## Expectations and Voting in the NCAA Football Polls

### The Wisdom of Point Spread Markets

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A week-to-week voting model for college football using voting points from the ESPN/USA Today and Associated Press polls is specified. The point spread differential, the score differential of the most recent game minus the point spread, is shown to have a positive and highly significant effect on votes in both polls. A team that covers the point spread will receive an increase in votes in both polls. A team that wins but does not cover the point spread will lose votes. This result shows the role of expectations in this market. If a team performs better than expected, it will receive more votes in the polls and possibly move up in the rankings. Television coverage is also examined, and voter reaction to team performance is found to be greater for those games that are televised, which could be due to the television exposure itself or the fact that televised coverage is a proxy for important games.

**Keywords:** efficient markets; sports; voting

The championship of Division I National Collegiate Athletic Association (NCAA) football is determined, at least partially, through a system called the Bowl Championship Series (BCS). The BCS was designed to give college football a national title game, matching the number one and number two teams in the country, without a playoff system. In 2003-2004, the year studied in this article,

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the BCS did not achieve the desired result. NCAA college football finished with a national championship title split between the University of Southern California (USC) and Louisiana State University (LSU). This result was possible because the top two teams on the basis of the polls (LSU and USC) did not play each other in the title game. In 2003-2004, the computer polls kept the University of Oklahoma, which convincingly lost in the "national" championship game to LSU, in the top two, even though the voters saw otherwise.

The BCS, as used in the 2003-2004 season, was composed of five separate components. These were two voting polls (the ESPN/USA Today coaches' poll and the Associated Press [AP] writers' poll), computer rankings, strength of schedule, team record, and a quality win factor. In an attempt to improve the ranking system, components that did not rely on voting were included to reduce the influence of any personal biases held by voters.

This article shows a simple voting model of the ESPN/USA Today coaches' poll and AP writers' poll. The results of the regression model, which uses the number of vote points a team receives on a week-by-week basis as the dependent variable, show that voters in both polls respond to how a team performs that week compared with expectations and to television coverage of games.

The point spread is used as a proxy for the expectations of voters. The point spread differential, which is the score differential of the game (favorite score minus underdog score) minus the point spread on the game, plays a very important role in how many vote points a team gets from week to week. When included simultaneously with score differential (sometimes referred to as the margin of victory), only the point spread differential variable is positive and significant. This result implies that teams that cover the point spread will gain additional votes. Teams that win but do not cover the point spread will lose votes.

These results could be surprising to those who do not understand what a point spread represents in this market. The point spread is essentially a price determined in a large market. Research has shown that sports betting markets consistently produce point spreads that are optimal unbiased predictors of the outcomes of games. When the actual outcome of a game is different from the expected outcome, new information about relative team strength is revealed, and the voters react rationally by adjusting their votes accordingly. Teams that perform beyond expectations move up in the polls; teams that disappoint move down.

This article also examines the impact of television coverage on voter behavior. The results indicate that the impact of a team's performance, whether relatively better or worse than expected, is greater when the game is televised. Both the coaches and writers who vote in the polls respond to television coverage, with the writers being slightly more responsive to televised performances. The results for television exposure are, as expected, asymmetric, with losses having a greater impact on votes than wins.

The impact of televised game results likely stems from two possible effects. First, television exposure may have a more pronounced effect on voters because

watching the game may be more influential than merely reading about the game or viewing the box score. Second, televised games are likely to be big games that have a major impact on conference championships or in the national title picture. This is especially true for games on the major networks. These televised games could then serve as a proxy for big games, and performance in these games could have a greater effect on voter behavior.

Models of college football voting behavior have been previously studied. Lebovic and Sigelman (2001) studied how a team's ranking in the AP poll changes on the basis of wins and losses, the quality of its opponents, the performance of previous opponents, and so on. Goff (1996) also studied the AP poll and found path dependence from voters' initial preseason rankings. Neither of these studies used vote points as the dependent variable, nor did they use the game result compared to the point spread as an independent variable or examine the role of expectations in the polls.

In studies of market efficiency, the point spread has been shown to be an optimal and unbiased predictor of the outcome of a game. This is shown in the review of sports betting markets in Sauer (1998). Specifically, for college football, Golec and Tomarkin (1991) examined 15 years of data, 1973 to 1987, for both college and professional football and found that professional football gamblers overbet favorites, particularly on the road, but the college football market does not exhibit this bias. Dare and McDonald (1985) tested the college football market over 13 years, 1981 to 1993, and could not reject efficiency within the market. In a more recent study over a longer sample of 25 years, Paul, Weinbach, and Weinbach (2003) found the college football market as a whole to be efficient. An exception found was in the small sample of big favorites. For favorites of more than 28 points, favorites were found to be overbet as a strategy of betting all underdogs that met this criterion was found to reject the null hypothesis of a fair bet.

Prices in financial markets incorporate all relevant information brought together by a large group of agents with a vested interest in the asset or event in question. In his book *The Wisdom of Crowds*, James Surowiecki (2004) notes that speculative markets, such as the point spread markets in sports, are extraordinarily useful to society. These markets combine all useful information dispersed throughout society and ultimately result in an aggregated valuation that is generally superior to the valuations of any one expert alone.

Just as in financial markets, when the actual outcome differs from the expected outcome, participants adjust their valuations of a company (or team). In financial markets, valuations are reflected in prices, whereas in the college football polls, valuations are reflected in voting points. If a team exceeds expectations, voters are likely to upgrade their opinions of that team, which is reflected in an increase in vote points. Meanwhile, a team that disappoints the market by not covering the point spread, even if the team wins the game, will have failed to meet the expectations of the market, and voters are therefore expected to downgrade their opinions of the team, resulting in fewer votes. These changes in vote points are likely

to lead to changes in the poll rankings, which could ultimately affect bowl matchups and the national championship.

The article proceeds as follows. The second section presents the voting model for both the ESPN/USA Today and AP polls and the regression results. The third section discusses the findings about the role of the point spread differential in the minds of voters. The fourth section concludes the article.

## ESPN/USA TODAY AND AP COLLEGE FOOTBALL POLLS VOTING MODEL AND RESULTS

The regression model for both the ESPN/USA Today and AP college football polls voting is as follows:

Votes<sub>i</sub> =  $\alpha_0 + \alpha_1$  Previous-Week Votes<sub>i</sub> +  $\alpha_2$  PSDIFF<sub>i</sub> +  $\alpha_3$  TVWIN<sub>i</sub> +  $\alpha_4$  TVLOSS<sub>i</sub> +  $\alpha_5$  NONTVWIN<sub>i</sub> +  $\alpha_6$  NONTVLOSS<sub>i</sub> +  $\epsilon_i$ .

The dependent variable is the number of points from votes that team *i* received in week *t*, individually run for the ESPN/USA Today coaches' poll and for the AP writers' poll. In both polls, the voters rank their top 25 teams in the nation. If a team is voted number one by a coach or a writer, that team receives 25 points. If the team is voted number two, that team receives 24 points, and so on. Vote points are summed for all of the coaches (63) in the ESPN/USA Today poll and for all of the writers (65) in the AP poll. These vote points are included in the top 25 rankings for these two polls that appear in newspapers on the Monday following the most recent week of games. Teams that do not receive enough votes to be ranked in the top 25 are listed at the conclusion of the polls with corresponding vote points received. The data for this study were gathered from the Friday (for television listings) and Monday (for both polls) editions of USA Today each week during the 2003-2004 college football season.

The independent variables start with an intercept. The previous-week votes variable is the number of votes that team i received in period t-1. If this is the first week that a team received vote points, this variable equals zero. For the first week of the season, the values for the previous-week votes variable were taken from the preseason polls from both the ESPN/USA Today coaches' poll and the AP writers' poll. The previous-week votes should include all available information up to time t, the time when the most recent games were played. Therefore, other variables that use past data are not needed in the model specification. The only new information that should be available to voters is the outcome of the most recent week's games. Variables that relate to the most recently played games are outlined below.

PSDIFF is the point spread differential outcome for the most recent game played by team i in week t. The point spread is the closing line on the game taken from the Stardust hotel and casino in Las Vegas, Nevada, as reported on

http://www.covers.com, a Web site devoted to sports gambling. The variable is calculated by taking the score differential (favorite score minus underdog score) and subtracting the Las Vegas closing point spread. Wins against the point spread take positive values, and losses against the point spread take negative values. For example, if team *i* is favored over team *j* by 7 points, and team *i* wins by 10 points, PSDIFF takes a value of 3. Winning by the exact point spread results in a value of 0 for PSDIFF.

PSDIFF is included because the point spread is assumed to be an unbiased and optimal predictor of the outcome of the game. For any given game, the point spread, which is assumed to incorporate all available information about the game and the participating teams, indicates the number of points by which the favored team is expected to outscore the other team. When a team wins by more than the point spread, it is surmised that this team has outperformed the expectations of voters and therefore will receive more votes in next week's polls. If a team does not cover the point spread, even if it wins the game, the team has disappointed compared with expectations, and voters will downgrade their valuations of the team. Therefore, the team will receive fewer votes in the polls. If voters in the polls behave as outlined above, the coefficient for the PSDIFF variable should be positive and significant.

Score differential (favorite score minus underdog score), sometimes dubbed the margin of victory (or defeat), was included in the model as an alternative specification. Included by itself, without PSDIFF, it is positive and significant. Included with PSDIFF, it was found to be negative for both polls and not significant in the coaches' poll. The insignificance implies that voters behave according to rational expectations and will only adjust their allocations of votes when the outcomes of games are different than expected. For comparison with the results presented below, regression results with score differential included are shown in the appendix.

A quality of the opponent variable was also considered for the regression, but when included (as vote points of the opponent), it was found not to be significant. This is expected under this model specification, however, because the point spread differential variable takes into account the expected outcome of the game. If two high-quality teams play, the point spread will be small. If a high-quality team plays a low-quality team, the point spread will be large. Therefore, the point spread differential variable already accounts for the strength of the opponent.

The last four independent variables indicate an outright win or loss in the most recent game played and whether that game was broadcast on national television. The opportunity to observe a team play may allow AP writers and coaches to form a more accurate assessment of the team. Therefore, playing on national television could be a very important factor in the allocation of votes. Also, televised games are typically the most important games of the week. Favorable or unfavorable results in big games could also change the perception of a team to the voters.

Instead of merely including a dummy variable to indicate if the team's most recent game was televised or not, the TV dummy was interacted with a win or

| Independent Variable    | ESPN/USA Today Coaches' Poll | AP Writers Poll         |
|-------------------------|------------------------------|-------------------------|
| Intercept               | 47.7627*** (4.7073)          | 56.4494*** (4.5173)     |
| Previous week's votes   | 0.9601*** (111.3658)         | 0.9539*** (98.2561)     |
| PSDIFF                  | 1.6035*** (5.0641)           | 1.7572*** (4.7962)      |
| TVWIN                   | 56.1069*** (4.3403)          | 71.3313*** (4.7104)     |
| TVLOSS                  | -293.2813*** (-19.5869)      | -354.0709*** (-19.5004) |
| NONTVWIN                | -0.1952 (-0.0162)            | 2.0936 (0.1444)         |
| NONTVLOSS               | -217.7160*** (-9.5033)       | -285.4006*** (-9.9504)  |
| Observations            | 695                          | 612                     |
| $R^2$                   | .9545                        | .9488                   |
| Adjusted R <sup>2</sup> | .9542                        | .9482                   |

TABLE 1: Regression Results for the Voting Model of the ESPN/USA Today and Associated Press (AP) Polls

NOTE: The dependent variable is number of vote points received in the respective poll; t statistics are given in parentheses. PSDIFF = point spread differential; TVWIN = a win in which the team was on television; TVLOSS = a loss in which the team was on television; NONTVWIN = a win in which the team was not on television; NONTVLOSS = a loss in which the team was not on television.

\*\*\*Significance of the t test at the t0 level.

loss variable. The four resulting variables are TVWIN, a win in which the team was on television; TVLOSS, a loss in which the team was on television; NONTVWIN, a win in which the team was not on television; and NONTVLOSS, a loss in which the team was not on television. The excluded dummy variable is a bye week, indicating that the team did not play. If voters weigh more heavily the information acquired by personally watching teams play on television or put a higher weight on the big games in their rankings, the TVWIN and TVLOSS variables should be significant.

In the second set of regression results, dummy variables were included for each of the following networks: ABC, NBC, CBS, ESPN, ESPN2, FSN (Fox Sports Net), and TBS. This could separate the effects of the most important games from the games of lesser importance (e.g., a match-up between the number one and number two teams in the Southeastern Conference on CBS is likely to be much more important to voters than a midlevel Big 10 game on ESPN or a Mid-American Conference game on ESPN2, especially when they are shown at the same time). This could also show the marginal importance of being on the big networks as opposed to more specialized stations, such as ESPN2 and FSN, because the teams might be exposed to more potential voters in the polls.

The regression results for both the ESPN/USA Today coaches' poll and AP writers' poll for the 2003-004 season are given in Table 1.

The regression results revealed expected results, with the variables in the model explaining nearly all of the variation in voting points for both polls. In both the ESPN/USA Today and AP polls, there is a strong tendency to receive the same

number of vote points as the team did the previous week. In both regressions, the coefficient on the previous week's votes is in excess of .95 and highly significant.

The other variables that change vote points on a week-by-week basis differ only slightly from poll to poll. In general, the writers in the AP poll appear to be slightly more responsive to a team's most recent performance, exhibiting larger adjustments in votes on the basis of the point spread differential, television coverage of the team's game, and wins or losses. These differences are not large, but the coefficients from the writers' poll regression are consistently higher across variables.

In both polls, PSDIFF is positive and highly significant. When a team has a game outcome that is different than expected, voters react accordingly. For each point above or below the point spread by which a team wins or loses, vote points increase by 1.60 in the ESPN/USA Today poll and by 1.75 in the AP poll. Therefore, teams that win and cover the point spread will receive more vote points in the polls, whereas teams that do not cover the point spread will actually lose vote points in both polls.

The question remains of if these additional votes garnered by exceeding expectations (or votes lost by not meeting expectations) are economically significant in determining a team's rank in a given week. This is especially important for the BCS, because a team must be in the top six of the BCS rankings (a combination of these two voter polls and various computer polls) to be considered for the BCS bowls. The significance in the rankings of the impact of 1.6 times the point spread differential (for the ESPN/USA Today poll) or 1.75 times the point spread differential (for the AP poll) can be surmised from the summary statistics in Tables 2 to 4. Table 2 contains the means and standard deviations of the key variables in this analysis. Table 3 gives the means and standard deviations of the vote differentials between ranked teams (i.e., the difference between votes received for the team ranked number one and the team ranked number two, etc.). Table 4 shows the relative and cumulative frequencies for different groupings of vote differentials.

The mean difference in votes between the top 25 ranked teams is approximately 59 votes in both polls. The vote gap between teams is slightly larger for teams in the top 10 than it is in the bottom 15. An average vote gap might seem to be relatively large (59 points), but relating this information to both the standard deviation of the mean difference in votes (given in Table 3) and the frequency of vote differentials (given in Table 4), it can be seen that there are many times when exceeding expectations (or not meeting them) can lead to a change in ranking.

For example, from Table 4, approximately 12% of the time (in either poll), the vote gap between ranked teams is less than 10 points. Given the coefficient on point spread differential, this gap can be overcome by the lower ranked team exceeding expectations by a touchdown or the higher ranked team not meeting

|    | Votes in<br>ESPN/USA<br>Today Coaches'<br>Poll | Votes in AP<br>Writers' Poll | Score<br>Differential<br>(favorite score –<br>underdog score) | Point Spread<br>Differential<br>(score differential –<br>point spread) |
|----|------------------------------------------------|------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------|
| M  | 500.5359                                       | 516.1765                     | 11.3954                                                       | 3.7051                                                                 |
| SD | 511.6490                                       | 529.4774                     | 19.0043                                                       | 16.0358                                                                |

TABLE 2: Summary Statistics: Votes in Polls, Score, and Point Spread Differentials

NOTE: Means and standard deviations are included for the nonbinary variables in the voting model: votes in both polls, the score differential, and the point spread differential. AP = Associated Press.

TABLE 3: Summary Statistics: Differences in Team Votes Received, ESPN/USA Today and Associated Press (AP) Polls

|                  | Vote Differential<br>Between Top 25<br>Ranked Teams | Vote Differential<br>Between Top 10<br>Ranked Teams | Vote Differential<br>Between Teams<br>Ranked 11 to 25 |
|------------------|-----------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------|
| ESPN/USA Today   |                                                     |                                                     |                                                       |
| M                | 59.8583                                             | 66.4519                                             | 55.9022                                               |
| SD               | 48.7691                                             | 42.4223                                             | 51.8975                                               |
| AP writers' poll |                                                     |                                                     |                                                       |
| M                | 59.0556                                             | 60.8815                                             | 57.9600                                               |
| SD               | 48.9426                                             | 39.5742                                             | 53.8417                                               |

NOTE: The vote differential is the difference in votes between ranked teams (i.e., the votes received by the number one team minus the votes received by the number two team, etc.). Vote differentials for the top 25 of each poll, the top 10 of each poll, and the bottom 15 of each poll are presented.

TABLE 4: Frequency of Vote Differential Between Teams Ranked in the Top 25, ESPN/USA Today and Associated Press (AP) Polls

| Vote<br>Differential | Relative<br>Frequency:<br>ESPN/USA<br>Today Poll | Cumulative<br>Frequency:<br>ESPN/USA<br>Today Poll | Relative Frequency<br>Percentage:<br>AP Poll | Cumulative Frequency<br>Percentage: AP Poll |
|----------------------|--------------------------------------------------|----------------------------------------------------|----------------------------------------------|---------------------------------------------|
| ≥100                 | .1667                                            | 1.0000                                             | .1941                                        | 1.0000                                      |
| 75 to 99             | .1167                                            | .8333                                              | .1303                                        | .8059                                       |
| 50 to 74             | .2278                                            | .7167                                              | .1915                                        | .6755                                       |
| 25 to 49             | .2417                                            | .4889                                              | .2101                                        | .4840                                       |
| 10 to 24             | .1250                                            | .2472                                              | .1516                                        | .2739                                       |
| 0 to 9               | .1222                                            | .1222                                              | .1223                                        | .1223                                       |

NOTE: Relative and cumulative frequencies are presented for various categories of sizes of vote differentials in both the ESPN/USA Today and AP polls.

expectations by a field goal and the lower ranked team exceeding expectations by the same margin.

Nearly half of the time, also seen in Table 4, vote differentials are less than 50 points. A team exceeding expectations by two touchdowns or more or a team failing to meet expectations in a projected blowout (a team favored by 28 wins by only 3) may have a meaningful impact on the rankings in the next week because teams will move up or down in the rankings on the basis of the number of votes they receive. Also considering the cumulative effect over weeks or months, even large vote differentials can be overcome by the lower ranked teams when actual outcomes differ from expected outcomes.

In relation to the television dummy variables from the regression in Table 1, it appears that having television coverage of a team's most recent game is a potential advantage. In both polls, TVWIN is positive and significant, and NONTVWIN is close to zero (actually a very small negative) and not significant. Therefore, winning a televised game offers an advantage in both polls. There is a risk, however, because the loss in vote points is slightly magnified for a loss on television (TVLOSS) compared with losing a nontelevised game (NONTVLOSS). It appears that either coaches and writers are influenced more by what they see on television (even if only portions of games, because many games are televised at the same time on different networks) than by what they can glean from a simple box score or that the performance of a team in a big game (proxied by television coverage) has a larger impact on the voters in the polls.

Overall, voting coaches and writers alike appear to adjust their opinions of a team's strength when the team performs better or worse than expected. Also, additional votes can be garnered if the team's game is televised. This could be due to television being a proxy for more important games, or it could be due to teams receiving additional exposure to voters. To explore the television results more fully, each network is added as a separate dummy variable, interacted with the team's win or loss when it appeared on that network, in the regressions presented in Table 5.

The results of the regression with the individual TV networks are similar to those found in the first regression. The results are not symmetric, because a loss on television tends to be associated with a reduction of vote points that is greater than the increase in vote points associated with a win. The only networks with significant positive results for wins are ABC, CBS, and ESPN. The coefficients associated with losses on each network are negative and significant, except for the coefficient for a loss on NBC, which has an exclusive contract with Notre Dame to cover football.

The network with one of the largest negative effects on voters in both polls was ESPN2. A loss on this network led to 312 fewer votes from coaches and 412 fewer votes from writers. A possible explanation for the relatively large negative

| Independent Variable    | ESPN/USA Today Coaches' Poll | AP Writers' Poll        |
|-------------------------|------------------------------|-------------------------|
| Intercept               | 48.5777*** (4.7827)          | 57.3521*** (4.6267)     |
| Previous week's votes   | 0.9581*** (109.1931)         | 0.9522*** (97.6737)     |
| PSDIFF                  | 1.6100*** (5.0428)           | 1.7945*** (4.8630)      |
| NONTVWIN                | -0.5645 (-0.0469)            | 1.4342 (0.0999)         |
| NONTVLOSS               | -217.6426*** (-9.5115)       | -284.7507*** (-10.0252) |
| ABCWIN                  | 71.9235*** (4.1875)          | 98.6423*** (5.0003)     |
| ABCLOSS                 | -298.8224*** (-14.6352)      | -350.4213*** (-14.1979) |
| NBCWIN                  | 38.5648 (0.6981)             | 18.6597 (0.3055)        |
| NBCLOSS                 | -64.3887 (-0.5928)           | -58.6469 (-0.4889)      |
| CBSWIN                  | 95.6974*** (3.2047)          | 115.8989*** (3.4904)    |
| CBSLOSS                 | -326.9922*** (-8.6950)       | -336.9085*** (-8.4796)  |
| ESPNWIN                 | 54.6377*** (2.8906)          | 65.4676*** (3.0808)     |
| ESPNLOSS                | -285.2621*** (-10.9294)      | -342.1757*** (-11.2208) |
| ESPN2WIN                | 24.9903 (1.1884)             | 50.6148* (1.9365)       |
| ESPN2LOSS               | -312.0066*** (-10.4314)      | -412.2490*** (-11.1897) |
| FSNWIN                  | 42.0486 (1.5956)             | 35.9505 (1.2521)        |
| FSNLOSS                 | -272.2662*** (-8.2587)       | -403.3054*** (-9.1567)  |
| TBSWIN                  | 52.7883 (1.3225)             | 15.6347 (0.3903)        |
| TBSLOSS                 | -232.3893*** (-3.6672)       | -233.3463*** (-3.2987)  |
| Observations            | 695                          | 612                     |
| $R^2$                   | .9554                        | .9507                   |
| Adjusted R <sup>2</sup> | .9543                        | .9492                   |

TABLE 5: Regression Results for the Voting Model of the ESPN/USA Today and Associated Press (AP) Polls With Individual TV Networks Included

NOTE: The dependent variable is number of vote points received in the respective poll; *t* statistics are given in parentheses. PSDIFF = point spread differential; NONTVWIN = a win in which the team was not on television; NONTVLOSS = a loss in which the team was not on television; variables ending in -WIN and -LOSS and prefixed with the networks ABC, NBC, CBS, ESPN, ESPN2, FSN, and TBS = a win and a loss, respectively, in which the team was on the given network.

effects associated with losses on ESPN2 is that these games often involve teams from non-BCS conferences such as the Western Athletic Conference, the Mountain West, and the Mid-Atlantic Conference. These games could be the first opportunity for many of voters to see teams from these conferences play. Given that the game is televised, this is likely to be the biggest game of the year for the small-conference team. When a team loses on ESPN2, voters react quite strongly in light of this new information.

These results could again illustrate the importance of big games, because the best games are typically shown on the networks that were shown to have the biggest impact in the regression results (ABC, CBS, and ESPN). It could also illustrate the difference television makes in the polls on the basis of exposure to voters. If two games of equal importance and implications were shown at the

<sup>\*</sup>Significance of the t test at the 10% level. \*\*\*Significance of the t test at the 1% level.

same time, one on CBS and the other on ESPN2, the size of the coefficients reveal the relative importance of the size of the viewing audience and exposure to voters to a team's ranking in the polls. It is likely that elements of both factors are at work in these results.

Overall, the results in Table 5, which include variables for individual networks, mirror the results from the initial regressions. Previous votes and point spread differential play an important role in the determination of number of vote points received. Losses generally have a greater impact on vote points than wins, as expected, with major college football networks ABC, CBS, and ESPN having the biggest positive effects for teams.

#### CONCLUSIONS

This article outlined a week-by-week model of college football voting for the ESPN/USA Today coaches' poll and the AP writers' poll. The number of vote points received in both polls is determined by how many votes a team received the previous week, television exposure, and the point spread differential of the team that week, measured by the score differential (favorite score minus underdog score) minus the point spread. In both polls, current-week votes consist of about 95% of the votes that a team received the previous week, plus adjustments for the team's performance that week and whether that team's game was on television.

The effect of wins and losses, whether televised or not, are not symmetric. Losses cause a team to lose more votes than wins lead to gains in votes. Having a game televised magnifies this effect. Summarizing the effects of the individual networks, wins on premier college football networks, ABC, CBS, and ESPN, can increase vote points. Televised games on more specialized networks, such as ESPN2 and FSN, appear to have little positive impact but huge negative consequences for losses to teams in the polls.

The impact of the point spread differential variable is the main focus of this study. Voters respond when a team performs in a manner different than expected. Empirically, when the score differential (favorite score minus underdog score) is different than the point spread, voters adjust their opinions of teams. Point spread differential was found to have a positive and significant impact on vote points in both polls. Teams that cover the point spread, thereby exceeding voter expectations, receive increases in vote points, because voters adjust their valuations of the teams upward. These results also show that if a team wins the game but does not cover the point spread, the failure to meet expectations will result in a decrease in vote points. The effects of performance relative to expectations will not only change the number of vote points a team receives but will also affect team rankings in the polls. These changes in rankings that occur could have a profound effect on bowl match-ups, the national championship game, and payouts to conferences and individual colleges.

# APPENDIX REGRESSION RESULTS FOR THE VOTING MODEL OF THE ESPN/USA TODAY AND ASSOCIATED PRESS (AP) POLLS WITH SCORE DIFFERENTIAL (SCDIFF) INCLUDED

| Independent Variable    | ESPN/USA Today Coaches' Poll | AP Writers' Poll        |
|-------------------------|------------------------------|-------------------------|
| Intercept               | 45.9503*** (4.4918)          | 50.1375*** (4.0178)     |
| Previous week's votes   | 0.9643*** (105.0219)         | 0.9661*** (95.2395)     |
| SCDIFF                  | -0.6413 (-1.3433)            | -2.0958*** (-3.7411)    |
| PSDIFF                  | 2.0360*** (4.5096)           | 3.2102*** (6.0425)      |
| TVWIN                   | 62.1488*** (4.5430)          | 93.0842*** (5.7917)     |
| TVLOSS                  | -297.5815*** (-19.4457)      | -366.5507*** (-20.0605) |
| NONTVWIN                | 11.3177 (0.7661)             | 41.8601** (2.3449)      |
| NONTVLOSS               | -220.1323*** (-9.5849)       | -289.0176*** (-10.1783) |
| Observations            | 695                          | 612                     |
| $R^2$                   | .9547                        | .9498                   |
| Adjusted R <sup>2</sup> | .9542                        | .9493                   |

NOTE: The dependent variable is number of vote points received in the respective poll; *t* statistics are given in parentheses. PSDIFF = point spread differential; TVWIN = a win in which the team was on television; TVLOSS = a loss in which the team was on television; NONTVWIN = a win in which the team was not on television; NONTVLOSS = a loss in which the team was not on television.

\*\*Significance of the t test at the 5% level. \*\*\*Significance of the t test at the 1% level.

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