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### Football and Federal Elections: Real World Statistics in Action

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## **Predicting Election Results from Football Statistics: An Archival Analysis in a Real-World Example**

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**Key Words:** predictions; elections; Washington Redskins; correlations; archival data

### **Abstract**

Cramer and Jackson (2006, 2007) report a sizeable association between the home game winner of the most recent Washington Redskins professional football game and the presidential election outcome. With only two exceptions, the events were perfectly linked since the 1936 inception of the football franchise. This paper offers an update to those results, now incorporating the 2008, 2012, and 2016 election results. This paper will offer instructors a useful vehicle to understanding correlations, to further show that correlation is not causation, but more importantly to illustrate that robust phenomena in the world may have no underlying cause. Furthermore, we believe that the relation between these two events represents a shortcoming in post-hoc reasoning, by trying to explain events after they have been observed.

Predicting Election Results from Football Statistics:  
 An Archival Analysis in a Real-World Example

Sports statisticians often identify unusual associations between various social phenomena and sporting events. Koppett’s Cycle (1978, 1981, 1984, 1985) suggested that the decline or growth of the New York Stock Exchange for a given year could be reliably predicted by that year’s Superbowl winner’s original conference (viz. market decline occurs for American conference teams whereas market growth occurs for National conference teams). Similarly, violent crime statistics in Virginia showed increases in violence against women (from gun shots, stabbings, assaults, falls, lacerations, or injury from thrown objects) when the Washington Redskins football club won (White, Katz, & Scarborough, 1992), reasoning that team victory invited fans permission to dominate everyday people in their immediate environment.

More recently, Cramer and Jackson (2006, 2007) presented a study on the relation between the winners of the United States federal election in November and the most recent Washington Redskins football homegame (Hofheimer, 2012). Starting at the 1936 franchise inception, the incumbent party (Republican or Democrat) is victorious in its bid for the White House if the Washington Redskins win their most homegame prior to the election. While unbroken until the November 2004 election, it resumed in 2008; however the 2012 and 2016 elections failed to support this relation. We use this cycle presently as a means to: (a) understand the nature of correlations, (b) outline that correlation is *not* causation, but more importantly (c) illustrate that robust and sizeable phenomena in the world may have no underlying cause. From 1936 to the present, Table 1 outlines the Washington Redskins’ most recent homegame prior to the election, opponent, and game outcome by date, including the federal delegate from both the Republican and Democratic parties, and whether the challenger or incumbent won the election. Note that with two exceptions (viz. 2004, 2012, 2016), a loss for Washington predicted victory by the challenging party while a win meant the incumbent party held power. Even with the three exceptions, the Pearson product moment correlation, Cramer’s V, and phi coefficients are  $r (df = 19, N = 21) = .716, p < .0001$ ;  $\chi^2 (df=1, N = 21) = 10.755, p = .001$ . Furthermore, the binomial distribution shows a significant relation after only five successfully predicted elections ( $p = .037$ ).

**Table 1.** Washington Redskins Homegame by Federal Election Winners

Year	Opponent	Winner	Republican	Democrat	Election Result
1936	Chicago	Washington	Landon	Roosevelt	Incumbent Wins
1940	Pittsburgh	Washington	Willkie	Roosevelt	Incumbent Wins
1944	Cleveland	Washington	Dewey	Roosevelt	Incumbent Wins
1948	Boston	Washington	Dewey	Truman	Incumbent Wins
1952	Pittsburgh	Opponent	Eisenhower	Stevenson	Challenger Wins
1956	Cleveland	Washington	Eisenhower	Stevenson	Incumbent Wins

1960	Cleveland	Opponent	Nixon	Kennedy	Challenger Wins
1964	Chicago	Washington	Goldwater	Johnson	Incumbent Wins
1968	New York	Opponent	Nixon	Humphrey	Challenger Wins
1972	Dallas	Washington	Nixon	McGovern	Incumbent Wins
1976	Dallas	Opponent	Ford	Carter	Challenger Wins
1980	Minnesota	Opponent	Reagan	Carter	Challenger Wins
1984	Atlanta	Washington	Reagan	Mondale	Incumbent Wins
1988	New Orleans	Washington	Bush Sr.	Dukakis	Incumbent Wins
1992	New York	Opponent	Bush Sr.	W.Clinton	Challenger Wins
1996	Indianapolis	Washington	Dole	W.Clinton	Incumbent Wins
2000	Tennessee	Opponent	Bush Jr.	Gore	Challenger Wins
2004	Green Bay	Opponent	Bush Jr.	Kerry	Incumbent Wins *
2008	Pittsburgh	Opponent	McCain	Obama	Challenger Wins
2012	Carolina	Opponent	Romney	Obama	Incumbent Wins *
2016	Philadelphia	Washington	Trump	H.Clinton	Challenger Wins *

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Note. \* denotes an exception among the data.

As a means toward better understanding the nature of correlations, this result is noteworthy wherein two variables indeed move in the same direction. Certainly it becomes a worthwhile exercise when one considers which variable moves first – does the football game result lead to the election outcome or is the reverse true? Can one identify a causal explanation between the two variables? Finally, the philosophical implications of this relation deserves mention in its challenge of science’s assumption of toward a positive and identifiable cause to any phenomena, which states that all effects have causes (phenomena happen for a reason); scientists then must uncover those reasons so as to predict and control them. However, we note presently that the sizeable and robust correlation between Redskin homegame wins and election results may truly have no underlying cause. As researchers, we are compelled then to consider what other sizeable and consistent phenomena we observe in our environment that may too have no underlying cause.

Finally, the demonstrated relation between these two events can also be thought of as an example of people’s ability to find remarkable relations between events. Consider the many coincidences

between the lives of US presidents Lincoln and Kennedy -- Lincoln's secretary was named Kennedy, Kennedy's secretary was named Lincoln; both secretaries advised the president not to attend the theatre or visit Dallas, respectively; 100 years apart was the year the two men were elected to Congress (1846/1946) and elected to the presidency (1860/1960), as well as the birth year of the assassins (1839/1939); Lincoln was shot in the Ford Theatre, Kennedy while riding in a Ford Lincoln; both were succeeded following the assassination by a man named Johnson (also born 100 years apart, 1808/1908; REF). Indeed, with volumes of available data (e.g., through almanacs and internet archives), it is surprising little that sizable associations can be found between events that are only superficially related. It is doubtful, for instance, that anyone hypothesized any lasting relation between the two events prior to the 1936 election. Such findings demonstrate a limitation of post-hoc data mining techniques, and stresses the need for research driven more by theory than by data.

In closing, we suggest one reason behind this curious outcome surrounds the nature of the fans at the homegame, insofar as their political sentiments (whether for or against the incumbent party) may influence how they cheer for their home team in a government-centred city. In other words, the election to come may predict the game to be, so that a future event predicts one in the present.

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