

Analysis and Report of Overvotes and Undervotes for the 2004 General Election

Pursuant to Section 101.595, Florida Statutes

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Introduction

The 2004 election cycle was a great success. Our citizens engaged in the election as never before and were energized to participate in their democracy at unprecedented levels. Over 7.6 million Floridians voted in the presidential election either by voting early, casting an absentee ballot, voting at the polls on election day, or by using a provisional ballot. The reforms put in place since 2000 have served Florida's voters well. Through continued commitment and hard work we will build on these reforms and continue to improve the state's elections process for all Florida voters.

Section 101.595, Florida Statutes, requires that the Department of State gather statistics regarding the number of overvotes and undervotes cast in the first race of each General Election and report its findings to the Legislature and the Governor no later than January 31 of the year following that General Election. The purpose of this report is to look at factors relating to no valid votes being cast. The two circumstances where this occurs are ballots containing overvotes and undervotes. It is important to emphasize that an undervote is not an error or "lost vote" but rather the prerogative of the voter. Today, Florida's "undervote" rate is at the lowest level in our history. "Undervotes" occur when voters exercise their right to withhold their vote, and often do for a number of reasons, that include maintaining a perfect voting record, as a protest vote, or for reasons known only to the voter. An overvote occurs when a voter casts more votes than allowable in any race.

Although the election reforms enacted in 2001 resulted in a dramatic reduction in the number of overvotes and undervotes cast in the 2002 election, this is the first time the results of a Presidential Election have been available for study since those reforms were put in place. In addition, it is important to note this was the first election cycle in which early voting was mandated statewide and the first presidential election in which provisional ballots were utilized. This report can thus serve as a new baseline with which to evaluate future election results.

Executive Summary

Since 2000, there has been a continuing trend in the reduction of the number of ballots cast without valid votes. In 2000, undervotes and overvotes accounted for 2.9302% of the votes cast in the presidential race. In 2002, that number dropped to 0.7766% due, in large part, to a change in the voting systems that were certified for use in the State. The most recent election cycle saw yet another reduction in that number, dropping it to a historically low 0.4116%. An unprecedented statewide, non-partisan voter education campaign combined with the fact that voters continue to become more accustomed to using new technologies, have contributed greatly to the continuation of this trend. This conclusion is well documented in the Report on Voter Education Programs During the 2004 Election Cycle.

The difference in the rates of undervotes for touchscreen ballots and marksense (optical scan) ballots is marginal, 0.4214 of one percent for touchscreen and 0.3056 of one

percent for marksense. The fact that a voter is able to cast an overvote on a marksense ballot, but not on a touchscreen, resulted in the ratio of ballots with no valid vote cast on the marksense systems being nearly identical to the ratio for touchscreens. The overvote rate for marksense ballots was 0.0980 of one percent. When these additional 4,116 overvotes cast in the election are factored in with the marksense undervote rate, the ratio for no valid vote cast in the presidential race becomes 0.4036 of one percent for marksense ballots and 0.4214 of one percent for touchscreen ballots. When reviewing this report, one should consider that the difference in voter performance between the two systems is a statistically insignificant; **0.0178 of one percent**. Applied against the 7,641,290 ballots in this election this difference is 1,360 ballots.

The extreme high and low, as well as the average rate of overvotes and undervotes for each voting system and each style of ballot used by these systems has been examined. Although there are some minor statistical differences, the numbers generated by this study are small enough that they may well be the result of intangible factors, such as voter intent, are not related to system design, and cannot be clearly documented. The Department of State should continue to monitor overvotes and undervotes from each General Election in order to detect any future fluctuations in these rates.

It should be noted that the Technical Development Guidelines Development Committee of the United States Elections Assistance Commission has initiated a project to study the human/machine interaction in voting systems with the intention to develop standards and “best practices” for electronic voting machines and for ballot design.

Due to the recent increase in the use of provisional and early voting and the need to capture the associated statistics for use in this, as well as other reports, the data necessary to complete this report have become more complex and difficult to validate in the short timeframe available. It is recommended that the Legislature expand the data required as part of the official canvass report to include the data required for this report, for any reports required by the federal government, and give the Department of State rule making authority to specify the content and format of the data.

Data Sources and Data Validation

Data for this report was gathered from three sources. First, a survey regarding overvotes and undervotes was sent to each Supervisor of Elections (Attachment A). This survey became the basis for developing statistics for the number of overvotes and undervotes cast for each type of ballot: precinct, absentee, early, and provisional.

Next, each county’s official Canvass Report was used to derive the number of candidate votes used in this study. These votes were totaled to calculate the “Candidate Votes Recorded” statistic in the spreadsheet titled “Sorted_Over_Under.xls” (Attachment B). Although the canvass reports were an adequate source to obtain information concerning the candidate votes, variations existed from county to county in the determination of the total number of votes cast in the election. Many counties only included the total number of votes cast for each candidate in their total number of votes cast, while other counties

included a count of all ballots cast in the race. The difference between these two approaches is whether or not overvotes and undervotes are included as part of the statistic for the total number of votes cast. Florida law is silent as to which approach is correct. Since candidate votes cast plus overvotes and undervotes must always equal “total ballots cast”, adjustments to the number of “Total Votes Cast” in the Canvass Reports were required for several counties. These adjustments are detailed in the “Data Validation Notes” included as Attachment C to this report.

The third source of data was a survey taken earlier in the month for the United States Election Assistance Commission (EAC). The EAC survey became the basis for total ballots cast for each type of ballot: precinct, absentee, early, and provisional. During the validation process of this data, it became apparent that, as in the case of the Canvass Reports, some counties reported only actual candidate votes for each type of ballot, while others reported the actual number of votes (including overvotes and undervotes) cast for each type. In addition, some counties included military overseas ballots in their absentee count and others did not.

The use of two page optical scan ballots by some of the counties is yet another reason for the differing totals between the Canvass Report and the column entitled “True Turnout Ballots Counted” on the spreadsheet. Several counties reported that there were differences in the numbers of ballots cast for pages one and two of the ballot. It appears that some voters may have cast only one of the two ballot pages. In this situation, some of the counties used the largest number of ballots cast for each page in calculating their votes cast for each precinct while others used an average of the number of pages read.

There were nineteen counties that reported no absentee overvotes. When these counties were contacted by the Division of Elections, six of them reported that, pursuant to section 101.5614(5), Florida Statutes, duplicate ballots were made of absentee ballots containing an overvoted race. If the canvassing board found that the overvoted race showed a clear indication of the voter’s choice, then the ballot was duplicated to indicate that choice. If they could not determine a clear indication of voter’s choice in that race, they duplicated the ballot to include all valid votes. This action had the net effect of converting overvotes to undervotes. The counties are as follows: Columbia, two ballots; Duval, twenty ballots; Leon, thirty-two ballots; Seminole, twenty ballots; Taylor, one ballot; Lake, seven ballots. This resulted in approximately eighty-two votes statewide.

It should be noted that the Department has not audited the data provided by the counties. Our calculation for “True Turnout Ballots Counted” is based on the premise that the candidate votes reported by the county, plus the number of overvotes and undervotes reported by the county, equal “True Turnout Ballots Counted” which should then equal the “Total Ballots Counted” in the EAC report. After all the inconsistencies were addressed, there remained a difference of fifty-nine votes between the corrected EAC numbers for “Total Ballots Counted” and our numbers for “True Turnout Ballots Counted”, spread over eleven counties, that could not be reconciled. These unresolved differences were addressed by adding the difference to both the corrected “Canvass Turnout” and to “Precinct Ballots.”

Discussion of the analysis

An analysis of the reduction in undervotes and overvotes is displayed below:

	2000 Presidential	2002 Gubernatorial	2004 Presidential
Blank and Spoiled	179,855		
Absentee Undervotes		4,405	5,441
Absentee Overvotes		1,121	3,119
Precinct Undervotes		33,737	17,516
Precinct Overvotes		689	760
Early Vote Undervotes			4,271
Early Vote Overvotes			168
Provisional Undervotes			109
Provisional Overvotes			69
Totals	179,855	39,952	31,453
Turnout	6,137,938	5,144,477	7,641,290
Ratio of No Votes	2.9302%	0.7766%	0.4116%

The numbers for the 2000 and 2002 elections are derived from the 2002 Report on Overvotes and Undervotes, published by the Division of Elections. The analysis of the 2004 data is displayed in the spreadsheet titled "Sorted_Over_Under.xls". A hard copy of the spreadsheet is included as "Attachment B" and a CD containing the spreadsheet has also been provided with the published version of this report. If the report is downloaded from the Division of Elections Website, <http://election.dos.state.fl.us/reports/04OverUnderVotes.shtml>, the index provides a link to download the spreadsheet.

The county statistics provided in the spreadsheet have been sorted according to the voting system and by the type of ballot used in the precincts. In understanding this data it is important to remember that touchscreen machines are used exclusively for precinct and early voting. All counties use marksense ballots for their absentee and provisional voting.

The first section of the spreadsheet examines the Diebold system, using marksense oval targeted ballots in the precincts. There was some use of Diebold touchscreens in early voting in Duval County and for accommodating voters with disabilities in other counties. We have not considered those counties as a separate category.

In the Diebold Counties:

The averages in the Diebold Counties were:

	Undervotes	Overvotes
Absentee	0.3175%	0.0980%
Early Voting	0.1840%	0.0160%
Precinct	0.2375%	0.0138%
Provisional	0.3949%	0.3385%
Overall	0.2447%	0.0303%

Calhoun County had the greatest ratio of ballots cast without a valid vote in the Presidential race. Undervotes were 0.7490 of one percent and overvotes were zero. The undervotes were fairly evenly distributed across the four types of ballots.

Leon County had the smallest ratio of ballots cast without a valid vote in the Presidential race. Undervotes were reported at 0.1896 of one percent and overvotes were reported at zero. The distribution of undervoted ballots was heaviest among the absentee ballots.

The second section of the spreadsheet discusses the ES&S system, using the ES&S model 100 precinct scanner and marksense oval targeted ballots. Many of the counties using this system also use ES&S touchscreen terminals to accommodate voters with disabilities. Highlands County has an ES&S touchscreen in each precinct to accommodate voters with disabilities. We have not separated those counties into a separate category.

In the ES&S 100 Counties:

The averages in the ES&S 100 Counties were:

	Undervotes	Overvotes
Absentee	0.4753%	0.1475%
Early Voting	0.3176%	0.0831%
Precinct	0.3739%	0.1482%
Provisional	0.6849%	2.0458%
Overall	0.3829%	0.1366%

Although the ratio of overvotes on the provisional ballots appears extremely high, it represents only three out of one hundred and forty six provisional ballots.

Hamilton County had the greatest ratio of ballots without a valid vote cast in the Presidential race. Undervotes were 0.5652 of one percent and overvotes were

0.4483 of one percent. The ratio of undervotes among absentee ballots is reasonably high at 0.8662 of one percent.

Bay County had the smallest ratio of ballots without a valid vote cast in the Presidential race. Undervotes were reported at 0.2499 of one percent and overvotes were reported at 0.0292 of one percent.

The third section of the spreadsheet discusses the ES&S system, using the ES&S Optech and the Sequoia Optech precinct scanners and marksense arrow targeted ballots.

In the ES&S and Sequoia Optech Counties:

The averages in the ES&S and Sequoia Optech Counties were:

	Undervotes	Overvotes
Absentee	0.7739%	0.5792%
Early Voting	0.2997%	0.0391%
Precinct	0.2861%	0.0415%
Provisional	0.7513%	0.1669%
Overall	0.3817%	0.1433%

Baker County had the greatest ratio of ballots without a valid vote cast in the Presidential race. Undervotes were 0.6270 of one percent and overvotes were 0.2986 of one percent. The undervotes and overvotes among absentee ballots were fairly high at 1.6591 percent and 1.2066 percent.

Santa Rosa County had the smallest ratio of ballots without a valid vote cast in the Presidential race. Undervotes were reported at 0.1748 of one percent and overvotes were reported at 0.0548 of one percent.

The fourth section of the spreadsheet discusses the ES&S system, using the ES&S touchscreen system and marksense oval targeted ballots for absentee and provisional ballots.

In the ES&S Touchscreen Counties:

The averages in the ES&S Touchscreen Counties were:

	Undervotes	Overvotes
Absentee	0.3797%	0.1846%
Early Voting	0.3420%	0.0%
Precinct	0.4767%	0.0%
Provisional	0.6282%	0.1496%
Overall	0.4276%	0.0301%

Note: Early and precinct ballots are on touchscreen systems, which do not allow overvotes. Absentee and provisional ballots are on oval targeted marksense ballots which can be overvoted.

Miami-Dade County had the greatest ratio of ballots without a valid vote cast in the Presidential race. Undervotes were 0.4874 of one percent and overvotes were 0.0552 of one percent. The undervotes among precinct ballots were fairly high at 0.5868 of one percent.

Nassau County had the smallest ratio of ballots without a valid vote cast in the Presidential race. Undervotes were reported at 0.2163 of one percent and overvotes were reported at 0.0396 of one percent.

The fifth section of the spreadsheet discusses the Sequoia system, using the Sequoia touchscreen system and marksense arrow targeted ballots for absentee and provisional ballots.

In the Sequoia Touchscreen Counties:

The averages in the Sequoia Touchscreen Counties were:

	Undervotes	Overvotes
Absentee	0.3698%	0.3640%
Early Voting	0.3487%	0.0%
Precinct	0.4056%	0.0%
Provisional	3.5854%	2.6331%
Overall	0.3950%	0.0640%

Note: Early and precinct ballots are on touchscreen systems, which do not allow overvotes. Absentee and provisional ballots are on arrow targeted marksense ballots which can be overvoted.

Palm Beach County had the greatest ratio of ballots without a valid vote cast in the Presidential race. Undervotes were 0.4310 of one percent and overvotes were 0.0656 of one percent

Hillsborough County had the smallest ratio of ballots without a valid vote cast in the Presidential race. Undervotes were reported at 0.3400 of one percent and overvotes were reported at 0.0460 of one percent. However, the provisional ballot ratios were high with undervotes reported at 8.2126 percent and overvotes reported at 3.3816 percent

The sixth section of the spreadsheet contains a summary of the totals from the preceding five sections.

The seventh section of the spreadsheet provides a breakdown of the total numbers for oval marksense ballots, arrow marksense ballots and touchscreens. In this analysis, counties using arrow marksense ballots had a higher ratio of ballots without a valid vote cast in the Presidential race. Total undervotes were at a ratio of 0.3842 of one percent for arrows and 0.2791 of one percent for ovals. Total overvotes were at a ratio of 0.2010 of one percent for arrows and 0.0634 for ovals. Totals for ballots cast on touchscreen voting systems were at a ratio of 0.4214 for undervotes and had zero overvotes.

The eighth section of the spreadsheet compares undervotes cast on touchscreen ballots to undervotes and overvotes cast on marksense ballots and to the overall undervotes and overvotes for all ballots. The ratio of undervotes on touchscreen ballots is 0.4214 of one percent and the ratio of combined undervotes and overvotes on marksense ballots is 0.4036 of one percent. The ratio of combined undervotes and overvotes for all ballots is 0.4116 of one percent. The result is a statistically insignificant .0178.

The two columns on the far right side of the spreadsheet sheet contain estimated percentages of true undervotes cast on absentee ballots versus mismarked ballots on a county by county basis. Supervisors of Elections were asked to make an estimate based upon their experiences during the canvass of absentee ballots. Miami-Dade had the highest estimate at fifteen percent. Three counties reported ten percent. Twenty-two of the remaining counties reported five percent or less, and forty-one reported zero. We have attempted no analysis on these estimates but have recorded them and presented them as reported by the counties.