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In Favor of A Quantitative Boycott of the Bowl Championship Series

H S. Stern

Abstract

The Bowl Championship Series is designed to match the two top teams in college football in a title game. To determine the top ranked teams, polls are combined with a number of quantitative ratings of the teams known collectively as the “computer ranking”. The computer ranking serves primarily to offer a validation of the polls. The individuals whose quantitative ratings are used in the computer ranking have never been given a clear objective to design their ratings for and they are limited in the inputs that they can use (for example, they can not use score or site of game). For all of these reasons, I am advocating a boycott of the Bowl Championship Series by all quantitative analysts.

KEYWORDS: college football, ratings, BCS

It is that time of the year when college football's Bowl Championship Series (BCS) grabs the national sports spotlight. The system is designed primarily to identify the top two major college football teams in the country and insure that they meet in a post-season college football bowl game (this year the Rose Bowl on January 4 in Pasadena, California) to determine a unique National Champion. The BCS also identifies teams to fill three other major bowl games in January 2006 with the payouts for those teams expected to exceed \$14 million each. Fortunately the BCS system "worked" this year in correctly identifying the top 2 (and only undefeated) teams, USC and Texas, as participants in the championship game. There is some debate about other aspects of the BCS (Notre Dame and Ohio State with two losses each were selected to receive the big payout while once-beaten Oregon was not) but that is not the point of the present essay.

In the following pages approaches to rating football teams are reviewed and an argument is made that analysts interested in rating football teams would serve fans best by not participating in the BCS. Though I acknowledge that the BCS is a fairly unimportant issue in the big picture of things, the role of quantitative methods in public policy and decision-making is important. It is generally a bad idea for quantitative analysts to remove themselves from the decision-making process. In this case, however, I believe the community of sports fans would be best served by such an action.

Quantitative evaluation of college football teams in the BCS

Notice that the heading of this section does not refer to "computer rankings". The part of the BCS that is commonly referred to as the computer ranking is a combination of six different quantitative evaluation methods for rating college football teams. Using the name "computer rankings" invites the misinterpretation that this is something done automatically or done objectively outside of the influence of human observers. Of course the computer is only the "little black box" that puts out the final numbers calculated according to a human-devised algorithm. The key to each rating system is thus the algorithm or method constructed by a quantitatively-oriented observer to take the season's game results and produce a single set of team ratings.

There are a number of approaches to the task of rating college football teams. Examples include least-squares ratings based on game scores (see, e.g., Stern 1995 CHANCE), paired comparison methods based only on win/loss (see, e.g., Mease 2003, *The American Statistician*), and methods based on a combination of scores and win/loss information (see, e.g., Annis and Craig 2005, JQAS). These and other variations – is the site of the game taken into account, are games

weighted equally across the entire season – provide the means to create a large number of reasonable rating methods. For the BCS a number of rules limit the information that can be used in the rating systems. Thus the site of the game is not used. It was permissible to use the score of the game in the early years of the BCS but more recently that has been curtailed. Even with such limitations it is possible to create a number of systems...indeed the current BCS uses six! Most outside-the-BCS observers (and even presumably some of the BCS quantitative evaluation participants) would agree that there is no uniquely best way to evaluate team performance. For one thing, as I've written elsewhere, to obtain a uniquely best method would first require that we all agree on the objective. There is clearly a tradeoff between rewarding performance (which would value wins more than scores) and trying to build a model that would effectively predict the outcome of future games (which would find score information useful).

As evidence that there many rating methods with considerable variation among them we can just examine the last set of BCS rankings (through the games of December 4, 2005). Those rankings clearly show that “reasonable” computers can disagree. Just a few examples: five of six evaluations have Ohio State as 4th best in the country while one rating has them 9th; four of six evaluations agree that TCU is the 13th (+/- 1) best team while two have them 25th or below; Auburn's rankings range from 5th to 15th. Given the ambiguity it seems reasonable to ask what role statisticians and other quantitative folks should play in the BCS.

The BCS and the Championship Tournament

It is not my objective here to waste many words revisiting the question of why the highest profile division of college football is the only major team sport in the U.S. without a championship tournament. I will however make a few admittedly speculative points. First, I'd speculate that an overwhelming majority of fans want a championship tournament of some kind (I'd guess 8 or 16 teams would be enough). Second, many of the usual reasons given (academic concerns, concern about too many games, logistics of having fans attend games all around the country on short notice) are clearly not strong enough to defeat the idea in other sports and even other divisions of college football. Third, somewhat remarkably, the NCAA is not to blame for the lack of a tournament. The top athletic conferences now run college football's top division more than the NCAA. Finally, even the most accurate explanation for why there is no tournament, college football's long-term relationship with the bowl system, could clearly be dealt with in a comprehensive tournament championship plan. All of these points lead me to believe that a tournament is possible! With or without a tournament though I believe the BCS is misguided.

A BCS Boycott

Several facts about the status quo leave me wondering whether those of us with interests in the quantitative analysis of sports, especially rating football teams, should participate in the BCS. To be specific:

- As described above there can't be a uniquely best quantitative evaluation without serious dialogue among interested parties about the objective (and this has not happened).
- The BCS "computer" ratings are ridiculed by sportscasters and journalists whenever they disagree with the human polls. This makes clear that they currently serve only to lend an air of legitimacy to the polls (*when they agree*).
- The serious news organizations got out of the BCS to avoid the appearance of influencing the news they cover. This leaves the computer rankings as the ONLY outside parties (the other participants are coaches and survey participants nominated by conferences) participating in the BCS.

I strongly believe that the BCS is keeping college football fans from getting the championship tournament that they want. I do not understand why the media stand idly by and do not make a greater uproar about this but that's a subject for another time. I imagine that most quantitatively oriented sports fans, along with most non-quantitatively oriented sports fans, would prefer a championship tournament end the college football season. I'd encourage the ratings enthusiasts participating in the BCS to think carefully about whether they support the efforts of the BCS powers and to consider removing themselves from the process if they don't!

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