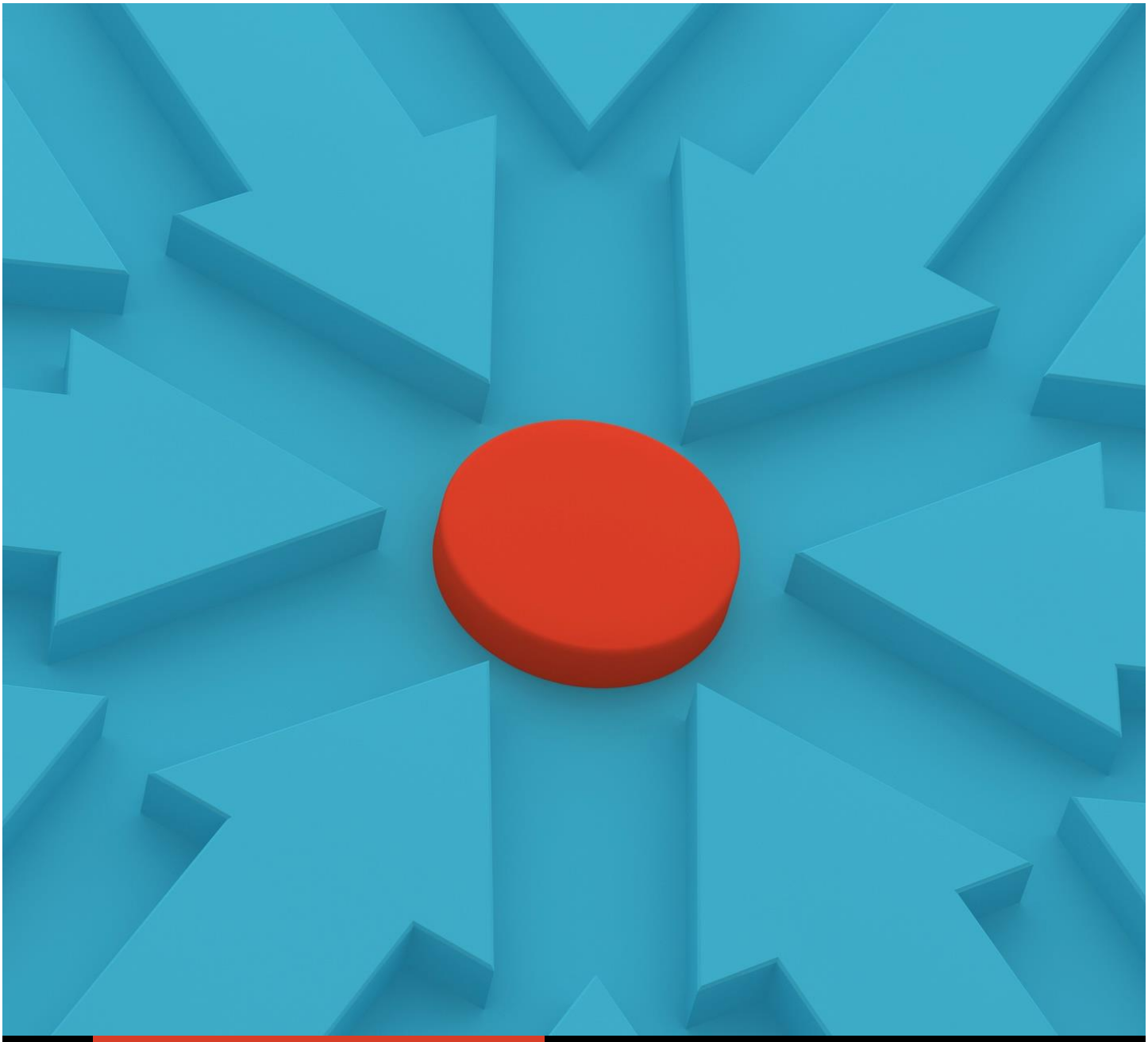

# MARICOPA COUNTY

## 2020 GENERAL ELECTION DATABASE ANALYSIS

May 3rd, 2024

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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.xslx”. 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. This was 4 days after the Maricopa Board of Supervisors authorized a forensic audit of the county's 2020 election. These lines from the Dominion Voting System 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 | 0x6166A73E5165E844EA8A384F35616CC848C0CBA784CC93340340C9ECEF986384 | John | Smith |
| MRO01 | 0x6166A73E5165E844EA8A384F35616CC848C0CBA784CC93340340C9ECEF986384 | MRO | M01 |
| ROAdmin | 0x6166A73E5165E844EA8A384F35616CC848C0CBA784CC93340340C9ECEF986384 | Return Office | Admin |
| SAdmin | 0x6166A73E5165E844EA8A384F35616CC848C0CBA784CC93340340C9ECEF986384 | MRESuper | Admin |
| Admin | 0x7058D7D8876F14228A213FBAED558E35B5770D6CBE6AEB7C21E2051BE5984C2B | Bruce | Hoenicke |
| RTRAdmin | 0x7058D7D8876F14228A213FBAED558E35B5770D6CBE6AEB7C21E2051BE5984C2B | | |

   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 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, and if he was aware of this fact he 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 | 0x6166A73E5165E844EA8A384F35616CC848C0CBA784CC93340340C9ECEF986384 | John | Smith |
| MRO01 | 0x6166A73E5165E844EA8A384F35616CC848C0CBA784CC93340340C9ECEF986384 | MRO | M01 |
| ROAdmin | 0x6166A73E5165E844EA8A384F35616CC848C0CBA784CC93340340C9ECEF986384 | Return Office | Admin |
| Admin | 0x7058D7D8876F14228A213FBAED558E35B5770D6CBE6AEB7C21E2051BE5984C2B | Bruce | Hoenicke |
| SAdmin | 0x6166A73E5165E844EA8A384F35616CC848C0CBA784CC93340340C9ECEF986384 | 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 reliably processed.

   The accompanying spreadsheet “Maricopa-Detail.xslx” lists information about every batch received by the system. Please see Appendix A for an explanation of the spreadsheet’s columns.

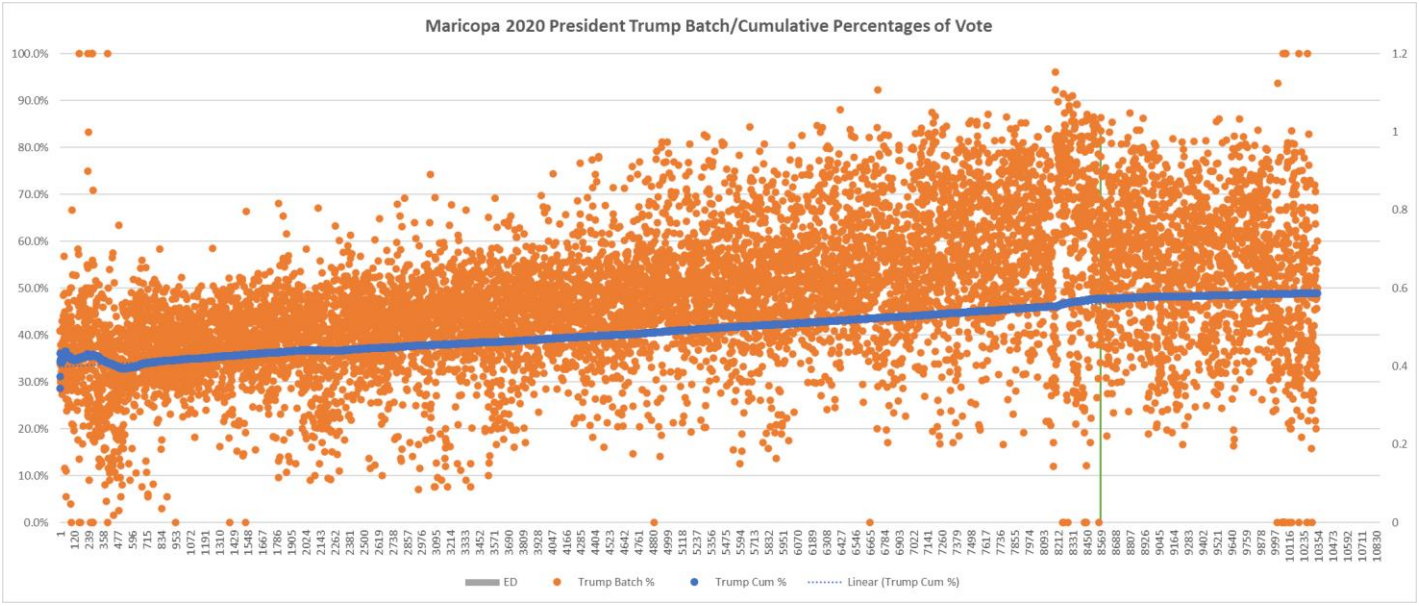
4. **Votes from Spoiled Batches**
The Adjudication database’s *batch* table shows three batches which are marked as “spoiled” (which is code 7). The three batches are tabulator 6035 - batch 11, tabulator 6032 – batch 9, and tabulator 3033 – batch 22. Votes were accepted in the main database for all three of these

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

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 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 deliberate manipulation. 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, if they exist. 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.

# APPENDIX A – SPREADSHEET COLUMNS

**Filename**
The original filename of the definition of the batch

**Tabulator ID**
The given ID of the tabulator ID which processed this batch of ballots

**Tabulator Name (Main DB)**
The name of the tabulator used to process this batch of ballots in the main election database

**Tabulator Name (Adj DB)**
The name of the tabulator used to process this batch of ballots in the adjudication database

**Type**
Type of ballot

**BatchID**
The Batch identifier

**BallotCount**
The number of ballots contained in this batch

**Votes (Pres)**
Votes for president in this batch

**Votes (T)**
Votes for President Trump in this batch

**Votes(B)**
Votes for Joe Biden in this batch

**T%**
Percentage of presidential votes for President Trump in this batch

**Order (Main dB)**
The order the batch was first encountered by the main database

**Order (Adj DB)**
The order the batch was first encountered by the adjudication database

**Timestamp (Main DB)**
The date and time of the batch in the main database

**Timestamp (Adj DB)**
The date and time of the batch in the adjudication database

**Batch Status**
The numeric batch status (3=accepted 7=rejected)

Lines which are shaded are of special note, especially the election day batches which show a 4 day lag between receipt and adjudication.

# 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