Report of Issues Discovered in Ohio's Voter Registration System

A distress call to Ohio's SoS to conduct emergency repairs on our voter registration database and preserve confidence in our elections.

Ohio Election Security Project

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Forward

Since shortly after the November 3rd, 2020, Presidential election there has been much uncertainty about the integrity of election systems across the county. Any credible person would admit that election fraud occurs, but the general belief has been that it is not on a large enough scale to affect the results of an election.

However, 2020 was different than most years. Besides the more typical reports of double counting and mysteriously discovered uncounted ballots, this time there were indications of problems on a much larger scale. National and local news media reported election night <u>pauses in vote counting</u>. Video sleuths presented images of newscast chyrons showing vote <u>counts being reversed</u>, and there were <u>reports of cyber intrusion</u> into the election infrastructure. Surveillance video showed <u>ballots that were hidden under tables</u> counted in the middle of the night after election observers were sent home. Thousands of persons filed sworn affidavits attesting to violations of election procedures.

More than a year later, the uncertainty about election integrity has not diminished. Many of us had taken our elections systems for granted, but one positive from the turmoil around 2020 is that we now realize just how important our election systems are. The entire foundation of American government depends on citizens choosing those who govern us through elections. There is no "government of the people, by the people, and for the people" without fair and honest elections. There is no consent of the governed. The integrity of election systems is critically important to the fabric of our free society.

From a purely financial perspective, at the federal level, the winners of elections control trillions of dollars, at the state level billions, and at the local level millions. Compare that to your bank account or credit card account. Shouldn't the systems that control elections be at least as, or more, secure than those accounts? A vending machine checks a dollar bill for authenticity before dispensing a soda. Shouldn't a ballot be protected from counterfeiting, and shouldn't a voting machine be required to check for an authentic ballot?

The power and control "We the People" grant to our authorities through the election process is worth safeguarding. Would you simply dismiss an erroneous bank statement because it was only a small amount or a credit card statement because only a small number of transactions were incorrect? Of course not. Likewise, we demand accuracy of our voter rolls. We don't dismiss small errors in critical election systems. Granted, human beings will make mistakes. That is all the more reason to have robust systems in place to catch and correct those errors and audits to ensure the process is working properly.

This report is based on the small portion of the voter registration databases shown to the public. The mistakes and questionable findings included in this report are significant. Imagine what a similar investigation into the entire system might reveal.

Finally, elections are complicated. Come election day things operate pretty well thanks to competent election officials and workers. We are not experts in elections. We rely on experience, intelligence, and advice from county boards of election when we can get it. We've tried to document the findings in this report in a manner that invites cross-checking. If we've reached an incorrect conclusion or made a mistake let us know, and we'll correct it. The goal of this report is simply to improve the quality of data in Ohio's voter registration systems.

EXECUTIVE SUMMARY

A group of Ohioans interested in preserving secure elections in our state has performed this evaluation of Ohio's statewide voter registration database. There is strong evidence of numerous irregularities and instances of election protocols not being followed during the November 2020 Presidential election. It is a matter of concern to all Ohioans because without honest elections there is no American republic.

Publicly available data from the <u>Ohio Secretary of State (SoS) website and the Statewide Voter File</u> was evaluated against rules in the Election Official Manual (EOM). In addition, tests that have proven to be issues in other states were performed on Ohio voter data. Many evaluations reference the November 2020 election because it is the most recent Presidential election and has a large number of recorded ballots to evaluate. The results focus on the state of affairs as they were at the end of November 2021.

This report does not question the outcome of any Ohio 2020 election. However, the discoveries disclosed in this report do support claims that ballots were cast in Ohio in November 2020 using non-valid voter registrations.

Summary of Principle Findings

- 11,333 voter records have names inconsistent with SoS data entry rules
- Obviously invalid names like ". Doc" and "SIR L" are registered and voted in the Nov 2020 Presidential election.
- 861 registered voters are either over 113 years old or have invalid birth dates
- Voters reported to be over 113 years old cast 154 ballots on Nov 3, 2020.
- Over 210,000 voter registrations occur on federal holidays when Boards of Election are closed and mail is not delivered.
- 223 registered voters were registered before their birth date. 171 of them voted on Nov 3, 2020
- 63,664 voters have an invalid registration date
- 14,268 likely duplicate registrations
- Numerous errors and inconsistency in mailing addresses could prevent voters from receiving election related information
- Numerous voters registered at college residences are improbably old to be valid registrations
- County voter registration databases have records not in the statewide database, the statewide database has records that are not in the county databases.
- Birth dates, which should be constant, changed between versions of the SWVF downloaded on different dates.

Suggested Actions

In the November 2020 Presidential election, more than 250,000 cast ballots are associated with these questionable voter registration records. Questionable records need to be investigated to determine if the registrations are legitimate and removed from the database if invalid. Investigations are necessary to determine how **persons with names such as "Gregory A 9801033",". DOC", "CY .", "SIR L"**, and many others are registered, and become active voters with votes cast under those registrations in the Nov 2020 Presidential election. Persons responsible for casting those votes and allowing those votes to be cast should be held accountable.

The official results from the Nov 2020 Presidential election indicate **66 precincts had over 90% turnout.** In the **2016** and **2012** Presidential elections the number of precincts with over **90% turnout was 7 and 13 respectively.** Precincts with abnormally high turnout should be audited. The SoS should take action to sequester and audit all election related materials from the November 2020 election prior to expiration of the 22-month federal holding period on September 2, 2022.

This review has discovered addresses that have many more voters than seems appropriate for the type of building. Registrations with college addresses should be reviewed and any voter with an age above a typical college student should be investigated and removed from the rolls if they can't be verified. Single family residential addresses with 5 or more voters and senior living centers with more registered voters than capacity are candidates for further investigation.

While the SoS has made attempts to clean the voter rolls, much more needs to be done. The law allows Ohio electors (registered voters) to challenge someone's right to vote or to request corrections to the voter rolls. The SoS has published Form 257 for that purpose. It is not practical for anyone to complete forms for all of the potential corrections or challenges that could be made in all of Ohio's counties. Instead, the SoS, or an independent auditor, should repeat the data analysis described in this report, and make the necessary corrections to both the statewide and county voter rolls. We offer our services to assist in that process and to independently verify the condition of the database.

Software and improved processes to prevent invalid entries are needed. Routine screens for invalid data need to be implemented to find and correct data entry errors promptly after they occur and prior to elections to ensure voter rolls are correct before voting begins.

Under ORC 3503.15(D)(5), Ohio law requires the SoS to establish a process to annually audit information in the statewide voter registration database. In response to public records requests the author submitted in October and November of 2021, the SoS was unable to produce any audit-related documents. Apparently, the required annual audit had never been conducted. On March 28, 2022 the SoS published Rule 111:3-4-05 in the Ohio Administrative Code pertaining to the annual audit. Under this rule the annual audit consists of the statewide voter registration database automatically requesting active and active-confirmation voter records from the county voter registration systems, automatically verifying data matches for records with the same state voter identification number. The statewide voter registration system will generate an email to notify county boards of any discrepancies. The rule specifies that "the system" conducts the audit, implying that no human need participate other than perhaps to initiate the automatic process. This simple matching of data falls fails to identify records that exist in county data but not state data and vice-verse. Furthermore, simple data matching does nothing to correct bad data. It merely verifies that both databases have the same data whether it is correct or not. Rule 111:3:4-05 is entirely inadequate.

This report is limited to only the publicly available data, which is a subset of the entire statewide voter registration database. Based on just this publicly available data, there are more than enough deficiencies to warrant a **comprehensive audit of the entire database** The audit should include cross-checks to other available databases such as Social Security records, the Ohio BMV, vital statics data from the Ohio Department of Health, and other databases with reliable directories of names, addresses, and birth dates. This being an election year with the SoS office up for re-election, **the Ohio General Assembly should independently commission this audit** to avoid any conflict of interest.

Ohio law establishes an Absent Voter's Ballot Application Mailing Fund and permits the SOS to send unsolicited applications for mail ballots. As noted in the <u>Carter-Baker Report</u>, mail ballots are much more prone to fraud than other ballots, and sending unsolicited applications exacerbates the problem. **The authorization to send unsolicited applications should be removed from the law.**

Names used for voter registration must be verifiable, but neither the SOS directives nor the voter registration form presents standards for use of formal names. The law should require that the name used to register to vote match exactly the name presented on the document used for voter identification. Nicknames and initials should be disallowed in the first, middle and last names.

In 2014, then Ohio SoS Jon Husted entered into a <u>settlement agreement</u> with Judicial Watch and True the Vote. In the settlement agreement, Husted agreed to a number of measures designed to remove duplicate, moved-out-of-state, and deceased voters from the rolls and to keep addresses updated. The agreement expired in 2018, and it appears there has been significant backsliding. **The General Assembly should incorporate the terms of the True the Vote/Judicial Watch v Husted agreement into law and specify penalties for non-conformance.**

IT systems, computer security, and databases are complicated. Election officials are not IT specialists, and we should not expect them to be. Electronic election systems are essentially a black box to elections officials. They interact with the user interface and reporting systems of the software. **Neither they, nor the public, has access to the computer program behind the user interface.** They rely on the recommendations of the Ohio Board of Voting Machine Examiners which is presently comprised entirely of selected county elections officials, not cyber security professionals. Elections are safeguarded largely by bipartisan oversight of all processes. **There is no bipartisan oversight when it comes to 3rd party IT vendors and system support.** A 3rd party IT administrator has total access and control over the system without the normal checks.

State and federal law stipulates that only citizens are eligible to vote. A registrant's personal declaration that they are a US Citizen is the only check on a voter's citizenship. While driver's license numbers and social security digits are requested during the registration process, they are not required to register to vote. A more robust verification process is needed to protect the rights and votes of legally registered persons.

Introduction

In Ohio, as in other states, the Secretary of State (SoS) is responsible for maintaining a statewide database of all registered voters. Among the election related duties, the Ohio legislature has directed the Secretary to conduct an annual audit of the State Wide Voter Registration Database. The Ohio Revised Code (ORC) section 3503.15(D)(5) states:

- (D) The secretary of state shall adopt rules pursuant to Chapter 119. of the Revised Code doing all of the following:
- (1) Specifying the manner in which existing voter registration records maintained by boards of elections shall be converted to electronic files for inclusion in the statewide voter registration database;
- (2) Establishing a uniform method for entering voter registration records into the statewide voter registration database on an expedited basis, but not less than once per day, if new registration information is received;
- (3) Establishing a uniform method for purging canceled voter registration records from the statewide voter registration database in accordance with section 3503.21 of the Revised Code;
- (4) Specifying the persons authorized to add, delete, modify, or print records contained in the statewide voter registration database and to make updates of that database;
- (5) Establishing a process for annually auditing the information contained in the statewide voter registration database;

As citizens concerned about the state of election systems, we submitted a formal records request under Ohio open records laws for copies of the 2019, 2020, and 2021 audit reports. On December 17, 2021 the Assistant Chief Legal Counsel for the Office of the Ohio Secretary of State replied "I have inquired within our office and determined that we do not maintain records responsive to your request." We made a follow-up request for the two most recent audit reports, to which we received the same reply.

Despite it being an annual legal responsibility of the Secretary of State, this undertaking is apparently the only assessment of the State Wide Voter Registration Database to have taken place in the last five years. It is being done with the information publicly available at the time of the investigation. The Secretary may possess additional information that would explain some issues raised in this report. Nevertheless, the publicly available data is our window into the operation of our government. If government officials choose not to reveal data to the public, perhaps for valid reasons, they then have the duty to fully explain the issues raised by examination of the available data.

As required by $\underline{ORC\ 3503.15}\ (G)(1)$, the State Wide Voter Registration Database is presented to the public from the Ohio Secretary of State website through $\underline{downloadable\ data\ files}$, aka the State Wide Voter File (SWVF).

ORC 3503.15 (G) (1) The statewide voter registration database established under this section shall be made available on a web site of the office of the secretary of state as follows:

(a) Except as otherwise provided in division (G)(1)(b) of this section, the following information from the statewide voter registration database regarding a registered voter shall be made available on the web site:

- (i) The voter's name;
- (ii) The voter's address;
- (iii) The voter's precinct number;
- (iv) The voter's voting history.

While not every element of data about a voter is available to the public, the SWVF datafiles do provide the voter's full name, residential address, mailing address, birth date, registration date, party affiliation, whether the voter is active or in the process of being confirmed, and voting history for the last 10 years.

Each Ohio county Board of Election (BOE) also maintains their own voter registration database. Similar to the files that can be downloaded from the SoS website, almost every county provides access to their database. In addition to the info provided in the state wide voter file, county voter files typically include a more detailed voter status, and the voting history includes the method used to vote (by mail, in person, early, or election day).

The SWVF is fed updates from each of Ohio's 88 counties. The county BOE systems are directly connected to the SoS database, and the databases are synchronized in near real-time. Thus, changes at the county level are transferred to the state level with very little delay. Ohio law, ORC 3503.15(D)(2), requires the Secretary to incorporate changes into the SWVF "not less than once per day" when new registration information is received. In a properly synchronized system, the county records in the SWVF and the county voter registration database are identical except for the updates that occur between data transfers.

The SoS posts updated SWVF files weekly. This review focuses primarily on a copy of the database downloaded from ohiosos.gov on 11/27/21. To evaluate the synchronization of county and state voter files, the voter files from several counties were also downloaded from their Board of Elections websites on 11/27/21.

As Ohio's Chief Elections Officer, the SoS issues directives to county Boards of Election. Those directives include an <u>Election Official Manual (EOM)</u>. We downloaded and used a February 2021 issue of the manual that was published on the ohiosos.gov website until a recent update. The EOM provides detailed instructions related to voter registration and data input into the SWVF as well as voting procedures and election processes.

Database software is required to evaluate the SWVF data. A typical file set is approximately 4GB in size and consists of approximately 8,000,000 records. For this evaluation SoS data files were loaded into a Microsoft SQL Server database. County voter files were either loaded into SQL Server or were reviewed using Microsoft Excel. Microsoft SQL Server databases are queried using Structured Query Language (SQL) statements. SQL statements, or workable facsimiles, are provided in the text to assist with independent review and verification of this report and to facilitate finding and correcting the deficiencies reported. Anyone attempting to replicate these results should remember that unless noted otherwise, the data set downloaded on 11/27/21 was used for this report. Different data sets will produce slightly different record counts, hopefully due to the Secretary of State's office diligently working to validate and correct voter registration data.

PART 1 – NAMES, DATES, AND ADDRESSES

NAME DATA INTEGRITY ISSUES

OH SOS dir2022-08, Chapter 4 of the EOM, specifies the following:

Pg 91, Data Entry Standards "County boards of elections must adhere to the data entry standards contained in this Section when entering information into the Statewide Voter Registration Database. Additionally, each board of elections must review its existing records in the SWVRD and make any and all changes necessary to comply with the data entry standards outlined in this Section. By having data in a standardized format, boards will be able to identify additional duplicate records and obtain more accurate results when searching for a voter's information in the SWVRD."

Invalid Characters in Names

The EOM continues ... "The following characters must never be entered into any name field: Accent Symbol: `Colon: : Parenthesis: () Question Mark: ? Apostrophe: 'Comma: , Percent Sign: % Quote Marks: " Asterisk: * Ellipsis: ... Period: . Semicolon: ; Bracket: [] Hyphen/Dash: - Pound Sign: # Slash: / \"

The following query produces 11,333 voter records with unallowed characters in the last name data field. 16 records have unpermitted punctuation marks, the remainder have improperly included <space> characters.

```
select SOS_VOTERID, COUNTY_NUMBER, LAST_NAME, FIRST_NAME, MIDDLE_NAME
from dbo.SWVF_112721
where LAST_NAME like '%[`:()''?,%"*.;-#/\]%' or Left([LAST_NAME],4) like '% %'
order by LAST_NAME
```

The following query produces 156 violations of the first name data integrity rules.

The table below lists voters with first names and one with a last name that consists solely of a punctuation mark. Only one of these voters has been flagged as questionable. The others have "Active" status, and 11 of them <u>voted</u> in the last Presidential election.

SOS_VOTERID	COUNTY	LAST_NAME	FIRST_NAME	MIDDLE_NAME	VOTER_STATUS	GENERAL_11_03_2020
	NUMBER					
OH0019163217	82		CY		ACTIVE	Х
OH0012310651	22	ANNALEE			ACTIVE	Х
OH0022596177	47	THREE EAGLE CLOUD			ACTIVE	Х
OH0015297608	18	IMANI			ACTIVE	Х
OH0019300264	47	SUNDANCE			ACTIVE	
OH0019300249	47	CAROLANNE			ACTIVE	Х
OH0025920018	67	GURPREET			CONFIRMATION	
OH0012273208	57	BARBARAO			ACTIVE	Х
OH0019761323	29	RAKSHA			ACTIVE	Х
OH0018734918	46	BLUESILVER			ACTIVE	Х
OH0023074672	57	DOC			ACTIVE	Х
OH0011948612	47	LILY			ACTIVE	Х
OH0019541736	71	KARENKA			ACTIVE	X

Note: The SWVF uses an "X" in an election data column to signify a ballot was cast by a voter in that election. A voter with "CONFIRMATION" status is undergoing a confirmation process to verify registration information. The SOS_VOTERID is a number that uniquely identifies a particular registered voter.

The following query produces 417 instances where, per the SOS guidelines, invalid characters exist in middle names.

```
select SOS_VOTERID, COUNTY_NUMBER, LAST_NAME, FIRST_NAME, MIDDLE_NAME
from dbo.SWVF_112721
where MIDDLE_NAME like '%[`:()''?,%"*.;-#/\]%'
```

Improper Entry of Last Names and Suffixes

The EOM states the following on Pg 93 under the "Last Name Field" section: "If a voter has a multi-syllable last name with a space or spaces between the syllables, enter the name and omit the space(s) between syllables. For example, the names: MC DONALD, DE LA ROSA, and VAN HUSEN should be entered into the last name field as: MCDONALD, DELAROSA, and VANHUESEN. If a voter has a hyphen in their last name, do not enter the name using a hyphen into the last name field. Instead, use a space to separate two last names."

The following query checks for violations of the SoS rule related to multi-syllable last names.

```
select SOS_VOTERID, COUNTY_NUMBER, LAST_NAME, FIRST_NAME, MIDDLE_NAME
from dbo.SWVF_112721
where LAST_NAME like 'MC %'
order by LAST_NAME
```

229 records have a last name beginning MC<space> in violation of the SOS name entry guidelines.

31 records have a last name beginning MAC<space>

2915 records a have last name beginning VAN<space>

308 records a have last name beginning O<space>

1020 records a have last name beginning DE<space>

In addition.

- 9 records contain the suffix III included in the last name field, which is contrary to SOS guidelines.
- 7 records contain the suffix II included in the last name field, which is contrary to SOS guidelines.
- 9 records contain the suffix JR included in the last name field, which is contrary to SOS guidelines.
- 5 records contain the suffix SR included in the last name field, which is contrary to SOS guidelines.

Pg 93 of the EOM includes the following instructions for entering name suffixes:

"Below is a list of valid suffixes. You should enter only the abbreviation for the suffix. When entering: 'The Second', 'The Third', etc., you should use a capital "I" and not the number "1".

Suffixes Abbreviation

Junior Jr
Senior Sr
The Second II
The Third III
The Fourth IV
The Fifth V
The Sixth VI

Do not enter professional designations, such as "Esq." or PhD," in the suffix field."

The following query examines suffixes that exist in the SWVF.

The table below lists suffix entries that are not permitted.

. 2 \\ 1 \\ 1 \) 1 \) 1 \) 1 \) 01	SUFFIX	OCCURRENCES
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		2
01	\	1
0314 1 05 1 06 1 08 1 11 1 1 111 5 2ND 2 3 1 3RD 2 4TH 2 6601 1 A 10 ANDR 1 ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	`	1
05	01	1
06 1 08 1 11 1 1 111 5 2ND 2 3 1 3RD 2 4TH 2 6601 1 A 10 ANDR 1 ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	0314	1
08 1 11 1 111 5 2ND 2 3 1 3RD 2 4TH 2 6601 1 A 10 ANDR 1 ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	05	1
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	06	1
111 5 2ND 2 3 1 3RD 2 4TH 2 6601 1 A 10 ANDR 1 ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	08	1
2ND 2 3 1 3RD 2 4TH 2 6601 1 A 10 ANDR 1 ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	11	1
3 1 3RD 2 4TH 2 6601 1 A 10 ANDR 1 ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	111	
3RD 2 4TH 2 6601 1 A 10 ANDR 1 ANN 2 B 1 C 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	2ND	2
### ### ### ### ### ### ### ### ### ##	3	1
6601 1 A 10 ANDR 1 ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	3RD	
A 10 ANDR 1 ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	4TH	2
ANDR 1 ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	6601	1
ANN 2 B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	Α	10
B 1 C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	ANDR	1
C 1 CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	ANN	2
CJ 1 D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	В	1
D 2 DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1		
DC 3 DDS 1 DEAN 1 DO 3 DR 5 DVM 1	CI	1
DDS 1 DEAN 1 DO 3 DR 5 DVM 1		
DEAN 1 DO 3 DR 5 DVM 1	DC	3
DO 3 DR 5 DVM 1		_
DR 5 DVM 1	DEAN	1
DVM 1		
D1444 = 4		1
DWAE 1	DWAE	1
E 3	E	3
EJ 1	EJ	
ESQ 2	ESQ	2

SUFFIX	OCCURRENCES
F	1
FR	1
G	3
GB	1
Н	1
1	954
IX	3
J	11
JACK	1
JE	1
JESS	1
JR.	9
L	7
LAMT	1
LEE	1
LL	4
LLL	1
LOUE	1
LPN	1
М	8
MAE	1
MANL	1
MARE	1
MD	2
MR	8
MRS	5
MS	10
N	1
OLIA	1
PHYS	1
Q	2
R	5

SUFFIX	OCCURRENCES
REV	2
RN	1
ROSE	1
S	4
SINH	1
SR.	2
T	1
THOS	1
VII	9
VIII	8
Х	1
XAVR	1
XI	3
XII	1

When only certain values are permitted in a data field, it is standard practice to limit the data entry possibilities to only the allowed values. The unallowed values in the NAME and SUFFIX fields indicate that standard data validation practices and data scans to identify and correct data entry errors are not being conducted.

Non-Alphabet Characters in Names

The query below extends the one above by looking for any non-alphabetic characters in the voter's first, middle, or last names. 2,487 voter records are identified with non-alphabetic characters besides a space character.

```
select SOS_VOTERID, b.[County Name], LAST_NAME, FIRST_NAME, MIDDLE_NAME,
    RESIDENTIAL_ADDRESS1 + ', ' + RESIDENTIAL_CITY + ', OH ' + RESIDENTIAL_ZIP
    as Full_Address, DATE_OF_BIRTH, REGISTRATION_DATE, VOTER_STATUS,
    GENERAL_11_03_2020
from dbo.SWVF_112721 a inner join OH_Counties b on a.COUNTY_NUMBER=b.County_Number
where LAST_NAME like '%[^a-zA-Z ]%' or FIRST_NAME like '%[^a-zA-Z ]%' or
    MIDDLE_NAME like '%[^a-zA-Z ]%'
order by LAST_NAME
```

Most of these issues are hyphenated names, names with accent marks, and names with periods behind initials that were identified in the previous queries. However, some names consisting of numbers are revealed by this query. The table below lists some obviously erroneous entries. More disturbing is that these most of these erroneous records are flagged as active voters with cast ballots in the Nov 2020 Presidential election.

SOS_VOTERID	County Name	LAST NAME	FIRST NAME	MIDDL E NAME	VOTER STATUS	GENERAL Nov 2020
OH0010048962	Clark	12255110	12255110		CONFIRMATION	Х
OH0010265624	Logan	SIMOVART	7	SCOTT	ACTIVE	Х
OH0019163217	Vinton		CY		ACTIVE	Х
OH0010048962	Clark	12255110	12255110		CONFIRMATION	Х
OH0011061958	Ross	9801033	GREGORY	Α	ACTIVE	Х
OH0026195572	Shelby	99999	REGISTRATION		ACTIVE	

The following query identifies 16 records with either a leading or trailing <space> character, for example "Smith" vs "Smith", which a computer sees as a distinct entry, but a human will not.

Abnormal Names – Likely Data Entry Errors

The following query identifies 27 active voter records with only a single digit last name.

```
select SOS_VOTERID, COUNTY_NUMBER, LAST_NAME, FIRST_NAME, MIDDLE_NAME from dbo.SWVF where LAST_NAME like '[A-Z]' and VOTER_STATUS like 'ACTIVE' order by LAST_NAME
```

The following query identifies 73 active voters (96 registered) with unusually short names with a combined length of first, middle, and last names less than 5 characters.

```
select SOS_VOTERID, COUNTY_NUMBER, LAST_NAME, FIRST_NAME, MIDDLE_NAME,
    RESIDENTIAL_ADDRESS1 + ', ' + RESIDENTIAL_CITY + ',OH ' + RESIDENTIAL_ZIP
    as FullAddress, GENERAL_11_03_2020, GENERAL_11_02_2021
from dbo.SWVF_112721
where (len(LAST_NAME) + len(FIRST_NAME) + len(MIDDLE_NAME)) < 5 and VOTER_STATUS
    like 'ACTIVE'</pre>
```

Many of these may be valid registered voters, but names like ". DOC", "CY .", and "SIR L" clearly are not.

The following query looks for last names with no vowels. Names with no vowels may be valid, but many invalid entries appear. Invalid entries make it impossible for elections workers to positively identify a voter is registered.

The query produces 321 voter records that have last names with no vowels. The table below highlights some records with invalid data or data that is highly likely to be invalid. Again, many of these voters have active status and voted in the Nov 2020 Presidential election.

SOS_VOTERID	County Name	LAST NAME	FIRST NAME	MIDDLE NAME	Full Address	VOTER_STATUS	GENERAL 11_03_2020
ОН0019163217	Vinton		<mark>CY</mark>		35863 HUSTON RD, RADCLIFF, OH 45695	ACTIVE	X
ОН0010048962	Clark	12255110	<mark>12255110</mark>		1859 FOX RIDGE DR, SPRINGFIELD, OH 45503	CONFIRMATION	Х
OH0011061958	Ross	9801033	GREGORY	А	36 BOWMAN RD, CHILLICOTHE, OH 45601	ACTIVE	X
ОН0026195572	Shelby	<mark>99999</mark>	REGISTRATION		1 INVALID ADDRESS, NONE, OH 00000	ACTIVE	
OH0025005423	Franklin	BK	NIRMALA		4662 TAMARACK BLVD, COLUMBUS, OH 43229	ACTIVE	X
ОН0026199119	Wood	C	MARTIN		365 COMMODORE WAY, PERRYSBURG, OH 43551	ACTIVE	
ОН0020361475	Ashtabula	CZ	KRISTIN	М	498 E RIVERVIEW DR, AUSTINBURG, OH 44010	ACTIVE	X
ОН0026276317	Butler	D	JAMES	STAUBACH	640 MCGUFFEY AVE, OXFORD, OH 45056	ACTIVE	
OH0018408626	Mahoning	DG	SANDRA	L	3925 NEW CASTLE RD, LOWELLVILLE, OH 44436	ACTIVE	Х
ОН0026038503	Stark	H	DAVID	BRIAN	16566 LOUISVILLE ST NE, HOMEWORTH, OH 44634	ACTIVE	X
ОН0023330911	Franklin	HSN	PETER	J	196 W ELEVENTH AVE, COLUMBUS, OH 43210	CONFIRMATION	
OH0024410231	Wood	J.	OVERTURF	BAILEY	1082 FAIRVIEW AVE, BOWLING GREEN, OH 43402	CONFIRMATION	
ОН0025243798	Clermont	J	HOLMES	INGEBRITT	4157 FOX RUN TRL, CINCINNATI, OH 45255	CONFIRMATION	

SOS_VOTERID	County Name	LAST NAME	FIRST NAME	MIDDLE NAME	Full Address	VOTER_STATUS	GENERAL 11_03_2020
ОН0019748350	Lucas	KC	KELLY	ANN	2029 STONEHAM RD, TOLEDO, OH 43615	CONFIRMATION	
ОН0024369655	Butler	КВ	KALPANA		971 BISHOP AVE, HAMILTON, OH 45015	ACTIVE	Х
OH0025005531	Franklin	КС	RAJ		4662 TAMARACK BLVD, COLUMBUS, OH 43229	ACTIVE	Х
OH0023819708	Franklin	КС	ARJUN	BAHADUR	7023 HUMMOCK POND, REYNOLDSBURG, OH 43068	CONFIRMATION	
ОН0026169229	Butler	KC	SAGUNA	SK	3172 DREW DR, HAMILTON, OH 45011	ACTIVE	
ОН0025246136	Cuyahoga	KC	RITESH		2849 VAN AKEN BLVD, CLEVELAND, OH 44120	ACTIVE	Х
ОН0025163916	Franklin	KC	NABIN		393 LAZELLE RD, WESTERVILLE, OH 43081	ACTIVE	Х
OH0025891412	Butler	КС	JITENDRA		9522 NATHANIAL LN, FAIRFIELD, OH 45014	ACTIVE	Х
ОН0025036493	Cuyahoga	КС	SATISH		13792 TRENTON OVAL, STRONGSVILLE, OH 44136	ACTIVE	X
ОН0026218374	Fairfield	КС	CHIRAN	К	7236 STONEFALL CT, REYNOLDSBURG, OH 43068	ACTIVE	
ОН0023486123	Pickaway	KRC	PEGGY	L	1709 MIAMI TRL, CIRCLEVILLE, OH 43113	ACTIVE	Х
ОН0026256006	Hancock	L	CARR	HAYLEY	309 W BIGELOW AVE, FINDLAY, OH 45840	CONFIRMATION	
OH0023423648	Hamilton	L	SIR		716 GHOLSON AVE, CINCINNATI, OH 45229	ACTIVE	Х
OH0018829770	Delaware	LTHRM	NADIA	RAGAB	2969 LAURA PL, LEWIS CENTER, OH 43035	ACTIVE	X
OH0024089213	Clark	M	SARAH	L	209 DEERFIELD DR, NEW CARLISLE, OH 45344	CONFIRMATION	
ОН0024436415	Warren	M	JOAN		727 DOGWOOD CT, LEBANON, OH 45036	ACTIVE	Х
ОН0025980480	Butler	M	<u>CHOUWAN</u>	MAN	6366 JAMESFIELD CT, FAIRFIELD, OH 45014	ACTIVE	Х
OH0015031368	Cuyahoga	Q	RUTH	ERNEST	5500 SOUTH BLVD, MAPLE HTS, OH 44137	ACTIVE	X
OH0023862321	Hamilton	R	PHILLIPS		2612 STANTON AVE, CINCINNATI, OH 45206	CONFIRMATION	
OH0013512635	Butler	S	DAVID	L	1883 BLACK RD, HAMILTON, OH 45013	ACTIVE	Х
OH0021589853	Cuyahoga	S	ANDRE	WOOD	125 E 156TH ST, CLEVELAND, OH 44110	ACTIVE	Х
OH0014613197	Cuyahoga	SMRT	LOIS	J	9411 W MORELAND RD, PARMA, OH 44129	ACTIVE	Х
OH0026237968	Cuyahoga	SMRZ	STACY	ANN	27660 SERVICEBERRY CT, WESTLAKE, OH 44145	ACTIVE	Х
OH0015249165	Cuyahoga	SMTH	TIMOTHY	E	14401 DETROIT AVE, LAKEWOOD, OH 44107	ACTIVE	
OH0024081286	Hamilton	SMTH	TOMMY		2709 HILLVISTA LN, CINCINNATI, OH 45239	ACTIVE	Х
ОН0025941175	Butler	SRB	JOHN	ALEXANDER	5588 AZALEA WAY, WEST CHESTER, OH 45069	ACTIVE	X
OH0022471610	Butler	THDND	GURPREET	SINGH	7785 ROCK PORT WAY, WEST CHESTER, OH 45069	ACTIVE	Х

SOS_VOTERID	County Name	LAST NAME	FIRST NAME	MIDDLE NAME	Full Address	VOTER_STATUS	GENERAL 11_03_2020
OH0026250324	Jackson	TRTTN	NINA		247 S DAVID AVE, JACKSON, OH 45640	CONFIRMATION	
OH0025305180	Perry	TVRZ	NATHANIAL	JAMES	7123 BOUNDARIES RD, THORNVILLE, OH 43076	CONFIRMATION	
OH0013645608	Hamilton	X	VERLINZA	ANN	1636 CALIFORNIA AVE, CINCINNATI, OH 45237	ACTIVE	Х
OH0022747098	Franklin	X	DALJI	IMARA	1190 STUDER AVE, COLUMBUS, OH 43206	ACTIVE	
OH0022619374	Stark	X	AKENRA		450 MAPLEWOOD DR, ALLIANCE, OH 44601	ACTIVE	X
OH0023503142	Franklin	X	MAKEDA	Т	1190 STUDER AVE, COLUMBUS, OH 43206	ACTIVE	Х
OH0025066433	Cuyahoga	X	DONALD		16211 S LOTUS DR, CLEVELAND, OH 44128	ACTIVE	
OH0022255102	Franklin	X	KRISTIN	ANNE	879 E DUBLIN GRANVILLE RD, COLUMBUS, OH 43229	ACTIVE	
ОН0023069799	Stark	X	TRISHA	A	450 MAPLEWOOD DR, ALLIANCE, OH 44601	ACTIVE	X
ОН0013930588	Hamilton	X	LEAH		4025 PADDOCK RD, CINCINNATI, OH 45229	ACTIVE	Х
OH0022940369	Hamilton	X	NAJAH		3305 BRODBECK PL, CINCINNATI, OH 45211	ACTIVE	X
OH0022876229	Stark	X	GEMINI		1227 WERTZ AVE SW, CANTON, OH 44710	ACTIVE	Х
OH0023682215	Franklin	X	ZOWIE	FERAL	5816 CHATFORD DR, COLUMBUS, OH 43232	ACTIVE	
OH0020242805	Greene	X	SCHIRZAR		842 CHAPELGATE DR, FAIRBORN, OH 45324	ACTIVE	Х
OH0024488720	Stark	XX	TAKARA		700 MCKINLEY AVE NW, CANTON, OH 44703	CONFIRMATION	

Conclusions

The data integrity rules exist to prevent duplicate registrations due to variations in how names are entered into the database. The number and variety of errors within the first, middle, and last name fields show an overall lack of integrity in the statewide voter files. The data demonstrate that there is little control over data entry and that simple, routine, and obvious quality checks are not being performed. Many obvious errors exist, which makes it likely that many of the suspect entries are also errors. Questionable names need to be investigated to determine if the registrations are legitimate and removed from the database if invalid. Investigations are necessary to determine how persons with names such as Gregory A 9801033, <period> DOC, CY <period>, SIR L, and many others are registered, and become active voters with votes cast under those registrations in the Nov 2020 Presidential election. Persons responsible for casting those votes and allowing those votes to be cast should be held accountable. Software to prevent invalid entries needs to be implemented. The Secretary of State must conduct the annual audit of the statewide voter registration database that is required by law because routine checks and maintenance activities are not flagging these problems.

DATE INTEGRITY ISSUES

BACKGROUND

Section 4.04 of the EOM states the following with respect to dates:

Page 85: "An applicant must provide their date of birth on the application."

Page 86:"In entering a registration date into the voter registration system, a person is not considered to be registered until the valid voter registration form has been received, which may or may not be the same as the date the applicant completed or signed the form."

In addition, we can also infer:

- 1) Persons must be 18 years of age prior to any general election.
- 2) Registration dates should be no sooner than 17 years after a birth date.
- 3) Registration dates should be no closer than 30 days before an election if that person is to vote in the upcoming election.
- 4) Government offices, including Boards of Election and the US Postal Service, are not open for business and do not process voter registrations on holidays. (Online registrations in Ohio only became available beginning in 2017; this is address later).

Several queries were run against the Statewide Voter File to identify potential issues involving registration dates and dates of birth of registered voters.

Invalid Date of Birth

The EOM, Chapter 3, section 1.04 states that to be registered to vote "an applicant must provide a date of birth on their application". Therefore, any voter registration record with an invalid date or empty date of birth field is an invalid registration that should be rejected.

The following query searches for invalid birth dates.

796 voters have a birth date of 1/1/1900 or earlier, 180 of whom have active status and 127 of whom voted in the 11/3/20 election.

Really Old Voters

According to CNN, the oldest person in the US as of April 2021 was 114 years old. Any registered voters older than that are likely deceased.

The following query, which excludes obviously invalid birth dates, was run to determine whether any registered voters were 114 years old and older, the age of the oldest American according to CNN.

The table below lists the results of the query. 68 voters who are at least 114 years old are registered and 25 of them voted in the Nov 2020 Presidential election. Based on the data presented in the statewide voter registration database, we can be certain that dead people voted in Ohio in the Nov 2020 Presidential election.

Age	Voters	Nov 2020
		Voters
114	3	0
115	6	4
116	5	1
117	4	2
118	4	1
119	1	0
120	23	10
121	19	5
122	2	2
135	1	0

Voted Before Birth

The following query identifies 5 voters that **voted before they were born**:

```
select SOS VOTERID, b.[County Name], VOTER STATUS, DATE OF BIRTH,
      REGISTRATION_DATE
       , GENERAL_11_07_2000, GENERAL_11_06_2001, GENERAL_11_05_2002,
      GENERAL 11 04 2003
       , GENERAL 11 02 2004, GENERAL 11 08 2005, GENERAL 11 07 2006,
      GENERAL 11 06 2007
       , GENERAL_11_04_2008, GENERAL_11_03_2009, GENERAL_11_02_2010,
      GENERAL_11_08_2011
       , GENERAL_11_06_2012, GENERAL_11_05_2013, GENERAL_11_04_2014,
      GENERAL_11_03_2015
from dbo.SWVF_112721 a inner join dbo.OH_Counties b on
       a.COUNTY_NUMBER=b.County_Number
(DATE OF BIRTH > '11-02-2010' and GENERAL 11 02 2010 like 'X')
or (DATE_OF_BIRTH > '11-02-2004' and GENERAL_11_02_2004 like 'X')
or (DATE OF BIRTH > '11-03-2009' and GENERAL 11 03 2009 like 'X')
or (DATE OF BIRTH > '11-03-2015' and GENERAL 11 03 2015 like 'X')
or (DATE OF BIRTH > '11-03-2020' and GENERAL_11_03_2020 like 'X')
or (DATE_OF_BIRTH > '11-04-2003' and GENERAL_11_04_2003 like 'X')
or (DATE_OF_BIRTH > '11-04-2008' and GENERAL_11_04_2008 like 'X')
or (DATE_OF_BIRTH > '11-04-2014' and GENERAL_11_04_2014 like 'X')
or (DATE OF BIRTH > '11-05-2002' and GENERAL 11 05 2002 like 'X')
or (DATE OF BIRTH > '11-05-2013' and GENERAL 11 05 2013 like 'X')
or (DATE OF BIRTH > '11-05-2019' and GENERAL 11 05 2019 like 'X')
or (DATE OF BIRTH > '11-06-2001' and GENERAL 11 06 2001 like 'X')
or (DATE_OF_BIRTH > '11-06-2007' and GENERAL_11_06_2007 like 'X')
```

```
or (DATE_OF_BIRTH > '11-06-2012' and GENERAL_11_06_2012 like 'X') or (DATE_OF_BIRTH > '11-06-2018' and GENERAL_11_06_2018 like 'X') or (DATE_OF_BIRTH > '11-07-2000' and GENERAL_11_07_2000 like 'X') or (DATE_OF_BIRTH > '11-07-2006' and GENERAL_11_07_2006 like 'X') or (DATE_OF_BIRTH > '11-07-2017' and GENERAL_11_07_2017 like 'X') or (DATE_OF_BIRTH > '11-08-2005' and GENERAL_11_08_2005 like 'X') or (DATE_OF_BIRTH > '11-08-2011' and GENERAL_11_08_2011 like 'X') or (DATE_OF_BIRTH > '11-08-2011' and GENERAL_11_08_2011 like 'X')
```

SOS_VOTERID	County Name	VOTER_STATUS	DATE_OF_BIRTH	REGISTRATION_DATE	GENERAL_11_07_2000
OH0025106854	Ashland	ACTIVE	<mark>2001-06-06</mark>	2019-05-30	X
OH0025535711	Hamilton	ACTIVE	<mark>2001-04-25</mark>	2020-04-27	X
ОН0025393803	Lorain	ACTIVE	<mark>2001-03-15</mark>	2020-02-06	X
OH0025734466	Clermont	ACTIVE	<mark>2001-01-03</mark>	2020-08-06	X
OH0025711911	Clermont	ACTIVE	2001-06-29	2020-09-20	X

Voted Prior to 18th Birthday

The following query identifies 724 voters that voted in a general election prior to their 18th birthday.

```
select SOS_VOTERID, COUNTY_NUMBER, VOTER_STATUS, DATE_OF_BIRTH,
      Dateadd(year,18,DATE_OF_BIRTH) as DateOf18thBDAY, REGISTRATION_DATE
       , GENERAL 11 07 2000, GENERAL 11 06 2001, GENERAL 11 05 2002,
      GENERAL 11 04 2003
       , GENERAL_11_02_2004, GENERAL_11_08_2005, GENERAL_11_07_2006,
      GENERAL_11_06_2007
       , GENERAL_11_04_2008, GENERAL_11_03_2009, GENERAL_11_02_2010,
      GENERAL 11 08 2011
       , GENERAL_11_06_2012, GENERAL_11_05_2013, GENERAL_11_04_2014,
      GENERAL_11_03_2015
       , GENERAL_11_08_2016, GENERAL_11_07_2017, GENERAL 11 06 2018,
      GENERAL_11_05_2019, GENERAL_11_03_2020
from dbo.SWVF 112721
where
(Dateadd(year,18,DATE_OF_BIRTH) > '11-02-2010' and GENERAL_11_02_2010 like 'X')
or (Dateadd(year,18,DATE OF BIRTH) > '11-02-2004' and GENERAL 11 02 2004 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-03-2009' and GENERAL_11_03_2009 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-03-2015' and GENERAL_11_03_2015 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-03-2020' and GENERAL_11_03_2020 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-04-2003' and GENERAL_11_04_2003 like 'X')
or (Dateadd(year,18,DATE OF BIRTH) > '11-04-2008' and GENERAL 11 04 2008 like 'X')
or (Dateadd(year, 18, DATE OF BIRTH) > '11-04-2014' and GENERAL 11 04 2014 like 'X')
or (Dateadd(year,18,DATE OF BIRTH) > '11-05-2002' and GENERAL 11 05 2002 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-05-2013' and GENERAL 11 05 2013 like 'X')
or (Dateadd(year, 18, DATE_OF_BIRTH) > '11-05-2019' and GENERAL_11_05_2019 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-06-2001' and GENERAL_11_06_2001 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-06-2007' and GENERAL_11_06_2007 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-06-2012' and GENERAL_11_06_2012 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-06-2018' and GENERAL_11_06_2018 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-07-2000' and GENERAL_11_07_2000 like 'X')
or (Dateadd(year,18,DATE OF BIRTH) > '11-07-2006' and GENERAL 11 07 2006 like 'X')
or (Dateadd(year,18,DATE OF BIRTH) > '11-07-2017' and GENERAL 11 07 2017 like 'X')
or (Dateadd(year,18,DATE_OF_BIRTH) > '11-08-2005' and GENERAL_11_08_2005 like 'X')
or (Dateadd(year,18,DATE OF BIRTH) > '11-08-2011' and GENERAL 11 08 2011 like 'X')
or (Dateadd(year,18,DATE OF BIRTH) > '11-08-2016' and GENERAL 11 08 2016 like 'X')
```

The table below is a partial listing of those records.

SOS VOTERID	DATE OF BIRTH	Date Of 18 th BDAY	REGISTRATION DATE	GENERAL 11_07_2000	GENERAL 11_06_2001	GENERAL 11_05_2002	GENERAL 11_04_2003	GENERAL 11_02_2004
OH0024433588	1995-02-24	<mark>2013-02-24</mark>	2017-10-20	<mark>X</mark>		X		X
OH0026086209	1989-06-16	<mark>2007-06-16</mark>	2020-11-23	X	×	X		
OH0011716813	1991-02-21	<mark>2009-02-21</mark>	2014-07-11					X
OH0015174923	1987-06-04	<mark>2005-06-04</mark>	2013-09-03	X	X	X		
OH0025734466	2001-01-03	<mark>2019-01-03</mark>	2020-08-06	X	X			X
OH0016304182	1989-10-30	<mark>2007-10-30</mark>	2002-07-15				X	X
OH0022452171	1993-05-07	<mark>2011-05-07</mark>	2013-06-25	X		X	X	X
OH0023700783	1989-09-26	<mark>2007-09-26</mark>	2017-10-06	X	X	X		

Invalid Registration Dates

The following query tests for invalid voter registration dates.

63,664 voters have an invalid registration date of 1/1/1900. 61,453 have active status, and 59,533 voted in the 11/3/20 election. 1/1/1900 appears to be a default date when no date is entered into the SWVF. Nevertheless, all voters have submitted voter registration forms, which must be on file in the county of residence. The registration date for these voters can be easily researched and corrected. If the voter's registration documentation cannot be validated the registration should be canceled.

Registered on a Holiday

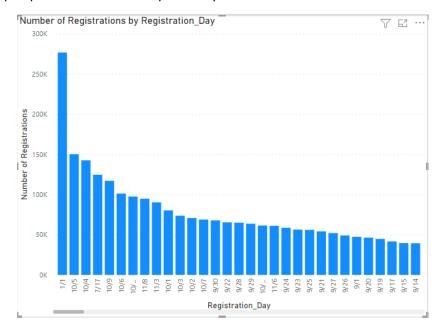
Boards of Election are not open for business, and the US Postal Service does not operate on federal holidays. Yet, many voter registrations are dated on holidays. Ohio established online voter registration on January 1, 2017. If the date of an online entry is used as the registration date, it might explain some holiday registrations.

The following query, which excludes obviously invalid registration dates, identifies voters with voter registrations posted as January 1 prior to 2017.

```
select REGISTRATION_DATE, PARTY_AFFILIATION, SOS_VOTERID, COUNTY_ID,
      [County Name], VOTER_STATUS, GENERAL_11_03_2020
from dbo.SWVF_112721 a inner join dbo.OH_Counties b on
      a.COUNTY_NUMBER=b.County_Number
where MONTH(REGISTRATION_DATE)=1 and Day(REGISTRATION_DATE)=1 and VOTER_STATUS
      like 'ACTIVE%' and GENERAL_11_03_2020 like 'X'
      and REGISTRATION_DATE < '2017-01-01' and REGISTRATION_DATE <> '1900-01-01'
order by REGISTRATION_DATE desc
```

Excluding potential online registrations, the query produces 210,004 voter registrations with the registration date of January 1 in various years. 195,652 are active voters and **189,568 voted on 11/3/2020**. Who would have guessed that in Ohio registering to vote is such a popular way to ring in the New Year? These results are curious because government offices are closed on January 1, and experience tells us that while registering to vote might be a good resolution, most people are doing

other things on New Year's Day. The following chart shows the number of voter registrations that occur on January 1 in perspective with other days of the year.

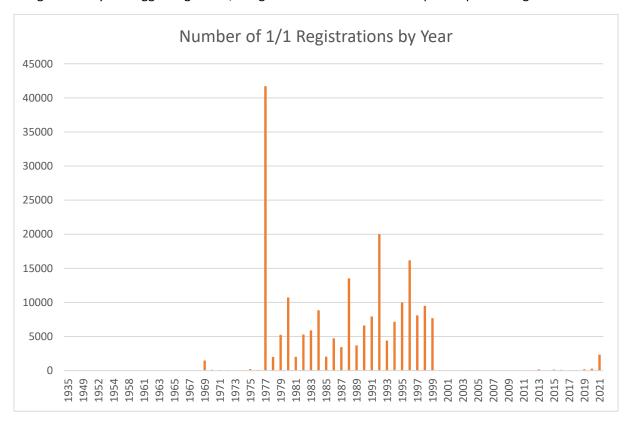


The preponderance of January 1 registrations occurs in Franklin County. The table below shows the top 20 counties with voters registered on January 1. Potential online registrations and those with an invalid registration date (1/1/1900) are excluded from the counts.

County Name	1/1 Registrations
Franklin	204,870
Huron	1476
Hamilton	665
Lucas	500
Adams	364
Montgomery	331
Allen	312
Miami	153
Ashtabula	132
Shelby	116
Wood	75
Ross	72
Lake	63
Cuyahoga	63
Muskingum	62
Licking	61
Lorain	53
Summit	46
Medina	40
Jefferson	36

1/1/YYYY registrations are not an artifact of registrations that pre-date computerized voter registration systems. The following chart shows that 1/1 registrations appear in almost every year since the 1950's and became very prevalent in the '70s, '80s, and '90s with an uptick in 2021. These years have

thousands of 1/1 registrations. They also have many thousands of registrations on other dates throughout the year suggesting that 1/1 registrations have received separate processing.



The following query mirrors the ones above but checks for registrations that occur on December 25.

358 voters were registered on Christmas Day. Discounting records added after online voter registration began, 162 are registered on 12/25, 112 are active voters, and 105 voted in the Nov 2020 Presidential election.

The following query mirrors the one above but checks for registrations that occur on the July 4 holiday.

The query produces 3232 voters with a July 4 registration date. Discounting for registrations after online registration began, 1769 are registered, 1422 are active voters, and 1342 voted on 11/3/2020. Registering to vote on the 4th of July may seem like a patriotic way to celebrate, but Chapter 4, Section 4.04, Page 87, of the EOM states that: "In entering a date into the voter registration system, a person is not considered registered until the valid registration form has been received." Thus, a valid registration date should not occur on a state or federal holiday since government offices are closed and mail is not delivered.

Further analysis reveals registration dates coinciding with other federal holidays.

Online voter registration is a possible explanation for holiday registrations that occur after 1/1/2017. However, a large number of holiday registrations occur prior to that. According to the EOM, the official registration date is supposed to be the date the registration is received by the Board of Elections, not the date entered on a form and not a postmark date. If this rule is followed, then holiday registrations are not possible, particularly those dated prior to the start of online voter registration. As noted above, voter registration documents are on file at the county Board of Elections for every registered voter. An investigation should be conducted to verify these voter registrations are valid and the registration dates are accurate.

Registered Prior to Birth

The following query identifies 63,887 registered voters, 61,657 active, and 59,724 that voted in the Nov 2020 Presidential election that were registered before their birth date.

63,664 of these records have the invalid registration date of 1/1/1900. After removing those records 223 voters have registration dates prior to their birth date, 204 are active voters, and 171 voted in the Nov 2020 Presidential election on 11/3/20. 23 counties have voters registered on or before their birthday. The table below shows the count by county.

County Name	Number Registered on/before DOB
Cuyahoga	46
Trumbull	35
Clermont	24
Mahoning	13
Hancock	12
Fairfield	11
Huron	10
Wood	9
Butler	9
Montgomery	9
Franklin	9
Stark	7
Wayne	7

County Name	Number Registered on/before DOB
Crawford	5
Lake	3
Richland	3
Geauga	2
Henry	2
Lucas	2
Morrow	2
Pike	1
Ashtabula	1
Gallia	1

Allowed to Register When Too Young

Ohio election law permits persons 17 years old to register to vote as long as they will be 18 years old before the next general election. The following query identifies voters whose record indicates they were registered despite not being 18 years old before the 11/3/2020 general election.

In all, the query identifies **253 voters that were permitted to register before the law permits.** One of these voters was allowed to vote in that election. The table below is a partial list of results from this query.

SOS_VOTERID	COUNTY_ID	County Name	DATE OF BIRTH	Date Of 18 th BDAY	REGISTRATION DATE	Days From Eligibility	VOTER STATUS
OH0026326911	446598	Wood	2004-07-09	2022-07-09	2020-05-14	613	CONFIRMATION
OH0026139190	526923	Mahoning	2003-11-01	2021-11-01	2020-01-26	363	ACTIVE
OH0026144890	10327078	Highland	2003-10-23	2021-10-23	2020-10-02	354	ACTIVE
OH0026144896	10327083	Highland	2003-10-19	2021-10-19	2020-09-29	350	ACTIVE
OH0026164090	102873	Shelby	2003-10-14	2021-10-14	2020-10-09	345	ACTIVE
OH0026272135	728854	Butler	2003-10-12	2021-10-12	2020-10-22	343	CONFIRMATION
OH0026164095	102876	Shelby	2003-10-12	2021-10-12	2020-10-09	343	ACTIVE
OH0026331436	304643	Delaware	2003-10-08	2021-10-08	2020-09-29	339	ACTIVE
OH0025887207	9660083	Union	2003-10-01	2021-10-01	2020-09-23	332	ACTIVE
OH0026144984	10327354	Highland	2003-09-29	2021-09-29	2020-10-28	330	ACTIVE
OH0026121750	186522	Marion	2003-09-29	2021-09-29	2020-11-02	330	ACTIVE
OH0026272136	733513	Butler	2003-09-27	2021-09-27	2020-10-12	328	ACTIVE
OH0026164103	102879	Shelby	2003-09-21	2021-09-21	2020-10-09	322	ACTIVE
OH0026144983	10327286	Highland	2003-09-21	2021-09-21	2020-09-30	322	ACTIVE
OH0026261419	200048753	Franklin	2003-09-19	2021-09-19	2020-09-13	320	ACTIVE
OH0026145011	10327284	Highland	2003-09-19	2021-09-19	2020-09-30	320	ACTIVE
OH0026305718	301516	Medina	2003-09-11	2021-09-11	2010-09-22	312	ACTIVE
OH0026084464	454663	Wood	2003-09-03	2021-09-03	2020-10-27	304	ACTIVE

Repeating the above, but focusing on the 11/2/21 election, the table below is a partial listing of the 114 voters that were ineligible to register but nevertheless were registered prior to the 11/2/21 election.

SOS_VOTERID	COUNTY_ID	County Name	DATE OF BIRTH	Date Of 18 th BDAY	REGISTRATION DATE	Days From Eligibility	VOTER STATUS
OH0026323552	48889	Pike	2005-02-07	2023-02-07	2021-10-20	462	CONFIRMATION
OH0026336161	460492	Trumbull	2004-10-31	2022-10-31	2021-10-29	363	CONFIRMATION
OH0026289211	10307234	Monroe	2004-10-27	2022-10-27	2021-09-21	359	ACTIVE
OH0026312088	9653079	Ashland	2004-10-11	2022-10-11	2021-10-04	343	ACTIVE
OH0026312065	9653078	Ashland	2004-10-02	2022-10-02	2021-10-04	334	ACTIVE
OH0026311943	9653069	Ashland	2004-09-28	2022-09-28	2021-10-04	330	ACTIVE
ОН0026311938	9653067	Ashland	2004-09-16	2022-09-16	2021-10-04	318	ACTIVE
OH0026312028	9653075	Ashland	2004-09-14	2022-09-14	2021-10-04	316	ACTIVE
ОН0026311886	9653064	Ashland	2004-08-31	2022-08-31	2021-10-04	302	ACTIVE
OH0026289202	10307232	Monroe	2004-08-26	2022-08-26	2021-09-21	297	CONFIRMATION
ОН0026311897	9653065	Ashland	2004-08-24	2022-08-24	2021-10-04	295	ACTIVE
OH0026323532	48888	Pike	2004-08-11	2022-08-11	2021-10-04	282	ACTIVE
OH0026294203	10307259	Monroe	2004-07-29	2022-07-29	2021-09-24	269	ACTIVE
ОН0026255999	103727	Shelby	2004-07-29	2022-07-29	2021-08-13	269	ACTIVE
ОН0026311962	9653070	Ashland	2004-07-28	2022-07-28	2021-10-04	268	ACTIVE

The following query identifies 1,764 registered voters with a registration date prior to their 17^{th} birthday. 1,451 have active status and 1,297 voted on 11/3/2020. The query excludes the invalid registration date 1/1/1900 from the results.

The table below presents a few of these results.

SOS VOTERID	County	Birth Date	REG DATE	Age When Registered	Voter Status	GENERAL 11_03_2020
OH0024420213	Clark	2002-	2017- 11-06	15	ACTIVE	X
OH0024262783	Delaware	1999- 09-28	2015- 08-28	16	ACTIVE	Х
ОН0024262772	Delaware	1999- 11-03	2015- 08-28	16	ACTIVE	Х
ОН0024620368	Defiance	2000- 03-07	2015- 05-05	15	ACTIVE	Х
ОН0024874590	Warren	1999- 06-18	2015- 04-30	16	ACTIVE	Х
ОН0025169466	Warren	2001- 03-08	2014- 08-05	13	ACTIVE	Х
ОН0025451502	Stark	2002- 01-14	2014- 02-14	12	ACTIVE	Х
ОН0024737715	Stark	2000- 06-13	2013- 10-01	13	ACTIVE	Х
ОН0022547280	Cuyahoga	1999- 07-09	2013- 09-04	14	ACTIVE	Х

SOS VOTERID	County	Birth Date	REG DATE	Age When Registered	Voter Status	GENERAL 11_03_2020
ОН0023723032	Warren	1998- 04-09	2013- 06-10	15	ACTIVE	X
OH0025118701	Clermont	2001- 03-08	2013- 05-23	12	ACTIVE	X
ОН0023638227	Mahoning	1998- 02-22	2013- 04-04	15	ACTIVE	X
ОН0024184367	Warren	1998- 12-03	2012- 11-10	14	ACTIVE	X
ОН0022235279	Warren	1997- 09-13	2012- 11-10	15	ACTIVE	Х
ОН0024059529	Hancock	1997- 09-18	2012- 10-11	15	ACTIVE	Х
ОН0023348527	Ross	1997- 10-05	2012- 10-07	15	ACTIVE	Х
ОН0023368766	Montgomery	1997- 05-14	2012- 03-02	15	ACTIVE	Х
ОН0023324748	Lake	1996- 07-17	2011- 10-10	15	ACTIVE	Х
ОН0021736046	Delaware	1995- 12-28	2011- 10-05	16	ACTIVE	Х
ОН0024715673	Richland	1997- 08-01	2011- 10-04	14	ACTIVE	Х

Systemically registering voters that are too young to be registered points to a significant failure in the voter registration process across the state. The voter registration system could automatically validate birth date entries during data input and reject invalid registrations, but apparently it lacks this basic functionality.

Conclusions

It is apparent that neither data validation to prevent, nor database maintenance to find and correct, date-related errors is being performed. Each voter record that indicates a vote prior to the voter's birth date should be investigated to discover whether the registration is legitimate, how the vote was cast, and whether criminal activity is involved. The process that allows this to occur must be fixed. Each voter record that violates basic election tenants such as being 18 years old to vote should be investigated to verify that the voter registration is legitimate. Persons responsible for entering that data should be identified and questioned to determine the reason bad data entry occurred. Voters with invalid registration dates or invalid birth dates should be verified against registration documents or contacted to get corrected information and verify their registration. An investigation should be conducted to understand how voter registration occurs on federal holidays when offices are closed, mail is not delivered, and Americans are likely participating in activities to observe the holidays. Software changes to prevent entry of invalid dates must be implemented. A comprehensive audit of the database should be conducted to assure accuracy, including those aspects not publicly available.

ADDRESS DATA INTEGRITY ISSUES

Accurate voter addresses are an important element of the voting process. Accurate addresses ensure that a voter receives the correct ballot and therefore votes on local issues relevant to the voter's district. Addresses are also an important tool to identify fraud and prevent persons from registering in multiple jurisdictions.

Invalid Data Entry

In the Election Official Manual, the SoS has instituted requirements for entering addresses into the voter registration system. A Board of Elections must enter an address according to US Postal Service standards. All data in the address field must be in UPPERCASE letters. The name of a city must be spelled out completely or abbreviated using USPS approved abbreviations. The following characters must never be entered into an address field:

```
Accent Symbol: `Colon: : Parenthesis: ( ) Question Mark: ? Apostrophe: 'Comma: , Percent Sign: % Quote Marks: "Asterisk: * Ellipsis: ... Period: . Semicolon: ; Bracket: [ ], Pound Sign: # * Slash: / \
```

Hyphens/dashes are only permitted between the ZIP code and the plus 4 code or a house number that has a hyphenated number.

The following query identifies 4970 records with unallowed characters in the street address.

The Election Official Manual, Chapter 4, page 97, provides standards for entering USPS approved secondary address indicators such as apartment numbers, unit numbers, etc. Examples of properly entered USPS secondary indicators are "APT 101" and "STE 232". The following query searched the SWVF and identifies 19,738 records with secondary indicators that do not follow the standard.

```
select SOS VOTERID, b.[County Name], RESIDENTIAL SECONDARY ADDR,
      replace(RESIDENTIAL_ADDRESS1 + ', ' + RESIDENTIAL_SECONDARY_ADDR + ', ' +
      RESIDENTIAL_CITY + ', ' + RESIDENTIAL_STATE + ' ' + RESIDENTIAL_ZIP,', ,
       ',', ') as Full Address
       ,DATE OF BIRTH, REGISTRATION DATE, VOTER STATUS, GENERAL 11 03 2020
from dbo.SWVF 112721 a inner join OH Counties b on a.COUNTY NUMBER=b.County Number
where RESIDENTIAL SECONDARY ADDR not like '%APT%'
and RESIDENTIAL SECONDARY ADDR not like '%LBBY%'
and RESIDENTIAL SECONDARY ADDR not like '%SIDE%'
and RESIDENTIAL SECONDARY ADDR not like '%BSMT%'
and RESIDENTIAL SECONDARY ADDR not like '%LOT%'
and RESIDENTIAL SECONDARY ADDR not like '%SLIP%'
and RESIDENTIAL SECONDARY ADDR not like '%BLDG%'
and RESIDENTIAL SECONDARY ADDR not like '%LOWR%'
and RESIDENTIAL_SECONDARY_ADDR not like '%SPC%'
and RESIDENTIAL_SECONDARY_ADDR not like '%DEPT%'
and RESIDENTIAL_SECONDARY_ADDR not like '%OFC%'
and RESIDENTIAL SECONDARY ADDR not like '%STOP%'
and RESIDENTIAL SECONDARY ADDR not like '%FL%'
and RESIDENTIAL_SECONDARY_ADDR not like '%PH%'
and RESIDENTIAL_SECONDARY_ADDR not like '%STE%'
and RESIDENTIAL_SECONDARY_ADDR not like '%FRNT%'
and RESIDENTIAL SECONDARY ADDR not like '%PIER%'
and RESIDENTIAL_SECONDARY_ADDR not like '%TRLR%'
and RESIDENTIAL_SECONDARY_ADDR not like '%HNGR%'
and RESIDENTIAL_SECONDARY_ADDR not like '%REAR%'
and RESIDENTIAL_SECONDARY_ADDR not like '%UNIT%'
```

```
and RESIDENTIAL_SECONDARY_ADDR not like '%KEY%' and RESIDENTIAL_SECONDARY_ADDR not like '%RM%' and RESIDENTIAL_SECONDARY_ADDR not like '%UPPR%' and RESIDENTIAL_SECONDARY_ADDR not like '' and RESIDENTIAL SECONDARY ADDR is not null
```

This table shows a few examples of improper secondary addresses.

SOS_VOTERID	County Name	RESIDENTIAL_SECONDARY_ADDR	Full_Address
OH0014672244	Cuyahoga	204 E	27661 TUNGSTEN RD, 204 E, EUCLID, OH 44132
OH0015143330	Cuyahoga	E209	551 FORESTVIEW RD, E209, BAY VILLAGE, OH 44140
OH0020388794	Clermont	В	1028 CLOUGH PIKE, B, CINCINNATI, OH 45245
OH0015045408	Cuyahoga	Z-18	9627 PLEASANT LAKE BLVD, Z-18, PARMA, OH 44130
OH0018726074	Cuyahoga	210B	27068 OAKWOOD DR, 210B, OLMSTED TWP, OH 44138
OH0015331392	Cuyahoga	1	18693 HILLIARD BLVD, 1, ROCKY RIVER, OH 44116
ОН0019979602	Cuyahoga	UP	3705 E 153RD ST, UP, CLEVELAND, OH 44120
OH0022249400	Cuyahoga	E124	27100 CEDAR RD, E124, BEACHWOOD, OH 44122
OH0015195351	Cuyahoga	DWN	789 WAYSIDE RD, DWN, CLEVELAND, OH 44110
OH0021488506	Cuyahoga	P 9	2820 N BAY DR, P 9, WESTLAKE, OH 44145
ОН0026239590	Erie	A	1602 DIETRICK ST, A, SANDUSKY, OH 44870
ОН0019159756	Defiance	#5	195 W ROSEWOOD AVE, # 5, DEFIANCE, OH 43512
OH0014617220	Cuyahoga	T301	9934 PLEASANT LAKE BLVD, T301, PARMA, OH 44130

The EOM provides standards for entering addresses on county, state, and interstate highways. In summary, the standard is to spell out completely the words "state", "county", "township", "route", "highway", and "interstate". The abbreviations "RT", "RTE", "HWY, "RD", "SR", "ST", and "TSR" are to be avoided. The following query checks for highway designations that do not meet the standard.

The query reveals 112,408 uses of non-standard highway designations.

Invalid Residential Zip Codes

Zip codes in Ohio range from 43001 to 45999. 4 ACTIVE voter records were found in the SWVF with zip codes that do not fall within that range.

SOS_VOTERID	County Name	RESIDENTIAL_ZIP	Full Address	DATE_OF_BIRTH	REGISTRATION_DATE	VOTER_STATUS
OH0023393212	Franklin		4227 WALMAR DR, COLUMBUS, OH	1992-11-14	2015-11-29	ACTIVE
ОН0025546764	Miami	00000	1 INVALID ADDRESS, NONE, NA 00000	1993-12-14	2020-05-15	ACTIVE
ОН0026195572	Shelby	00000	1 INVALID ADDRESS, NONE, NA 00000	1800-01-01	2019-07-15	ACTIVE
ОН0026114628	Shelby	00000	1 INVALID ADDRESS, NONE, NA 00000	1977-07-14	2020-12-18	ACTIVE

Voter registrations with an invalid residential address should not be in the official list of voter registrations, much less should they be present with "Active" status.

The following query counts the number of voters with mailing addresses/zip codes outside of Ohio.

```
select SOS_VOTERID, b.[County Name], MAILING_ZIP, PARTY_AFFILIATION,
    replace(RESIDENTIAL_ADDRESS1 + ', ' + RESIDENTIAL_SECONDARY_ADDR + ', ' +
    RESIDENTIAL_CITY + ', ' + RESIDENTIAL_STATE + ' ' + RESIDENTIAL_ZIP,', ,
    ',', ') as Full_Address
    ,replace(MAILING_ADDRESS1 + ', ' + MAILING_SECONDARY_ADDRESS + ', ' +
        MAILING_CITY + ', ' + MAILING_STATE + ' ' + MAILING_ZIP,', , ',', ') as
    Full_Mail_Address
    ,DATE_OF_BIRTH, REGISTRATION_DATE, VOTER_STATUS, GENERAL_11_03_2020
from dbo.SWVF_112721 a inner join OH_Counties b on a.COUNTY_NUMBER=b.County_Number
where MAILING_ZIP is not null and MAILING_ZIP not like ''
    and (MAILING_ZIP < 43001 or MAILING_ZIP > 45999)
order by PARTY_AFFILIATION desc
```

12,837 voters have mailing addresses outside of Ohio. The party affiliation identified in the SWVF is 10.4% republican, 11.8% democrat, and 0.04% libertarian with the remainder not affiliated with a party. However, voters with mailing addresses outside of Ohio significantly buck that trend. 227 are registered republican, 919 are registered democrat. Out of state voters are much more likely to be democrats than republicans.

Invalid Mailing Address

Properly entered mailing addresses are important to assure that out-of-state voters can receive election correspondence. However, it is likely that many registered out of state voters will never receive mail at the addresses listed in the SWVF due to inconsistent data entry, omissions, and errors.

The following query lists the values entered for states and countries in the SWVF. Valid US state and military entries are excluded to shorten the list.

```
select MAILING_STATE, MAILING_COUNTRY, count(*) as NumRegVoters from dbo.SWVF_112721 where MAILING_STATE is not null and MAILING_STATE not like ''group by MAILING_STATE, MAILING_COUNTRY order by MAILING_STATE, MAILING_COUNTRY
```

In many cases, non-US state values have no corresponding country listed. It is unlikely these voters can receive mail. There are also incidents where non-standard US state abbreviations are used.

MAILING_STATE	MAILING_COUNTRY	Num Reg Voters
	MOROCCO	1
,		2
,	LEBANON	1
4		1
5 TH	YUNUSOBOD DISTRICT	7
841	SLOVAK REPUBLIC	1
969		1
AB	CANADA	8
ВС	CANADA	7
СН		1
СНВ	JAPAN	1
DC	COLOMBIA	1
DDS	PHILLIPPINES	1
FLA		5

MAILING_STATE	MAILING_COUNTRY	Num Reg Voters
FS	SOUTH AFRICA	1
GE		1
GU		1
но		1
ILL		3
JAL	MEXICO	2
JPN		1
KAN		3
KU	ТО	1
MB	CANADA	7
MC		4
MG	BRASIL	1
MG	BRAZIL	1
MIN		1
NEW	AUSTRALIA	1
NL	CANADA	1
NRW	GERMANY	2
NS	CANADA	3
NSW	AUSTRALIA	6
0		1
ОН	FAIRFIELD	1
ON	CANADA	36
ON	CANDA	1
ONT	CANADA	11
ONT	CANDADA	1
00		1
PH		1
PR		5
QC	CANADA	13
QLD	AUSTRALIA	1
RD3	NEW ZEALAND	1
RS	BRAZIL	1
SP		1
SW5	UNITED KINGDOM	4
TEX		2
TN	INDIA	3
TN	SUMNER	1
то	ITALY	1
TS	INDIA	3
UK	UNITED KINGDOM	5
VER	MEXICO	1
VI		5
WA	AUSTRALIA	4
Z	ESPANA	1

It is apparent that mailing addresses are entered into the SWVF with less rigor than are residential addresses.

Military and Diplomat Addresses

The following query identifies 284 mailing addresses associated with overseas members of the military and state department. The query is generalized to look for the key letters APO, DPO, and FPO in the mailing address and city fields and the key letters AA, AE, and AP in the mailing state field to account for the variety of non-standard ways these addresses have been entered into the SWVF.

The results of the query indicate a lack of consistency in entering military addresses. Because inconsistency some of these persons may not receive elections related mailings. <u>Chapter 4, Page 99 of the EOM specifies</u>:

Overseas military addresses must contain an APO or FPO designation along with a two-character "state" abbreviation of AE, AP, or AA and the ZIP Code or ZIP+4 Code (e.g., APO AE 09001-5275)

The table below is a partial list of query results demonstrating various inconsistencies including the state abbreviation placed in the country column, invalid state designations, missing zip codes, and combinations of overseas and domestic addresses.

SOS VOTERID	County Name	MAILING ADDRESS1	MAILING SECONDARY ADDRESS	MAILING CITY	MAILING STATE	MAILING COUNTRY	MAILING ZIP	MAILING POSTAL CODE	VOTER STATUS
OH0020208213	Allen	PSC 37 BOX1265		APO	AE		09494		CONFIRMATION
OH0025009998	Allen	CMR 480 BOX 1659		APO	NY		09123		ACTIVE
OH0012250155	Ashland	ECHO CO 4TH PLT	UNIT 43504	FPO	AP		96426		ACTIVE
ОН0026277180	Auglaize	PSC 78 BOX 7463 APO,AP 96323		WAPAKONETA	OH OH		45895		ACTIVE
OH0021493779	Auglaize	PSC 37 BOX 2171 APO, AE 094590022		ST MARYS	OH		45885		CONFIRMATION
OH0023758534	Belmont	PSC 333 BOX 1075		APO	AP		96251		ACTIVE
OH0010279894	Brown	PSC 41 BOX 3742 APO, AE 09464		FAYETTEVILLE	ОН		45118		ACTIVE
OH0017945293	Clermont	UNIT 9700 BOX 3101		DPO	AE		09830		ACTIVE
OH0021187526	Cuyahoga	CMR 411 BOX 571		APO	NY		09112		CONFIRMATION
OH0023094848	Cuyahoga	PSC 561 BOX 1636		FPO					CONFIRMATION
OH0023746348	Cuyahoga	PSC 851 BOX 1695		FPO	AL		09834		ACTIVE
OH0023346915	Fairfield	CSTC-A/SAO APO AE		09320					ACTIVE
OH0018133910	Fairfield	3-2 GSAB D CO UNIT 15761		MAILBOX 1526 APO	AP		96271		ACTIVE

SOS VOTERID	County Name	MAILING ADDRESS1	MAILING SECONDARY ADDRESS	MAILING CITY	MAILING STATE	MAILING COUNTRY	MAILING ZIP	MAILING POSTAL CODE	VOTER STATUS
ОН0023519585	Fairfield	2-174 ADA(FWD) TFTQ		CAMP MANION (AL TAGADDUM) APO	AE		09381		CONFIRMATION
OH0024504552	Franklin	PSC 7 BOX 696		APO		AE		09104	ACTIVE
ОН0017093207	Franklin	CMR 489, BOX 1728		APO		AE		09751	ACTIVE
OH0017191072	Franklin	PSC 78 BOX 3329		APO		<mark>AP</mark>		96326	ACTIVE
OH0017097683	Franklin	PSC 78 BOX 3329		APO		<mark>AP</mark>		96326	ACTIVE
OH0017091247	Franklin	PSC 813 BOX 156		FPO		AE		09620	ACTIVE
OH0017018238	Franklin	PSC 474 BOX 4005		FPO		<mark>AP</mark>		46351	ACTIVE
OH0024874436	Franklin	PSC 704 BOX 3507		APO	CA		96338		ACTIVE
OH0024970687	Geauga	PSC 1 BOX 4536 APO AE 09009		BURTON	ОН		44021		CONFIRMATION
OH0021414494	Greene	PSC 37 BOX 1691 APO AE, 09459- 0017		DAYTON	ОН		45432		ACTIVE
OH0023975131	Greene	PSC 303 BOX 26 APO, 96204		XENIA	ОН		45385		CONFIRMATION
OH0021894295	Greene	PSC 706 BOX 386 APO AP 96301		DAYTON	OH		45432		ACTIVE
ОН0024752598	Greene	CMR 460 BOX 100		APO	NY		09752		ACTIVE
ОН0026200833	Greene	PSC 9 BOX 3684 APO, AE 09123		BEAVERCREEK	ОН		45434		ACTIVE
ОН0020989263	Greene	PSC 46 BOX 1204 <mark>, APO, AE</mark> 09469		FAIRBORN	ОН		45324		CONFIRMATION
OH0024058916	Greene	PSC 3 BOX 1134 APO AE 09021		BEAVERCREEK	ОН		45434		CONFIRMATION
ОН0021695719	Guernsey	PSC 80 BOX 14765 APO, AP 96367- 0050		QUAKER CITY	ОН		43773		ACTIVE

Conclusions

There are numerous data entry compliance issues with respect to addresses. The SoS's standards described in the EOM are not uniformly followed. The system does not appear to implement data validation that enforces the standards when addresses are entered into the system, and it does not screen the data for address issues. With respect to mailing addresses for voters outside of Ohio, there are errors that will prevent voters from receiving confirmation requests or ballots sent by election officials. Some overseas military and diplomatic mailing addresses are not recorded properly and consistently in the database and could prevent some of these voters from receiving Board of Election mailings.

DUPLICATE REGISTERED VOTERS

In <u>Chapter 4, Section 4.14, Page 127</u> of the EOM states: "All county boards of election must keep their duplicate levels to .030 percent on a rolling monthly basis." Ideally, there are no duplicates in the voter rolls.

Additionally, when a board of elections prints its Election Day precinct lists, it is vitally important to have local and statewide voter registration lists as accurate as possible. The Secretary of State expects all counties to have their duplicate numbers at 0 percent by the 14th day prior to an election. "

The following query removes all space characters, concatenates last name, first name, and middle name values, and checks for duplicate name and birth date combinations.

18,470 potential duplicate voter records are produced by the query. In 486 of those cases, the voter appears to have three or more active registrations. In some instances, multiple votes are recorded for the potential duplicate voter for the Nov 2020 Presidential election. The following table shows a several records from the query.

SOS_VOTERID	County Name	LAST NAME	FIRST NAME	MIDDLE NAME	SUFFIX	BIRTH DATE	REG. DATE	VOTER STATUS	VOTED Nov 2020
OH0026333968	Franklin	ADKINS	MADISON	L		1998-03-09	2021-10-13	ACTIVE	
OH0026332227	Franklin	ADKINS	MADISON	L		1998-03-09	2021-10-20	ACTIVE	
OH0024807346	Geauga	ADKINS	MADISON	L		1998-03-09	2018-09-25	ACTIVE	
OH0026332326	Franklin	ALDERSON	JULIE	MAE		1986-02-03	2021-10-22	ACTIVE	
OH0026332298	Franklin	ALDERSON	JULIE	MAE		1986-02-03	2021-10-21	ACTIVE	
OH0026076812	Summit	ALDERSON	JULIE	MAE		1986-02-03	2020-10-07	ACTIVE	
OH0026333902	Franklin	ALDERSON	JULIE	MAE		1986-02-03	2021-10-13	ACTIVE	
OH0026331945	Franklin	ASHWORTH	TRENT	J		1993-04-09	2021-10-07	ACTIVE	
OH0026333733	Franklin	ASHWORTH	TRENT	JORDON		1993-04-09	2021-10-13	ACTIVE	
OH0023296445	Ross	ASHWORTH	TRENT	J		1993-04-09	2015-09-16	CONFIRMATION	
OH0016810122	Licking	BAKER	CHARLES	WADE		1947-12-07	1988-09-10	ACTIVE	Х
OH0026333227	Franklin	BAKER	CHARLES	WADE		1947-12-07	2021-11-01	ACTIVE	
OH0026339153	Franklin	BAKER	CHARLES	W		1947-12-07	2021-10-30	ACTIVE	
OH0020936079	Cuyahoga	BARGHOUTY	MAJDI	A		1961-10-17	2014-04-15	CONFIRMATION	
OH0026338403	Franklin	BARGHOUTY	MAJDI	А		1961-10-17	2021-10-30	ACTIVE	

SOS_VOTERID	County Name	LAST NAME	FIRST NAME	MIDDLE NAME	SUFFIX	BIRTH DATE	REG. DATE	VOTER STATUS	VOTED Nov 2020
OH0026332280	Franklin	BARGHOUTY	MAJDI	А		1961-10-17	2021-10-25	ACTIVE	
OH0021928516	Wyandot	BAULER	LYDIA	JOY		1994-05-30	2012-08-17	CONFIRMATION	
OH0026332315	Franklin	BAULER	LYDIA	JOY		1994-05-30	2021-10-20	ACTIVE	
OH0026334165	Franklin	BAULER	LYDIA	JOY		1994-05-30	2021-10-13	ACTIVE	
OH0025336931	Delaware	BAXTER	AMANDA	MARIE		1987-06-18	2019-12-31	ACTIVE	Х
OH0026332521	Franklin	BAXTER	AMANDA	MARIE		1987-06-18	2021-10-27	ACTIVE	
OH0026332259	Franklin	BAXTER	AMANDA	MARIE		1987-06-18	2021-10-27	ACTIVE	
OH0026331946	Franklin	BEIL	LISA	MARIE		1967-09-08	2021-10-07	ACTIVE	
ОН0026199881	Union	BEIL	LISA	MARIE		1967-09-08	2021-05-24	ACTIVE	Х
ОН0026333365	Franklin	BEIL	LISA	MARIE		1967-09-08	2021-10-13	ACTIVE	
ОН0026333551	Franklin	BERKEY	MARY	ELIZABETH		1991-11-02	2021-10-30	ACTIVE	
OH0024520186	Delaware	BERKEY	MARY	ELIZABETH		1991-11-02	2018-03-02	CONFIRMATION	
ОН0026333113	Franklin	BERKEY	MARY	ELIZABETH		1991-11-02	2021-10-30	ACTIVE	
ОН0026332157	Franklin	BIRD	MICHAEL	DAKOTAH		1997-09-04	2021-10-26	ACTIVE	
ОН0026334250	Franklin	BIRD	MICHAEL	DAKOTAH		1997-09-04	2021-10-30	ACTIVE	
OH0024157560	Licking	BIRD	MICHAEL	DAKOTAH		1997-09-04	2016-11-08	CONFIRMATION	
OH0025884191	Pickaway	BRADY	JOSHUA	KEITH		1985-02-26	2020-09-23	ACTIVE	Х
OH0026332396	Franklin	BRADY	JOSHUA	KEITH		1985-02-26	2021-10-12	ACTIVE	
ОН0026333956	Franklin	BRADY	JOSHUA	KEITH		1985-02-26	2021-10-13	ACTIVE	
OH0026327163	Wood	BRETZ	GEORGIA	М		1999-05-11	2021-10-25	ACTIVE	
OH0024370433	Franklin	BRETZ	GEORGIA	М		1999-05-11	2020-07-01	ACTIVE	
OH0026327110	Wood	BRETZ	GEORGIA	М		1999-05-11	2021-10-25	ACTIVE	
OH0014216095	Stark	BROWN	CATHERINE	М		1958-02-25	2012-08-13	ACTIVE	Х
OH0026333629	Franklin	BROWN	CATHERINE	MARY		1958-02-25	2021-10-13	ACTIVE	
OH0026332055	Franklin	BROWN	CATHERINE	М		1958-02-25	2021-10-14	ACTIVE	
OH0026332466	Franklin	BURGOS QUINONES	NICOLE	MAURIE		1985-10-20	2021-10-19	ACTIVE	
OH0023360600	Fairfield	BURGOS QUINONES	NICOLE	MAURIE		1985-10-20	2015-10-05	CONFIRMATION	
OH0026333416	Franklin	BURGOS QUINONES	NICOLE	MAURIE		1985-10-20	2021-10-30	ACTIVE	
OH0022931472	Tuscarawas	BUSS	KIRSTI	J F		1995-06-01	2014-09-25	CONFIRMATION	
OH0026334173	Franklin	BUSS	KIRSTI	JOY FRANCES		1995-06-01	2021-10-30	ACTIVE	
OH0026332584	Franklin	BUSS	KIRSTI	JF		1995-06-01	2021-10-28	ACTIVE	
OH0023475752	Montgomery	CAPELL	JORDYN	KIMBERLY		1997-12-22	2016-01-04	CONFIRMATION	Х
OH0026337237	Wood	CAPELL	JORDYN	KIMBERLY		1997-12-22	2021-11-03	ACTIVE	
OH0026327103	Wood	CAPELL	JORDYN	KIMBERLY		1997-12-22	2021-10-14	ACTIVE	
OH0026331894	Franklin	CASSANDRA	SAMUEL	F		1946-07-24	2021-10-05	ACTIVE	
OH0019567444	Hocking	CASSANDRA	SAMUEL	F		1946-07-24	2008-03-25	ACTIVE	Х

SOS_VOTERID	County Name	LAST NAME	FIRST NAME	MIDDLE NAME	SUFFIX	BIRTH DATE	REG. DATE	VOTER STATUS	VOTED Nov 2020
OH0026332091	Franklin	CASSANDRA	SAMUEL	F		1946-07-24	2021-10-18	ACTIVE	
OH0026331976	Franklin	CHADWICK	MALLORY	RAE		1996-09-22	2021-10-06	ACTIVE	
OH0026334066	Franklin	CHADWICK	MALLORY	RAE		1996-09-22	2021-10-13	ACTIVE	
OH0023133511	Hamilton	CHADWICK	MALLORY	RAE		1996-09-22	2015-05-13	ACTIVE	Х
OH0026327174	Wood	CHEN	ZHONG			1952-01-01	2021-10-28	ACTIVE	
OH0026327184	Wood	CHEN	ZHONG			1952-01-01	2021-11-01	ACTIVE	
OH0025974702	Wood	CHEN	ZHONG			1952-01-01	2020-10-13	ACTIVE	Х
OH0024042618	Licking	CLARY	CHRISTINA	ANN		1988-10-09	2016-10-11	ACTIVE	

Some names in the results have different middle names and are perhaps actually voter registrations for unique individuals. One potential means of illegitimately inflating voter rolls would be to slightly alter a name. For example, one record may consist of a voter having a full middle name; a second record may consist of the same voter having the same first name, last name, and birthdate, but only a middle initial (or even a different initial). This second record would defeat screens for duplicate voters looking for exact matches. One can generally assume that voters with the same last name, first name, and birth date combinations should be extremely rare. All of the possible duplicate registrations identified by the query above should therefore be investigated to eliminate any duplicates.

VOTER STATUS ISSUES

In the SWVF voter status is either "ACTIVE" or "CONFIRMATION". Voters with either status are permitted to vote, although voters with "CONFIRMATION" status typically must vote using a provisional ballot. These are the only two types of status found in the SWVF. Therefore, one is left to assume that while they should remain in the database, inactive or ineligible registrations are not included in the downloadable SWVF. According to the EOM, CONFIRMATION status is assigned when the voter is undergoing verification triggered by a mismatch with BMV data, SSA data, or some other reason. Voters in CONFIRMATION status are returned to ACTIVE status when they respond to a notice they receive from the county BOE, or they take another election related action, such as voting on election day.

The following query identifies 80,012 persons that voted in the 2020 Presidential election and have CONFIRMATION status assigned in the 11/27/21 data set. 23,706 of those voters were registered in 2020.

It has been alleged that one source of election fraud consists of inflating rolls and having bad actors voting surreptitiously on behalf of these phantom voters. The phantom voters are then subsequently

removed from the rolls. A bad actor or intruder with access to the state voter registration database could easily flip voter registration status from CONFIRMATION to ACTIVE and back again with a couple simple SQL statements. These 80,012 voter registrations, and particularly the newly registered 23,706 voters, should be investigated to determine why so recently active or recently registered voters have been flagged as possibly invalid registrations.

PART 2 – SYNC ISSUES

The Ohio Secretary of State and each of Ohio's 88 county Board of Elections maintain their own voter registration database. Ohio law, ORC 3503.15(D)(2), requires the Secretary to incorporate changes into the statewide database "not less than once per day" when new registration information is received. In a properly synchronized system, the county database and the statewide database are identical except for the updates that occur between data transfers. The public window into the county and statewide databases are the data sets that can be downloaded from the respective websites.

This part of the report evaluates whether the county voter files agree with the statewide voter file. Any variation between the files (names don't match, addresses don't match, voting record doesn't match, etc.) indicates that they are not in sync. Another potential issue arises when one data set has more voter records than the other.

CHECKING CONSISTENCY BETWEEN COUNTY VOTER FILES AND THE SWVF

The statewide database and the 88 county databases are supposed to be in sync. The EOM requires counties to update the statewide database at least once a day with new registrations and other changes. When voter registrations are received by the SoS those files are transferred to the counties for entry. Changes in the county databases are replicated to the statewide database. The SoS makes new statewide voter files available for download on a weekly basis. County voter files are generated at the time of download. To check the consistency between county and state voter files, the SWVF was downloaded on 11/27/21 and several county voter files were downloaded on 11/27/21 (and a few early in the day on 11/28/21). If the data is tightly synchronized there should be little difference between the files.

Missing Records

The SOS_VOTERID value is a unique number assigned to each voter similar to one's driver license number. Just as each driver has a unique driver license number each voter has a unique SOS_VOTERID number which is part of their voter record in both the county and statewide databases. If the two databases are in sync, they should contain the same set of registered voters and SOS_VOTERID values.

Queries similar to the following were run to determine if county voter files and the SWVF contained the same SOS_VOTERID entries.

select

```
case when c.SOS_VOTERID is null then 'Missing' else c.SOS_VOTERID end as SOSVoterID_SOS , case when c.PRECINCT_NAME is null then 'Missing' else c.PRECINCT_NAME end as Precinct_In_SOS , case when c.WARD is null then 'Missing' else c.WARD end as Ward_In_SOS , case when c.VOTER_STATUS is null then 'Missing' else c.VOTER_STATUS end as Status_In_SOS , case when c.RESIDENTIAL_ADDRESS1 is null then 'Missing' else c.RESIDENTIAL_ADDRESS1 end as Address_In_SOS , case when d.SOSIDNUM is null then 'Missing' else d.SOSIDNUM end as SOSVoterID_COUNTY , case when d.LASTN is null then 'Missing' else d.LASTN end as LastName_COUNTY
```

```
,case when d.FIRSTN is null then 'Missing' else d.FIRSTN end as
      FirstName COUNTY
       ,case when d.MIDDLEN is null then 'Missing' else d.MIDDLEN end as
      MiddleName COUNTY
       ,case when d.SUFFIXN is null then 'Missing' else d.SUFFIXN end as
      SuffixName COUNTY
       ,case when d.BIRTHYEAR is null then 'Missing' else d.BIRTHYEAR end as
      BirthYear COUNTY
       ,case when d.PRECNAME is null then 'Missing' else d.PRECNAME end as
      Precinct COUNTY
      ,case when d.STNUM is null then 'Missing' else d.STNUM end as StNum COUNTY
       ,case when d.STNAME is null then 'Missing' else d.STNUM end as
      StName COUNTY
       ,case when d.REGDATE is null then 'Missing' else d.REGDATE end as
      RegDate COUNTY
       ,case when d.VOTERSTAT is null then 'Missing' else d.VOTERSTAT end as
      Status In COUNTY
       ,case when d.[20201103G] is null then 'Missing' else d.[20201103G] end as
      VotedNov2020 In COUNTY
from
 (select a.SOS_VOTERID, a.LAST_NAME, a.FIRST_NAME, a.PRECINCT_NAME, a.WARD,
       a.VOTER STATUS, a.RESIDENTIAL ADDRESS1 from dbo.SWVF 112721 a
       inner join OH Counties b on a.COUNTY NUMBER=b.County Number where b.[County
      Name] like 'Montgomery') c
      full outer join dbo.[Montgomery voterfile 112721] d on
       c.SOS VOTERID=d.SOSIDNUM
where c.SOS VOTERID is null or d.SOSIDNUM is null
order by d.LASTN
```

The table below presents the results of this query for the 11 counties examined.

County	Number of Voters in County but not in SOS SWVF	Number of Voters in SOS SWVF but not in County
Cuyahoga	1,233	1,893
Delaware	160*	1
Franklin	257	17
Greene	125**	0
Lorain	96	458
Lucas	123**	0
Mahoning	46*	0
Montgomery	106***	0
Stark	2	0
Summit	125***	2
Warren	92****	0

^{*} County data includes voters with the street name "Address on File", SOS data omits these voters

^{**} County data includes voters with the street name "Address on File" and records with missing SOSIDNUM

^{***} County data includes voters with missing street number or address and records with missing SOSIDNUM

^{****} County data include voters with missing street address

In most counties examined there were records missing from the county data set, the state data set, or both. Cuyahoga County was in significantly worse synchronization than other counties examined, although Lorain and Franklin counties also had significant issues. The SOS office suggests that the record count discrepancies are due to the counties reporting "Address on File" or no address for voters with protected status while the SOS data omits these records entirely. This explanation does not explain all discrepancies. Some county data sets contained records with no SOS_VOTERID. In the case of Cuyahoga County, both the county and SOS have voter records missing from the other party's data.

This test should be conducted for all 88 counties to identify the full extent of the problems. Where records are missing from one data set or the other an investigation needs to be conducted to verify which database is correct. Otherwise, a legitimate voter may be excluded from the voter rolls on election day. An investigation should also be conducted to understand why the records are not being properly duplicated in each data set. It has been alleged that bad actors in the 2020 election illegitimately added voters to the rolls prior to an election, and then removed them after the election. Such a practice would cause a synchronization issue unless both state and county databases were surreptitiously updated. An investigation should be conducted to verify this is not occurring in Ohio.

Consistency of Names, Dates, Status, and Voting History

Queries similar to the one below test to see whether last names, first names, dates of birth, registration dates, voter status, and voting history for the Nov 2020 Presidential election match between the two databases.

```
select a.CNTYIDNUM,b.COUNTY_ID,a.SOSIDNUM,b.SOS VOTERID,a.LastN
,a.FirstN,a.MiddleN,b.LAST NAME,b.FIRST NAME,b.MIDDLE NAME
, a.BIRTHYEAR, year(b.DATE_OF_BIRTH) as SOSBirthYear,
       a.REGDATE, b.REGISTRATION_DATE, a.[20201103G], b.GENERAL_11 03 2020
,a.prsid,a.precname,b.PRECINCT_NAME,a.voterstat,b.voter_status, a.voterupdt
,a.stnum + ' ' + a.stdir + ' ' + a.stname as ST_ADDR
,a.[City],b.RESIDENTIAL ADDRESS1, b.RESIDENTIAL CITY
from dbo.[warren_voterfile_112721] a join
             dbo.SWVF 112721 b on a.sosidnum = b.SOS VOTERID
where b.county_number=83 and
  a.CNTYIDNUM <> b.COUNTY_ID
  a.LASTN <> b.LAST NAME
  a.FIRSTN <> b.FIRST NAME
  a.MIDDLEN <> b.MIDDLE NAME
  a.BIRTHYEAR <> Year(b.DATE_OF_BIRTH)
  a.REGDATE <> b.REGISTRATION_DATE
  ((a.VOTERSTAT like 'ACTIVE%' and b.VOTER_STATUS not like 'ACTIVE') or
       (a.VOTERSTAT not like 'ACTIVE%' and b.VOTER STATUS like 'ACTIVE') or
-- (a.VOTERSTAT like 'CONF%' and b.VOTER STATUS not like 'CONFIRMATION') or
       (a.VOTERSTAT not like 'CONF%' and b.VOTER_STATUS like 'CONFIRMATION'))
 a.[20201103G] <> b.GENERAL 11 03 2020
```

In Franklin County when comparing county and statewide voter file records with the same SOS_VOTERID value:

- 11 records have different last names,
- 9 have different first names,
- 9 have different middle names,
- 1 has different birth year,

- 41,913 had different registrations dates,
- 7819 have different voting history for the Nov 2020 Presidential election, and
- 2081 records disagree on whether the voter is ACTIVE or in CONFIRMATION status.

For Cuyahoga County, comparing county and state data by matching SOS_VOTERID:

- 4 records are missing a value for SOS VOTERID,
- 311 records have different last names,
- 100 have different first names,
- 812 have different middle names.
- 17 have different birth year
- 8,470 had different registrations dates,
- 4,186 have different voting history for the Nov 2020 Presidential election, and
- 3,389 records disagree on whether the voter is ACTIVE or in CONFIRMATION status.

In Lorain County, 70 records have different last names, 5 records had different first names, 41 records had different middle names, 2 records had different birth dates, 1921 records had different voting history for the Nov 2020, and 110 records disagree on whether the voter is ACTIVE or in CONFIRMATION status.

In Mahoning County, Nov 2020 voting history did not agree for 886 records.

In Stark County, only 2 records were in the county data set but not in the statewide data set. However, Nov 2020 voting history did not agree for 872391 records.

In Lucas County, 123 voters appear in the county data set but not in the statewide data set. Two records have different names, and 1251 records have different voting history for Nov 2020.

In Summit County, there are two instances of duplicate voter records with the same COUNTY_ID number. The records appear to be exact duplicates, but in each case the duplicate is marked as an ACTIVE VOTER. The statewide file has 2 records that are not in the county file and the county file has 125 records that aren't in the statewide file. 2,835 records have different voting history for the Nov 2020 election.

In Warren County, the county data set has 92 records that are not in the statewide data set. 83 records have different voting history for the Nov 2020 election.

In Delaware County, the county data set has 160 records that are not in the statewide data set and the statewide data set has 1 record that is not in the county data. 3,364 records have different voting history for the Nov 2020 election.

In Montgomery County, the county data set has 106 records that are not in the statewide data set. 3,522 records have different voting history for the Nov 2020 election. Two records in the county file are missing a SOS_VOTERID value.

Changes to voter registrations at the county BOE are supposed to be automatically synchronized to the statewide voter database. If that process was working properly, discrepancies in names, dates, addresses and voting history would not be possible.

Consistency of Addresses

The following query was run to determine if the same voter had the same address in the SWVF and the county voter file.

```
select a.SOS_VOTERID, a.PRECINCT_NAME, a.WARD,
    left(a.RESIDENTIAL_ADDRESS1,CHARINDEX(' ',a.RESIDENTIAL_ADDRESS1,1)-1) as
    ST_NUM, a.RESIDENTIAL_ADDRESS1, a.VOTER_STATUS, a.LAST_NAME, a.FIRST_NAME,
    year(a.DATE_OF_BIRTH) as YOB, a.REGISTRATION_DATE,
    c.[STATE ID], c.[PRECINCT NAME WITH SPLIT], c.[HOUSE NO], c.[RES STREET],
    c.[STATUS], c.[LAST NAME], c.[FIRST NAME], c.DATE_OF_BIRTH,
    c.REGISTRATION_DATE

from
    dbo.SWVF_112721 a inner join OH_Counties b on a.COUNTY_NUMBER=b.County_Number
    inner join dbo.Franklin_VOTERFILE_112721 c on a.SOS_VOTERID=c.[STATE ID]
where b.[County Name] like 'Franklin' and
charindex(c.[RES STREET],a.RESIDENTIAL_ADDRESS1,1) = 0
```

If the same street name was found in both data sets it was considered a match. Discrepancies were found in each county. The following table illustrates a very common discrepancy in Franklin and Cuyahoga Counties. While the addresses appear to the eye to be identical, in actuality the address in the county data set contains an extra space character. The duplicate space characters should be removed to facilitate computer matching of the addresses. Nevertheless, when automatic synchronization is working properly the exact entry in the county database would be transmitted to the statewide database – double space included. Data in the statewide database and all county databases should be updated to remove the extraneous <space> characters.

Extra	space	char	acters

SOS_VOTERID	SOS STREET ADDRESS	COUNTY_ADDRESS
OH0025877801	5114 SPICE MARKET W	5114 SPICE MARKET W
OH0021517482	465 ALEXAN DRIA COLONY S	465 ALEXANDRIA COLONY S
OH0021899529	1771 CENTURY CITY W	1771 CENTURY CITY W
OH0023269149	440 ALEXAN DRIA COLONY N	440 ALEXANDRIA COLONY N
OH0017094699	6263 CENTURY CITY N	6263 CENTURY CITY N
OH0022190213	4237 APPIAN WAY W	4237 APPIAN WAY W

Another synchronization issue observed is that for some records in the SWVF the street description is abbreviated while in the county voter file it is spelled out. Warren county has 3,362, Delaware has 98, and Montgomery has 423 such discrepancies. The addresses clearly represent the same property. The data was obviously entered from two different sources or modified in one database and not the other. If it had been entered by the county and synced with the state or if they were entered by the state and synced with the county the values would match. The fact that they don't match is evidence that the databases are not in proper synchronization. The following table provides a few examples.

SOS_VOTERID	SOS STREET ADDRESS	COUNTY STREET ADDRESS
ОН0016710756	845 WIND BLUFF PT	845 WIND BLUFF POINT
OH0025514048	3639 SIMPSONS TRCE	3639 SIMPSONS TRACE
OH0021853015	9303 MAXWELLS XING	9303 MAXWELLS CROSSING
OH0025966324	834 LINDEN CRK	834 LINDEN CREEK

In Franklin County, these 18 records listed below have entirely different street addresses in the two databases.

SOS_VOTERID	SOS SWVF ADDRESS	FRANKLIN COUNTY ADDRESS
OH0017373292	513 E SECOND AVE	4342 BRITT PL
ОН0023372786	1090 FOUNTAIN LN	5040 CHATTERTON RD
OH0020044779	4972 BETSY DR	5248 FLOWER VALLEY DR
OH0019583533	861 ELLINGTON CIR	686 S KELLNER RD
OH0017463902	661 KINGSFORD RD	1551 BRYDEN RD
OH0021262670	3820 CONFLUENCE DR	5512 SENTINEL FALLS ST
OH0022030783	111 W THIRD AVE	30 W FIRST AVE
OH0017267648	1960 DRURY LN	2122 MACKENZIE DR
OH0026166688	3069 CUMBERLAND WOODS DR	694 SHELDON AVE
OH0022386318	2918 BARCLAY SQ S	2819 E DUBLIN GRANVILLE RD
OH0025784271	57 W NINTH AVE	305 E ELEVENTH AVE
OH0017617951	5544 BOULDER CREST ST	3560 FISHINGER MILL DR
OH0022850947	2054 LANGHAM RD	7118 FAULKNER WAY
ОН0026254790	325 W EIGHTH AVE	2895 ANGELO JOSEPH LN
OH0017025278	28 STEVENS AVE	501 CLARENDON AVE
ОН0023996900	898 OXLEY RD	423 S CHAMPION AVE
OH0022190403	2682 GOLDENSTRAND DR	3474 NOE BIXBY RD
OH0017261278	356 INDIAN MOUND RD	4647 VIRGINIA GAY DR

In Cuyahoga County, 4,897 voters have different street addresses in the two data sets. Many address records in the county data set have multiple <space> characters between elements of the address making the addresses appear similar to the reader. However, correct computer synchronization would make the records identical regardless of the <space> characters.

COMPARING VERSIONS OF SWVF DATA

The state wide voter files available from the SOS website are updated weekly. Different versions were compared to evaluate what is changing week to week. The SOS_VOTERID value uniquely identifies each registered voter and should continue to identify the same voter in successive versions of the SWVF. Comparing the 10/16/21 download with the 11/27/21 download files yields some interesting results.

Records with Name Changes

The query below looks for records with different first and last names between the 10/16/21 SWVF download and the 11/27/21 download.

Both the first name and last name fields changed in 56 records. Some of these are presumably name changes or corrections. However, there are also some curious changes. In particular, it is not clear that the same person continues to use the assigned SOS_VOTERID. A few examples from the table below:

- DAVE ANTHONY HINES has become KING INCREASE DADA
- SIVARIS O HODO has become BEN OLIVER EVANS
- ANDREA JEAN HANCAK has become VIOLET LILAC NOVA
- WENDY LEIGH LOOMIS has become VOID LEIGH MORDANT
- STEVEN B GARRETT has become STEPHANIE ANDERSON

SOS_VOTERID	County Name	10-16-21 LNAME	10-16-21 FNAME	10-16-21 MNAME	11-27-21 LNAME	11-27-21 FNAME	11-27-21 MNAME
OH0026257210	Franklin	TAHIR	JAMAL	SALEH	MOHAMEDTAHER	JEMAL	SALEH
OH0021720562	Wood	LENZ	RONALD	R	HEFT	LISA	D
OH0026320791	Warren	FERUZA	AKHMEDOVA	I N	AKHMEDOVA	FERUZA	
OH0019593431	Franklin	SPILLMAN	SYAWANA	ANN	SPILLMAN VIRGIN	SYWANAH	ANN
OH0010048962	Clark	BIRT	LEE	AININ	12255110	12255110	AININ
OH0025365823	Franklin	JOCAS	DONOVANNE	GOMEZ	GOMEZ	VERONICA	
0110023303823			DONOVAINIL	FISHER	GOWIEZ	VERONICA	
OH0023466228	Franklin	ANSARI	NADEEM	ABRAR	NADEEM	ANSARI	ABRAR
OH0015850264	Greene	HUTSON	CHRISTOPHER	WILLIAM	CHRISTOPHER	HUTSON	WILLIAM
OH0017057122	Franklin Pranklin	HINES	DAVE	ANTHONY	DADA	KING	INCREASE
OH0019967848	Montgomery	MOORE	ERICK	ALONZO	IVERY	EMILEON	IVAAN
ОН0026300975	Franklin	BONNY	KAGGWE		KAGGWE	BONNY	
OH0022707732	Franklin Pranklin	HODO	<u>SIRVARIS</u>	O	EVANS	<mark>BEN</mark>	OLIVER PROPERTY OF THE PROPERT
OH0025134537	Seneca	BRANDEBERRY	CATHY		MARTINEZ	CATHERINE	JEAN
OH0025120587	Summit	TONI	CUNNINGHAM	DANIELLE	CUNNINGHAM	TONI	DANIELLE
OH0017044919	Franklin	MARSHALL	AUDREY	LEE	GALIARDI	AUDREY LEE	
OH0024011447	Franklin	GURE	MOHAMED	E	KULANE	HASSAN	AHMED
OH0025266030	Lucas	JACKIE	JOYCE	J	JOYCE	JACKIE	JEROME
OH0025097942	<mark>Lucas</mark>	HANCAK	<mark>ANDREA</mark>	<mark>JEAN</mark>	NOVA	VIOLET	LILAC
OH0026323029	Columbiana	PEBBLES	1	ROELEN	ROELEN	PEBBLES	1
OH0026087983	Franklin	ABO SAFI	HANAA		SAFI	HANNAH	
OH0024029020	Franklin	LOOMIS	WENDY	<mark>LEIGH</mark>	MORDANT	VOID	<mark>LEIGH</mark>
ОН0010696235	Summit	DRONE	JACQUELINE M	SCOTT	SCOTT DRONE	JACQUELINE	
OH0019607982	Hamilton	MILLER	ERIN JOHANNA	DEWITT	DEWITT MILLER	ERIN	JOHANNA
OH0025610961	Franklin	COUSIN	SHA BREANN	N	QUINONES	SHABREANN	N
ОН0025178339	Cuyahoga	BRADY	MYRNA		SHAMP	NINA	DELMARE
OH0024935459	Cuyahoga	CASTEELE	COLIN	R	HAYES	COURTNEY	G
OH0019956771	Butler	GARRETT	STEVEN	B	ANDERSON	STEPHANIE	
OH0026226452	<mark>Franklin</mark>	PHILLIPS	AMANDA	D	FEST	MANDY	DAWN
OH0013827363	Hamilton	BERKEMEYER	LARA MARY	GUTTMAN	GUTTMAN BERKEMEYER	LARA	MARY
OH0013037298	Lucas	DEGNER	TAMMY	S	BLANCHONG	TAMARA	SUE
OH0026285403	Franklin	SESAY	KADIALU		CONTEH	KADIATU	
OH0015640305	Cuyahoga	PORCH	LASLELL	VERDELL	ELLERBAE	LASHELL	VERDELL
OH0026301168	Franklin	DEWAN	GYANU		RAI	GYANENDRA	
OH0017015598	Franklin	TEKIE	HOSANA		JOSEPHAT	HOSANNA	TEKIE
OH0024394072	Franklin	CONRAD	LOGAN	E	CONNOR	ROBYN	ERICA
OH0025030440	Lucas	MOORE	AARON	EDWARD	NOVA	ELENA	MAE
OH0025974702	Wood	ZHONG	CHEN		CHEN	ZHONG	
OH0026305020	Franklin	KHAN	SALEHAWNG	Т	KHAM	SAKHAWNG	Т
OH0010337179	Ashtabula	PITONYAK	MICHELE	A	SZABO	SHELDON	PHILIP

Sometimes people do the unexpected – officially change your name to your inmate number, adopt the name VOID, even a totally new name. However, many entries above are swaps between first name and

last name, which are more likely corrections to data entry mistakes. It is important to verify that these name changes are correct because an incorrect name would disqualify someone from voting. Assuming there were corrections made, it is also important to understand why the errors occurred and to correct the process that allows that to happen.

Changes to Birth Date

Because most people have a single birth date, birth dates for the same voter and SOS VOTERID should be consistent between versions of the SWVF. The following query compares the 9/11/21, 10/16/21, and the 11/27/21 versions of the SWVF.

```
select
case when a.sos voterid = b.SOS VOTERID then 'MATCH' else 'NO MATCH' end as [Sep-
       Oct SOSID],
case when a.LAST NAME+a.FIRST NAME+a.MIDDLE NAME =
       b.LAST NAME+b.FIRST NAME+b.MIDDLE NAME then 'MATCH' else 'NO MATCH' end as
       [Sep-Oct Name],
case when a.RESIDENTIAL ADDRESS1+a.RESIDENTIAL CITY =
       b.RESIDENTIAL ADDRESS1+b.RESIDENTIAL CITY then 'MATCH' else 'NO MATCH' end
       as [Sep-Oct Address],
case when a.DATE OF BIRTH = b.DATE OF BIRTH then 'MATCH' else 'NO MATCH' end as
       [Sep-Oct DOB],
case when c.SOS VOTERID = b.SOS VOTERID then 'MATCH' else 'NO MATCH' end as [Oct-
       Nov SOSID],
case when c.LAST NAME+c.FIRST NAME+c.MIDDLE NAME =
       b.LAST NAME+b.FIRST NAME+b.MIDDLE NAME then 'MATCH' else 'NO MATCH' end as
       [Oct-Nov Name],
case when c.RESIDENTIAL_ADDRESS1+c.RESIDENTIAL_CITY =
       b.RESIDENTIAL ADDRESS1+b.RESIDENTIAL CITY then 'MATCH' else 'NO MATCH' end
       as [Oct-Nov Address],
case when c.DATE_OF_BIRTH = b.DATE_OF_BIRTH then 'MATCH' else 'NO MATCH' end as
       [Oct-Nov DOB],
a.SOS_VOTERID as SepSOSID, a.VOTER_STATUS as SepStatus, b.SOS_VOTERID as OctSOSID,
       b.VOTER STATUS as OctStatus, c.SOS VOTERID as NovSOSID, c.VOTER STATUS as
       NovStatus, e.[County Name],
a.LAST_NAME+', '+a.FIRST_NAME+' ' '+ a.MIDDLE_NAME as SepName, b.LAST NAME+',
       '+b.FIRST_NAME+' '+b.MIDDLE_NAME as OctName, c.LAST_NAME+',
       '+c.FIRST_NAME+' '+c.MIDDLE_NAME as NovName,
a.RESIDENTIAL_ADDRESS1+', '+a.RESIDENTIAL_CITY as SepAddress,
       b.RESIDENTIAL_ADDRESS1+', '+b.RESIDENTIAL_CITY as OctAddress,
c.RESIDENTIAL_ADDRESS1+', '+c.RESIDENTIAL_CITY as NovAddress,
b.REGISTRATION_DATE, a.DATE_OF_BIRTH as SepDOB, b.DATE_OF_BIRTH as OctDOB,
       c.DATE_OF_BIRTH as NovDOB
from dbo.SWVF_091121 a full outer join dbo.SWVF 101621 b on
       a.SOS VOTERID=b.SOS VOTERID full outer join
       dbo.SWVF_112721 c on b.SOS_VOTERID=c.SOS_VOTERID inner join dbo.OH_Counties
       e on b.COUNTY NUMBER=e.County Number
where
       a.sos_voterid <> b.SOS_VOTERID or c.sos_voterid <> b.SOS_VOTERID or
       a.LAST NAME+a.FIRST NAME+a.MIDDLE NAME <>
       b.LAST_NAME+b.FIRST_NAME+b.MIDDLE_NAME or
       c.LAST NAME+c.FIRST NAME+c.MIDDLE NAME <>
       b.LAST NAME+b.FIRST NAME+b.MIDDLE NAME or
       a.RESIDENTIAL ADDRESS1+a.RESIDENTIAL CITY <>
       b.RESIDENTIAL ADDRESS1+b.RESIDENTIAL CITY or
       c.RESIDENTIAL ADDRESS1+c.RESIDENTIAL CITY <>
       b.RESIDENTIAL ADDRESS1+b.RESIDENTIAL CITY or
```

a.DATE_OF_BIRTH <> b.DATE_OF_BIRTH or c.DATE OF BIRTH <> b.DATE OF BIRTH

Comparing September to October files, 167 voters' dates of birth changed. Comparing October to November, 132 registered voters' birth dates changed. 83 voters became between **1 month and 50 years younger**, and 93 voters **became between 1 month and 50 years older**. One can surmise that the changes to dates of birth may be corrections, which is a good thing. However, the number of corrections that are required point to a system that lacks control over data entry processes.

Comparing the existence of SOS_VoterID values between the files 3,489 Voter IDs with ACTIVE Voter Status in October did not appear in the November file and were apparently deleted. The process for removing voters is a 4-year process so the reason for an ACTIVE voter to be removed requires further evaluation.

Conclusions

Based on the counties evaluated there are obvious synchronization issues. In several counties evaluated there is disagreement between state and county as to the number of registered voters. When comparing data for the same voter, discrepancies exist between, names, addresses, dates, voter status, and voting history. If the databases were synchronized these discrepancies would not exist. Which database is correct? If both the SOS and the county are making changes, who is ultimately accountable for accuracy of the voter registration files?

Replication is a database technology designed to keep two or more databases in sync. If replication technology is being used to keep the county and state databases aligned, it does not appear to be working properly.

Birth dates should remain constant over time, but for some reason they don't. One voter was registered in September 2021, and their birth date changed in October and November. The discrepancies discovered should be corrected, and the process for entering and checking birth dates should be improved. The SoS has access to BMV and Social Security data for each voter so determining accurate birth dates should be straight forward. If data must be manually entered, double entry should be used to avoid errors.

PART 3 – ISSUES REQUIRING RESEARCH AND REMEDY

This part of the report examines official certified election results and compares those with the election history in the SWVF. The results discussed below are curious because they are not normal, likely invalid or incorrect, possibly fraudulent, and worthy of further investigation.

Voters Registered at Colleges

The following query identifies addresses with high numbers of registered voters. Many of these addresses are at colleges or universities.

```
select b.[County Name], RESIDENTIAL_ADDRESS1 + ', ' + RESIDENTIAL_CITY + ', OH ' +
      RESIDENTIAL ZIP as FullAddress
       , count(*) as ADDRESS COUNT
       , sum(case when datediff(year, DATE_OF_BIRTH, '2021-11-27') >=25 then 1
      else 0 end) as NumVoters 25YO
       , sum(case when datediff(year, REGISTRATION DATE, '2021-11-27') > 5 then 1
      else 0 end) as NumReg MT 5Y
       , sum(case GENERAL_11_03_2020 when null then 0 else 1 end) Num Voted
from dbo.SWVF_112721 a inner join dbo.OH_Counties b on
       a.COUNTY NUMBER=b.County Number
group by
       RESIDENTIAL ADDRESS1
      , RESIDENTIAL_SECONDARY_ADDR
       , RESIDENTIAL_CITY
      , RESIDENTIAL ZIP
      , b.[County Name]
having count(*) > 7
order by count(*)
```

The query above returns 3,971 addresses with more than 7 voters registered at that address. The table below lists the top 50 addresses with multiple registered voters, the type of facility at the address, the number of registered voters at the address, the number of registered voters 25 years of age and older, and the number that voted in the Nov 2020 Presidential election. Google maps and Street View were used to identify the type of facility at the address.

County Name	Full Address	FACILITY	REG VOTER COUNT	Num Voters 25YO+	Num Registered 5+ yrs	Num Voted
Cuyahoga	2100 LAKESIDE AVE, CLEVELAND, OH 44114	SHELTER	1019	1004	82	52
Greene	1400 BRUSH ROW RD, WILBERFORCE, OH 45384	CENTRAL STATE	839	257	152	127
Montgomery	300 COLLEGE PARK AVE, DAYTON, OH 45469	UNIV OF DAYTON	775	<mark>157</mark>	99	101
Cuyahoga	2227 PAYNE AVE, CLEVELAND, OH 44114	SHELTER	365	348	28	46
Franklin	595 VAN BUREN DR, COLUMBUS, OH 43223	VOL OF AMERICA	323	298	101	6
Hamilton	117 E 12TH ST, CINCINNATI, OH 45202	SHELTER	287	280	169	21
Summit	175 E MARKET ST, AKRON, OH 44308	SHELTER	275	266	144	6
Montgomery	1921 S GETTYSBURG AVE, DAYTON, OH 45417	SHELTER	262	259	129	22
Lorain	95 UNION ST, OBERLIN, OH 44074	OBERLIN COLLEGE	245	<mark>78</mark>	62	101
Lorain	121 ELM ST, OBERLIN, OH 44074	OBERLIN COLLEGE	219	<mark>75</mark>	60	72
Greene	1055 N BICKETT RD, WILBERFORCE, OH 45384	WILBERFORCE UNIV	216	<mark>78</mark>	40	10
Franklin	924 E MAIN ST, COLUMBUS, OH 43205	SHELTER	209	207	102	6
Wayne	1101 BEALL AVE, WOOSTER, OH 44691	COLLEGE OF WOOSTER	207	<mark>147</mark>	122	38

County Name	Full Address	FACILITY	REG VOTER COUNT	Num Voters 25YO+	Num Registered 5+ yrs	Num Voted
Montgomery	120 W APPLE ST, DAYTON, OH 45402	UNIV OF DAYTON	187	<mark>177</mark>	84	14
Franklin	40 W LONG ST, COLUMBUS, OH 43215	SHELTER	187	178	62	28
Shelby	19100 E SHELBY RD, NEW KNOXVILLE, OH 45871	RELIGIOUS CENTER	185	171	86	97
Lorain	176 N PROFESSOR ST, OBERLIN, OH 44074	OBERLIN COLLEGE	185	<mark>53</mark>	36	73
Hamilton	411 GEST ST, CINCINNATI, OH 45203	SHELTER	172	171	52	6
Lucas	105 17TH ST, TOLEDO, OH 43604	SHELTER	170	168	95	9
Franklin	61 E MOUND ST, COLUMBUS, OH 43215	SHELTER	167	165	89	21
Lorain	194 N PROFESSOR ST, OBERLIN, OH 44074	OBERLIN COLLEGE	165	<mark>51</mark>	47	58
Wayne	1406 BEALL AVE, WOOSTER, OH 44691	COLLEGE OF WOOSTER	165	<mark>84</mark>	79	10
Cuyahoga	27100 CEDAR RD, BEACHWOOD, OH 44122	APARTMENTS	163	163	7	104
Erie	3416 COLUMBUS AVE, SANDUSKY, OH 44870	VETERANS HOME	158	158	68	115
Geauga	13000 AUBURN RD, CHARDON, OH 44024	SCHOOL/CONVENT	153	153	113	145
Knox	202 GASKIN AVE, GAMBIER, OH 43022	KENYON COLLEGE	149	<mark>29</mark>	24	48
Franklin	245 N GRANT AVE, COLUMBUS, OH 43215	SHELTER	137	133	58	13
Hamilton	1101 SUMMIT RD, CINCINNATI, OH 45237	PSYCH HOSPITAL	136	132	70	31
Stark	2550 CLEVELAND AVE NW, CANTON, OH 44709	MALONE UNIV	134	134	27	82
Franklin	80 W ELEVENTH AVE, COLUMBUS, OH 43210	OHIO STATE UNIV	126	<mark>17</mark>	19	51
Cuyahoga	3135 LORAIN AVE, CLEVELAND, OH 44113	SHELTER	125	122	23	12
Montgomery	3849 GERMANTOWN PIKE, DAYTON, OH 45417	CARREER COLLEGE	125	<mark>78</mark>	45	0
Knox	217 N ACLAND ST, GAMBIER, OH 43022	KENYON COLLEGE	123	<mark>47</mark>	27	53
Wayne	1209 N BEVER ST, WOOSTER, OH 44691	COLLEGE OF WOOSTER	123	<mark>97</mark>	74	10
Lorain	169 N PROFESSOR ST, OBERLIN, OH 44074	OBERLIN COLLEGE	122	<mark>16</mark>	15	50
Greene	251 N MAIN ST, CEDARVILLE, OH 45314	CEDARVILLE UNIV	120	<mark>60</mark>	21	46
Cuyahoga	1710 PROSPECT AVE, CLEVELAND, OH 44115	SHELTER	119	115	11	6
Greene	1 MORGAN PL, YELLOW SPRINGS, OH 45387	ANTIOCH COLLEGE	117	<mark>81</mark>	52	13
Knox	215 N ACLAND ST, GAMBIER, OH 43022	KENYON COLLEGE	114	<mark>15</mark>	12	34
Lorain	140 W COLLEGE ST, OBERLIN, OH 44074	OBERLIN COLLEGE	113	<mark>18</mark>	20	44
Franklin	4595 GENDER RD, CANAL WINCHESTER, OH 43110	VALOR COLLEGE	113	<mark>62</mark>	39	27
Knox	206 COLLEGE-PARK ST, GAMBIER, OH 43022	KENYON COLLEGE	111	<mark>53</mark>	34	21
Wayne	1330 BEALL AVE, WOOSTER, OH 44691	COLLEGE OF WOOSTER	109	<mark>78</mark>	60	13
Cuyahoga	5520 BROADVIEW RD, PARMA, OH 44134	CONDOMINIUMS	109	109	8	54
Cuyahoga	1 JOHN CARROLL BLVD, UNIVERSITY HTS, OH 44118	JOHN CARROLL UNIV	107	<mark>34</mark>	3	14
Montgomery	6451 FAR HILLS AVE, CENTERVILLE, OH 45459	SENIOR CARE	106	106	85	62
Cuyahoga	4545 COLLEGE RD, SOUTH EUCLID, OH 44121	NOTRE DAME COLLEGE	105	44	3	25
Hamilton	990 BAYLEY PLACE DR, CINCINNATI, OH 45233	SENIOR CARE	105	105	98	82
Hamilton	682 HAWTHORNE AVE, CINCINNATI, OH 45205	SMALL CHURCH	104	100	61	40
Cuyahoga	13421 COIT RD, CLEVELAND, OH 44110	CARREER COLLEGE	103	<mark>53</mark>	26	4

Colleges and Universities are prevalent on the list. In addition, college and university addresses have many persons over 25 years old registered at their address. Many of those voters were registered more than 5 years ago. It is likely that these persons either have enormous student loan debt, or they have left the college and these are no longer valid registrations, particularly if the registration is more than 5 years old.

In 2014 Judicial Watch and True The Vote <u>settled litigation</u> relevant to compliance with the National Voter Registration Act with then Ohio Secretary of State Jon Husted. The settlement required the SoS to

use reasonable efforts to promote the expanded use of Ohio's voter registration online change of address system to recent college graduates, including education to remind students to keep their registration current. The large number of aging registrations at college addresses noted in the table above indicates that the SoS should begin an aggressive effort to purge invalid voter registrations at college addresses.

Registered After Voting in an Election

The following query searches for voters registered after the November 3rd, 2020 Presidential election even though they voted in that election.

162, 451 voters voted on 11/3/2020 despite being registered after 11/3/2020.

A county board of elections official explained. Persons allowed to cast provisional ballots are marked as having voted in an election and their voter registration is then updated after the election. Allowing 30 days to enter those registration updates (and assuming the registration date was changed even though these are updates and not new registrations), 151,443 voters voted 11/3/2020 have registrations later than 12/3/2020. Another explanation was that when voters update their address after moving from one county to another, they receive a new registration date. That explanation does not seem to account for the volume of post-election registrations observed. Ohio Realtors reported 169,585 home sales in 2021. Many of these would be within the same county and not result in new registrations. The large number of post-election registrations deserves further investigation and verification against other data the SoS has available to him.

Gaps in the SOS VOTERID Sequence

It is common in database architecture to assign a unique record identifier to reach record in a table. These unique identifiers are typically sequential numbers automatically assigned by the database system. In the statewide voter files and database, the SOS_VOTERID column is this type of sequentially assigned unique identifier. When a sorted list of these identifiers is viewed gaps in the sequence of the identifiers is apparent. Gaps occur when records are deleted. In the statewide datafile downloaded from the SOS website on 11/27/21, the lowest sequence number is OH0010000000 and the highest is OH0026340375. Between, there are 8,362,749 missing SOS_VOTERIDs between these numbers signifying potentially 8.3 million deleted voter registration records. It is possible some of these records exist in the database but are not available for public download. Election integrity investigators in other states have theorized that a potential fraud mechanism is to add entries to voter rolls prior to an election, execute votes for these "ghost" voters, and then remove those registration entries after the election. Adding and removing "ghost" voters in this fashion could create gaps in the SOS_VOTERID sequence. Given the extraordinary number of potentially deleted records reasons for deleting the records or preventing their inclusion in the SWVF downloadable data should be evaluated.

Multiple Voters Registered at Mobile Home Park Lots

The following query identifies addresses that have a secondary address with the type "Lot" having more than 2 registered voters at that address. Most of these lots are mobile homes and unlikely to comfortably house more than a couple adults.

```
select SOS_VOTERID, [County Name], c.NumVoters, LAST_NAME, FIRST_NAME,
      MIDDLE_NAME, SUFFIX, date_of_birth, DATEDIFF(year,date_of_birth,'2021-09-
      16') as AGE, REGISTRATION DATE, VOTER STATUS,
      RESIDENTIAL_ADDRESS1 +', ' + RESIDENTIAL_SECONDARY_ADDR + ', ' +
      RESIDENTIAL_CITY +', ' + RESIDENTIAL_STATE + ' ' + RESIDENTIAL_ZIP as
      FullAddress
from dbo.SWVF_112721 a inner join OH_Counties b on a.COUNTY_NUMBER=b.County_Number
      inner join
       (select RESIDENTIAL CITY+RESIDENTIAL ADDRESS1+RESIDENTIAL SECONDARY ADDR as
      AddressCombined, count(*) as NumVoters
       from dbo.SWVF 112721
       where RESIDENTIAL_SECONDARY_ADDR like 'LOT%'
      GROUP BY RESIDENTIAL_CITY, RESIDENTIAL_ADDRESS1, RESIDENTIAL_SECONDARY_ADDR
      HAVING COUNT(*)>2) c
      a.RESIDENTIAL CITY+a.RESIDENTIAL ADDRESS1+a.RESIDENTIAL SECONDARY ADDR=c.Ad
      dressCombined
order by c.NumVoters desc, RESIDENTIAL_CITY, RESIDENTIAL_ADDRESS1,
      RESIDENTIAL_SECONDARY_ADDR
```

The above query produces 2167 addresses and 7038 registered voters . The table below is a partial listing of the results of this query. As an example, the first 7 voters listed all live at 23720 LIME CITY RD, LOT 142, PERRYSBURG, OH 43551. Most appear to be family members; however, one individual has a different last name. Google maps has a photo of this residence. 2 voters have CONFIRMATION status indicating there is a reason the board of elections believes the registration is not valid, perhaps due to a different address on file with the BMV. Still, one would imagine it difficult for 5 adults to occupy this residence.



At 4800 DUVALL RD, LOT 224, ASHVILLE, OH 43103, 6 voters with 5 different last names are listed as active voters suggesting that the residents have moved but the registrations have not kept up with that activity.

We can speculate that many of these voter registrations are no longer valid because the county Board of Elections may be unaware the individual has moved. The Board of Elections or SOS can confirm

addresses and identities by cross-checking with other databases such as the BMV, National Change of Address, and Social Security.

SOS VOTERID	County Name	LAST NAME	FIRST NAME	MIDDLE NAME	AGE	REGISTRATION DATE	VOTER STATUS	Full Address
ОН0025080350	Wood	LONG	KAYLA	NICOLE	21	2019-04-15	CONFIRMATION	23720 LIME CITY RD, LOT 142, PERRYSBURG, OH 43551
OH0012815303	Wood	LONG	FRANK	С	50	2004-03-20	ACTIVE	23720 LIME CITY RD, LOT 142, PERRYSBURG, OH 43551
ОН0023195557	Wood	LONG	AARON	PAUL	26	2015-07-10	ACTIVE	23720 LIME CITY RD, LOT 142, PERRYSBURG, OH 43551
OH0012815218	Wood	LONG	SHERRY	LYNN	50	2002-07-31	ACTIVE	23720 LIME CITY RD, LOT 142, PERRYSBURG, OH 43551
ОН0026010162	Wood	LONG	SARAH	COLLEEN	19	2020-10-05	ACTIVE	23720 LIME CITY RD, LOT 142, PERRYSBURG, OH 43551
ОН0023852968	Wood	LONG	HOPE	ANN	23	2016-08-22	CONFIRMATION	23720 LIME CITY RD, LOT 142, PERRYSBURG, OH 43551
ОН0023617564	Wood	KUHLENBECK	ABBY	MARIE	23	2021-05-24	ACTIVE	23720 LIME CITY RD, LOT 142, PERRYSBURG, OH 43551
ОН0026261073	Portage	BREIDING	KYLE	SCOTT	30	2021-08-17	ACTIVE	6605 STATE ROUTE 5, LOT 64, RAVENNA, OH 44266
ОН0026133621	Portage	BREIDING	BRITTANY	KATE	33	2021-01-27	ACTIVE	6605 STATE ROUTE 5, LOT 64, RAVENNA, OH 44266
OH0024968912	Portage	THOMAS	DREW	ADAM	22	2018-10-23	CONFIRMATION	6605 STATE ROUTE 5, LOT 64, RAVENNA, OH 44266
OH0010911775	Portage	THOMAS	MICHAEL	TROY	53	1992-09-22	CONFIRMATION	6605 STATE ROUTE 5, LOT 64, RAVENNA, OH 44266
ОН0023131323	Portage	THOMAS	DANIEL	A	24	2015-05-18	CONFIRMATION	6605 STATE ROUTE 5, LOT 64, RAVENNA, OH 44266
OH0012269706	Portage	THOMAS	NICOLE	MARIE	50	1992-10-05	CONFIRMATION	6605 STATE ROUTE 5, LOT 64, RAVENNA, OH 44266
ОН0022422533	Portage	THOMAS	DUSTIN	ANTHONY	26	2013-05-25	CONFIRMATION	6605 STATE ROUTE 5, LOT 64, RAVENNA, OH 44266
ОН0010357566	Pickaway	BAILEY	REBECCA	A	71	1989-10-10	ACTIVE	4800 DUVALL RD, LOT 224, ASHVILLE, OH 43103
ОН0025576527	Pickaway	WIRTH	JAMES	R	52	2020-06-11	ACTIVE	4800 DUVALL RD, LOT 224, ASHVILLE, OH 43103
OH0010358488	Pickaway	BLAIR	LAWRENCE	E	46	2020-10-01	ACTIVE	4800 DUVALL RD, LOT 224, ASHVILLE, OH 43103
OH0010357568	Pickaway	BAILEY	ROBERT	J	65	2001-12-11	ACTIVE	4800 DUVALL RD, LOT 224, ASHVILLE, OH 43103
ОН0019294185	Pickaway	MOYERS	ANNE	R	51	2007-10-09	ACTIVE	4800 DUVALL RD, LOT 224, ASHVILLE, OH 43103
ОН0023311411	Pickaway	HOUSH	DAVID	L	43	2015-09-24	ACTIVE	4800 DUVALL RD, LOT 224, ASHVILLE, OH 43103
OH0021635904	Wood	LEWIS	ROBERT	К	51	2011-12-23	CONFIRMATION	535 W GYPSY LANE RD, LOT 118A, BOWLING GREEN, OH 43402
OH0012770478	Wood	LEWIS	KIMBERLY	К	52	2014-05-16	CONFIRMATION	535 W GYPSY LANE RD, LOT 118A, BOWLING GREEN, OH 43402
OH0022853241	Wood	LEWIS	VIRGINIA	LYNN	41	2021-09-04	ACTIVE	535 W GYPSY LANE RD, LOT 118A, BOWLING GREEN, OH 43402
ОН0012775303	Wood	LEWIS	BEVERLY	J	75	2006-08-27	ACTIVE	535 W GYPSY LANE RD, LOT 118A, BOWLING GREEN, OH 43402
OH0022924420	Wood	LEWIS	NATHANIAL	RICHARD	35	2021-06-30	ACTIVE	535 W GYPSY LANE RD, LOT 118A, BOWLING GREEN, OH 43402
ОН0022371976	Wood	GRAVES	SARAH	E	28	2013-04-08	CONFIRMATION	535 W GYPSY LANE RD, LOT 118A, BOWLING GREEN, OH 43402

SOS VOTERID	County Name	LAST NAME	FIRST NAME	MIDDLE NAME	AGE	REGISTRATION DATE	VOTER STATUS	Full Address
OH0021273817	Marion	LANDRUM	SUE	M	29	12/6/2010	CONFIRMATION	3068 MARION WALDO RD, LOT 13, MARION, OH 43302
OH0018952073	Marion	ROBERTS	THOMAS	A	50	7/25/2018	ACTIVE	3068 MARION WALDO RD, LOT 13, MARION, OH 43302
OH0012225947	Marion	TIMMONS	ERIC	DAVID	39	6/17/2002	CONFIRMATION	3068 MARION WALDO RD, LOT 13, MARION, OH 43302
ОН0026106030	Marion	ROBERTS	JAMES	DANIEL	54	11/30/2020	ACTIVE	3068 MARION WALDO RD, LOT 13, MARION, OH 43302
OH0026139652	Marion	ROBERTS	SHARON	M	52	2/1/2021	ACTIVE	3068 MARION WALDO RD, LOT 13, MARION, OH 43302
ОН0012225933	Marion	TIMMONS	EDWARD	E	75	10/27/1988	CONFIRMATION	3068 MARION WALDO RD, LOT 13, MARION, OH 43302

Voters Registered at The UPS Store

The Ohio Revised Code, ORC 3503.02(A), defines a residence for the purposes of voter registration as the place "in which the person's habitation is fixed and to which, whenever the person is absent, the person has the intention of returning." The EOM, Chapter 4, page 77, directs that "a person cannot list a post office box or a commercial mail store as their residence for voting purposes." It further directs county boards of election to regularly review the eligibility of any elector whose voter registration address is an address of a rented postal box and to program their voter registration systems to flag the use of these types of addresses.

The Secretary of State's office was made aware of voters registered at The UPS Store in March 2022. Since then, a more extensive list of The UPS Store locations was compiled revealing additional registrants at these addresses. 62 of the voters that were reported to the SoS remain in the voter registration database as of 6/11/22.

The statewide voter file downloaded on 6/11/22 was screened against a list of The UPS Store addresses obtained from UPS.com. 294 persons were identified as registered at The UPS Store addresses. 203 of these persons are registered at locations in strip malls or stand-alone, single-story, commercial buildings. The remaining 91 possibly live in apartments above a The UPS Store location; however, because the street address matches further investigation is required to verify whether those are legitimate registrations. 146 of these individuals voted in the November 2020 Presidential election, 22 voted in the November 2021 general election, and 29 voted in the May 2022 primary election. The table below summarizes The UPS Store registrations and voters by county.

County	Number of The UPS Store Registrants	Number of Nov 2020 Voters	Number of Nov 2021 Voters	Number of May 2022 Voters
Allen	5	2		1
Ashland	9	5	1	2
Butler	40	12	1	2
Clermont	2	1		
Coshocton	3			
Cuyahoga	19	14	4	4
Delaware	2			
Fairfield	1	1		

County	Number of The UPS Store Registrants	Number of Nov 2020 Voters	Number of Nov 2021 Voters	Number of May 2022 Voters
Franklin	7	5		
Geauga	3	2		
Greene	18	9	2	2
Hamilton	16	7	1	
Hancock	2			
Jefferson	6	2		
Lake	20	7		2
Lorain	2	2		
Lucas	1			
Mahoning	9	4	1	1
Medina	9	5	2	2
Miami	2			
Montgomery	14	5	1	
Portage	1	1		
Richland	2	2		1
Sandusky	1	1	1	1
Shelby	2	1		
Stark	5	2		
Summit	87	55	8	11
Tuscarawas	3			
Warren	1			
Washington	2	1		
Grand Total	294	146	22	29

The pictures below are Google Maps images that illustrate the commercial nature of most The UPS Store Locations.



The UPS Store, 3221 Elida Rd., Lima, OH



The UPS Store, 1491 Polaris Pkwy, Columbus, OH



1. The UPS Store, 436 Warren St., Dayton, OH. Possible residence above store.

Deceased Persons Still Registered to Vote

On February 4, 2022, <u>The Ohio Press Network</u> reported that Secretary of State Frank LaRose announced 62 referrals for potential election fraud to prosecutors. In the announcement the SoS stated that 14 deceased individuals potentially voted.

Vital statistics mortality data for the period 2000 through November of 2021 was obtained from the Ohio Department of Health. By matching last names, first names, middle initials, and birth dates in the death records with like data in the SWVF potential deceased voters that remain on Ohio's voter rolls can be identified with a high degree of certainty. The Secretary of State would have even more reliable means for identifying dead voters.

The following query compares death records to voter registration records.

The query produces the following results using the 11/27/21 data set

- 13,888 voter registrations have matching death records
- 9,624 voter registrations with matching death records have ACTIVE status
- 123 voter registrations with date of death prior to 10/4/20 voted in the Nov 2020 Presidential election.
- 87 voters were registered after their date of death.

The same analysis on a 6/11/22 data set shows:

- 726 voter registrations have matching death records
- 294 voter registrations with matching death records have ACTIVE status
- 108 voter registrations with date of death prior to 10/4/20 voted in the Nov 2020 Presidential election.
- 40 voter registrations with date of death prior to 10/3/20 voted in the Nov 2021 general election.
- 67 voters were registered after their date of death.

The table below shows a few examples of vital statistics death records and their matching statewide voter file records.

Vital Statistic	Vital Statistics Data			SWVF Data							
First	Mid	Last	DOD	DOB	SOS VoterID	First	Mid	Last	DOB	County	Voter Status
KAREN	LYNN	BROWN	11/17/2004	4/24/1949	OH0013167508	KAREN	LEE	BROWN	4/24/1949	Lucas	ACTIVE
FRIEDA	ANN	WILLIS	9/19/2006	7/9/1937	OH0021935707	FRIEDA	ANN	WILLIS	7/9/1937	Pickaway	ACTIVE
LINDA	JEAN	CLARK	4/13/2008	5/1/1953	OH0013082972	LINDA	J	CLARK	5/1/1953	Lucas	ACTIVE
WILLIAM	E	BROWN	12/26/2009	1/19/1955	OH0023378926	WILLIAM	EMERSON	BROWN	1/19/1955	Lucas	ACTIVE
BARBARA	Α	WILLIAMS	2/15/2012	5/14/1948	OH0019933978	BARBARA	A	WILLIAMS	5/14/1948	Geauga	ACTIVE
SUSAN	MARIE	ROBERTS	9/2/2012	11/18/1955	OH0013175179	SUSAN	MARIE	ROBERTS	11/18/1955	Lucas	ACTIVE
MARY	С	BROWN	5/7/2015	5/4/1948	OH0012100245	MARY	С	BROWN	5/4/1948	Monroe	ACTIVE
MARY	ALICE	ANDERSON	12/26/2015	11/29/1955	OH0013011487	MARY	ALICE	ANDERSON	11/29/1955	Lucas	ACTIVE
ROY	Α	MILLER	3/31/2016	6/29/1943	OH0011611376	ROY	A	MILLER	6/29/1943	Holmes	ACTIVE
PATRICIA	ANN	SCHMIDT	5/8/2016	7/19/1946	OH0016085173	PATRICIA	ANN	SCHMIDT	7/19/1946	Scioto	ACTIVE
MARK	Α	SMITH	11/29/2016	11/18/1959	OH0018819246	MARK	ALAN	SMITH	11/18/1959	Muskingum	ACTIVE
NANCY	L	DAVIS	12/16/2016	10/3/1951	OH0016845859	NANCY	LEE	DAVIS	10/3/1951	Licking	ACTIVE

Vital Statistics Data			SWVF Data								
First	Mid	Last	DOD	DOB	SOS VoterID	First	Mid	Last	DOB	County	Voter Status
ROBERT	L	SMITH	8/24/2019	7/15/1939	OH0025644627	ROBERT	L	SMITH	7/15/1939	Delaware	ACTIVE
DAVID	М	BAKER	5/15/2020	6/8/1965	OH0015591175	DAVID	MICHAEL	BAKER	6/8/1965	Columbiana	ACTIVE

More than 13,000 deceased voters have been removed since 11/27/21, although several hundred still remain. We believe the voter registration database should be in prime condition PRIOR to an election. Purging of dead voters after an election has little value.

COMPARING THE SWVF WITH ELECTION RESULTS

Official election results are archived on the SoS website. Since the SWVF includes voter history for several elections it is interesting to tally the voter history and compare it to the official results. However, while doing this we must consider that some persons that voted in an election may have been removed from the voter registration database for valid reasons and are no longer included in the 11/27/21 SWVF.

November 2020 Presidential Election

For the 11/3/2020 Presidential election, the table below compares the <u>General Election Official Canvass</u> County Level Voter Turnout Report with the data reported in the 11/27/21 SWVF.

County Name	Registered Voters	Ballots Counted	Official Voter Turnout	SWVF Voted On 11-03-20	Difference
Adams	17,246	12,280	71.2%	12,150	-130
Allen	67,374	48,353	71.8%	47,735	-618
Ashland	34,837	26,771	76.8%	26,384	-387
Ashtabula	61,453	44,649	72.7%	44,076	-573
Athens	39,344	26,350	67.0%	26,177	-173
Auglaize	32,489	25,940	79.8%	25,655	-285
Belmont	46,315	33,364	72.0%	32,972	-392
Brown	29,069	21,268	73.2%	21,058	-210
Butler	256,908	187,828	73.1%	185,533	-2,295
Carroll	18,416	14,303	77.7%	14,174	-129
Champaign	26,492	20,096	75.9%	19,855	-241
Clark	89,826	64,710	72.0%	63,863	-847
Clermont	145,129	111,333	76.7%	110,502	-831
Clinton	27,616	20,657	74.8%	20,408	-249
Columbiana	66,293	50,411	76.0%	49,800	-611
Coshocton	22,730	16,900	74.4%	16,650	-250
Crawford	28,211	20,860	73.9%	20,527	-333
Cuyahoga	888,556	631,199	71.0%	621,995	-9,204
Darke	34,669	27,371	78.9%	27,003	-368
Defiance	26,411	19,613	74.3%	19,302	-311

County Name	Registered Voters	Ballots Counted	Official Voter Turnout	SWVF Voted On	Difference
Delaware	151,756	127,111	83.8%	11-03-20 127,024	-87
Erie	54,129	40,783	75.3%	40,365	-418
Fairfield	109,176	84,061	77.0%	83,547	-514
Fayette	17,180	12,704	73.9%	12,582	-122
Franklin	882,635	636,056	72.1%	622,893	-13,163
Fulton	29,496	22,982	77.9%	22,662	-320
Gallia	18,982	13,922	73.3%	13,777	-145
Geauga	67,969	56,600	83.3%	56,085	-515
Greene	118,938	89,627	75.4%	88,905	-722
Guernsey	24,549	18,383	74.9%	18,167	-216
Hamilton	600,386	434,956	72.4%	428,264	-6,692
Hancock	51,714	39,066	75.5%	38,580	-486
Hardin	18,211	13,388	73.5%	13,086	-302
Harrison	10,205	7,726	75.7%	7,611	-115
Henry	19,710	14,907	75.6%	14,711	-196
Highland	27,351	19,792	72.4%	19,581	-211
Hocking	18,645	13,915	74.6%	13,732	-183
Holmes	18,286	13,246	72.4%	13,041	-205
Huron	36,886	27,397	74.3%	27,065	-332
Jackson	21,013	14,932	71.1%	14,778	-154
Jefferson	48,167	33,694	70.0%	33,134	-560
Knox	42,320	31,595	74.7%	31,313	-282
Lake	163,936	131,603	80.3%	130,308	-1,295
Lawrence	44,119	28,473	64.5%	28,084	-389
Licking	124,208	94,899	76.4%	93,902	-997
Logan	32,218	23,706	73.6%	23,559	-147
Lorain	218,501	158,732	72.6%	157,505	-1,227
Lucas	299,794	202,321	67.5%	199,734	-2,587
Madison	25,827	19,984	77.4%	19,853	-131
Mahoning	165,259	119,968	72.6%	118,278	-1,690
Marion	40,262	28,151	69.9%	27,791	-360
Medina	130,169	106,755	82.0%	106,221	-534
Meigs	15,414	11,091	72.0%	10,958	-133
Mercer	29,398	23,907	81.3%	23,682	-225
Miami	75,470	58,361	77.3%	57,877	-484
Monroe	9,572	7,249	75.7%	7,116	-133
Montgomery	372,139	270,531	72.7%	267,380	-3,151
Morgan	9,262	6,908	74.6%	6,801	-107
Morrow	25,186	18,570	73.7%	18,426	-144

County Name	Registered Voters	Ballots Counted	Official Voter Turnout	SWVF Voted On 11-03-20	Difference
Muskingum	55,078	40,766	74.0%	40,379	-387
Noble	8,138	6,461	79.4%	6,383	-78
Ottawa	30,442	24,243	79.6%	23,984	-259
Paulding	12,811	9,576	74.7%	9,472	-104
Perry	22,541	16,840	74.7%	16,624	-216
Pickaway	36,306	28,480	78.4%	28,302	-178
Pike	18,124	12,536	69.2%	12,340	-196
Portage	108,884	83,475	76.7%	82,779	-696
Preble	28,654	21,982	76.7%	21,725	-257
Putnam	23,859	20,072	84.1%	19,794	-278
Richland	82,754	60,336	72.9%	59,579	-757
Ross	46,037	33,558	72.9%	33,261	-297
Sandusky	40,470	30,453	75.2%	29,973	-480
Scioto	46,120	32,351	70.1%	32,053	-298
Seneca	34,413	26,068	75.8%	25,600	-468
Shelby	32,843	25,449	77.5%	25,219	-230
Stark	252,972	191,252	75.6%	189,686	-1,566
Summit	379,673	283,705	74.7%	280,352	-3,353
Trumbull	136,895	101,813	74.4%	100,439	-1,374
Tuscarawas	59,638	44,580	74.8%	44,026	-554
Union	41,432	33,705	81.4%	33,833	128
VanWert	20,291	15,077	74.3%	14,859	-218
Vinton	8,627	6,105	70.8%	6,086	-19
Warren	167,606	137,187	81.9%	136,405	-782
Washington	42,774	32,343	75.6%	31,746	-597
Wayne	74,470	54,848	73.7%	54,382	-466
Williams	25,515	18,963	74.3%	18,755	-208
Wood	93,149	68,103	73.1%	67,213	-890
Wyandot	15,491	11,486	74.1%	11,324	-162

The ballots cast (voted) tally in the 11/27/21 SWVF file is short over 73,000 votes from the posted official Nov 3, 2020 election results. In the SWVF data, most every county has fewer 11/3/20 voters than the official results state. What happened to the 73,351 voters that disappeared from the voter rolls? Did they all move out of state? An investigation to explain the lost vote tallies needs to address these questions.

Another observation relates to the SoS <u>General Election Official Canvass Precinct Level Voter Turnout Report</u>. 66 precincts in this election had an unprecedented 90% or higher turnout. The following table filters the report to show those precincts.

	November 3, 2020 General Election Official Canvass Precinct Level Voter Turnout Report										
County Name	Precinct Name	Precinct Code	Region Name	Media Market	Registered Voters	Ballots Counted	Official Voter Turnout				
Butler	HAM16WD1	ACF	Southwest	Cincinnati	251	227	90.44%				
Cuyahoga	BRECKSVILLE-00-H	AEY	Northeast	Cleveland	1,038	951	91.62%				
Cuyahoga	FAIRVIEW PARK-01-A	BRM	Northeast	Cleveland	948	862	90.93%				
Cuyahoga	ROCKY RIVER-01-B	COF	Northeast	Cleveland	1,008	911	90.38%				
Cuyahoga	VALLEY VIEW-00-B	DCM	Northeast	Cleveland	756	681	90.08%				
Darke	PRECINCT WABASH AND NORTH STAR VILLAGE	ABT	West	Dayton	637	576	90.42%				
Delaware	PRECINCT GENOA F	ACE	Central	Columbus	738	665	90.11%				
Delaware	PRECINCT POWELL D	ACY	Central	Columbus	811	736	90.75%				
Delaware	PRECINCT POWELL H	AEY	Central	Columbus	1,049	949	90.47%				
Delaware	PRECINCT GENOA S	AFV	Central	Columbus	648	584	90.12%				
Delaware	PRECINCT WESTERVILLE CITY H	AGC	Central	Columbus	769	710	92.33%				
Franklin	BEXLEY 2-B	AAE	Central	Columbus	1,226	1,107	90.29%				
Franklin	BEXLEY 4-B	AAK	Central	Columbus	810	735	90.74%				
Franklin	COLS 19-A	ADW	Central	Columbus	829	749	90.35%				
Franklin	COLS 19-C	ADY	Central	Columbus	930	858	92.26%				
Franklin	COLS 19-E	AEA	Central	Columbus	763	702	92.01%				
Franklin	COLS 20-A	AEE	Central	Columbus	1,468	1,328	90.46%				
Franklin	COLS 21-E	AEL	Central	Columbus	1,083	994	91.78%				
Franklin	COLS 21-F	AEM	Central	Columbus	898	809	90.09%				
Franklin	COLS 72-A	AQL	Central	Columbus	795	721	90.69%				
Franklin	COLS 72-D	AQO	Central	Columbus	780	719	92.18%				
Franklin	GAH 4-D	ASQ	Central	Columbus	878	816	92.94%				
Franklin	GRANDVIEW-B	ASV	Central	Columbus	938	849	90.51%				
Franklin	UA 1-E	AVE	Central	Columbus	891	811	91.02%				
Franklin	UA 3-A	AVL	Central	Columbus	811	745	91.86%				
Franklin	UA 4-A	AVQ	Central	Columbus	904	822	90.93%				
Franklin	UA 6-C	AWD	Central	Columbus	575	532	92.52%				
Franklin	UA 6-D	AWE	Central	Columbus	1,475	1,332	90.31%				
Franklin	WORTH 1-A	AXU	Central	Columbus	921	832	90.34%				
Franklin	WORTH 1-B	AXV	Central	Columbus	807	739	91.57%				
Franklin	WORTH 1-C	AXW	Central	Columbus	921	834	90.55%				
Franklin	WORTH 1-D	AXX	Central	Columbus	488	453	92.83%				
Franklin	WORTH 3-A	AYB	Central	Columbus	715	646	90.35%				
Franklin	WORTH 3-B	AYC	Central	Columbus	890	816	91.69%				
Franklin	WORTH 4-C	AYH	Central	Columbus	617	557	90.28%				
Franklin	PERRY-A	BAP	Central	Columbus	773	705	91.20%				
Franklin	RIVERLEA-A	BBQ	Central	Columbus	483	451	93.37%				

	November 3, 2020 General Election Official Canvass Precinct Level Voter Turnout Report										
County Name	Precinct Name	Precinct Code	Region Name	Media Market	Registered Voters	Ballots Counted	Official Voter Turnout				
Franklin	GAH 2-F	BDB	Central	Columbus	387	356	91.99%				
Franklin	HILL 2-F	BMF	Central	Columbus	637	575	90.27%				
Geauga	PRECINCT CHARDON TWP B	AAX	Northeast	Cleveland	633	570	90.05%				
Geauga	PRECINCT MUNSON TWP F	ACE	Northeast	Cleveland	991	903	91.12%				
Geauga	PRECINCT RUSSELL TWP A	ACR	Northeast	Cleveland	947	867	91.55%				
Hamilton	COLUMBIA H	BDN	Southwest	Cincinnati	2	2	100.00%				
Hamilton	COLUMBIA I	BDO	Southwest	Cincinnati	11	10	90.91%				
Hamilton	GREEN MM	BHT	Southwest	Cincinnati	707	638	90.24%				
Lake	PRECINCT MENTOR CITY 1G	ABB	Northeast	Cleveland	1,028	929	90.37%				
Lake	PRECINCT CONCORD TWP B	AFK	Northeast	Cleveland	895	825	92.18%				
Lake	PRECINCT LAKELINE VILLAGE AA	AFU	Northeast	Cleveland	161	150	93.17%				
Lake	PRECINCT WAITE HILL VLG AA	AHF	Northeast	Cleveland	426	384	90.14%				
Lake	PRECINCT CONCORD TWP K	AHX	Northeast	Cleveland	665	615	92.48%				
Lorain	PRECINCT N. RIDGEVILLE 3-H	ALL	Northeast	Cleveland	935	865	92.51%				
Mahoning	PRECINCT BVT 6	AJR	Northeast	Youngstown	330	297	90.00%				
Mahoning	PRECINCT ELT 1	ANG	Northeast	Youngstown	<mark>792</mark>	<mark>868</mark>	109.60%				
Mercer	GRANVILLE TOWNSHIP EAST	AAZ	West	Dayton	520	484	93.08%				
Mercer	MARION EAST	ABL	West	Dayton	1,113	1,028	92.36%				
Mercer	MARION WEST	ABM	West	Dayton	1,131	1,023	90.45%				
Mercer	RECOVERY TOWNSHIP	ABO	West	Dayton	852	767	90.02%				
Putnam	MONTEREY TWP	AAO	Northwest	Toledo	801	739	92.26%				
Putnam	PLEASANT TWP	ABF	Northwest	Toledo	1,202	1,083	90.10%				
Putnam	UNION TWP	ABQ	Northwest	Toledo	1,088	1,008	92.65%				
Putnam	OTTAWA TWP. WEST	ABZ	Northwest	Toledo	754	682	90.45%				
Seneca	PRECINCT CLINTON E	ABU	Northwest	Toledo	386	350	90.67%				
Union	JEROME 1	ABA	Central	Columbus	1,342	1,211	90.24%				
Union	JEROME 5	ABF	Central	Columbus	680	615	90.44%				
Union	JEROME 6	ACC	Central	Columbus	838	769	91.77%				
Warren	HAMILTON TWP U	AHE	Southwest	Cincinnati	951	871	91.59%				

Mahoning County, Precinct ELT1, reports 109.6% turnout with 868 ballots cast but only 792 registered voters. Eye-catching, but the <u>official results</u> include an explanation that a poll worker erroneously provided precinct ELT2 voters ELT1 ballots causing turnout in ELT1 to appear inflated.

90% turnout is unusual to the point one must suspect fraud was involved. In the November 2016 Presidential election 7 precincts had turnout of 90% or more. However, 2 precincts had less than 10 registered voters so effectively 5 precincts saw turnout of 90% or more. In the November 2012 Presidential election 13 precincts had turnout of 90% or more (3 precincts had 10 or fewer registered

voters). The 66 precincts that had 90%+ turnout in the Nov 2020 Presidential election are candidates for a full audit with inspection of paper ballots, analysis of voting systems, computer security, and review of election processes.

November 2008 Presidential Election

We continued the turnout evaluation with an examination of the November 2008 Presidential election as well. It should never be the case that a precinct reports more votes than voters. However, reviewing 2008 Official Results available from the SOS website, we discovered that 102 precincts reported over 100% turnout with more ballots cast than registered voters. 14 county board of elections each comprised of 2 Republicans and 2 Democrats appointed by the Secretary of State and sworn by oath to faithfully perform their duties, certified results. At the time, the Ohio Secretary of State that certified these results was Jennifer Brunner. While 2008 is come and gone citizens should be aware of the counties listed in the table below whose Board of Elections certified the results.

OFFICIAL RESULTS
GENERAL ELECTION - NOVEMBER 4, 2008
(Precincts with more ballots than voters)

COUNTY NUMBER	COUNTY NAME	STATE PRC CODE	PRECINCT NAME	REGISTERED VOTERS TOTAL	BALLOTS CAST TOTAL
4	ASHTABULA	04052-ACB	ANDOVER VILLAGE 1	222	444
4	ASHTABULA	04053-ACC	ANDOVER VILLAGE 2	224	448
4	ASHTABULA	04030-ABD	CONNEAUT 1-C	470	2925
9	BUTLER	09-P-AKW	FAIRFIELD TWP FFTWP14	6	61
9	BUTLER	09-P-AJX	WEST CHESTER TWP WC41	1334	9640
14	CLINTON	14ABC	PRECINCT LIBERTY	594	978
25	FRANKLIN	25-YYY	FEDERAL	0	535
35	HENRY	35-P-AAJ	BARTLOW TWP	459	518
35	HENRY	35-P-AAK	DAMASCUS TWP	775	933
35	HENRY	35-P-AAN	FLATROCK TWP NORTH	287	294
35	HENRY	35-P-AAO	FLATROCK TWP SOUTH	603	624
35	HENRY	35-P-AAP	FREEDOM TWP	701	785
35	HENRY	35-P-AAR	HAMLER VILLAGE	407	427
35	HENRY	35-P-AAQ	HARRISON TWP	759	800
35	HENRY	35-P-AAT	LIBERTY TWP NORTH	408	413
35	HENRY	35-P-AAU	LIBERTY TWP SOUTH	582	610
35	HENRY	35-P-AAW	MARION TWP	572	716
35	HENRY	35-P-AAZ	MONROE TWP SOUTH	415	475
35	HENRY	35-P-ABA	NAPOLEON TWP EAST	444	470

OFFICIAL RESULTS GENERAL ELECTION - NOVEMBER 4, 2008 (Precincts with more ballots than voters)

COUNTY NUMBER	COUNTY NAME	STATE PRC CODE	PRECINCT NAME	REGISTERED VOTERS TOTAL	BALLOTS CAST TOTAL
35	HENRY	35-P-ABB	NAPOLEON TWP WEST	665	721
35	HENRY	35-P-AAF	NAPOLEON WARD 6	477	595
35	HENRY	35-P-AAH	NAPOLEON WARD 8	610	654
35	HENRY	35-P-AAI	NAPOLEON WARD 9	823	906
35	HENRY	35-P-ABC	PLEASANT TWP	713	826
35	HENRY	35-P-ABD	RICHFIELD TWP	503	530
35	HENRY	35-P-ABE	RIDGEVILLE TWP	869	977
35	HENRY	35-P-ABG	WASHINGTON TWP SOUTH	727	802
37	HOCKING	3718-AAR	PRECINCT GOOD HOPE 1	525	550
37	HOCKING	3719-AAS	PRECINCT GOOD HOPE 2	444	453
37	HOCKING	3724-ABG	PRECINCT HIDE A WAY HILLS	424	471
37	HOCKING	3722-AAV	PRECINCT LAUREL 1	552	594
37	HOCKING	3708-AAI	PRECINCT LOGAN 3C	586	625
47	LORAIN	47AJP	PRECINCT GRAFTON TWP #1	1071	8772
48	LUCAS	48-P-ATB	SPRINGFIELD 21	1254	1311
48	LUCAS	48-P-ABU	SYLVANIA CITY 12	404	442
48	LUCAS	48-P-AQU	TOLEDO 230	587	853
48	LUCAS	48-P-AVA	WATERVILLE 9	991	8383
61	NOBLE	61026-AAY	SHARON	255	275
67	PORTAGE	67033-AAB	AURORA 1-B	700	707
67	PORTAGE	67035-AAD	AURORA 2-B	810	815
67	PORTAGE	67036-AAE	AURORA 3-A	646	674
67	PORTAGE	67039-AAG	AURORA 4-A	942	996
67	PORTAGE	67040-AAH	AURORA 4-B	1142	1173
67	PORTAGE	67041-AAJ	AURORA 5-A	693	795
67	PORTAGE	67042-AAK	AURORA 5-B	551	677
67	PORTAGE	67044-AAM	AURORA 6-A	905	942
67	PORTAGE	67045-AAN	AURORA 6-B	841	882
67	PORTAGE	67066-ACX	BRIMFIELD E	1001	1025

OFFICIAL RESULTS GENERAL ELECTION - NOVEMBER 4, 2008 (Precincts with more ballots than voters)

COUNTY NUMBER	COUNTY NAME	STATE PRC CODE	PRECINCT NAME	REGISTERED VOTERS TOTAL	BALLOTS CAST TOTAL
67	PORTAGE	67075-ADM	FRANKLIN A	695	763
67	PORTAGE	67076-ADN	FRANKLIN B	940	1035
67	PORTAGE	67085-AEB	HIRAM TOWNSHIP B	900	919
67	PORTAGE	67088-AEE	MANTUA TWP B	899	945
67	PORTAGE	67054-ACL	STREETSBORO 3-B	824	825
67	PORTAGE	67056-ACN	STREETSBORO 4-A	598	688
67	PORTAGE	67057-ACO	STREETSBORO 4-B	802	813
67	PORTAGE	67127-AGE	SUGAR BUSH KNOLLS	177	182
70	RICHLAND	70-P-ADX	SPRINGFIELD TOWNSHIP C	965	7004
73	SCIOTO	73-ACN	JEFFERSON TWP C	515	4015
76	STARK	76-P-AAO	ALLIANCE 4-B	611	616
76	STARK	76-P-AFL	BETHLEHEM TWP 1	299	369
76	STARK	76-P-ACY	CANTON CITY 8-F	918	1006
76	STARK	76-P-ADB	CANTON CITY 8-I	1095	1098
76	STARK	76-P-ADD	CANTON CITY 8-K	640	732
76	STARK	76-P-AGO	JACKSON TWP 17	539	565
76	STARK	76-P-AGP	JACKSON TWP 18	655	664
76	STARK	76-P-AGR	JACKSON TWP 2	694	704
76	STARK	76-P-AGW	JACKSON TWP 24	1181	1208
76	STARK	76-P-AGY	JACKSON TWP 26	1350	1440
76	STARK	76-P-AHD	JACKSON TWP 30	1041	1084
76	STARK	76-P-AHG	JACKSON TWP 33	746	781
76	STARK	76-P-AHJ	JACKSON TWP 36	807	837
76	STARK	76-P-AHK	JACKSON TWP 37	1362	1366
76	STARK	76-P-AOO	JACKSON TWP 38	989	1051
76	STARK	76-P-AHM	JACKSON TWP 5	971	1065
76	STARK	76-P-AHO	JACKSON TWP 7	578	630
76	STARK	76-P-AHW	LAKE TWP 13	707	736
76	STARK	76-P-AIE	LAKE TWP 20	1184	1211

OFFICIAL RESULTS GENERAL ELECTION - NOVEMBER 4, 2008 (Precincts with more ballots than voters)

COUNTY NUMBER	COUNTY NAME	STATE PRC CODE	PRECINCT NAME	REGISTERED VOTERS TOTAL	BALLOTS CAST TOTAL
76	STARK	76-P-AOV	LAKE TWP 22	750	812
76	STARK	76-P-AIG	LAKE TWP 4	1309	1392
76	STARK	76-P-AIK	LAKE TWP 8	762	818
76	STARK	76-P-AOU	LAKE TWP C	732	744
76	STARK	76-P-ADP	LOUISVILLE D	877	919
76	STARK	76-P-AJJ	MARLBORO TWP 1	839	894
76	STARK	76-P-AOQ	MASSILLON 4-D	979	993
76	STARK	76-P-AGF	MEYERS LAKE A	519	574
76	STARK	76-P-AEZ	NORTH CANTON 2-C	823	863
76	STARK	76-P-AFF	NORTH CANTON 3-D	1160	1238
76	STARK	76-P-AFH	NORTH CANTON 4-B	562	585
76	STARK	76-P-AFI	NORTH CANTON 4-C	908	1173
76	STARK	76-P-ALS	PERRY TWP 9	482	502
76	STARK	76-P-AMB	PLAIN TWP 10	615	617
76	STARK	76-P-AMF	PLAIN TWP 14	727	741
76	STARK	76-P-AMO	PLAIN TWP 22	660	676
76	STARK	76-P-AMS	PLAIN TWP 26	522	528
76	STARK	76-P-ANC	PLAIN TWP 35	579	585
76	STARK	76-P-ANF	PLAIN TWP 4	756	765
76	STARK	76-P-ANJ	PLAIN TWP 8	574	625
76	STARK	76-P-ANK	PLAIN TWP 9	1266	1345
76	STARK	76-P-AOA	TUSCARAWAS TWP 4	614	655
77	SUMMIT	77AHU	PRECINCT AKRON 9-L	759	5748
77	SUMMIT	77ASZ	PRECINCT NEW FRANKLIN 2-B	683	5246
77	SUMMIT	77ATA	PRECINCT NEW FRANKLIN 2-C	650	5140
77	SUMMIT	77AUG	PRECINCT NFLD CTR TWP E	675	5498

Conclusions

Precincts that reported extraordinary turnout in Nov 2020 require further evaluation. Turnout in previous Presidential elections should be evaluated to determine whether historical turnout in those

precincts is comparable to Nov 2020. If not, then a detailed forensic examination of the cast ballots should be conducted to verify the results. **November 2020 ballots and election materials in these precincts should be sequestered** prior to expiration of the 22-month federal holding period on September 2, 2022.

Addresses with an unusually high numbers of registrants should be contacted. Additionally, the occupants should be interviewed to confirm that the persons registered at those addresses are actually residents, and that other voter information and the voting history is correct. In other states, when election canvassers interviewed residents at addresses with atypical numbers of registrants, major discrepancies with voter names and voting record were discovered.

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The foregoing Report was prepared by us, and we are responsible for its content. The 1st day of August 2022.

Chief author

Rigano وJam

Reviewed by:

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BIOGRAPHIES

James Rigano is a project analyst and software/database developer. His over 40 years professional experience includes Business Intelligence database development and reporting and management of data management and geographical information systems. He as designed and built database systems, data extraction and transformation systems and once held certification as Microsoft Certified Solution Developer (now expired).

Dr. Marius Paulikas is a former Geography professor and a data analyst. His previous work has consisted of working with large sets of census and meteorology data and has published multiple peer-reviewed articles in various science journals. He has also previously worked as an auditor for an investment firm and was tasked with reconciling multi-million dollar client portfolio statements. His work may be accessed at Research Gate: https://www.researchgate.net/profile/Marius-Paulikas.