

# **Analysis and Report of Overvotes and Undervotes for the 2010 General Election**

Pursuant to Section 101.595, Florida Statutes

**January 31, 2011**



Florida Department of State

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## Executive Summary

Every post-General Election, the Department of State must report to the Florida Legislature on the performance of Florida's certified voting system based on an examination of overvote and undervote data, and any other information that may identify any issues with ballot design and instructions. This report contains the results of that examination for the 2010 General Election.

As required by law, this examination focuses on two specific races (for this election), the United States Senate and Governor races, and takes into account past and current voting methods, systems, and voter actions. As of 2008, the current voting method in Florida requires all voters with the exception of persons with disabilities to vote using a marking device to select his or her choice on an optical scan or marksense ballot.<sup>1</sup> For greater in-depth analysis, the Department also examined the data against the eight different types of tabulator devices from all the voting systems in use. In addition, the data was compared with data from the 2006 General Election since prior studies of the 2002 and 2006 Governor's races reveal that the *no valid vote* rate is race dependent. "*No valid vote*" is a collective term that refers to the combined uncounted votes due to *overvotes*, *undervotes*, and *invalid write-in votes*.

The Department found that the overall *no valid rate* for the state-wide Senate race decreased from 1.71% in 2006 to 0.91% in 2010. In contrast, the *no valid vote* rate for the combined state-wide Governor race increased from .97% in the 2006 General Election to 1.83% for 2010. The *undervote* and *invalid write-in vote* rates contributed most to the *no valid vote* rate change in both races since the *overvote* rates remained otherwise comparable with the 2006 General Election.

The Senate *undervote* rate decreased from 1.62% in 2006 to 0.72% in 2010, and the *invalid write-in vote* decreased from 0.08% in 2006 to 0.07% in 2010. In contrast, the Governor *undervote* rate increased from 0.8% in 2006 to 1.49% in 2010, and the *invalid write-in vote* rate increased from 0.08% in 2006 to 0.27% in 2010:

Overvote Rate		Senate		Governor	
		2010	2006	2010	2006
	<i>Early Voting</i>	0.07 %	0.01 %	0.04 %	0.03 %
<i>Election Day</i>	0.10 %	0.01 %	0.07 %	0.03 %	
<i>Absentee</i>	0.18 %	0.11 %	0.11 %	0.27 %	
<b>OVERALL</b>	<b>0.11 %</b>	<b>0.04 %</b>	<b>0.07 %</b>	<b>0.10 %</b>	

Undervote Rate		Senate		Governor	
		2010	2006	2010	2006
	<i>Early Voting</i>	<b>0.57 %</b>	1.20 %	<b>1.31 %</b>	0.73 %
<i>Election Day</i>	<b>0.76 %</b>	1.66 %	<b>1.34 %</b>	0.86 %	
<i>Absentee</i>	<b>0.77 %</b>	1.82 %	<b>2.01 %</b>	1.00 %	
<b>OVERALL</b>	<b>0.72 %</b>	1.62 %	<b>1.49 %</b>	0.86 %	

<sup>1</sup> For the 2006 General Election, 49.8% of votes were cast with the DRE touchscreen and 50.2% were cast using paper ballots.

For provisional ballots cast (and counted as valid), the Senate *no valid vote* rate was 1.50% (with an *overvote* rate of 0.21% and an *undervote* rate of 1.28%). In the Governor race, the provisional ballot *no valid vote* rate was 2.19% (with an *overvote* rate of 0.18% and an *undervote* rate of 2.01%). There was inadequate provisional ballot data available from the 2006 General Election data to compare to the 2010 General Election data.

The Department did not identify any issues with ballot design or instructions or voting system design or processes so as to further explain the changes in the *no valid vote* rate, particularly the *undervote* rate, for the Governor race. No evidence exists to suggest that the *no valid vote* rate was affected by whether a voter voted a paper ballot with “oval” selection targets versus a paper ballot with the “arrow” selection targets, regardless of vendor voting systems. The data also did not show any anomaly with any of the 8 vote tabulation devices. It is believed that factors outside of the performance of the voting systems or election administration contributed to the rate changes.

As stated in previous reports, there is an incremental risk associated with a *no valid vote* for absentee and provisional ballot voters. No immediate mechanism exists to alert such voter that he or she has voted a blank ballot or overvoted race. By the time, the ballot is received by the Supervisor and reviewed, canvassed and tabulated, it is too late to give the voter notice and nothing in law provides such opportunity at that point.

The report highlights again the bias that potentially underlies the *overvote* rate due to the statutory process for duplicating a ballot that is not otherwise tabulated at the precinct. The process may actually result in underreporting the actual number of *overvotes* or conversely overreporting the actual number of *undervotes*. In order to mitigate this factor, at a minimum, all counties should be following the override ballot rejection mechanism for their respective voting systems. This mechanism allows the voter, or a clerk on behalf of the voter, to override the system, so the voter can vote a rejected blank ballot or ballot that contains an overvoted race if he or she so chooses. This will help to mitigate latent voter error (on blank and overvoted ballots) and to contribute to more accurate reporting of overvoted and undervoted races.

## Introduction

Pursuant to Section 101.595, Florida Statutes, the Department of State must analyze and report on the performance of each type of voting system after every general election. The basis for this analysis is the overvote and undervote report that each Florida County submits on statutorily required races. The races selected must either be the “President and Vice President” race or “Governor and Lieutenant Governor” race if present on the ballot or if neither is present, the first race on the ballot. The Department of State subsequently analyzes this information and reports its findings to the Legislature and the Governor by January 31 of the year following the general election.

This report focuses on factors relating to the “*no valid votes*” being cast for the race of interest in the 2010 General Election. The *no valid votes* consist of three categories:

- *Overvote.* An overvote occurs when a voter casts more votes than allowed in a race. An overvote is typically attributed to voter error and is the primary reason why ballots, other than absentee and provisional ballots, are tabulated at the polling location. By tabulating the ballots at the polls, 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. In the case of an absentee or provisional ballot voter, no mechanism exists to let the voter know that he or she has overvoted one or more races or provide an opportunity to correct it.
- *Undervote.* An undervote means that the voter did not properly designate a choice for a race and/or the tabulator records no vote for the race. Although an undervote may be due to a voting machine error, most often it reflects a voter’s intent not to vote in a particular race. It may be for any number of reasons including a lengthy ballot, an express wish not to vote in a particular race due to disinterest or as a protest, a desire to maintain active voter history status without an interest in the ballot, Current voting systems can only alert the voter as to a blank ballot (not whether there is one or more undervoted races). As in the case of overvoting, no mechanism exists to let an absentee or provisional ballot voter know that he or she has undervoted one or more races or to provide an opportunity to correct it.
- *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 race, or intentionally writing in (as protest) “Mickey Mouse,” “None of the above,” “Anybody but [candidate],” or fictitious name.

With the exception of persons with disabilities who still have the option of voting on Direct Recording Electronic (DRE) touchscreen machines, all voting in Florida must be by paper/marksense ballot method in connection with a paper tabulator scanner.<sup>2</sup> Only four counties (Duval, Hillsborough, Pinellas, and Sarasota) use the AutoMark ballot marking device for disability compliance that also satisfies the paper ballot requirement. By 2016, the remaining 63 counties which currently use touchscreen machines will need to provide disability accessibility

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<sup>2</sup> See section 101.56075, Florida Statutes. Prior to 2008, a variety of voting methodologies existed: the electronic touchscreen tabulator, precinct paper optical scan tabulator, or both two systems, and all the counties used a paper central scan tabulator for absentee voting.

machines that meet the requirements<sup>3</sup> of the Help America Vote Act (HAVA)<sup>4</sup> and permit the voter to cast a paper/marksense ballot.<sup>5</sup>

The certified voting systems in Florida’s 67 counties fall into three vendor-labeled categories: Elections Systems and Software, Inc. (ES&S), Premier Election Solutions (Premier), and Sequoia Voting Systems, Inc. (Sequoia).<sup>6</sup> In actuality, due to recent acquisitions in the voting system market, there are only two active voting system vendors providing and servicing certified voting systems in Florida: ES&S and Dominion.<sup>7</sup>

For purposes of this report, the 2010 General Election data was analyzed on the basis of the 8 types of voting systems’ tabulation devices. This analytical approach differed from previous years and is more detailed without regard for a future change in a voting system.<sup>8</sup> The eight types were further segregated in the table below according to use in early voting (EV), Election Day (ED), and absentee voting (AB)<sup>9</sup>.

Tabulators	Number of Counties		
	EV	ED	AB
Sequoia Counties (Insight Plus)	2	2	0
Sequoia Counties (Optech 400-C)	0	0	2
Premier Counties (w/OS)	27	31	26
Premier Counties (w/OSX)	6	2	3
Premier Counties (w/PCS)	0	0	4
ES&S D Counties (w/ DS200)	16	16	0
ES&S M Counties (w/ M100)	16	16	13
ES&S M Counties (w/ M650)	0	0	19
Total =	67	67	67

All 67 Florida counties use optical scanners for absentee tabulation. Absentee optical scanners may consist of either one or more high-speed central count tabulators or one or more of the certified precinct tabulators. Smaller ES&S counties use their precinct scanners for absentee tabulation as a more cost effective alternative to using a high-speed scanner. In 2010, four Premier counties used a high-speed PCS tabulator (Alachua, Hillsborough, Okaloosa, and Sarasota) and the remaining Premier counties used the AVOS or AVOSX for scanning and tabulating absentee ballots. One Premier county has ES&S as the vendor and the remaining Premier counties have Dominion as the vendor. The two Sequoia counties used one or more high-speed central count tabulators (Optech 400-C).

<sup>3</sup> A voting device compliant with disability equipment is known as an ADA device (Americans with Disabilities Act)

<sup>4</sup> HAVA (Title III, Section 301, Public Law 107-252)

<sup>5</sup> See fnt. 2.

<sup>6</sup> With the exception of Sequoia counties who use ballots with the “arrow” target selection”, the remaining counties use “oval” target selection on the ballots.

<sup>7</sup> In 2009, ES&S acquired Premier Election Solutions from Diebold Elections Systems, Inc. In 2010, the U.S. Department of Justice forced ES&S to divest elements of the Premier line of voting systems due to monopoly concerns. As part of the agreement, Dominion Voting Systems, Inc (Dominion) then acquired Premier’s voting systems. In 2010, Dominion also acquired Sequoia Voting Systems, Inc

<sup>8</sup> In 2008, there were five precinct types of voting systems: ES&S DS200, Sequoia Insight, Premier AVOS and AVOSX, ES&S blended system with the ES&S scanners, and ES&S blended system with the Optech scanners. Only the two ES&S blended systems and the Premier OS scanners remain essentially the same as used during the 2006 General Election.

<sup>9</sup> The previous overvote and undervote reports based on the above precinct types did not segregate the tabulators for absentee voting

## Discussion

Florida's 67 counties provided the 2010 General election raw data to support this report. Most of the data is separated out by voting method (early voting, Election Day, or absentee) and paper tabulation device (optical scanner. The touchscreen votes were combined with the counties optical scan tabulator group data. The aggregated touchscreen votes in the marksense totals were few and did not produce a bias to the results. No meaningful analysis could be done on the DRE touchscreen ballots cast since only 0.05% (2,562 electronic ballots) were cast of the total state ballots cast. Therefore, data is not compared between the optical scanner tabulator device and DRE touchscreen tabulator device. The 2010 data results are presented in Tables 1 through 7.<sup>10</sup>

**Table 1**  
**2010 Senate race compared to 2010 Governor race**  
**Total "No Valid Vote" by vote tabulation device**

Voting System	Device	No. of Counties <sup>1</sup>			2010 Senate	2010 Governor
		EV	ED	AB		
Sequoia <sup>2</sup>	Insight Plus	2	2	0	0.79%	1.72%
Sequoia	Optech 400-C	NA	NA	2	1.02%	2.29%
Premier <sup>3</sup>	AVOS	27	31	26	0.67%	1.75%
Premier	AVOSX	6	2	3	0.51%	1.56%
Premier	PCS	NA	NA	4	0.70%	2.16%
ES&S <sup>4</sup>	DS200	16	16	0	1.19%	1.79%
ES&S	M100	16	16	13	0.85%	1.82%
ES&S	M650	NA	NA	19	1.11%	2.24%
Total		67	67	67		
State-wide average <sup>5</sup>					0.91%	1.83%
County % mean <sup>6</sup>					0.95%	1.86%
% Standard Deviation <sup>7</sup>					0.52%	0.43%

Notes:

- 1 The paper voting device and ballot casting method are segregated out according to number of counties and ballot casting method: early voting (EV), election day (ED) and absentee voting (AB). However, the election results for the type of ADA vote tabulation device (Direct Recording Electronic (DRE) touchscreen) for EV and ED are contained within each applicable paper vote tabulation device.
- 2 Sequoia voting system includes the Insight Plus optical tabulator, AVC Edge II DRE for ADA voting device, and Optech 400-C tabulator for absentee voting. The DRE touchscreen data (Edge II) for Insight Plus was combined with the EV and ED data.
- 3 Premier voting system had two precinct paper based tabulators: AVOS and AVOSX. However, some counties used the AVOSX for EV and AVOS for ED while other counties used the AOS or PCS for AB. The data for either AVOS or AVOSX also includes the AccuVote TSx DRE votes within EV and ED.
- 4 ES&S voting system had two precinct paper based tabulators: DS100 and M100. Some of the counties used M100 or M650 for absentee voting. The data for either M100 or DS200 also includes the iVotronic DRE votes within EV and ED.
- 5 State-wide average is based on the percentage of state-wide results for the Senate race and Governor race divided by the ballots cast (i.e., race total state-wide result / race total ballots cast in percentages).
- 6 County-wide mean is based on the percentages of each county's results (i.e., total county percentage / 67).
- 7 Population standard deviation is based on the distribution of the county's percentages.

<sup>10</sup> These tables are available in MS Excel format on the Division of Elections website at: <http://doe.dos.state.fl.us/reports/index.shtml>. The tables include the population standard deviation that provides a measure of the dispersion of the counties' percentage mean. The abbreviations used in the tables stand for: AB (Absentee Ballot), ED (Election Day), Early Voting (EV) Early Voting, OV (Overvote), UV (Undervote), I WI (Invalid write-in vote). Most of the counties did not extract out their blank ballots and integrated the overseas ballot results within the absentee results.

**Table 1A**  
**2008 General Election compared to 2002, 2004, and 2006 General Elections**  
**“No valid vote” by voting system**

Voting System <sup>1</sup>	Type	No. of Counties	2002	2004	2006	2006	Type	No. of Counties	2008
			Gov	Pres	Gov	Senate			Pres
ES&S	100% TS	11	1.12%	0.46%	1.09%	2.35%	ES&S DS200	13	0.92%
Sequoia	100% TS	4	1.11%	0.46%	0.96%	1.90%	Sequoia Insight	2	0.74%
Diebold	Blended <sup>2</sup>	31	0.49%	0.28%	0.78%	1.15%	Premier OS & OSx	33	0.57%
ES&S	Blended ES&S	14	0.89%	0.52%	1.06%	1.19%	Blended ES&S	14	0.89%
ES&S	Blended Optech	7	0.56%	0.52%	1.27%	1.42%	Blended Optech	5	0.60%
State-wide mean			0.86%	0.41 %	0.98%	1.72%	0.75%		
County % mean			0.88%	0.46%	1.14%	1.47%	0.74%		
Standard Deviation			0.47%	0.19%	0.52%	0.63%	0.33%		

**Notes:**

- 1 The previous undervote and overvote reports were based on the voting system and not for a particular vote tabulation device. The above data is provided to compare the means and standard deviation with the 2010 General election data by race.
- 2 Prior to mid-2005 there were 30 Diebold counties. During 2005, Baker County switched from a Sequoia optical scan system to the Diebold blended voting system. Baker County’s undervote and overvote rates for the Sequoia optical scan system are not included in the above 2002 and 2004 data in order to maintain comparable data across the five types of voting systems.

A blended voting system refers to a voting system that includes both touchscreen and optical scan voting methods coexisting at the same polling location. “Blending” derives its name from the election management system’s ability to accumulate results (i.e., blend) from the two types of precinct tabulators into one set of results broken down by precinct. Election officials perform this task at a central location utilizing their election management system. Blending does not refer to a voting system’s ability to accumulate and produce a single set of results at the precinct

**Table 2**  
**2010 Senate and Governor races**  
**Total undervote and overvote rate by vote tabulation device**

Voting System	Type	No. of Counties			2010 Senate		2010 Governor	
		EV	ED	AB	UV	OV	UV	OV
Sequoia	Insight Plus	2	2	0	0.64%	0.11%	1.45%	0.10%
Sequoia	Optech 400-C	NA	NA	2	0.85%	0.17%	2.15%	0.14%
Premier	AVOS	27	31	26	0.56%	0.02%	1.39%	0.02%
Premier	AVOSX	6	2	3	0.43%	0.02%	1.30%	0.01%
Premier	PCS	NA	NA	4	0.62%	0.08%	2.11%	0.05%
ES&S	DS200	16	16	0	0.93%	0.16%	1.34%	0.09%
ES&S	M100	16	16	13	0.68%	0.08%	1.43%	0.05%
ES&S	M650	NA	NA	19	0.84%	0.27%	2.09%	0.16%
Total		67	67	67				
State-wide mean					0.72%	0.11%	1.49%	0.07%
County % mean					0.81%	0.07%	1.54%	0.05%
Standard Deviation					0.50%	0.07%	0.38%	0.05%

**Table 3**  
**2010 Senate and Governor races**  
**Early voting undervote and overvote rate by vote tabulation device**

Voting System	Type	No. of Counties EV	2010 Senate		2010 Governor	
			UV	OV	UV	OV
Sequoia	Insight Plus	2	0.55%	0.10%	1.39%	0.09%
Sequoia <sup>1</sup>	Optech 400-C	NA	NA	NA	NA	NA
Premier	AVOS	27	0.57%	0.04%	1.62%	0.03%
Premier	AVOSX	6	0.26%	0.01%	1.06%	0.01%
Premier <sup>1</sup>	PCS	NA	NA	NA	NA	NA
ES&S	DS200	16	0.75%	0.11%	1.25%	0.06%
ES&S	M100	16	0.46%	0.06%	1.36%	0.03%
ES&S <sup>1</sup>	M650	NA	NA	NA	NA	NA
	Total	67				
	State-wide mean		0.57%	0.07%	1.31%	0.04%
	County % mean		0.64%	0.04%	1.39%	0.03%
	Standard Deviation		0.53%	0.05%	0.62%	0.03%

**Note:**

1 Central count tabulators are not applicable (NA) for EV or ED.

**Table 4**  
**2010 Senate and Governor races**  
**Election day undervote and overvote rate by vote tabulation device**

Voting System	Type	No. of Counties <sup>1</sup> ED	2010 Senate		2010 Governor	
			UV	OV	UV	OV
Sequoia	Insight Plus	2	0.67%	0.11%	1.47%	0.10%
Sequoia <sup>1</sup>	Optech 400-C	NA	NA	NA	NA	NA
Premier	AVOS	31	0.54%	0.02%	1.25%	0.01%
Premier	AVOSX	2	0.53%	0.03%	1.30%	0.02%
Premier <sup>1</sup>	PCS	NA	NA	NA	NA	NA
ES&S	DS200	16	0.99%	0.18%	1.38%	0.11%
ES&S	M100	16	0.69%	0.08%	1.35%	0.05%
ES&S <sup>1</sup>	M650	NA	NA	NA	NA	NA
	Total	67				
	State-wide mean		0.76%	0.10%	1.34%	0.07%
	County % mean		0.84%	0.06%	1.38%	0.04%
	Standard Deviation		0.51%	0.07%	0.37%	0.05%

**Note:**

1 Central count tabulators are not applicable (NA) for EV or ED.



**Table 5**  
**2010 Senate and Governor races**  
**Absentee undervote and overvote rate by vote tabulation device**

Voting System	Type	No. of Counties	2010 Senate		2010 Governor	
			AB	UV	OV <sup>1</sup>	UV
Sequoia <sup>2</sup>	Insight Plus	0	0	0	0	0
Sequoia	Optech 400-C	2	0.84%	0.17%	2.14%	0.13%
Premier	AVOS	26	0.60%	0.04%	1.72%	0.03%
Premier	AVOSX	3	0.72%	0.01%	1.95%	0.01%
Premier	PCS	4	0.62%	0.08%	2.09%	0.05%
ES&S <sup>2</sup>	DS200	0	0	0	0	0
ES&S	M100	13	1.53%	0.11%	2.55%	0.14%
ES&S	M650	<u>19</u>	0.84%	0.27%	2.09%	0.16%
	Total	67				
	State-wide mean		0.77%	0.18%	2.01%	0.11%
	County % mean		0.95%	0.08%	2.23%	0.08%
	Standard Deviation		0.60%	0.15%	0.78%	0.18%

**Notes:**

- Counties are required to comply with section 101.5614(5), F.S. which requires an absentee ballot to be duplicated for all valid votes in the event the original ballot has an overvoted race. Thus, a duplicate ballot with valid votes actually changes an overvoted race into an undervoted race.
- Each county could use a central count tabulation device or use a precinct count tabulation device for absentee voting. However, Sequoia counties used the Optech 400-C and did not use of the Insight Plus for absentee voting. Likewise, the DS200 counties used the M650 for absentee voting.

**Table 6**  
**2010 Senate and Governor races**  
**Provisional<sup>1</sup> undervote and overvote rate by voting system device**

Voting System	Type	No. of Counties	2010 Senate		2010 Governor	
			AB	UV	OV	UV
Sequoia	Insight Plus	0	0	0	0	0
Sequoia	Optech 400-C	2	1.59%	0.80%	2.92%	0.40%
Premier	AVOS	26	1.91%	0.12%	4.65%	0.12%
Premier	AVOSX	3	0.80%	0.03%	1.37%	0.03%
Premier	PCS	4	0.66%	0.26%	4.07%	0.26%
ES&S	DS200	0	0	0	0	0
ES&S	M100	13	1.50%	0.75%	1.50%	0.75%
ES&S	M650	<u>19</u>	1.74%	0.29%	1.45%	0.29%
	Total	67				
	State-wide mean		1.28%	0.21%	2.01%	0.18%
	County % mean		2.50%	0.92%	2.30%	0.19%
	Standard Deviation		12.45%	3.80%	4.44%	0.54%

**Note:**

- Provisional undervote and overvote rates are for informational use only, since most of the counties aggregated (rather than segregated) this data within absentee voting.
- Florida had 13,112 provisional ballots cast (and accepted as valid) for the 2010 General Election with a 25.1% rejection rate. This represents a significant decline in the number of provisional ballots cast compared to the 2008 General Election in which 35,874 provisional ballots were cast with a 48.1% rejection rate.

**Table 7** compares the invalid write-in vote for the 2010 Senator's race and Governor's race. The 2010 results show an increase in invalid write-in votes for the Governor's race.

**Table 7**  
**2010 Senate race compared to 2010 Governor race**  
**Invalid write-in vote rate by voting system**

Voting System	Type	No. of Counties <sup>1</sup>			2010 Senate	2010 Governor
		EV	ED	AB		
Sequoia <sup>2</sup>	Insight Plus	2	2	0	0.04%	0.17%
Sequoia	Optech 400-C	NA	NA	2	0.00%	0.00%
Premier <sup>3</sup>	AVOS	27	31	26	0.09%	0.34%
Premier	AVOSX	6	2	3	0.05%	0.25%
Premier	PCS	NA	NA	4	0.00%	0.00%
ES&S <sup>4</sup>	DS200	16	16	0	0.10%	0.36%
ES&S	M100	16	16	13	0.09%	0.34%
ES&S	M650	NA	NA	19	0.00%	0.00%
Total		67	67	67		
State-wide average <sup>5</sup>					0.07%	0.27%
County % mean <sup>6</sup>					0.08%	0.29%
% Standard Deviation <sup>7</sup>					0.04%	0.09%

**Table 7A** compares invalid write-in vote for 2006 Senator race and Governor race with the 2008 General Presidential election. The 2004 Presidential election did not have write-in candidates. As noted below, the 2008 results show an increase in invalid write-in votes that is comparable to the 2010 Governor's race.

**Table 7A**  
**2008 Presidential race compared to 2002 - 2006 Governor race and 2006 Senate race**  
**Invalid write-in vote rate by voting system**

Voting System	Type	No. of Counties	2002	2006	2006	No. of Type Counties	2008	
			Gov I WI	Gov I WI	Senate I WI		President I WI	
ES&S	100% TS	11	0.07%	0.04%	0.08%	ES&S DS200	13	0.20%
Sequoia	100% TS	4	0.08%	0.05%	0.09%	Sequoia Insight	2	0.17%
Diebold	Blended <sup>1</sup>	31	0.09%	0.06%	0.07%	Premier OS & OSx	33	0.25%
ES&S	Blended ES&S	14	0.07%	0.09%	0.07%	Blended ES&S	14	0.29%
ES&S	Blended Optech	7	0.07%	0.09%	0.07%	Blended Optech	5	0.21%
State-wide mean			0.08%	0.06%	0.08%			0.22%
County % mean			0.09%	0.09%	0.07%			0.22%
Standard Deviation			0.06%	0.09%	0.05%			0.09%

**Note:**

1 Prior to mid-2005 there were 30 Diebold counties. During 2005, Baker County switched from a Sequoia optical scan system to the Diebold blended voting system. Baker County's under and overvote rate for the Sequoia optical scan system is not included in the above 2002 data in order to maintain comparable data across the five types of voting systems.

## Results

### Method of Casting Vote:

The method of casting a vote is a factor in the overvote and undervote rates. The rates tend to be higher for absentee and provisional ballot voters. For example, the 2010 Senate *no valid vote* rate for provisional ballots is 1.50% and 0.95% for absentee ballots versus only 0.64% for early voting and 0.87% for Election Day. Of the votes cast for the Senate race, 20.7% votes were cast during early voting, 56.1% for Election Day, and 23.2% for absentee voting (which includes acceptable provisional votes and overseas votes).

Unlike voters during early voting and on Election Day whose ballots are tabulated while they are at the polls, the absentee ballot voters (and provisional ballot voters) have no independent or immediate notice that they are about to undervote or overvote a ballot prior to casting the ballot. For absentee ballot voters, their ballot is already deemed cast (when received by the Supervisor of Elections) before the absentee ballot is canvassed and tabulated.<sup>11</sup> There is no opportunity (or possibility) for the voter correct his or her error beforehand. Similarly for provisional ballot voters, their ballots are placed in a ballot box and canvassed later by the canvassing board. By that time, the voter has no opportunity to correct an *overvote* or *undervote*. As noted in previous reports, the increasing popularity of absentee voting will continue to pose a challenge to minimizing latent voter error (blank ballot and overvoted contests).<sup>12</sup>

### Identification of problems with the ballot design:

The 2010 General Election results indicated a higher rate of *no valid vote* rate in the Governor's race: 1.83%. However, no evidence exists to suggest that ballot design or issues with vote tabulation devices contributed to that rate increase. The more likely contributing factors are the voter's intent to undervote and a high number of invalid write-in votes in that particular race.

The data results show that *overvote* and *undervote* rates were very similar between the ballot target selection using ovals and the target selection using arrows among the vote tabulation devices.

### Identification of voting system design or process issues:

No major issues were identified with the 2010 General Election. Although one county that used the DS200 and M650 showed a higher than expected level with the *overvote* rate, other counties using the same tabulators did not produce the same level.

#### 2010 Overvote Rate - State-wide results

	Senate overvote rate		Governor overvote rate	
	State-wide	Miami-Dade	State-wide	Miami-Dade
Early Voting	0.07 %	0.22 %	0.04 %	0.08 %
Election Day	0.10 %	0.43 %	0.07 %	0.21 %
Absentee	0.18 %	0.95 %	0.11 %	0.53 %
OVERALL	0.11 %	0.53 %	0.07 %	0.27 %

<sup>11</sup> See section 101.68, Florida Statutes.

<sup>12</sup> Analysis and Report of Overvotes and Undervotes for the 2008 General Election: [http://election.dos.state.fl.us/reports/pdf/Over\\_Under\\_Report\\_08.pdf](http://election.dos.state.fl.us/reports/pdf/Over_Under_Report_08.pdf); p. 11; Analysis and Report of Overvotes and Undervotes for the 2006 General Election: [http://election.dos.state.fl.us/reports/pdf/Over\\_Under\\_Report\\_06.pdf](http://election.dos.state.fl.us/reports/pdf/Over_Under_Report_06.pdf)

### 2010 Overvote Rate – DS200 & M650 Counties

	Senate overvote rate		Governor overvote rate	
	DS200 & M650 less MD	Miami-Dade	DS200 & M650 less MD	Miami-Dade
Early Voting <sup>DS200</sup>	0.08 %	0.22 %	0.05 %	0.08 %
Election Day <sup>DS200</sup>	0.12 %	0.43 %	0.08 %	0.21 %
Absentee <sup>M650</sup>	0.11 %	0.95 %	0.07 %	0.53 %

#### Recommendations for correcting any problems:

The Department notes again that an inherent bias exists for reporting lower than actual *overvote* rates (or conversely higher than actual *undervote* rates) due to the current requirement in section 101.5614(5), Florida Statutes for duplicating a ballot. Counties are required to duplicate an absentee ballot with an overvoted race as a ballot with all valid votes. This process has the unintended effect of changing an overvoted race into an undervoted race.

In addition, polling place procedures in some counties may also enhance this bias. In counties that use the ES&S DS 200, the voter can override the tabulator to cast such ballot without interaction or assistance from the poll worker. However, in those counties that use precinct tabulators such as the Sequoia Insight Plus, Premier AVOS, Premier AVOSX, and ES&S M100, the poll worker has to override the tabulator to allow a voter who chooses to cast a blank ballot or a ballot with an overvoted race.<sup>13</sup> For some counties that do not allow the poll worker to override the tabulation device, the poll worker places the blank ballot or overvoted ballot in an emergency bin. Consequently, those ballots are subsequently duplicated without the overvoted race in the same manner as stated above for absentee ballots.

In sum, this methodology in essence changes an overvoted race into an undervoted race. These processes may impede proper identification and reporting of an issue with a voting system or underrepresent an *overvote* error rate. It is recommended at a minimum that the poll worker permit a voter who chooses to vote a rejected (overvoted) ballot to immediately cast the ballot in all precinct tabulators (not just the ES&S DS200) in lieu of placing the overvoted ballot in the emergency bin.

#### Conclusion:

Compared to the 2006 General Election data, the *no valid vote* rate for the 2010 General Election decreased by half for the Senate race but almost doubled for the state-wide Governor race. The contributing factor lay with the breakout under the *undervote* and *invalid write-in vote* rates as the *overvote* rates between the two general elections otherwise remained comparable.

The 2010 Governor *no valid vote* rate yielded a 1.83% compared to 0.97% in 2006. This was unexpected as the previous overvote and undervote 2008 report had projected that the statewide 2010 Governor race would be around 1.21% based on the assumption that the 2002 and 2006 invalid write-in vote rate would remain around 0.22%.<sup>14</sup> However, no evidence exists to suggest that one or more tabulators negatively or significantly affected the data. It is more likely that factors outside of the performance of the voting systems or election administration contributed to the rate changes.

<sup>13</sup> Section 101.5606(4), F.S.

<sup>14</sup> See fnt. 11, p. 12

It was noted again that there is increased risk associated with casting an overvote or undervote when casting an absentee or provisional ballot. However, this is attributed to the fact that no immediate process exists to notify such voter that he or she has overvoted or undervoted a race when casting the ballot.

It was also noted that there is an inherent bias in the ballot duplication process that may inflate the undervote (or conversely deflate the overvote rate) when duplicating a ballot (that is not or cannot be tabulated at the polling place). In order to mitigate the bias, all counties should at a minimum, follow the override ballot rejection mechanism to allow the voter or the poll worker on behalf of the voter to vote a rejected ballot if he or she chooses to vote a rejected ballot that is blank or contains an overvoted race.<sup>15</sup> The Division of Elections will continue to analyze the data and work closely with counties on processes and procedures to mitigate this factor.

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<sup>15</sup> Section 101.5608(2)(b), Florida Statutes; see also DS#11, Polling Place Procedures Manual, p. 17, Rule 1S-2.034, Florida Administrative Code.