Date: 6/9/2021

Subject: Case Study Banks Township - Antrim County Election Management Server

Found to be Subverted Analyst: Jeffrey Lenberg

Executive Summary

The Antrim County Dominion Democracy Suite 5.5.12.1 Election Management Server (EMS) has been found to be subverted. To illustrate the subversion, a case study was performed on Banks Township to show the results of the manipulation of the project files on the EMS and how the EMS handled the errors introduced.

When conducting an election with an election project file containing a shift (akin to the Antrim County incident) large enough to move all votes off the ballot, the EMS gives no error messages at all. The EMS has been programmed to suppress all error messages related to the shifting of indexes beyond the confines of the Banks ballot illustrating one of the factors indicating that the EMS has been subverted.

This case study on Banks Township shows that shifting of indexes for all the races entirely off the ballot nullifies the cast votes and changes the status of each contest to an undervote. An undervote occurs when no vote is cast for the contest, or an insufficient number of votes for a multi-vote contest. This kind of shift of the indexes must result in an error at the EMS due to routine error handling in modern software applications. Indeed, all modern programming languages would throw an exception that must be caught and handled by the programmer. In the case of the Antrim County EMS it does not produce any errors on the EMS because the exception is handled in a fashion to create an undervote and disregard the authentic vote. The subversion intentionally suppresses the errors that would likely occur in order to allow manipulation of the votes without detection.

Details

The Antrim County Dominion Democracy Suite Version 5.5.17 Election Management Server (EMS) is subverted to allow for the manipulation of votes. The subversion of the Antrim EMS is specific to the error handling procedures of the software. The software would typically show an error if the vote selections were shifted outside of a single contest, moreover, when all of the votes for all of the contests on the ballot are moved outside the indexes on that individual ballot the software would be expected to throw what is called an exception in software engineering. When an exception occurs, it must be handled by a programming routine that is designed for error handling (aka exception handling); if this does not occur, the result is typically a crash of the program, and immediate termination of the application. This would be very noticeable to the user as the entire program would stop running and it would appear to crash from the user's perspective.

The Banks Township case study was designed to show what occurs on the Antrim County EMS when the database is manipulated to move all the votes for all contests outside of acceptable parameters. The indexes in the EMS database for Banks Township begin at the number 1 and then go to a top number of 552. Each index number represents the bullet for each possible vote choice in every contest on the Banks Township ballot, including every single choice for write-ins as well. Figure 1 shows the default configuration of the Antrim County EMS ChoiceManifestion Table that contains the vote index positions.

Testing for the Antrim County EMS Subversion

For the purposes of the Banks Township case study, the beginning index number for the Banks Township ballot was set to 561 and the top number in the range was set to 1,112. This was accomplished by adding 560 to all the internal Machine Ids (see Figure 1) in the Choice Manifestiation table and then proceeding with the election.

For the purposes of this case study, the Banks Township "ballot" will refer to all four ballot styles used in Banks Township. This is the reason there are 552 total vote choices due to the four different ballot styles.

The result is that the indexes for every single vote choice for the Banks Township ballot are outside of the range of indexes expected for the Banks Township ballot. Figure 1 shows the MS SQL command used to add 560 to each internalMachineId index. See Figure 2 showing the ranges for the test.

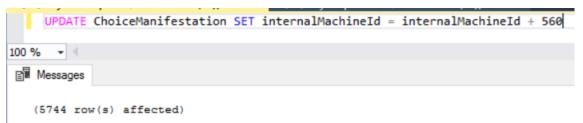


Figure 1 - Adding 560 to Every internalMachineId in the Antrim County EMS

Database

00 % 🕶			100 % +		
■ Results	Message	s	■ Results	☐ Message	s
	classid	internalMachineld		classid	internal Machine lo
1	000J	312	1	000J	872
2	000J	5466	2	000J	6026
3	000J	5299	3	000J	5859
4	000J	522	4	000J	1082
5	000J	3056	5	000J	3616
6	000J	4005	6	000J	4565
7	000J	3822	7	000J	4382
8	000J	681	8	000J	1241
9	000J	1231	9	000J	1791
10	000J	1888	10	000J	2448
11	000J	4566	11	000J	5126
12	000J	3596	12	000J	4156
13	000J	886	13	000J	1446
14	000J	1820	14	000J	2380
15	000J	5503	15	000J	6063
16	000J	1349	16	000J	1909
17	000J	860	17	000J	1420
18	000J	1139	18	000J	1699
19	000J	4176	19	000J	4736
20	000J	5449	20	000J	6009
21	000J	1793	21	000J	2353
22	000J	2192	22	000J	2752
23	000J	1760	23	000J	2320
24	000J	2963	24	000J	3523
25	000J	3391	25	000J	3951
26	000J	5619	26	000J	6179
27	000J	802	27	000J	1362

Figure 2 Index Values in the Beginning of the ChoiceManifestion Table Before and After Addition of 560 to internalMachineId

The fact that every single vote choice is set to be outside the anticipated range of vote choices values means that the software must throw an exception that would likely result in a critical error for the EMS system and the inability to load the results from that particular compact flash card.

In order to show that the Antrim County EMS is subverted and that loading Banks Township results would not result in an EMS crash when loaded with the indexes entirely out of range for the ballot, a testing regime was followed where 210 ballots were run through the ImageCast Precinct (ICP) tabulator. See Appendix A for images of the ballots that were used for the test procedure. The objective of the test was to illustrate that the paper tapes would accurately convey the totals of the vote while the EMS would show undervotes for all contests, the result is the categorical loss of all the votes due to the subversion. All the votes on the EMS show undervotes. This means that for the 210 ballots cast there were 4,890 individual contest votes discarded by the EMS due to the subversion. Note that the 4,890

discarded contest votes are based on the specific vote pattern on the ballots in Appendix A.

The fact that the Antrim County EMS does not reject the loading of the compact flash cards, generate any type of error, crash or otherwise indicate that there is an issue with the results processing shows the EMS is subverted. The error handling of the Antrim County EMS purposefully disregards the votes cast and labels them as undervotes instead of raising an error. The conclusion is that the Antrim County EMS has been purposefully subverted. Furthermore, the subversion of error handling is a primary tactic of any cyber attacker.

The vote totals on the tape are illustrated in Figure 4, the paper tape is not impacted by the large shift from the Banks case study. The Presidential contest results from the EMS are found in Figure 3 and there are no votes recorded for any of the candidates with all the votes being discarded and recorded as undervotes. The entire EMS output for Banks Township election showing undervotes for all races is included in Appendix B.

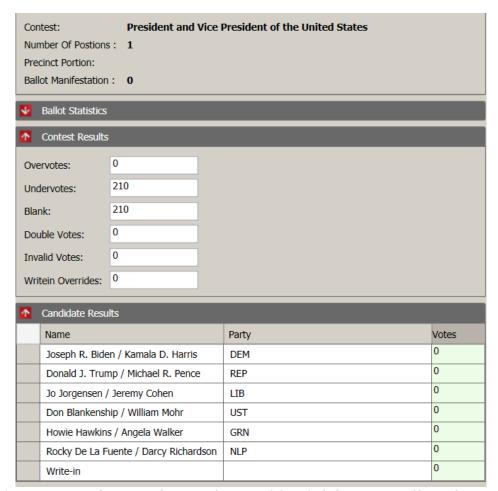


Figure 3 - EMS/RTR Output for Presidential Contest - All Undervotes

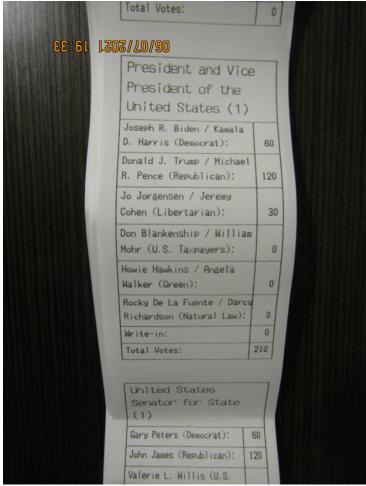


Figure 3 - Paper Tapes for Banks County - Results are Unmodified on the Tape

Successful Loading of Compact Flash Cards that Should Have Been Rejected

The expert report by Halderman dated March 26, 2021, indicated that only 4 townships' compact flash cards failed to load on the Antrim County EMS, see Figure 5. The subversion of the Antrim County EMS actually allowed twelve (12) additional townships compact flash cards to load successfully despite the flawed configuration that resulted in the shifting of votes.

These additional townships would have failed to load on the EMS if not for the subversion in the Antrim County EMS system that allowed for the cards to load normally and not trigger any rejection of the cards or errors in the EMS:

- 1. Chestonia Township
- 2. Echo Township
- 3. Helena Township

- 4. Star Township
- 5. Custer Township
- 6. Elk Rapids, AV Board
- 7. Torch Lake Township
- 8. Forest Home Township
- 9. Milton Township, AV Board
- 10. Central Lake Township
- 11. Jordan Township
- 12. Kearney Township

The Antrim County EMS is capable of generating an error when attempting to load results from corrupt compact flash cards, but did not due to the subversion. An error from the EMS similar to this one should have been generated for corrupt data. Figure 4 gives an example of an error that would be expected from the EMS. In this case the slog.txt is loaded, meaning that there is a log entry accounting for the error, but no actual results are loaded into the EMS for reporting functions; therefore, inaccurate vote totals do not get reported if this proper error handling does occur.

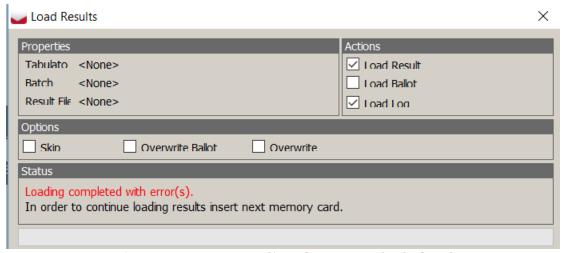


Figure 4 - Error Loading Compact Flash Card

Nov. 3	21:48	EMS begins loading resul	ts from scanner memory cards.	Should not have los
	21:49	Chestonia Township	Card loaded successfully.	1
	22:31-22:38	Warner Township	Failed to load, 7 attempts.	
	22:41	Banks Township	Card loaded successfully.	Should not have los
	22:53	Echo Township	Card loaded successfully.	1
	22:56	Warner Township	Final failed loading attempt.	
	23:03-00:18	Warner Township	Manually entered from poll tape	Should not have los
Nov. 4	00:20	Helena Township	Card loaded successfully.	Should not have los
	00:23	Star Township	Card loaded successfully.	Should not have los
	00:26	Custer Township	Card loaded successfully.	1
	00:28	Elk Rapids, Precinct 1	Failed to load.	Should not have los
	00:31	Elk Rapids, AV Board	Card loaded successfully.	Should not have los
	00:34	Torch Lake Township	Card loaded successfully.	Should not have los
	00:36	Forest Home Township	Card loaded successfully.	Should not have los
	00:38	Milton Township, AV Board	Card loaded successfully.	
	00:38	Milton Township, Precinct 1	Failed to load.	
	01:10-01:41	Elk Rapids, Precinct 1	Manually entered from poll tape	Should not have los
	01:43	Central Lake Township	Card loaded successfully.	1
	01:48-02:04	Milton Township, Precinct 1	Manually entered from poll tane	Should not have los
	02:05	Jordan Township	Card loaded successfully.	Should not have los
	03:36	Kearney Township	Card loaded successfully.	
	03:43	Mancelona, Precinct 1	Card loaded successfully.	
	03:44	Mancelona, Precinct 2	Card loaded successfully.	
	03:51-04:09	EMS produces unofficial resu	ults report for public distribution.	

Table 4: **Election Night Timeline.** The EMS log shows that county staff worked through the night of Nov. 3–4 to load results from scanner memory cards. Three of 18 cards failed to load, and those results were entered manually from scanner poll tapes. At 4:09 a.m., the EMS produced the unofficial results report posted on Antrim's website. Officials learned hours later that the results were erroneous.

Figure 5 - Halderman Report Table 4

Under the penalties of perjury, I declare that I have read the foregoing report and that facts stated in it are true.

Jeffrey Lenberg

MICHIGAN NOTARY ACKNOWLEDGEMENT

State of Michigan County of Oakland

The foregoing instrument was acknowledged before me on this 9th day of June, 2021 by Jeffrey Lenberg.

Notary Public Signature:

M. Howard

Notary Printed Name: Ann M. Howard

Acting in the County of: Oakland My Commission Expires: 2/24/2023

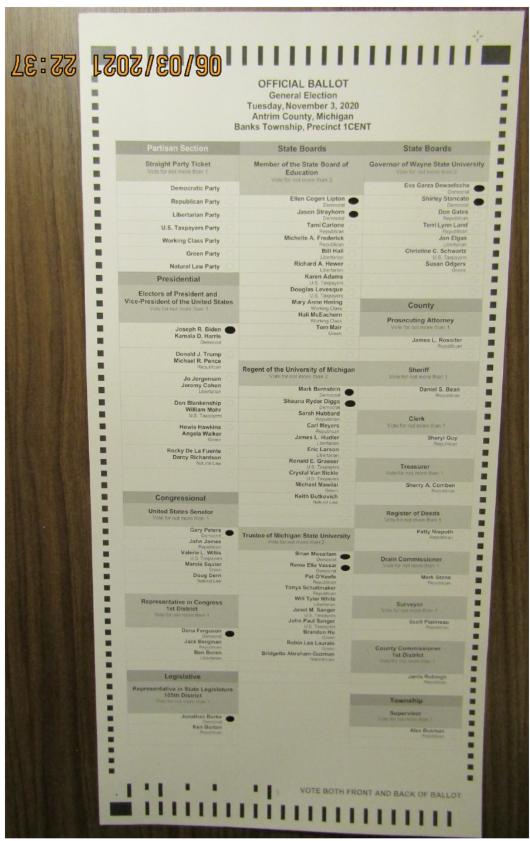


Figure 6 - Ballot #1 for Banks Township Case Study

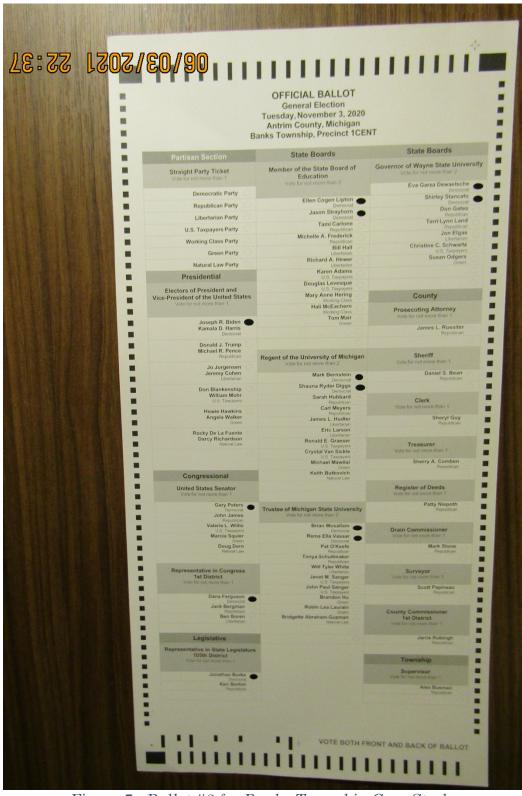


Figure 7 - Ballot #2 for Banks Township Case Study

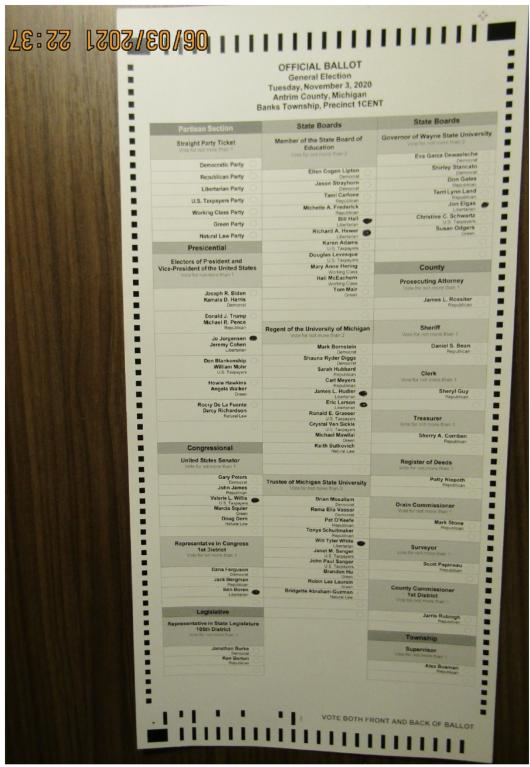


Figure 8 - Ballot #3 for Banks Township Case Study

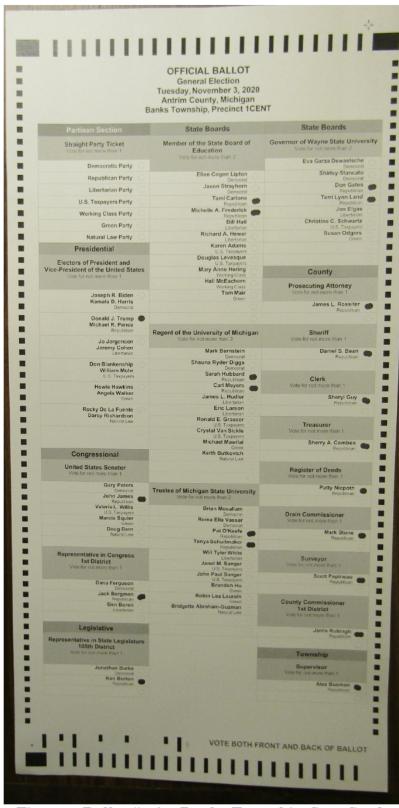


Figure 9 Ballot #4 for Banks Township Case Study

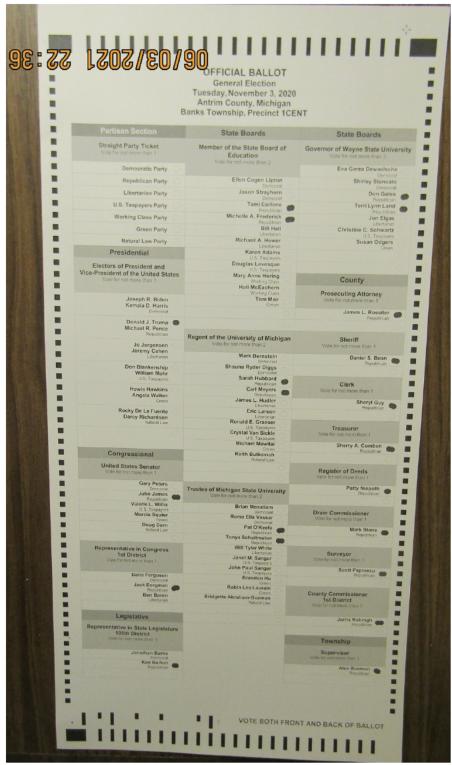


Figure 10 Ballot #5 for Banks Township Case Study

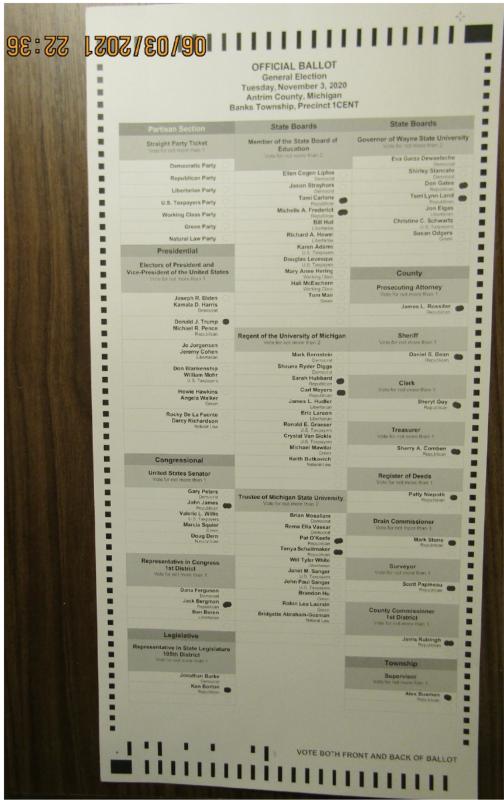


Figure 11 Ballot #6 for Banks Township Case Study

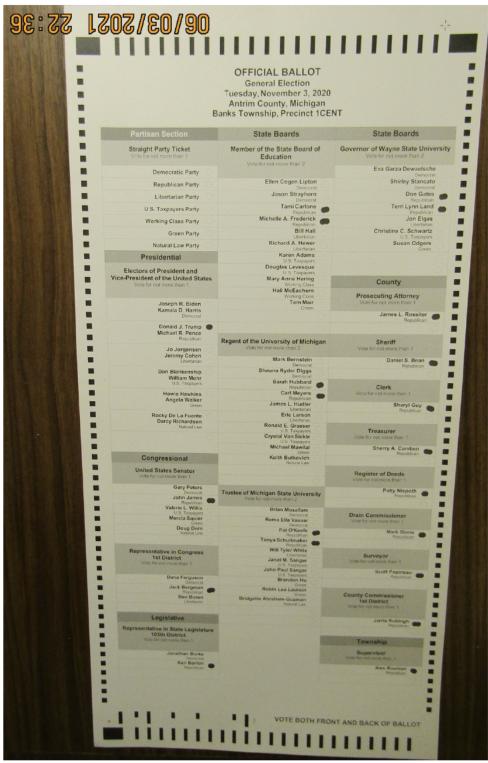
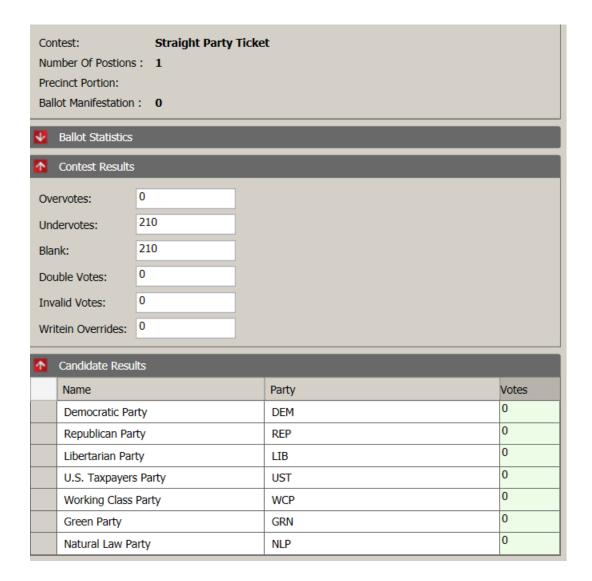


Figure 12 Ballot #7 for Banks Township Case Study



Nun	Contest: President and Vice President of the United States Number Of Postions: 1 Precinct Portion: Ballot Manifestation: 0					
₩.	■ Ballot Statistics					
1	Contest Results	;				
Ove	ervotes:	0				
Und	lervotes:	210				
Blar	nk:	210				
Dou	ıble Votes:	0				
Inva	alid Votes:	0				
Writ	tein Overrides:	0				
<u>^</u>	Candidate Resu	ılts				
	Name		Party	Votes		
	Joseph R. Bide	en / Kamala D. Harris	DEM	0		
	Donald J. Trur	mp / Michael R. Pence	REP	0		
	Jo Jorgensen /	Jeremy Cohen	LIB	0		
	Don Blankensh	nip / William Mohr	UST	0		
	Howie Hawkin	s / Angela Walker	GRN	0		
	Rocky De La F	uente / Darcy Richardson	NLP	0		
	Write-in			0		

17

Contest:	United States Sena	tor for State				
Number Of Po	stions: 1					
Precinct Portio	n:					
Ballot Manifes	tation: 0					
▼ Ballot State	▼ Ballot Statistics					
⚠ Contest Re	esults					
Overvotes:	0					
Undervotes:	210					
Blank:	210					
Double Votes:	0					
Invalid Votes:	0					
Writein Overri	des: 0					
▲ Candidate	Results					
Name		Party	Votes			
Gary Pete	ers	DEM	0			
John Jan	nes	REP	0			
Valerie L	. Willis	UST	0			
Marcia So	quier	GRN	0			
Doug De	rn	NLP	0			
Write-in			0			

Contest: Representative in Congress 1st District Number Of Postions: 1 Precinct Portion: Ballot Manifestation: 0						
■ Ballot Statistics	▼ Ballot Statistics					
↑ Contest Results	↑ Contest Results					
Overvotes:	0					
Undervotes:	210					
Blank:	210					
Double Votes:	0					
Invalid Votes:	0					
Writein Overrides:	0					
↑ Candidate Resu	ults					
Name		Party	Votes			
Dana Ferguso	n	DEM	0			
Jack Bergman		REP	0			
Ben Boren		LIB	0			
Write-in			0			

Contest:	ontest: Representative in State Legislature 105th District						
Number Of Postion	Number Of Postions: 1						
Precinct Portion:							
Ballot Manifestation	Ballot Manifestation: 0						
▼ Ballot Statistics	Ballot Statistics ■						
↑ Contest Results	,						
Overvotes:	0						
Undervotes:	210						
Blank:	210						
Double Votes:	0						
Invalid Votes:	0						
Writein Overrides:	0						
⚠ Candidate Result	ılts						
Name		Party	Votes				
Jonathan Burk	ie	DEM	0				
Ken Borton		REP	0				
Write-in			0				

Contest: Member of the State Board of Education Number Of Postions: 2 Precinct Portion: Ballot Manifestation: 0 Ballot Statistics Contest Results Overvotes: 420 Undervotes: 210 Blank: 0 Double Votes: 0 Invalid Votes: Writein Overrides: 0 Candidate Results Votes Name Party 0 Ellen Cogen Lipton DEM 0 Jason Strayhorn DEM 0 Tami Carlone REP 0 Michelle A. Frederick REP 0 Bill Hall LIB 0 Richard A. Hewer LIB 0 Karen Adams UST 0 Douglas Levesque UST Mary Anne Hering WCP 0 Hali McEachern WCP 0 GRActivate Windows Tom Mair 0 Write-in Go to Settings to activate Windows

Nur	ntest: nber Of Postion: cinct Portion: ot Manifestation		ersity of Michigan	
₩.	Ballot Statistics			
1	Contest Results	5		
Ove	ervotes:	0		
Unc	lervotes:	420		
Blar	nk:	210		
Dou	ıble Votes:	0		
Inva	alid Votes:	0		
Wri	tein Overrides:	0		
<u>↑</u>	Candidate Resu	ılts		
	Name		Party	Votes
	Mark Bernsteir	n	DEM	0
	Shauna Ryder	Diggs	DEM	0
	Sarah Hubbard	d	REP	0
	Carl Meyers		REP	0
	James L. Hudl	er	LIB	0
	Eric Larson		LIB	0
	Ronald E. Grae	eser	UST	0
	Crystal Van Si	ckle	UST	0
	Michael Mawila	ai	GRN	0
	Keith Butkovic	:h	NLP	0
	Write-in		Activate Windows	0

Contest:	Trustee of Michigan	State University	
Number Of Postion	ns: 2		
Precinct Portion:			
Ballot Manifestatio	n: 0		
■ Ballot Statistics	5		
♠ Contest Result	S		
Overvotes:	0		
Undervotes:	420		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrides:	0		
▲ Candidate Res	ulte		
	uits		
Name		Party	Votes
Brian Mosalla		DEM	0
Rema Ella Va	ssar	DEM	0
Pat O'Keefe		REP	0
Tonya Schuiti	maker	REP	0
Will Tyler Wh	ite	LIB	0
Janet M. Sang	ger	UST	0
John Paul Sar	nger	UST	0
Brandon Hu		GRN	0
Robin Lea Lau	urain	GRN	0
Bridgette Abri	aham-Guzman	NLP	0
Write-in		Activate Windows	0

Contest:	Governor of Wayne	State University			
Number Of Postions:	2				
Precinct Portion:					
Ballot Manifestation :	0				
■ Ballot Statistics					
♠ Contest Results					
Overvotes: 0					
Undervotes: 42	20				
Blank: 21	10				
Double Votes: 0					
Invalid Votes: 0					
Writein Overrides: 0					
↑ Candidate Results					
Name		Party	Votes		
Eva Garza Dewael	lsche	DEM	0		
Shirley Stancato		DEM	0		
Don Gates		REP	0		
Terri Lynn Land		REP	0		
Jon Elgas		LIB	0		
Christine C. Schwa	artz	UST	0		
Susan Odgers		GRN	0		
Write-in			0		

Contest:	County Prosecutin	ig Attorney	
Number Of Postion	ns: 1		
Precinct Portion:			
Ballot Manifestatio	on: 0		
■ Ballot Statistic	s		
♠ Contest Result	ts		
Overvotes:	0		
Undervotes:	210		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrides:	0		
↑ Candidate Res	sults		
Name		Party	Votes
James L. Ros	ssiter	REP	0
Write-in			0
write-in			
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio			
Contest: Number Of Postion Precinct Portion:	ns: 1		
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio	ns: 1		
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio	ns: 1		
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio Ballot Statistic Contest Result	ns: 1 n: 0 s		
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio Ballot Statistic Contest Result Overvotes:	ns: 1 on: 0 s ts		
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio Ballot Statistic Contest Result Overvotes: Undervotes:	ns: 1 on: 0 s ts		
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio Ballot Statistic Contest Result Overvotes: Undervotes: Blank:	ns: 1 on: 0 s ts 0 210 210		
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio Ballot Statistic Contest Result Overvotes: Undervotes: Blank: Double Votes:	ns: 1 nn: 0 s ts 0 210 210 0		
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio Ballot Statistic Contest Result Overvotes: Undervotes: Blank: Double Votes: Invalid Votes:	ns: 1 nn: 0 s ts 0 210 0 0 0		
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio Ballot Statistic Contest Result Overvotes: Undervotes: Blank: Double Votes: Invalid Votes: Writein Overrides:	ns: 1 nn: 0 s ts 0 210 0 0 0	Party	Votes
Contest: Number Of Postion Precinct Portion: Ballot Manifestatio Ballot Statistic Contest Result Overvotes: Undervotes: Blank: Double Votes: Invalid Votes: Writein Overrides:	ns: 1 n: 0 s ts 0 210 0 0 0 cults	Party REP	

Contest: Number Of Postions Precinct Portion: Ballot Manifestation			
■ Ballot Statistics			
♠ Contest Results			
Overvotes:	0		
Undervotes:	210		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrides:	0		
▲ Candidate Resu	lts		
Name		Party	Votes
Sheryl Guy		REP	0
Write-in			0
Contest: Number Of Postion: Precinct Portion: Ballot Manifestation			
Ballot Statistics			
♠ Contest Results	;		
Overvotes:	0		
Undervotes:	210		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrides:	0		
▲ Candidate Result	ılts		
Name		Party	Votes

REP

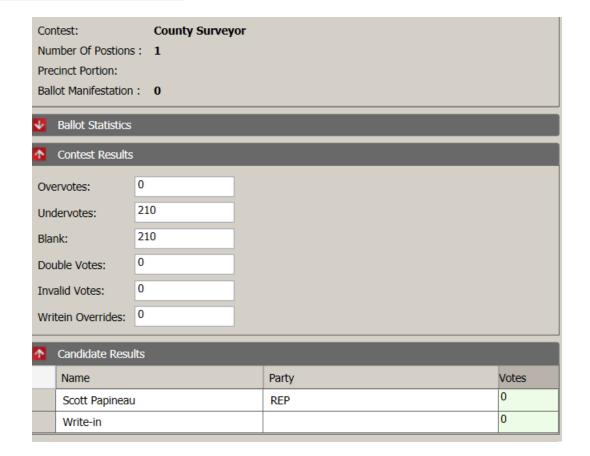
Sherry A. Comben

Write-in

0

0

Contest: Number Of Postion Precinct Portion:	County Register of ns: 1	Deeds	
Ballot Manifestation	on: 0		
■ Ballot Statistic	s		
⚠ Contest Result	ts		
Overvotes:	0		
Undervotes:	210		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrides:	0		
↑ Candidate Res	sults		
Name		*	Votes
Patty Niepoth Write-in	1	REP	0
Contest: Number Of Postion Precinct Portion: Ballot Manifestation		nissioner	
■ Ballot Statistic	s		
↑ Contest Result	ts		
Overvotes:	0		
Undervotes:	210		
Blank:			
DIGITIK.	210		
Double Votes:	210		
Double Votes:	0		
Double Votes: Invalid Votes: Writein Overrides:	0 0		
Double Votes: Invalid Votes: Writein Overrides: Candidate Res	0 0	Party	Votes
Double Votes: Invalid Votes: Writein Overrides:	0 0	Party REP	Votes 0



Contest: County Commissioner 1st District Number Of Postions: 1 Precinct Portion: Ballot Manifestation: 0					
<u>•</u>	Ballot Statistics				
1	Contest Results	5			
Ove	ervotes:	0			
Und	dervotes:	210			
Bla	nk:	210			
Do	uble Votes:	0			
Inv	alid Votes:	0			
Wri	tein Overrides:	0			
<u>^</u>	Candidate Resu	ılts			
	Name		Party	Votes	
	Jarris Rubingh	l	REP	0	
	Write-in			0	
Nun	itest: nber Of Postions cinct Portion: ot Manifestation	s: 1	or for Banks Township		
₩.	Ballot Statistics				
<u>^</u>	Contest Results				
Ove	ervotes:	0			
Und	lervotes:	210			
Blar	nk:	210			
Dou	Double Votes: 0				
Invalid Votes: 0					
Inva		0			
		0			
	alid Votes: tein Overrides:	0			
Writ	alid Votes:	0	Party	Votes	
Writ	alid Votes: tein Overrides: Candidate Resu	0	Party REP	Votes 0	

Contest: Township Clerk for Banks Township Number Of Postions: 1 Precinct Portion: Ballot Manifestation: 0						
Ballot Statistics	S					
♠ Contest Results	s					
Overvotes:	0					
Undervotes:	210					
Blank:	210					
Double Votes:	0					
Invalid Votes:	0					
Writein Overrides:	0					
↑ Candidate Result	ults					
Name		Party	Votes			
Donna L. Hee	res	REP	0			
Write-in			0			
	Contest: Township Treasurer for Banks Township Number Of Postions: 1 Precinct Portion: Ballot Manifestation: 0					
Number Of Postion Precinct Portion:	s: 1	surer for Banks Township				
Number Of Postion Precinct Portion:	n: 0	surer for Banks Township				
Number Of Postion Precinct Portion: Ballot Manifestation	n: 0	surer for Banks Township				
Number Of Postion Precinct Portion: Ballot Manifestation Ballot Statistics	n: 0	surer for Banks Township				
Number Of Postion Precinct Portion: Ballot Manifestation Ballot Statistics Contest Results	n: 0	surer for Banks Township				
Number Of Postion Precinct Portion: Ballot Manifestation Ballot Statistics Contest Results Overvotes:	n: 0 s s	surer for Banks Township				
Number Of Postion Precinct Portion: Ballot Manifestation Ballot Statistics Contest Results Overvotes: Undervotes:	n: 0 s s c 210	surer for Banks Township				
Number Of Postion Precinct Portion: Ballot Manifestation Ballot Statistics Contest Results Overvotes: Undervotes: Blank:	n: 0 s 0 210 210	surer for Banks Township				
Number Of Postion Precinct Portion: Ballot Manifestation Ballot Statistics Contest Results Overvotes: Undervotes: Blank: Double Votes:	n: 0 s 0 210 0 0	surer for Banks Township				
Number Of Postion Precinct Portion: Ballot Manifestation Ballot Statistics Contest Results Overvotes: Undervotes: Blank: Double Votes: Invalid Votes:	s: 1 n: 0 s s 0 210 0 0 0	surer for Banks Township				
Number Of Postion Precinct Portion: Ballot Manifestation Ballot Statistics Contest Results Overvotes: Undervotes: Blank: Double Votes: Invalid Votes: Writein Overrides:	s: 1 n: 0 s s 0 210 0 0 0	Party	Votes			
Number Of Postion Precinct Portion: Ballot Manifestation Ballot Statistics Contest Results Overvotes: Undervotes: Blank: Double Votes: Invalid Votes: Writein Overrides: Candidate Results	n: 0 s s 0 210 0 0 0 0 ults		Votes 0 0			

Cont	ntest: Township Trustee for Banks Township				
Num	nber Of Postions: 2				
Prec	inct Portion:				
Ballo	ot Manifestation	: 0			
₩	Ballot Statistics				
<u>^</u>	Contest Results				
Ove	rvotes:	0			
Und	ervotes:	420			
Blan	k:	210			
Dou	ble Votes:	0			
Inva	lid Votes:	0			
Writ	ein Overrides:	0			
•	Candidate Resu	its			
	Name		Party	Votes	
	Tom L. Cooper		REP	0	
	Anita Hoeksem	ıa	NPA	0	
	David E. Rasm	ussen	NPA	0	
	Write-in			0	

Contest: Number Of Pos	Justice of Supritions: 2	reme Court	
Precinct Portion Ballot Manifesta			
■ Ballot Statis	stics		
♠ Contest Res	sults		
Overvotes:	0		
Undervotes:	420		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrid	es: 0		
↑ Candidate I	Results		
Name		Party	Votes
Susan L. H	lubbard		0
Mary Kelly	,		0
Bridget Ma	ary McCormack		0
Kerry Lee	Morgan		0
Katherine	Mary Nepton		0
Brock Swa	rtzle		0
Elizabeth I	И. Welch		0
Write-in			0

Num	Contest: Judge of Court of Appeals 4th District Incumbent Position Number Of Postions: 2 Precinct Portion: Ballot Manifestation: 0					
₩.	Ballot Statistics					
<u>^</u>	Contest Results					
Ove	rvotes:	0				
Undervotes: 420						
Blan	ık:	210				
Dou	ble Votes:	0				
Inva	alid Votes:	0				
Writ	ein Overrides:	0				
<u>^</u>	Candidate Resu	lts				
	Name		Party	Votes		
	Michael J. Kelly	/		0		
	Amy Ronayne	Krause		0		
	Write-in			0		

Nur Pre	ntest: nber Of Postion: cinct Portion: ot Manifestation	s:	1	of Ap	peals 4th District Non-Incumbent Position	n
Ψ	Ballot Statistics					
<u>^</u>	Contest Results	5				
Ove	ervotes:	0				
Und	dervotes:	210)			
Bla	nk:	210)			
Dou	ıble Votes:	0				
Inv	alid Votes:	0				
Wri	tein Overrides:	0				
<u>^</u>	Candidate Resu	ılts				
	Name				Party	Votes
	Michelle Rick					0
	Write-in					0
Nun	test: nber Of Postions inct Portion: ot Manifestation	: 1	Judge of Circuit 1	Cour	t 13th Circuit Incumbent Position	
Nun Pred Ballo	nber Of Postions inct Portion:	: 1	1	Cour	t 13th Circuit Incumbent Position	
Nun Prec Ballo	nber Of Postions inct Portion: ot Manifestation	: (1	Cour	t 13th Circuit Incumbent Position	
Num Prec Ballo	nber Of Postions inct Portion: ot Manifestation Ballot Statistics	: (1	Cour	t 13th Circuit Incumbent Position	_
Num Prec Ballo	nber Of Postions inct Portion: ot Manifestation Ballot Statistics Contest Results	: (Cour	t 13th Circuit Incumbent Position	_
Num Prec Ballo	nber Of Postions inct Portion: of Manifestation Ballot Statistics Contest Results rvotes: ervotes:	: (Cour	t 13th Circuit Incumbent Position	_
Num Prec Ballo Ove Und Blan	nber Of Postions inct Portion: of Manifestation Ballot Statistics Contest Results rvotes: ervotes:	0 210		Cour	t 13th Circuit Incumbent Position	
Num Prec Ballo Ove Und Blan Dou	nber Of Postions inct Portion: ot Manifestation Ballot Statistics Contest Results rvotes: ervotes:	0 210 210		Cour	t 13th Circuit Incumbent Position	
Num Prec Ballo Ove Und Blan Dou Inva	nber Of Postions inct Portion: of Manifestation Ballot Statistics Contest Results rvotes: ervotes: k: ble Votes:	0 210 210 0		Cour	t 13th Circuit Incumbent Position	
Num Prece Ballo Ove Und Blan Dou Inva Writ	nber Of Postions inct Portion: of Manifestation Ballot Statistics Contest Results rvotes: ervotes: k: ble Votes:	0 210 210 0 0		Cour	t 13th Circuit Incumbent Position	
Num Prece Ballo Ove Und Blan Dou Inva Writ	nber Of Postions inct Portion: ot Manifestation Ballot Statistics Contest Results rvotes: ervotes: k: ble Votes: did Votes: ein Overrides:	0 210 210 0 0				Votes
Num Prece Ballo Ove Und Blan Dou Inva Writ	nber Of Postions inct Portion: ot Manifestation Ballot Statistics Contest Results rvotes: ervotes: k: ble Votes: did Votes: ein Overrides:	0 210 210 0 0				Votes 0

Contest: Number Of Postion Precinct Portion: Ballot Manifestation	s: 3	Charlevoix-Emmet Intermediate School Dis	strict 6 Yea
Ballot Statistics	:		
↑ Contest Results	5		
Overvotes:	0		
Undervotes:	630		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrides:	0		
↑ Candidate Result	ılts		
Name		Party	Votes
Thelma A. Che	ellis		0
Jean E. Frentz	!		0
Mary P. Jason			0
Write-in			0

Contest:	Board Member for 0	Charlevoix-Emmet Intermediate School Dis	strict Partia
Number Of Postion	s: 1		
Precinct Portion:			
Ballot Manifestation	1: 0		
Ballot Statistics			
↑ Contest Results	5		
Overvotes:	0		
Undervotes:	210		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrides:	0		
↑ Candidate Result	ults		
Name		Party	Votes
Larry Cassidy			0
Write-in			0
Contest:	Board Member for C	Charlevoix-Emmet Intermediate School Dis	trict Partia
Number Of Postions	s: 1		
Precinct Portion: Ballot Manifestation	. 0		
Ballot Marinestation	. 0		
Ballot Statistics			
♠ Contest Results	;		
Overvotes:	0		
Undervotes:	210		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrides:	0		
↑ Candidate Resu	ults		
Name		Party	Votes
Write-in			0

Contest:	School Board Memb	er for Central Lake Schools	
Number Of Postion	s: 3		
Precinct Portion:			
Ballot Manifestation	n: 0		
▼ Ballot Statistics			
♠ Contest Results	5		
Overvotes:	0		
Undervotes:	630		
Blank:	210		
Double Votes:	0		
Invalid Votes:	0		
Writein Overrides:	0		
♠ Candidate Result	ılts		
Name		Party	Votes
Melanie Eckha	ırdt		0
Keith Shafer			0
Write-in			0

Contest: State Proposal 20-2 Number Of Postions: 1 Precinct Portion: Ballot Manifestation: 0					
V	Ballot Statistics				
1	Contest Results				
Ove	ervotes:	0			
Und	dervotes:	210			
Blai	nk:	210			
Dou	uble Votes:	0			
Inv	alid Votes:	0			
Wri	tein Overrides:	0			
<u>^</u>	Candidate Resu	ults			
	Name		Party	Votes	
	Yes			0	
	No			0	
Nun	test: nber Of Postions cinct Portion: ot Manifestation		1		
Ψ	Ballot Statistics				
<u>^</u>	Contest Results	:			
Ove	rvotes:	0			
Und	lervotes:	210			
Blar	nk:	210			
Dou	ible Votes:	0			
Inva	alid Votes:	0			
Writ	tein Overrides:	0			
<u>^</u>	Candidate Resu	ılts			
	Name		Party	Votes	
	Yes			0	
	No			0	