Analysis and Report of Overvotes and Undervotes 2020 General Election

Pursuant to Section 101.595, Florida Statutes

January 31, 2021

Florida Department of State
Division of Elections
Room 316, R.A. Gray Building
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Tallahassee, Florida 32399-0250

Executive Summary

Section 101.595, Fla. Stat., directs the Florida Department of State (Department) to report on the performance of each type of voting system after a general election based on "the total number of overvotes and undervotes in the 'President and Vice President' or 'Governor and Lieutenant Governor' race that appears first on the ballot or, if neither appears [first], the first race appearing on the ballot." This report is conducted on the 2020 Presidential contest.

The 67 Florida county Supervisors of Elections are required to provide to the Department the overvote and undervote data and the likely reasons for such overvotes and undervotes and other useful information. The Department then analyzes the county information to determine whether there is an identifiable problem with a voting system's design and/or whether ballot design or instructions contributed to voter confusion. The findings must be reported to the Legislature and the Governor by January 31 of the year following the general election.

For purposes of this report, the following definitions apply:

- *Overvote:* the elector marks or designates more names than there are persons to be elected to an office or designates more than one answer to a ballot question, and the tabulator records no vote for the office or question.
- *Undervote:* the elector does not designate any choice for an office or ballot question, and the tabulator records no vote for the office or question.

Based on the foregoing, the Department concludes the following for the 2020 General Election:

1. Both the overvote rate and undervote rate decreased in 2020 compared to previous overvote and undervote rates for general elections. The method of casting a vote remains a key factor in overvote and undervote rates. A higher number of overvotes and undervotes occurred, regardless of precinct-count or central count tabulator used, when voting by mail versus voting during early voting and Election Day. This is consistent with prior years' reports, and leads to the conclusion that, more than any other factor, the voting method contributes most significantly to overvote and undervote rates.

2. The compiled Presidential contest data do not show anything to suggest or conclude that voter confusion existed during the election as a result of ballot design and/or ballot instructions issues, or that the voting equipment manifested any anomalies. A historical overview of the overvote and undervote data consistently shows no demonstrable correlation as to issues with ballot design and/or instructions which confused voters, or manifestation of any anomalies with county voting systems.

3. As stated in previous reports, an inherent bias continues to exist in actual overvote rates (or conversely higher than actual undervote rates) due to the current ballot duplication requirements in law. Specifically, section 101.5614(5), Fla. Stat., requires a vote-by-mail ballot with an overvoted contest to be duplicated as a ballot with only valid votes. This means that the overvoted contest on that ballot will be remade as a blank (undervoted contest). This in turn skews the number of actual undervotes reported.

4. While the re-design of the Overvote-Undervote Report (Form DS-DE 40) attempted to better elicit from counties the likely reasons for overvotes, undervotes, or if any, voter confusion, the subjective responses proved to be insufficient to draw any conclusion. Further research and re-evaluation of the reporting tool is necessary.

Introduction

Section 101.595, Fla. Stat., directs the Florida Department of State (Department) to report on the performance of each type of voting system after a general election based on "the total number of overvotes and undervotes in the 'President and Vice President' or 'Governor and Lieutenant Governor' race that appears first on the ballot or, if neither appears [first], the first race appearing on the ballot." This report is conducted on the President and Vice President's (Presidential) contest.

The 67 Florida county Supervisors of Elections are required to provide to the Department the overvote and undervote data and the likely reasons for such overvotes and undervotes and other useful information. The Department then analyzes the county information to determine whether there is an identifiable problem with a voting system's design and/or whether ballot design or instructions contributed to voter confusion. The findings must be reported to the Legislature and the Governor by January 31 of the year following the general election.

This report focuses on factors relating to the "*non-valid votes*" being cast for the Presidential contest. The term "*non-valid votes"* consists of three categories:

- *Overvote*. An overvote occurs when a voter casts more votes than allowed in a contest. When tabulating the ballots at an Early Voting site or at the precinct on Election Day, the voter is immediately alerted to the error when the tabulator rejects the ballot. The voter is then given the choice to correct the ballot or to cast the rejected ballot "as-is." No statutory remedy or opportunity exists to alert voters to cure one or more undervoted contests that may appear on a provisional or vote-by-mail ballot since these types of ballots are canvassed and tabulated later at the central office.

- *Undervote*. An undervote means that the voter did not designate a choice for a contest and/or the tabulator records no vote for the contest. Occasionally, an undervote may be caused as a reflection of the machine's design rather than machine error. The machine's design may preclude reading a marked ballot that has not been completed per ballot instructions. For example, a tabulator is likely to not read ballot contests marked with a yellow highlighter. Although an undervote may be due to a voting machine error, more often than not, an undervote reflects a voter's intent not to vote a contest. Voting systems, as counties currently code them, alert the voter as to a blank ballot (not whether there is one or more undervoted contests).[1] No statutory remedy or opportunity exists to alert voters to cure one or more undervoted contests that may appear on a provisional or vote-by-mail ballot since these types of ballots are canvassed and tabulated later at the central office.

- *Invalid write-in vote*. An invalid write-in vote may be due to voter error, such as unintentionally writing in a valid candidate's name from another contest, or intentionally writing in (as protest) "Mickey Mouse," "None of the above," "Anybody but [candidate]," or a fictitious name.

As the voting systems market has evolved over the past decade, Florida's 67 counties have upgraded or replaced their voting systems. Only two vendors currently have voting systems certified for use in the State: "EVS" by Election Systems & Software, LLC (ES&S), and "Democracy Suite" by Dominion Voting Systems, Inc. (Dominion).

As of 2020, all voting in Florida is by marksense ballot, either using a marking device (i.e., pen or pencil) or a voter interface device that produces a voter-verifiable paper output and meets the voter accessibility

[1] The law is silent regarding whether tabulators should alert voters of undervotes (other than blank ballot alerts). No Florida county, to the Department's knowledge, codes their tabulators to alert voters of undervotes other than blank ballots. Undervotes in down-ballot contests are very common, and such coding would add prohibitive delays to ballot casting in the polling place.

requirements for individuals with disabilities under § 301 of the Help America Vote Act (HAVA)[2] and § 101.56062, Fla. Stat.[3]

Methodology

The 2020 General Election data was compared to data from the 2010, 2012, 2014, 2016 and 2018 General Elections. Since 2010, the Department has been analyzing the data at the tabulator level instead of the voting system level. This analytical approach offers more flexibility, provides greater details and is applicable in the event of future changes in voting system configuration. Based on Department recommendations in the previous Overvote/Undervote report, the Department has also revised the data collection tool to better capture and quantify the factors that may contribute to voter confusion, if any.

The 67 county Supervisors of Elections reported their raw overvote and undervote data in a spreadsheet designed for this purpose (Form DS-DE 40, General Election Report on Overvotes and Undervotes, *aka* "Overvote-Undervote Report"). During the data verification, reconciliation, and compilation process, counties were contacted as needed for explanations of any discrepancies or unusual entries. The aggregate data was then categorized and analyzed according to voting equipment type (tabulation device). Data in this report are presented as rates or percentages of an event, rather than as raw data. The reason for this is that numbers of ballots cast vary greatly across Florida counties, ranging from a few thousand to millions of ballots cast in a county. By converting the event raw values to percentages of ballots cast, it becomes possible to compare events across Florida counties.

The 2020 election cycle is the first time that all counties in Florida used either the ES&S EVS system or the Dominion Democracy Suite System. In the years prior to the 2020 General Election, some counties used either the GEMS[4] systems (with AVOS, AVOSX, and PCS tabulators), the ES&S Unity system (with M100 and M650 tabulators), or the Sequoia[5] system (with Insight+ and 400-C tabulators) but have since ceased to use these tabulators. Counties now use one of 5 types of tabulators associated with either the Dominion Voting System Vendor or the ES&S voting system vendor.). However, for purposes of historical comparative data analysis, it is still necessary to reference the twelve different types of tabulators that have been certified for use in the last six years.[6]

The tabulators currently used with the Dominion Democracy Suite voting system include the ICE and ICC. The ICE is a precinct tabulator and the ICC is used for high-speed central count scanning. The ES&S ElectionWare tabulators include the precinct-level DS200, and two high speed central count tabulators, the DS450 and the DS850. Counties may also choose to use the ICE or DS200 for central count tabulating.

[2] HAVA (Title III,) 52 U.S.C. § 21081.
[3] §101.56075, Fla. Stat.
[4] GEMS was a Premier Election Solutions product. In 2009, ES&S acquired Premier from Diebold Election Systems, Inc. In 2010, the U.S. Department of Justice mandated ES&S to divest elements of the Premier line of voting systems due to monopoly concerns. As part of the agreement, Dominion then acquired Premier's voting systems.
[5] In 2010, Dominion acquired Sequoia Voting Systems, Inc.
[6] Throughout this report, when data is presented at the tabulator level, the absence of a data value (designated by a dash " – ") indicates that the tabulator was not used in Florida during the stated election.

Table 1 below shows how many counties used which tabulator type and by voting method (early voting, Election Day, and vote-by-mail).

Table 1

Voting System Tabulators by Voting Method Usage in Florida, 2020

Voting System - Tabulators	Number of Counties using Tabulators, By Voting Method		
	EV	ED	VBM
Sequoia - Insight +	0	0	0
Sequoia - 400-C	0	0	0
Democracy Suite - ICE	18	18	9
Democracy Suite - ICC	0	0	9
GEMS - AVOS	0	0	0
GEMS - AVOSX	0	0	0
GEMS - PCS	0	0	0
ES&S - M100	0	0	0
ES&S - DS200	49	49	12
ES&S - M650	0	0	0
ES&S - DS850	0	0	33
ES&S - DS450	0	0	4
Total =	67	67	67

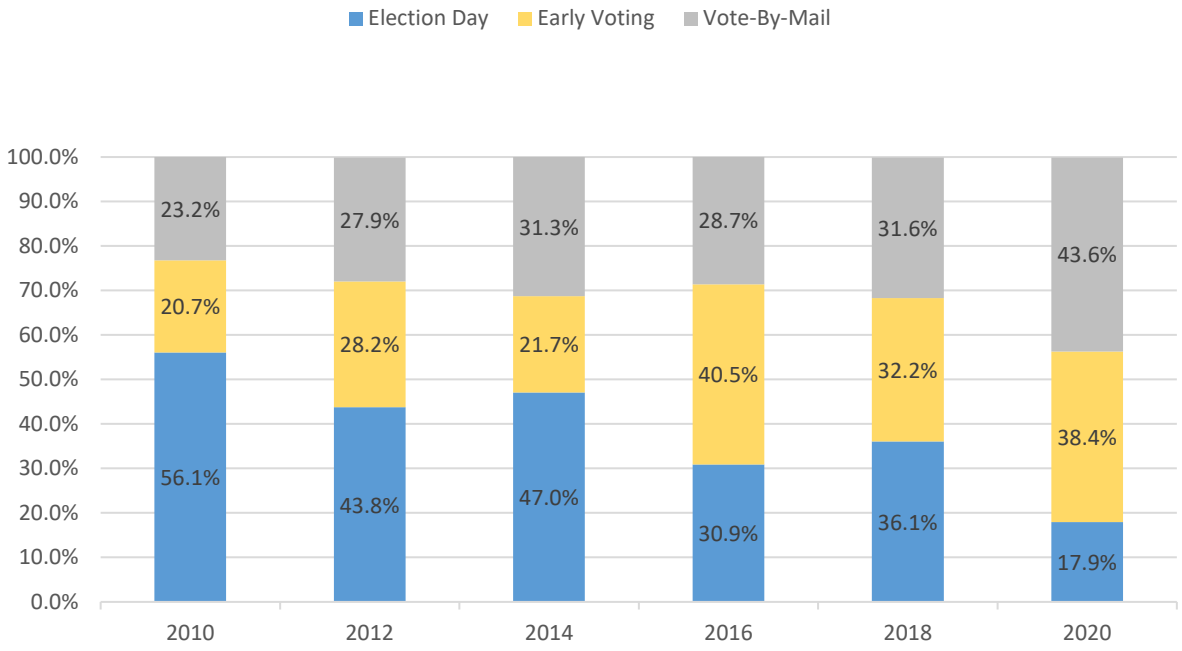
Findings

Florida provides voters three convenient options for voting: vote-by-mail, early voting and voting at the polls on Election Day. While Florida counties traditionally prepared for and conducted elections in a manner to expect their voters to vote any of the three methods, the 2020 election year coincided with the unprecedented global COVID-19 pandemic. Therefore, many counties heavily promoted vote-by-mail which has become increasingly popular in the last decade. Other (but fewer) counties promoted both vote-by-mail and early voting. Early voting has been allowed by law since 2004, and has also become a popular in-person voting option to Election Day. Ultimately, the overvote and undervote rates for the 2020 Presidential contest, whether by voting method or by tabulator type, were consistent with the rates or trends found and reported in previous reports.

Overvote and Undervote Rate by Voting Method

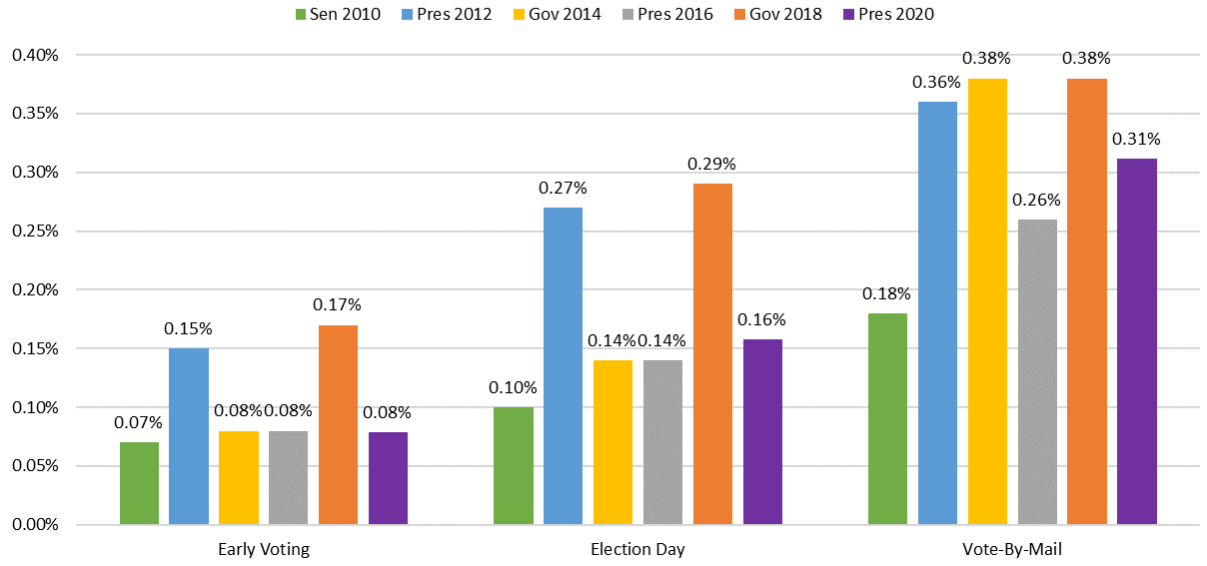
Voters' choices between voting methods shift with every election cycle depending on a number of factors including the constituency demographics and preferences in the county. A comparative overview with prior elections shows the continuing upward shift since 2010 towards vote-by-mail in the 2020 General Election was not unusual, particularly given the circumstances. **See Chart 1 below.** What the chart does *not* show is that not only did the vote-by-mail and early voting methods gain in their shares of total ballots cast, but there was a dramatic increase in the numbers of total ballots cast from 8.3 million in 2018 to 11.1 million in 2020, which is a net increase of 2.8 million *more* voters.

Chart 1
Total Ballots Cast by Voting Method, 2010 - 2020



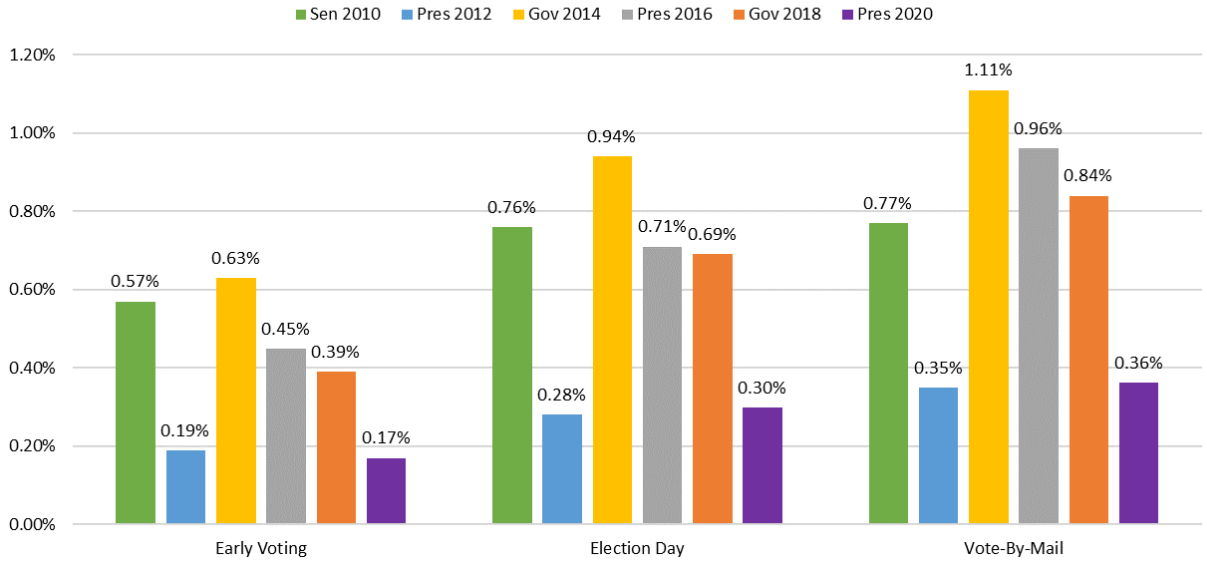
The method of casting a vote is a consistently recurring factor in the overvote and undervote rates. The overvote rate for the Presidential contest was consistent with the overvote rate for all voting methods during the general election cycles starting with 2010 General Election cycle to the 2020 General Election cycle. See **Chart 2**, below.

Chart 2
Overvote Rate by Voting Method, 2010 - 2020



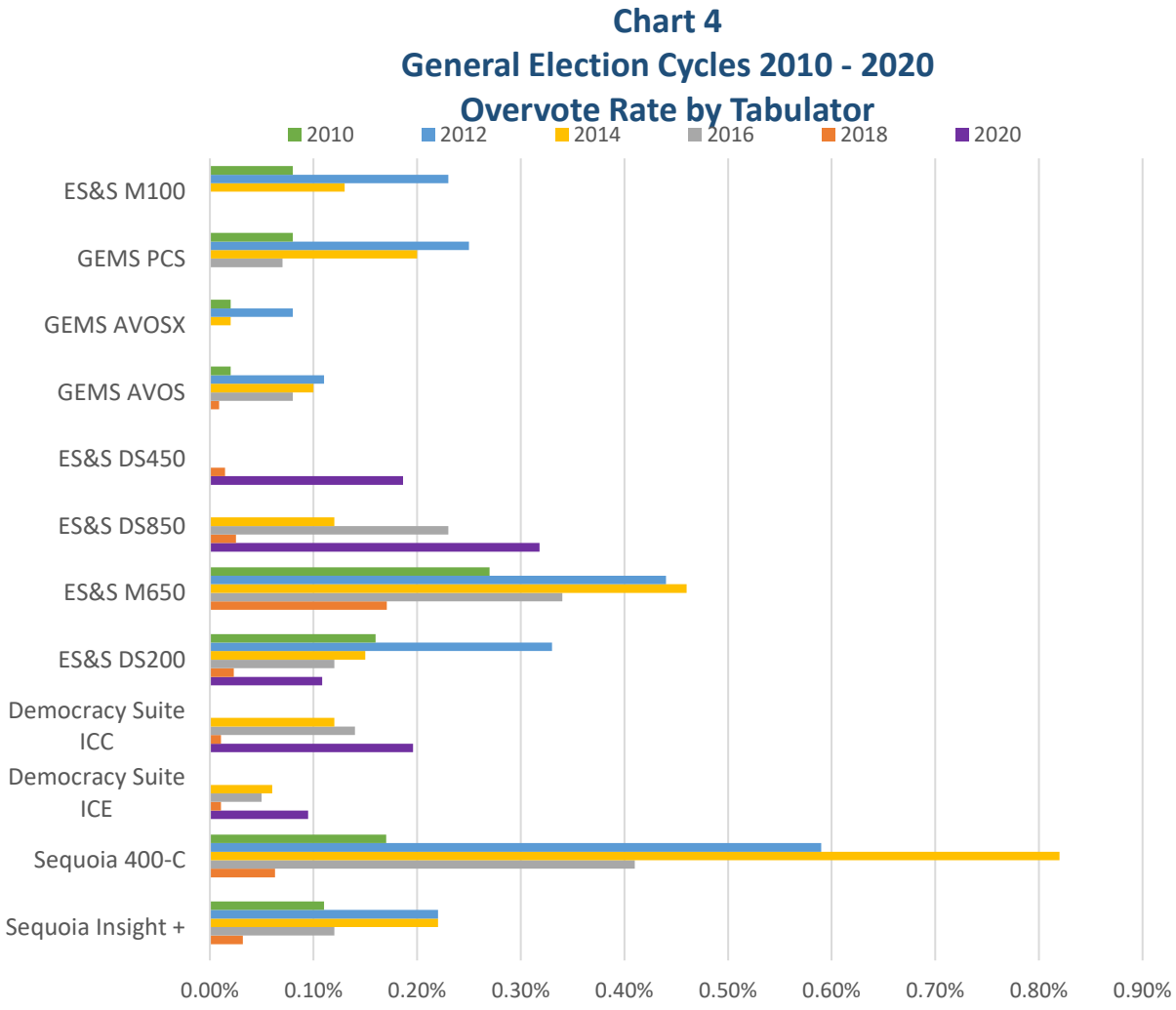
Notably, the undervote rate was the lowest or nearly the lowest in a decade for all three voting methods. See **Chart 3** below.

Chart 3
Undervote Rate by Voting Method, 2010 - 2020

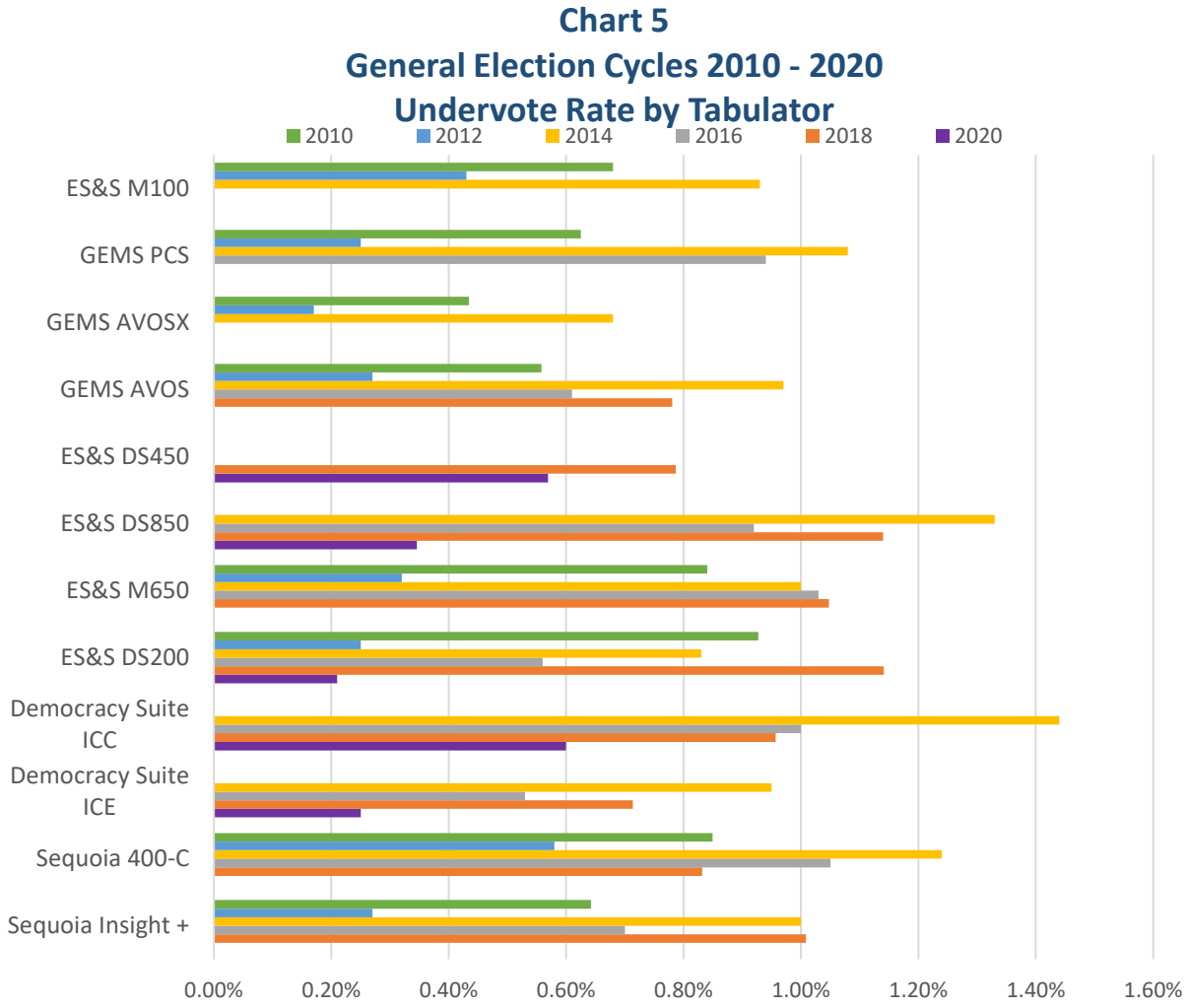


Overvote and Undervote Rate By Tabulator

The overvote rate increased from 2018 General Election across all five tabulators used in the 2020 General Election. See **Chart 5** below. It should be noted that the ES&S DS450, DS850, and Democracy Suite ICC are used exclusively as central count tabulators. For this reason, the central count tabulators would see higher rates because they processed almost all of the vote-by-mail ballots and would tend to see more overvoted ballots. Many counties use the ES&S DS200 or the Democracy Suite ICE precinct tabulators as a central count tabulator for processing Vote-By-Mail ballots which in turn can also explain the higher overvote rates seen in the chart below.

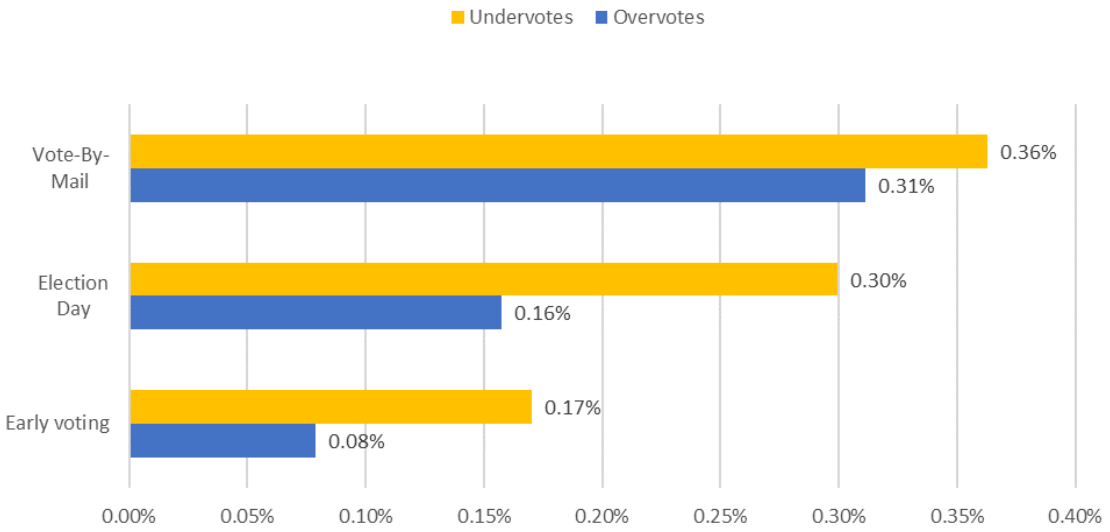


In contrast, the undervote rate by tabulator for the 2020 election decreased since 2018. All five of the tabulators used in 2020 had their lowest undervote rates recorded in the last decade. See **Chart 5** below.



The method of casting a vote is a consistently recurring factor in the overvote and undervote rates. See **Charts 2 and 3** (mentioned earlier in the report) for an overview of the overvote and undervote rates for the 2020 Presidential contest compared to data collected from previous elections. **Chart 6** below shows the undervotes and overvotes by voting method for 2020. As reported in previous reports, vote-by-mail continues to garner the most undervotes and overvotes. In-person voting provides voters with feedback on their ballot to reduce the number of undervotes and overvotes that are cast, whereas voters who choose to cast their ballot by mail do not have that mechanism available to them.

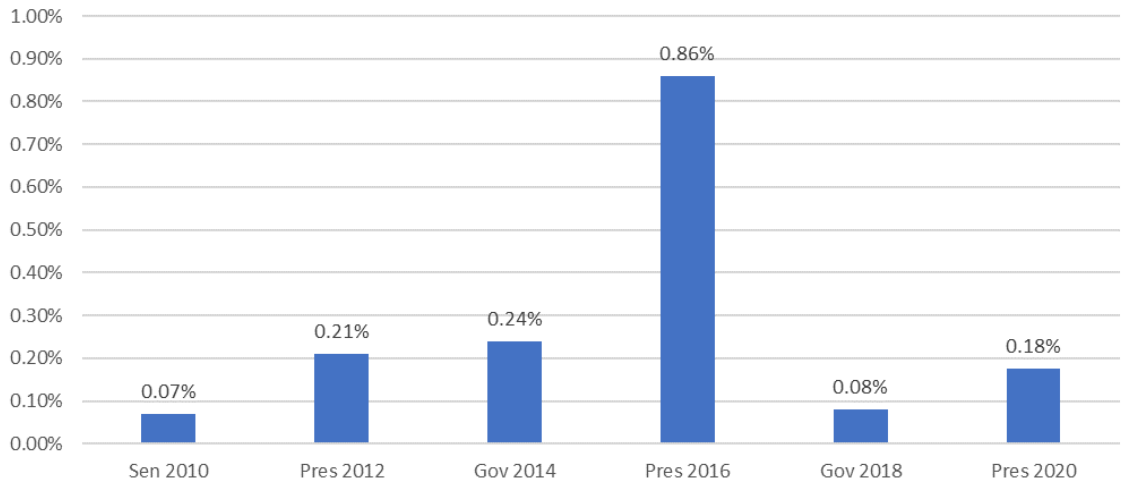
Chart 6
2020 Presidential Contest
Undervotes and Overvotes by Voting Method



Invalid Write-In Vote Rate

Chart 7 shows the invalid write-in votes (those votes for which the voter wrote in a candidate's name who had not qualified for the ballot) rate increased since the 2018 General Election, although not as high as the 2012, 2014, and 2016 levels.

Chart 7
General Election Cycles 2010 - 2020
Invalid Write-in Rate



Overall Invalid Vote Rate

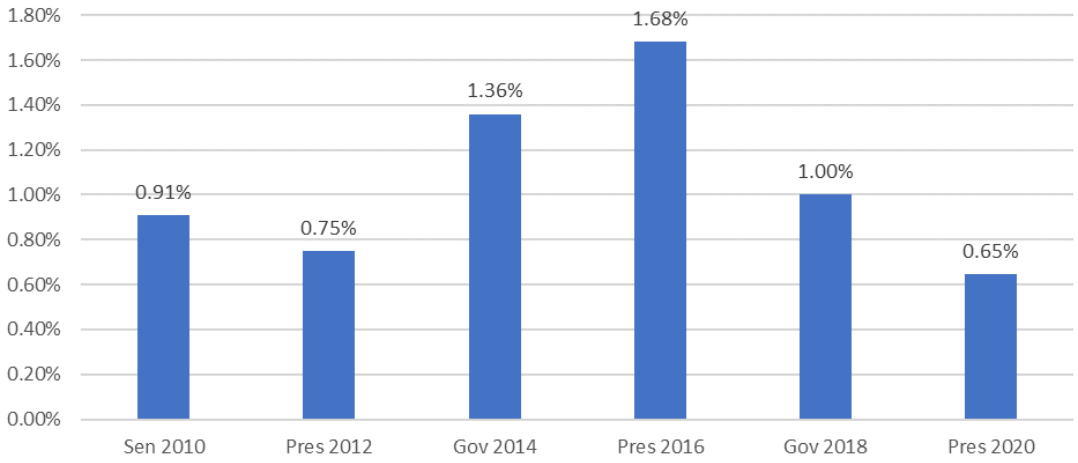
There is no discernable trend in the overall non-valid vote rates (i.e., composite of overvotes, undervotes, and invalid write-in votes) for the 2020 Presidential contest when compared to the first contest on the ballot in the last five general elections. However, within tabulator types, the central count scanners demonstrate higher non-valid vote rates than their precinct-count counterparts. See **Table 2** below. For example, the Democracy Suite ICC rate is higher than that of the ICE; likewise, the ES&S DS850 and DS450 rates are higher than that of the ES&S DS200. These results are consistent with the findings of previous reports that the non-valid vote rate is higher for vote-by-mail voting processed by central count scanners, due to the lack of any mechanism to inform voters of their impending invalid vote prior to the casting of their ballot. One possible reason for the increase is that voting by mail significantly increased in 2020 due to the COVID-19 pandemic.

Table 2
General Election Cycles 2010 - 2020
Non-Valid Vote Rate by Tabulator

Tabulators	2010 Senator	2012 President	2014 Governor	2016 President	2018 Governor	2020 President
Sequoia Insight +	0.79%	0.61%	1.37%	1.40%	1.35%	-
Sequoia 400-C	1.20%	1.33%	2.25%	2.19%	2.26%	-
Democracy Suite ICE	-	-	-	1.47%	0.75%	0.37%
Democracy Suite ICC	-	-	-	2.30%	1.19%	1.35%
GEMS AVOS	0.67%	0.64%	1.42%	1.64%	0.68%	-
ES&S DS200	0.85%	0.76%	1.15%	1.38%	0.82%	0.32%
ES&S M650	1.11%	0.98%	1.69%	2.27%	1.81%	-
ES&S DS850	-	-	-	2.59%	1.20%	1.05%
ES&S DS450	-	-	-	N/A	1.09%	1.32%
GEMS AVOSX	0.51%	0.47%	0.96%	-	-	-
GEMS PCS	0.70%	0.74%	1.56%	1.41%	-	-
ES&S M100	1.19%	0.89%	1.42%	-	-	-
STATEWIDE	0.91%	0.75%	1.36%	1.68%	1.00%	0.65%

Nonetheless, the statewide "non-valid vote" rate for 2020 is a "record low" rate since 2010. See **Chart 8** below.

Chart 8
General Election Cycles 2010 - 2020
Non-Valid Vote Rate



Ballot Design and Instructions/Voting System Anomalies

A historical overview of the overvote and undervote data consistently shows no demonstrable correlation that ballot design and/or instructions confused voters, or that the voting system manifested any anomalies. Prior to the 2020 Election Cycle, the Department modified the data collection tool (Form DS-DE 40, Overvote – Undervote Report) in 2020 in an effort to better capture meaningful data as to ballot design, ballot instructions and if any, voting system anomalies that could have confused voters.

Section II of the form contained multiple-choice boxes for counties to describe their ballot language design, instructions, and contest titles. See **Figure 1** below. Rule 1S-2.032, Florida Administrative Code, governs uniform ballot design and was last revised in April 23, 2020.

Figure 1. Form DS-DE 40 – "Over-Under Report" – Ballot Design Section

SECTION II:
Ballot Design

The data in Section II is for ballot design only. Please put an "X" in all boxes that apply. Refer to the Instructions worksheet, if needed.

Ballot Language

11 ☐ English only
12 ☐ Multi-Language - All languages on one ballot
13 ☐ Multi-Language - Each language on a separate ballot

Instructions

14 ☐ Ballot Instructions - Across page - Centered
15 ☐ Ballot Instructions - Across page - Flush Left
16 ☐ Ballot Instructions - Leftmost Column

Contest Title

17 ☐ Contest Title - No Background
18 ☐ Contest Title - Shaded Background

Rule Deviations

19 ☐ There are more candidates than will fit in one column or screen
20 ☐ The candidate's name is longer than will allow the party abbreviation to fit to the right of the candidate's name
21 ☐ A candidate's name is too long to fit on one line in the minimum font size
22 ☐ The party Abbreviation cannot be printed in the minimum font size without going onto a second line
23 ☐ Printing the (Vote for X) designations in the minimum font size will require an additional ballot card
24 ☐ The voting system will not permit the suppression of party abbreviations on ballots when a universal primary contest exists
25 ☐ Any other extraordinary circumstances which cannot reasonably be accommodated except by deviation from the requirements of the rule. Describe in the Comments below:

Comments:

A breakdown of the responses pursuant to Section II follows:

- Ballot language. The official language for a ballot is English. However, counties subject to section 203 of the federal Voting Rights Act and section 101.151, Fla. Stat., are required to provided multi-language on one ballot, with English appearing first. All others counties have the option to provide separate ballots for each language or all on the same ballot per Rule 1S-2.032, Fla. Admin. Code.
    - Thirty-nine counties provided a multi-language consolidated (all languages on one ballot) ballot.
    - Twenty-eight counties provided a separate ballot for each language.
- Ballot Instructions. Current rule allows counties to either center their instructions across the top of the ballot or place instructions in the far left column of the ballot without any contests in that same column.[7]

[7] This specific requirement narrowing the options for ballot instruction placement was adopted into state law (section 101.151, Fla. Stat.) in 2019 and subsequently codified in rule.

- Thirty-three counties centered their ballot instructions across the top of the ballot, whereas 34 counties reported the ballot instructions left-justified across the top of the ballot.

- Contest Title. Current rule allows counties the option to have contest tiles appear against no background or a lightly shaded background.
  - Of the fifty-nine counties that responded, 7 counties reported their contest titles had no background color, and 52 counties shaded the contest titles area.

- Ballot Deviation. Current rule allows counties to deviate from the uniform ballot design for 7 specified reasons including one for extraordinary circumstances that cannot otherwise be reasonably accommodated by rule.
  - Three counties reported that their ballot design deviated from rule. Examples of reasons cited were that the combination of the candidate's name, with the required party abbreviation were too long to fit on one line and to make an adjustment to allow room for a constitutional amendment to fit into one column.

None of the ballot design conditions reported gave any indication that they may have contributed to voter confusion.

The Department also revised Form DS-DE 40 to include a section on potential factors that affect overvotes, undervotes, and voter confusion. The law specifically requires counties to report "the *likely* reasons for such overvotes and undervotes and other information as may be useful in evaluating the performance of the voting system and identifying problems with ballot design and instructions which *may* have contributed to voter confusion."[8] [emphasis added] The basis for this new section is an effort to elicit more specific information from the counties their opinions about factors affecting local turnout and other results. As the multiple-choice boxes were designed to be broad enough to fit any county-level election, care must still be taken when drawing conclusions about the state's election as a whole; furthermore, the county's impressions cannot be interpreted as fact, but are instead an opinion. See **Figure 2**, below.

Figure 2. Form DS-DE 40 – "Over-Under Report" – Possible Factors Section

Section III:
Possible Factors Affecting Undervotes and Overvotes
Please put an "X" in all boxes that apply. Refer to the Instructions worksheet, if needed.

	Voter Interest		Media Coverage		Voter		Other
26	Federal Contest - High	36	National - High Level	44	Voter Literature/Advertisement - High	51	Natural Disaster
27	Federal Contest - Low	37	National - Low Level	45	Voter Literature/Advertisement - Low	52	Other: Please Explain
28	State Contest - High	38	National - Positive Coverage	46	Election Perception - Postive		
29	State Contest - Low	39	National - Negative Coverage	47	Election Perception - Negative		
30	Local Contest - High	40	Local - High Level				
31	Local Contest - Low	41	Local - Low Level		**Voting System**		
32	Amendment - High	42	Local - Positive Coverage	48	Voter Instruction Issue		
33	Amendment - Low	43	Local - Negative Coverage	49	Voting Equipment Issue		
34	Referendum - High			50	New Voting System		
35	Referendum - Low						

Comments:

[8] § 101.595(1), Fla. Stat.

The form's instructions reminded respondents that "this section… is subjective or anecdotal in nature."

A breakdown of the responses pursuant to Section III follows based on 38 county responses:

- "Voter Interest: Federal Contest – High" (32).
- "Media Coverage: National – High Level" (27). In the Media Coverage cluster, respondents were nearly split on whether national coverage was a positive factor (13) or a negative factor (16).
- Only one county selected any option in the Voting System cluster, the "Voter Instruction Issue."
- "Natural Disaster" - (3 counties checked this box but provided no further explanation. Several counties listed COVID-19 in the "Other: Please Explain" box.
- "Voter":
    - "Election Perception – Positive" (16).
    - "Election Perception – Negative" (6).
    - "Voter Literature/Advertisement – Low" (2)

These generalized responses indicate that the Federal (Presidential) contest had high voter interest and media coverage. Natural disaster and the COVID-19 pandemic were also factors in the election.

None of these responses indicate that there was voter confusion or voting system design or performance issues. The Division will be revisiting this section of the reporting tool will re-evaluate and, if practicable, revise to elicit more concrete/objective data.

Conclusion

1. Although both the overvote rate and undervote rate decreased in 2020 compared to previous overvote and undervote rates for general elections, the method of casting a vote remains a key factor in the overvote and undervote rates. The vote-by-mail voting method consistently produced a higher number of overvotes and undervotes than during early voting and Election Day. This is consistent with prior reports, and leads to the conclusion that, more than any other factor surrounding the election environment, the voting method contributes most significantly to overvote and undervote rates.
2. The compiled Presidential contest data do not show anything to suggest or conclude that voter confusion existed during the election as a result of issues, if at all, with ballot design, ballot instructions issues, or voting equipment (design or performance). A historical overview of the overvote and undervote data consistently shows no demonstrable correlation as to issues with ballot design and/or instructions which confused voters, or manifestation of any anomalies with county voting systems.
3. As stated in previous reports, an inherent bias continues to exist in actual overvote rates (or conversely higher than actual undervote rates) due to the current ballot duplication requirements in law. Specifically, section 101.5614(5), Fla. Stat., requires a vote-by-mail ballot with an overvoted contest to be duplicated as a ballot with only valid votes and the overvoted contest remade as a blank contest. This procedure skews the numbers of actual undervotes.
4. Although the re-design of the Over-Under Report (Form DS-DE 40) attempted to elicit from counties the likely reasons for overvotes, undervotes, or voter confusion, the subjective data it yielded presented difficulties in drawing conclusions.

Recommendations

Based on the findings and conclusion, the Department makes the following recommendations:

1. To provide a more integrated meaningful report that may better identify potential issues, if any, or correlation between ballot design and instructions, and/or voting system design, and impact on the voters, a statutory change is recommended combining into a single report data elements and information from the current overvote and undervote report and the conduct of elections report due at the same time (in lieu of two separate reports due at different times).
2. To elicit more objective data, and a better response rate, regarding likely reasons for overvotes and undervotes in a contest and how voting system or ballot design and instructions may have contributed to voter confusion, if at all, the Department will review and, if practicable, modify the Over-Under Report Form DS-DE 40.