



Wisconsin Elections Commission

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DATE: For the March 2, 2021 Commission Meeting

TO: Commissioners, Wisconsin Elections Commission

FROM: Meagan Wolfe, Administrator

PRESENTED BY: Cody Davies Robert Williams
Election Specialist Election Specialist

SUBJECT: Update on Training Procedures, County Clerk Outreach, and ImageCast Evolution Overvote Data Analysis

Summary Findings

After detailed analysis of all ballot images and ballot manifestations from counties where the ImageCast Evolution (ICE) was programmed to read marks in the write-in field, there is no indication that the issue uncovered as part of the 2020 Post-Election Voting Equipment Audit impacted the outcome of any contest. In the seven counties where the ImageCast Evolution was programmed to read marks in the write-in field staff determined that there were 724 instances of absentee ballot creases running through that portion of the ballot causing a false positive overvote. Further analysis illustrated that this issue impacted a general total of five contests in 78 municipalities. The five general contests, expanded upon later in this report, include multiple Representative to the Assembly and State Senate district contests. Those contests were impacted by this issue due to their ballot placement, with all of them laid out in areas of the ballot where absentee ballots could be folded. This issue was not always determined to be county-wide. In many cases, the majority of occurrences were confined to only a few municipalities within the county. The occurrence rate was found to be higher in locations where Commission prescribed administrative procedures were not strictly followed. A comprehensive explanation of staff findings can be found later in this report.

Background

As part of the 2020 post-election voting equipment audit, a tabulation issue was discovered in two reporting units that use the Dominion ImageCast Evolution (ICE) optical scan tabulator. This was not a programming or hardware issue. It was discovered that absentee ballots containing a heavy crease through the write-in area of the ballot were triggering overvotes on the ICE. Despite a warning screen prompting election inspectors that there was an overvote, or overvotes, on the ballot, administrative procedures which require such ballots be returned and reviewed by election inspectors were not followed and the override function was used to process the ballots. As a result, numerous ballots were treated as having overvotes that actually had valid votes. If these ballots had been returned and reviewed, as required, it would have been determined that these ballots should have been remade and the votes in the contests the equipment perceived as overvoted would have been correctly counted.

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Most absentee ballots are printed on ballot stock that is “scored” with indentations where folds should occur. This “scoring” encourages folds that will not pass-through areas of the ballot where voters mark their preferences for candidates or ballot initiatives. Many of the ballots in question were either not “scored” or voters did not properly fold their ballots along the “scored” indentations. In addition, absentee ballot folds are more likely to occur through sections of the ballot where specific contests, such as Representative to Assembly, are required to be placed. Ballot layout requirements account for why specific types of contests were impacted by this issue at a higher incidence rate than others.

At the February 3, 2021 meeting, WEC staff presented the findings of the voting equipment audit to the Commission, including a detailed analysis of the issue of crease induced overvotes on the ImageCast Evolution. As part of the final report, WEC staff recommended to the Commissioners an amendment to the Wisconsin state certification of Democracy Suite 4.14, of which the ICE is included. The Commission voted to amend the Democracy Suite state certification so that the target area of the ballot would be reduced from including the oval and the write-in box, to include the oval only. Beginning with the April 2021 Spring Election, the creased overvote issue that was brought to light as part of the 2020 voting equipment audit will no longer be possible as all ICE tabulators in use throughout Wisconsin are now required to be programmed to ignore marks, intentional or ambiguous, in the write-in field.

As a result of the Commission decision, any election programming, beginning with the April 2021 Spring Election, must be done in such a way that the ICE tabulator has a ballot target area of only the oval marked by the voter. Any ICE tabulator used in Wisconsin may no longer be programmed to review the write-in target area for marks, stray, ambiguous, or otherwise. Anyone completing election programming, regardless of whether it is done by the county, the vendor, or a third-party representative, must program the ICE tabulators to the same standards as outlined above. Voters are, however, still entitled to cast a write-in vote for any office. Election night review of all ballots by election inspectors for write-in votes is required to identify any ballots with write-in votes, including those where the voter has written in a choice but not filled in the corresponding oval.

Commissioners also directed staff to collect and conduct an analysis of overvote data from counties throughout Wisconsin who use the ICE tabulator to determine the extent of the false positive overvote issue. Staff was also directed to inform counties impacted by the Commission decision to amend the state certification of the Democracy Suite 4.14, the voting system on which the ICE operates, and offer an updated training program for clerks and election inspectors to increase awareness of this issue and emphasize the importance of training prior to the 2021 Spring Primary.

Communication with Impacted Counties and Municipalities

On February 5, 2021, a communication was sent to the municipal and county clerks for every jurisdiction in which the ICE is used. This communication outlined the scope of the issue as reported to the Commission, provided information on the amendment of the Democracy Suite 4.14 certification and the resulting changes to how the ICE is programmed, and stressed the importance of increased training and extra awareness of the crease issue for the February 2021 Spring Primary.

Per the Commission’s directive, one of the primary areas of focus for staff is an increased level of training for clerks and election inspectors who interact with the ICE. Staff developed and recorded a training webinar that was posted to the WEC website on February 11, 2021. Additionally, a link to the webinar and links to the procedures for reviewing overvotes and remaking ballots as covered in the Election Day Manual were sent directly to the municipal and county clerk for every jurisdiction in which the ICE is used. To date, this webinar has been viewed more than 280 times.

This webinar covers the same background information on the nature of the issue as the communication that was sent to the affected jurisdictions. Staff also included a walkthrough of the procedures for correctly remaking overvoted ballots when appropriate and further reinforced the importance of following these procedures, as well as the consequences of not doing so, i.e., a voter's ballot choices not being appropriately counted.

On February 9, 2021, WEC staff hosted a call with county clerks from the counties in which the ICE is used. The purpose of this call was to discuss what had been accomplished up to that point and to clearly define the next steps in the process. Staff outlined the Commission's directive to further research the issue by obtaining the overvote rates for all ICE jurisdictions and solicited options from the clerks as to how to best gather and furnish this information to staff for further review. Following this call, counties began to submit data on their respective overvote rates, the collection process and analysis for which is detailed further in the applicable sections of this report.

Tabulator Programming Analysis

Of the 19 counties throughout Wisconsin that used ICE tabulators in the November 3, 2020 General Election, a majority used tabulators that were programmed in a such a way to ignore any marks in the write-in field. A total of 12 counties used ICE tabulators which were programmed to read only the oval and ignore marks in the write-in field. The remaining seven counties had tabulators programmed to review both the oval and write-in field for marks. It was in these seven counties where the issue of creases running through the write-in field caused overvotes.

Pre-election programming of the tabulators is completed by one of three parties: the county, an authorized third-party representative, or the vendor. Further analysis of pre-election tabulator programming can be found below.

Two counties, Fond du Lac and Racine, conduct pre-election programming in house for the ICE tabulators used in those counties. In the 2020 General Election, the tabulators in these two counties were programmed to ignore marks in the write-in field. Programming completed in this way made it impossible for any creases in the write-in field to cause an overvote. A further 10 counties utilize a vendor third-party representative to complete the pre-election tabulator programming. The authorized agent, Command Central, programmed the tabulators in each of these 10 counties to ignore marks in the write-in field. As with the counties that completed their own programming, the tabulators in the 10 counties where programming was completed by the authorized agent were incapable of experiencing the crease issue.

The remaining seven counties where ICE tabulators were used in the 2020 General Election comprise the complete extent of locations where the write-in crease overvote issue was observed. Tabulators in these counties were programmed by the vendor to review both the oval and write-in field for marks. The seven counties are Door, Green, Ozaukee, Vilas, Walworth, Winnebago, and Washington. As mentioned earlier in this report, though this issue presented itself on 723 ballots, for a total of 724 creased overvotes, there is no indication that the outcome of any contest was altered. A full list of counties using ICE tabulators and the programming entity can be found below.

Counties Using ImageCast Evolution and Programming Entity

Programmed by Command Central	Programmed by Dominion	Programmed by County
Price	Green	Fond du Lac
Crawford	Winnebago	Racine
Grant	Ozaukee	
Juneau	Walworth	
Oconto	Door	
Oneida	Washington	
Rusk	Vilas	
Sawyer		
Trempealeau		
Waupaca		

Data Collection Process

In order to determine the extent of the ballot crease issue, staff began by directly contacting the clerks of counties where the ICE tabulator was used in the 2020 General Election. After a productive call with the clerks of all 19 counties, staff followed up with a questionnaire to the county clerks to further clarify who was responsible for the programming of the tabulators, whether they were programmed to review for marks in the write-in field, if there would be any issues implementing the amended state certification requirement approved by the Commission, and if the counties were able to provide overvote summaries, ballot images and manifestations. Many counties were able to provide overvote reports detailing where and in which contests overvotes occurred in the 2020 General Election. The counties that were unable to provide an overvote report instead sent copies of the tabulator results tapes from election night. A full list of the questions sent to clerks can be found in Appendix A.

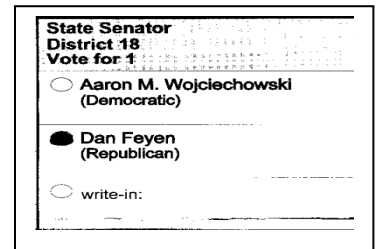
As noted in this report, 12 counties responded that the tabulators were programmed to ignore marks, either intentional or ambiguous, contained in the write-in field. This means that no matter how heavy the crease, anything contained in the write-in field of ballots in those 12 counties would not be read by the tabulator. Write-in votes were only recognized by the tabulator if the oval was marked by the voter. After reviewing submitted overvote reports and election night results tapes, staff determined that the overvote totals in these 12 counties did not deviate from what was anticipated. As a result, attention was turned to the remaining seven counties, where programming allowed for marks in the write-in field to be read, in order to ascertain the extent of the absentee ballot crease issue.

In the seven remaining counties, staff observed a trend of higher-than-expected overvote totals when reviewing the overvote reports and election night results tapes provided by the county clerks. Since two of these counties were locations where the crease issue was first discovered in the voting equipment audit, and each of the seven counties used ICE tabulators programmed to read marks in the write-in field at the 2020 General Election, further investigation was conducted. Staff contacted both the county clerks and equipment vendor to obtain ballot images and manifestations for every ballot containing an overvote that was processed on election day in each county. Wisconsin state certification requires ballot images to be saved for every ballot processed by a tabulator on election day. Ballot manifestations, sometimes referred to as a cast vote record, are a detailed summary of every contest and vote on the ballot, and how those votes were counted. Ballot images and manifestations were provided promptly by the equipment vendor for WEC staff review.

Data Analysis and Findings

Upon receipt of the overvoted ballot images and manifestations from the seven counties, which were either furnished directly by the county clerks or via a secure file share from the vendor, staff commenced with a review of each ballot image. In total, 1,110 overvoted ballot images were reviewed and placed into one of three categories, which were predicated on the root cause of the overvote on each ballot. In addition to tracking the occurrence rate of crease induced overvotes, staff also tracked and categorized two other overvote types, dividing these into three categories, to gain a full understanding of the issue at hand. The three categories into which overvotes were categorized were creased overvotes, marked overvotes, and other overvotes.

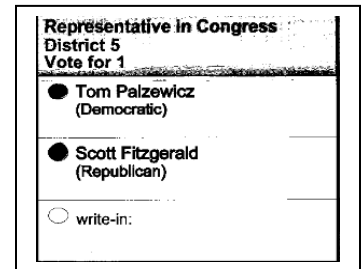
Creased overvotes, which were the primary focus of this review and analysis, and exemplified by the image to the right, are ballots on which heavy creasing caused by the folding of an absentee ballot, traversing the write-in field, was identified as an overvote by the tabulator but, in contravention of established procedures, the ballots were not remade and were instead processed via the override function. There were creased overvotes found, to some extent, in all seven counties where election programming of the ICE tabulators dictated that the write-in field be reviewed for marks. In total, there were 724 creased overvotes in 5 overall contests found on the ballot images from 78 municipalities in these seven counties. The contests in which crease overvotes were found varied by county and across districts but can be categorized into one of five general contests: State Senator, Representative to the Assembly, County Treasurer, Register of Deeds, and President/Vice President. A summary of creased overvotes by contest and can be found below. More detailed information on contest summary by county and contest, including the number of votes impacted by candidate, can be found in Appendix C.



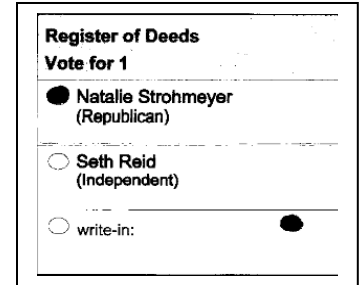
Creased Overvote Totals by Contest

Contest	Total Number of Creased Overvotes
President/Vice President	4
State Senator	345
Representative to the Assembly	38
County Treasurer	170
Register of Deeds	167

Ballots containing intentionally marked overvotes were also analyzed by staff. Marked overvotes are considered to be votes cast in any contest on the ballot in which the voter chose more candidates than they are allowed in that contest, such as if a voter selects two candidates in a "vote for 1" contest. An example can be found in the image to the right. State law does not prevent voters from marking their ballot in this way, though no votes are counted in the specified contest if voter intent cannot be determined, or if the voter chooses to cast their ballot with overvotes.



The “other” category included ballots that could not be categorized by one of the other two classifications. This group of overvoted ballots included ballots that were incorrectly read as overvotes due to a smear on the scanner of the tabulator and ballots on which the ink in an oval from another contest on the opposite side of the ballot bled through to the degree that it was picked up as an overvote in the write-in field, often referred to as an ink bleed through. Ink bleed through, while rare, occurs when a marking device such as a felt tip marker is used to mark a ballot. These markers in no way negatively impact the processing of properly marked votes. However, when too much ink was applied to an oval, such that it soaked through to the back side of the ballot, the tabulator considered those soaked through marks within the write-in field to be valid. As with the issue of creased overvotes, the Commission decision to amend the Democracy Suite 4.14 to limit the ballot target area will serve as a remedy to prevent this type of occurrence from happening in future elections. While the creased ballots constituted the majority of the overvotes on the reviewed ballot images, it is important to highlight the fact that most of the overvoted ballots in the “other” category would have been counted as valid votes had proper procedures for remaking ballots been followed. The table below shows the summary of the overvoted ballots from each of the 7 counties.



Appendix B of this report provides additional context for this overall data set, including the number of occurrences of each type of overvote for each municipality in which they were recorded.

Overvote Summary of all Ballot Images Reviewed

County	Creased Overvotes	Marked Overvotes	Other	Total
Door	1	17	0	18
Green	87	1	0	88
Ozaukee	165	40	1	206
Vilas	43	15	14	72
Walworth	18	130	37	185
Washington	61	87	1	210
Winnebago	349	86	19	454
Total	724	376	72	1,233

Next Steps

Moving forward, staff will contact the equipment vendor and counties utilizing the ImageCast Evolution tabulator to ensure that the updated programming requirements as approved by the Commission are being followed. As 12 of the 19 counties where the ICE is used are already meeting this requirement, staff will consider the remaining seven counties to be priority. Communications with the vendor and the counties has shown that all parties involved are committed to implementing the updated programming requirement. Furthermore, programming in the 12 counties unaffected by creased overvotes shows that the ICE tabulators are able to be programmed to ignore marks in the write-in field.

As part of future trainings, staff will also continue to emphasize the importance of overvote totals review as part of the municipal canvass process. Conducting such a review at the time of municipal canvass is an important step that should be taken by local election officials to ensure that the public has a complete picture of the local election results.

Conclusion

Through County Clerk outreach, an increased training emphasis, and thorough analysis of all ballot images and ballot manifestations from the seven counties impacted by the issue of creased overvotes, staff has made every effort to ensure that the desire for further exploration of the overvote issue expressed by the Commission has been met. County and Municipal Clerks have been very open and understanding regarding reinforced training, updated processes, as well as new programming requirements for ICE tabulators for all future elections beginning in April 2021. With continued support from clerks statewide, and the Commission's amendment to the Democracy Suite 4.14 state certification, the creased overvote issue revealed as part of the 2020 voting equipment audit should present no further complications in any future elections.

Recommended Motion

The Commission accepts and adopts this report on training procedures, County Clerk outreach, and ImageCast Evolution overvote data analysis.

Appendix A: County Clerk Outreach

The following questions were sent to all county clerks who utilized the ImageCast Evolution tabulator at the 2020 General Election as part of data collection for further analysis as directed by the Commission.

1. Did your programming for the ICE for 11/3/2020 allow for it to recognize marks in the write-in target area in addition to the oval?
2. What about for February 2021?
3. Will you be able to accommodate this new requirement for April programming? If not, please explain.
4. Do you have a summary report of overvote totals for each contest by reporting unit for the 11/3/2020 election?
 - a) If so, are there any contests you have identified with concerning overvote totals?
 - b) If not, do you have the machine tapes for municipalities that use the ICE?
 - c) If not, do we need to contact the muni to get copies of those?
5. If needed, do you have access to the ballot images and ballot manifests from the 11/3/2020 election? If not, who has custody of those records?
6. Does the election results management software allow you to sort ballot images by overvotes?

Appendix B: Overvote Totals by County and Municipality

Door	Municipality	Creased OV	Marked OV	Other OV	Muni Total
	Multiple*	1	17	0	18
Green	Municipality	Creased OV	Marked OV	Other OV	Muni Total
	Town of Adams	1	0	0	1
	Town of Albany	2	0	0	2
	Town of Cadiz	4	0	0	4
	Town of Clarno	4	0	0	4
	Town of Decatur	10	0	0	10
	Town of Exeter	15	0	0	15
	Town of Jefferson	33	0	0	33
	Town of New Glarus	5	0	0	5
	Town of Sylvester	0	1	0	1
	Village of Albany	13	0	0	13
	Green County Totals:	87	1	0	88
Ozaukee	Municipality	Creased OV	Marked OV	Other OV	Muni Total
	City of Cedarburg	3	2	1	6
	City of Mequon	54	12	0	66
	City of Port Washington	2	2	0	4
	Town of Belgium	3	0	0	3
	Town of Cedarburg	2	5	0	7
	Town of Fredonia	0	2	0	2
	Town of Port Washington	3	1	0	4
	Town of Saukville	0	1	0	1
	Village of Bayside	0	1	0	1
	Village of Fredonia	1	2	0	3
	Village of Grafton	91	3	0	94
	Village of Saukville	6	4	0	10
	Village of Thiensville	0	5	0	5
	Ozaukee County Totals:	165	40	1	206
Vilas	Municipality	Creased OV	Marked OV	Other OV	Muni Total
	City of Eagle River	0	3	0	3
	Town of Arbor Vitae	1	1	0	2
	Town of Boulder Junction	0	1	1	2
	Town of Lac Du Flambeau	42	6	0	48
	Town of Lincoln	0	2	13	15
	Town of Plum Lake	0	1	0	1
	Town of Presque Isle	0	1	0	1
	Vilas County Totals:	43	15	14	72

Walworth	Municipality	Creased OV	Marked OV	Other OV	Muni Total
	City of Delavan	0	1	0	1
	City of Elkhorn	0	7	0	7
	City of Lake Geneva	1	25	3	29
	City of Whitewater	0	6	0	6
	Town of Bloomfield	0	1	0	1
	Town of Darien	0	10	0	10
	Town of Delavan	3	13	0	16
	Town of Geneva	6	4	0	10
	Town of La Grange	0	2	0	2
	Town of Lafayette	0	1	0	1
	Town of Linn	0	10	0	10
	Town of Lyons**	2	2	32	36
	Town of Richmond	0	1	0	1
	Town of Sharon	0	2	0	2
	Town of Sugar Creek	0	2	0	2
	Town of Troy	0	8	0	8
	Town of Walworth	0	2	0	2
	Town of Whitewater	0	2	0	2
	Village of Bloomfield	0	4	0	4
	Village of Darien	0	3	0	3
	Village of East Troy	0	7	0	7
	Village of Fontana	0	2	0	2
	Village of Mukwonago	0	1	0	1
	Village of Walworth	0	2	2	4
	Village of Williams Bay	6	12	0	18
	Walworth County Totals:	18	130	37	185
Washington	Municipality	Creased OV	Marked OV	Other OV	Muni Total
	City of Hartford	50	17	0	67
	City of West Bend	0	20	1	21
	Town of Barton	0	5	0	5
	Town of Erin	7	3	0	10
	Town of Farmington	0	2	0	2
	Town of Hartford	0	4	0	4
	Town of Jackson	0	1	0	1
	Town of Trenton	0	1	0	1
	Town of West Bend	0	3	0	3
	Village of Germantown	2	20	0	22
	Village of Richfield	2	8	0	10
	Village of Slinger	0	3	0	3
	Washington County Totals:	61	87	1	149
Winnebago	Municipality	Creased OV	Marked OV	Other OV	Muni Total

	City of Menasha	0	11	0	11
	City of Neenah	7	3	0	10
	City of Omro	0	1	0	1
	City of Oshkosh	306	41	6	353
	Town of Algoma	13	4	4	21
	Town of Black Wolf	2	0	0	2
	Town of Clayton	1	5	0	6
	Town of Neenah	0	3	0	3
	Town of Omro	10	3	5	18
	Town of Winchester	3	1	0	4
	Village of Fox Crossing	7	14	4	25
	Winnebago County Totals:	349	86	19	454

- * Door County has several municipalities with the same ballot style, so it is unclear as to which municipality had the crease-originated overvote in the President/Vice-President contest (7 total overvotes in this contest in the county).
- ** Staff have followed up with Dominion Voting Systems for further information, but it appears that there was a smudge/debris on the scanner head of the tabulator in this jurisdiction that left a dark line on several ballots and contributed to the high occurrence of “other” overvotes in this municipality.

Appendix C: Creased Overvote Totals by Contest and Candidate

The table below represents the total number of creased overvotes in each of the 7 affected counties by both contest and number of negatively impacted votes per candidate in each contest.

Door	Contest	Total Creased OV	Affected Candidate	Votes Impacted
	President/Vice President	1	Biden/Harris	1

Green	Contest	Total Creased OV	Affected Candidate	Votes Impacted
	Register of Deeds	87	Meudt	87

Ozaukee	Contest	Total Creased OV	Affected Candidate	Votes Impacted
	State Senate District 8	2	Darling	1
			Plotkin	1
	County Treasurer	163	Morrison	163

Vilas	Contest	Total Creased OV	Affected Candidate	Votes Impacted
	State Senate District 12	1	Czaja-Felzkowski	1
	Representative to the Assembly District 74	5	Bolen	1
			Meyers	4
	Register of Deeds	37	Bierman	37

Walworth	Contest	Total Creased OV	Affected Candidate	Votes Impacted
	President/Vice President	1	Biden/Harris	1
	Representative to the Assembly District 31	5	Lochner-Abel	2
			Loudenbeck	3
	Representative to the Assembly District 32	11	August	9
			Gaulke	2
Register of Deeds	1	Jacobs	1	

	Contest	Total Creased OV	Affected Candidate	Votes Impacted
Washington	President/Vice President	1	Trump/Pence	1
	State Senate District 8	11	Darling	5
			Plotkin	6
	County Treasurer	7	Henke	7
	Register of Deeds	42	Martin	42

	Contest	Total Creased OV	Affected Candidate	Votes Impacted
Winnebago	President/Vice President	1	Biden/Harris	1
	State Senate District 18	331	Wojciechowski	202
			Feyen	129
	Representative to the Assembly District 55	12	Cabral-Guevara	5
			Shierl	7
	Representative to the Assembly District 56	3	Murphy	2
			Lawrence	1
	Representative to the Assembly District 57	2	Snodgrass	1
Beach			1	