

***The Hall of Fame vs. Non Hall of Fame
Quarterback Challenge:
Making a Statistical Case for the
Enshrinement of 33 of the Greatest Who
Ever Played the Game (or, "Is There a
Statistical Difference Between Hall of Fame
and Non-Hall QB Career Numbers?")***



by

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I. Introduction

Speak to a football fan long enough and the conversation will cease to cover simple questions regarding favorite teams, that year's expected Super Bowl contenders, and which players are considered either completely inept or the greatest that ever played. The latter offers segue to a query that captures fans' imaginations and the hearts of players both young and old: who belongs in the Pro Football Hall of Fame and who does not? Often, in the ensuing verbal madness, the faithful who have followed a player's career base their positions on passions and provide only emotional responses. My experiment will approach the question scientifically and help determine if there is a significant statistical difference between quarterbacks enshrined in Canton, Ohio, and thirty-three of the greatest who played that position in NFL history and have yet to receive that highest honor. It will also help explain whether or not total career yards and touchdowns (TDs) as well as success in at least one league championship/Super Bowl could predict Hall of Fame status.

My interest in this question arose from an article I wrote on Joe Namath and why he is in the Hall of Fame. His career statistics are not at all impressive compared to numbers posted by other quarterbacks who played at – roughly - the same time. In fact, in 7 out of the 13 seasons he played, Namath completed less than half of his passes and threw 47 less touchdowns than interceptions (173 vs. 220, respectively). His induction to the Pro Football Hall of Fame did not depend on numbers alone, however. Joe Namath is in a class all his own. My article presented and described the intangibles that he brought to the sport and American popular culture that ultimately played a vital role in his selection. In contrast, when one recalls that non Hall of Famer Earl Morrall holds multiple Super Bowl titles, threw 13 more touchdowns than interceptions (161 vs. 148, respectively) and led the Miami Dolphins through most of their undefeated season in 1972 - the only season of its kind in American sports history - the question of whether statistics alone will reserve a player a spot in Canton becomes evermore remarkable. To further complicate the question, consider that retired quarterbacks Dan Marino, Fran Tarkenton, and Warren Moon are all in the Hall of Fame and among the top players in career passing yards and touchdowns though neither won a league championship. Dan Fouts never even led his team to the Super Bowl and did not woo people who would otherwise never care for football like Joe Namath did in the 1960s and seventies, but his and the three

aforementioned Hall of Famers' record-breaking numbers helped them achieve that most dignified position of immortality in American football. Considering these somewhat puzzling observations, a statistical analysis will perhaps demystify the question at hand.

II. The Method to the Madness

So, do career statistics or a league championship/Super Bowl victory guarantee a quarterback's place in the Hall of Fame? This could be answered by finding evidence that will describe any significant differences between the numbers posted by Hall of Fame quarterbacks whose career yards, touchdowns, and championships were tallied by statisticians and figures that represent these variables for the top 33 non-Hall of Fame QBs in NFL history as determined by me. At the end of this project you will also find a regression that will tell us whether or not career passing yards and TDs can indeed lead to a player's being selected to the Hall. I chose the 33 QBs in the "non Hall of Fame" group by familiarizing myself with their statistics, relative success throughout their careers, and impact/effect on the teams they played for. It is duly noted, though, that for the 30 quarterbacks in the "Hall of Famer" group, I was forced to exclude Jimmy Conzelman and John "Paddy" Driscoll since the league did not officially record career yards or touchdowns when they played. Since that left a sample of only 29 players, I needed one more in order to arrive at my target sample size of thirty. Therefore, I added the recently retired Kurt Warner to this list; after all, he is expected to enter the Hall of Fame once 5 years pass since his retirement and is thus deemed eligible for nomination.

The data set was borne from two detailed sources. For the "Hall of Famers" group, I constructed the data set by copying stats from the Hall of Fame's website (<http://www.profootballhof.com/hof/positions.aspx>). As for the "non Hall of Famers" group, I used the *Pro Football Reference* website (<http://www.pro-football-reference.com/>), which provides comprehensive career statistics for thousands of players who played in the NFL. The variables I considered here are career passing yards, career touchdowns, and whether or not the players in question won at least one championship game (as it was called in the AFL and NFL before they

merged in 1970) or Super Bowl. All throughout the experiment, I will test at 95% confidence except where otherwise specified.

Today, only thirty-one quarterbacks stand the test of time in the great halls of Canton, Ohio. However, so many more who posted impressive numbers and left fans with gilded memories walked off the field for the last time long ago and have yet to be immortalized in bronze. Now, we will see if there is a significant statistical difference between the two groups and whether or not the unrecognized heroes of the gridiron included in this experiment could one day be selected to maintain the good name of the sport as bronze statues surrounded by worn, beaten relics of the greatest days that dated the battles for territory and victory they led so long ago.

APPENDIX (Data Set)

Quarterbacks	HOF Status	Title Winner	Career Yards	Career TDs	Career Comp. %
Earl Morrall*^	0	1	20,809	161	52
Vinny Testaverde	0	0	46,233	275	57
Jim Harbaugh	0	0	26,288	129	59
Ken Stabler*^	0	1	27,938	194	60
Jim Plunkett*^	0	1	25,882	164	53
Daryle Lamonica*^	0	1	19,154	164	50
Rich Gannon*	0	0	28,743	180	61
Don Meredith*	0	0	17,199	135	51
Craig Morton*	0	0	27,908	183	55
Danny White	0	0	21,959	155	60
Drew Bledsoe*	0	0	44,611	251	58
Phil Simms*^	0	1	33,462	199	56
Joe Theismann*^	0	1	25,206	160	57
Roman Gabriel	0	0	29,444	201	53
John Hadl*^	0	1	33,503	244	51
Boomer Esiason*	0	0	37,920	247	57
Randall Cunningham	0	0	29,979	207	57
John Brodie	0	0	31,548	214	55
Ken Anderson*	0	0	32,838	197	60
Jim Everett	0	0	34,837	203	58
Dave Krieg	0	0	38,147	261	59
Archie Manning	0	0	23,911	125	56
Charlie Conerly*^	0	1	19,488	173	50
Jim Hart	0	0	34,655	209	52
Steve Bartkowski	0	0	24,124	156	56
Steve Deberg	0	0	34,241	196	58
Neil O'Donnell*	0	0	21,690	120	58
Bernie Kosar	0	0	23,301	124	60
Jack Kemp	0	0	21,218	114	47
Norm Snead	0	0	30,797	196	53
Billy Wade*^	0	1	18,530	124	55
Tommy Kramer	0	0	24,777	159	56
Joe Kapp*	0	0	5,911	40	49
Arnie Herber!	1	1	8,041	81	41
Sammy Baugh!^	1	1	21,886	187	57
Benny Friedman!	1	0	929	66	42
Sid Luckman!	1	1	14,686	137	51
Earl "Dutch" Clark!	1	1	1,507	11	46
Clarence "Ace" Parker!	1	0	4,698	30	47
Len Dawson*^	1	1	28,711	239	58
Bob Griese*^	1	1	25,092	192	57
Roger Staubach*^	1	1	22,700	153	57
Y.A. Tittle*^	1	1	28,339	212	56
Bob Waterfield*^	1	1	11,849	97	51
Sonny Jurgensen*^	1	1	32,224	255	58
Steve Young*^	1	1	33,124	232	65

Troy Aikman*^	1	1	32,942	165	62
Johnny Unitas*^	1	1	40,239	290	55
Joe Namath*^	1	1	27,663	173	51
Dan Fouts	1	0	43,040	254	59
George Blanda*^	1	1	26,920	236	48
Otto Graham*^	1	1	23,584	174	56
Bobby Layne*^	1	1	26,768	196	50
Bart Starr*^	1	1	24,718	152	58
Norm Van Brocklin*^	1	1	23,611	173	54
Jim Kelly*	1	0	35,467	237	61
Dan Marino*	1	0	61,361	420	60
Joe Montana*^	1	1	40,551	273	64
Terry Bradshaw*^	1	1	27,989	212	52
Fran Tarkenton*	1	0	47,003	342	57
Warren Moon	1	0	49,325	291	59
John Elway*^	1	1	51,475	300	57
Kurt Warner?	1	1	32,344	208	66

* = Played in at least one NFL or AFL Championship Game/Super Bowl

^ = Won at least one NFL or AFL Championship Game/Super Bowl

? = Will most likely be inducted to the HOF since recent retirement

! = "Pre-Modern Era" QB (played through years ranging from the league's birth to 1953)