condition. These lines from the database's *UserLog* table demonstrate this.

executedCommand	operationTimestamp
User initiates the OnPurgeResults activity	2/1/21 5:14 PM
Project 20201103 General opened	2/1/21 5:14 PM
PurgeResultsCommand (execution duration: 76478ms):All result files from database were deleted.	2/1/21 5:16 PM
PurgeResultsCommand (execution duration: 288779ms):The result files database, result files and images from NAS were deleted. Purging of results has finished successfully.	2/1/21 5:20 PM

While the database was recoverable from the backup file, the operations performed on 2/1/2021 had the effect of destroying the source copy of the 2020 election records. It is unknown whether the county maintained proper chain-of-custody records to validate the backup files they provided. Nevertheless, providing the data in the condition they did appears to be misleading and not responsive.

2. Insecure system users and passwords

The *User* table shows that there are 6 accounts capable of logging into the election system.

username	password	firstName	lastName
Techadvisor	0x6166A73E5165E844EA8A384F35616CC848C0CBA 784CC93340340C9ECEF986384	John	Smith
MRO01	0x6166A73E5165E844EA8A384F35616CC848C0CBA 784CC93340340C9ECEF986384	MRO	M01
ROAdmin	0x6166A73E5165E844EA8A384F35616CC848C0CBA 784CC93340340C9ECEF986384	Return Office	Admin
SAdmin	0x6166A73E5165E844EA8A384F35616CC848C0CBA 784CC93340340C9ECEF986384	MRESuper	Admin
Admin	0x7058D7D8876F14228A213FBAED558E35B5770D6 CBE6AEB7C21E2051BE5984C2B	Bruce	Hoenicke
RTRAdmin	0x7058D7D8876F14228A213FBAED558E35B5770D6 CBE6AEB7C21E2051BE5984C2B		

The *password* column is actually the password “hash” value of the user password, and it shows that four users shared the same password, and two other shared a different password. This is very bad practice.

The “Techadvisor” user, which was used to create the election definitions in early November 2020, has an obvious pseudonym (“John Smith”) which is extremely un-transparent.

Bruce Hoenicke, listed as the name of the “Admin” user, is a Dominion Voting Systems employee who resided in Maricopa County. ¹ His password is the same as the RTRAdmin account, which has access rights to the entire database.

The *AppUser* table, which defines the application-level access, contains the following users.

username	password	firstName	lastName
Techadvisor	0x6166A73E5165E844EA8A384F35616CC848C0CBA 784CC93340340C9ECEF986384	John	Smith
MRO01	0x6166A73E5165E844EA8A384F35616CC848C0CBA 784CC93340340C9ECEF986384	MRO	M01
ROAdmin	0x6166A73E5165E844EA8A384F35616CC848C0CBA 784CC93340340C9ECEF986384	Return Office	Admin
Admin	0x7058D7D8876F14228A213FBAED558E35B5770D6 CBE6AEB7C21E2051BE5984C2B	Bruce	Hoenicke
SAdmin	0x6166A73E5165E844EA8A384F35616CC848C0CBA 784CC93340340C9ECEF986384	MRESuper	Admin

Again, note the identical password hashes.

The *TabulatorUser* table contains 338 users labeled “Poll Workers”, all with an identical password hash. The hash, in this case, is encrypted using a Rijndael encryption algorithm, the key and vector for which are conveniently stored in plain text in the *ElectionEvent* table. The decryption of the password for these users using this information is elementary, and I was able to perform it in just a few minutes.

3. Rejected and Republished Batches

Throughout the election counting, 422 of the 10,345 batches were loaded, accepted, adjudicated, published, rejected, then republished four days later. 68 of these were from the Early Voting period, while 350 were Election Day batches – every election day batch received on the 3rd or 4th of November. These 422 batches account for over 177,000 total ballots, of which 154,000 were cast on election day. Given their unusual processing path, these batches cannot be considered properly valid. Please see the tab “Resurrected batches in the accompanying spreadsheet for details on the 422 batches. The tab “Resurrected Example” shows an example for one of the batches from the *Userlog* table. For comparison, the tab “Unresurrected Batches” contains detail for the batches which did *not* undergo this process.

4. Votes from Spoiled Batches

The Adjudication database’s *batch* table shows three batches which are marked as “spoiled” (which is code 7). The three batches are tabulator 6035 - batch 11, tabulator 6032 – batch 9, and tabulator 3033 – batch 22. Votes were accepted in the main database for all three of these batches. Please see the “Batch Analysis” tab in the spreadsheet for details on all batches processed. The last column, “Status”, shows code 3 for published batches, and 7 for spoiled

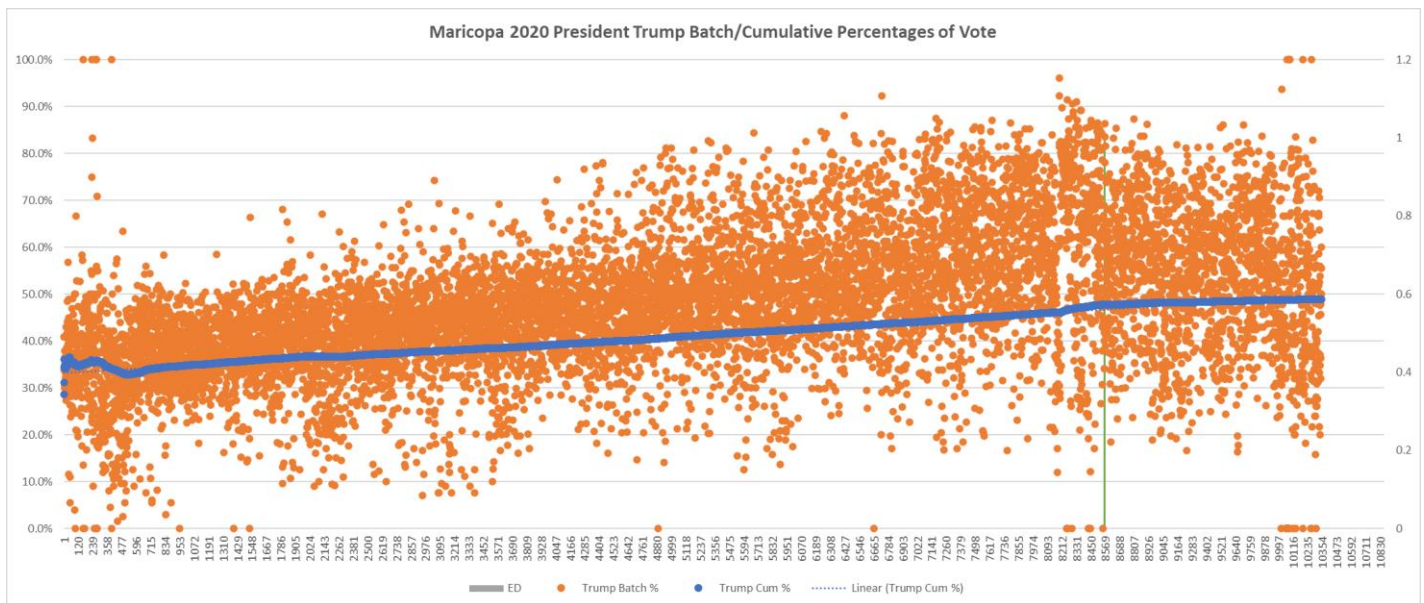
¹ <https://www.azcentral.com/picture-gallery/news/politics/elections/2020/03/16/photos-arizona-democratic-primary-election-march-2020/5064631002/>

batches. These spoiled batches account for over 400 ballots.

5. Presidential Results Anomaly

When plotting the percentage of votes received by President Trump and Joe Biden in order that the batches were processed, it shows an unnatural gradual increase from very pro-Biden results to very pro-Trump results. The resulting graph, which shows President Trump’s cumulative percentage in blue, demonstrates this finding. The orange dots show the percentage of votes for President Trump in each individual batch, which shows even more clearly the general and gradual rise in his percentage as the batches are processed. I have included a green vertical line to demarcate when election day vote counting started, which shows that this phenomenon was occurring before that point (after which the percentages level off).

This fits my published findings of the “Mesa Pattern”, which occurs nationally in almost every county where counting sequence can be established. For additional information, please see the “Fingerprints of Fraud” report.² To view this graph and its data please see tab “Trump Percentage By Batch” in the accompanying spreadsheet.



6. Unexpected Adjudication from Client computers

The Adjudication database tables define 20 computers with the names ADJCLIENT1 through ADJCLIENT20, and associated users named adjUser1 through adjUser20. (These can be viewed in the Adjudication database’s *BallotStatusEvents* table). However, some ballots were adjudicated by other systems, leading to the possibility that they were adjudicated outside of the normal, legal process.

The following is a table showing how many ballots were adjudicated by each user. It is important to determine the circumstances under which 18,339 total ballots were adjudicated on the “EMS” computers and usernames rather than the normal Adjudication computers and usernames.

² <https://fingerprintsoffraud.com>

Machine Name	Username	Ballots Adjudicated
ADJCLIENT01	adjuser01	13,138
ADJCLIENT02	adjuser02	7,885
ADJCLIENT03	adjuser03	16,436
ADJCLIENT04	adjuser04	8,015
ADJCLIENT05	adjuser05	8,911
ADJCLIENT06	adjuser06	14,599
ADJCLIENT07	adjuser07	10,850
ADJCLIENT08	adjuser08	8,834
ADJCLIENT09	adjuser09	11,827
ADJCLIENT10	adjuser10	8,493
ADJCLIENT11	adjuser11	11,574
ADJCLIENT12	adjuser12	11,258
ADJCLIENT13	adjuser13	8,640
ADJCLIENT14	adjuser14	9,989
ADJCLIENT15	adjuser15	10,636
ADJCLIENT16	adjuser16	13,054
ADJCLIENT17	adjuser17	14,738
ADJCLIENT18	adjuser18	9,011
ADJCLIENT19	adjuser19	9,785
ADJCLIENT20	adjuser20	9,955
EMSCLIENT01	emsadmin01	428
EMSCLIENT02	emsadmin02	29
EMSCLIENT03	emsadmin03	160
EMSCLIENT04	emsadmin04	10
EMSCLIENT02	emsuser02	5,633
EMSCLIENT03	emsuser03	3,908
EMSCLIENT04	emsuser04	8,171

CONCLUSION

Based upon these findings, my professional opinion is that the 2020 general election in Maricopa County, Arizona, shows signs of manipulation and error. The findings in this report should be cross-checked with contemporaneous records of the election personnel and the Windows log files of the election server. A deep analysis of the networking and router logs, the pre-election Logic and Accuracy test, and the Risk Limiting audit is called for if contemporaneous records exist.

ABOUT THE AUTHOR

Jeffrey O'Donnell is a computer systems expert and entrepreneur with over 40 years of industry experience. He has worked with companies such as Rockwell International, U.S. Steel, and Westinghouse Electric Nuclear division. Since 2021, he has performed in-depth analysis of election data systems across the country, including the first in-depth analysis of a Dominion Voting Systems database, in Mesa County, Colorado. He has since examined additional voting and registration data in multiple states, and has numerous reports based upon his findings.³

³ <https://votedatabase.com/MesaCountyReport3.pdf>