

## SPORTS

By the Numbers / By Allen Barra

## Going Back to Pass

**F**OR THOSE OF US in the football numbers game, it all goes back to Bud Goode.

The California statistician opened the guts of the game just before the 1974 Super Bowl in a Sports Illustrated article singling out the most important stat in pro football—yards per pass attempt. Almost 30 years later, he says all he wants on his tombstone is: "Here lies Bud Goode. He told the world about average yards per pass attempt."

Well, sad to say for Mr. Goode, only a handful have listened. Don't even bother looking in your daily paper or favorite Web site for it.

## A Hidden Gem

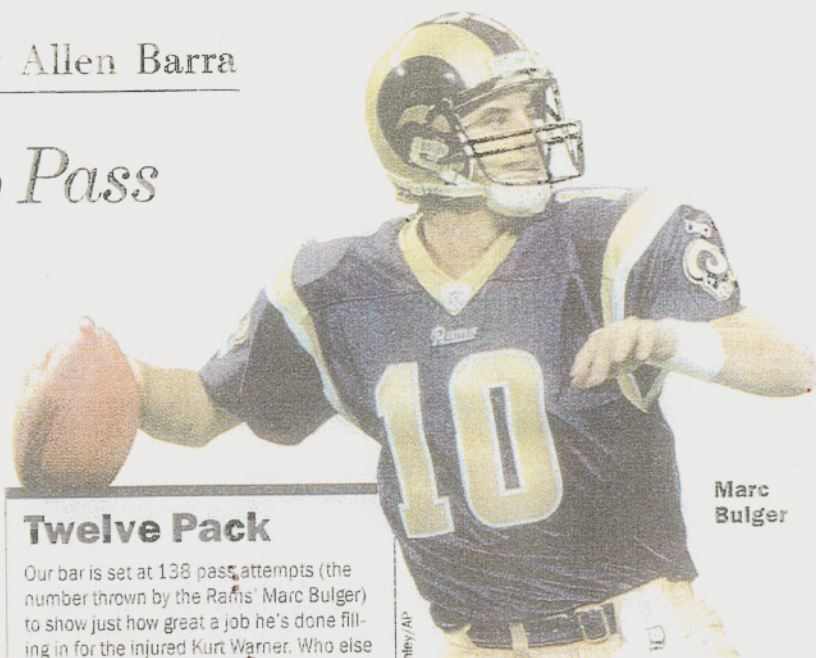
How important is it? Since 1960, only three teams (the 1964 Cleveland Browns, 1981 Cincinnati Bengals and the 1996 New England Patriots) played for the NFL championship after a regular season in which they failed to average more yards per pass attempt than their opponents did. Since 1981, more than 80% of all games have been won by the team that has averaged, over the course of the game, more yards per pass attempt than its opponent.

Our computer, Mad Max, pointed to the runner-up—interception percentage. How to combine the two? By figuring all the yardage gained in an average NFL offensive possession, all the yards gained on punts and punt returns, and yards gained on interception returns, George Ignatin and I calculated that from 1960 through 1995 the "worth" of each interception was roughly 50 yards.

The result is Mad Max's Pass Efficiency Rating: Take gross yards passing, subtract 50 for each interception, then divide by the number of passes. It's not only much simpler than the NFL's overly complex method but correlates at least as well with winning. (The NFL's method gives nearly as much weight to important stats like yards per throw as it does to an irrelevant stat such as completion percentage.)

So what is PER telling us about this season's passers?

• Since he came off the bench for the injured Kurt Warner, the St.



Marc Bulger

## Twelve Pack

Our bar is set at 138 pass attempts (the number thrown by the Rams' Marc Bulger) to show just how great a job he's done filling in for the injured Kurt Warner. Who else is missing? New Orleans' Aaron Brooks (5.39 PER, but getting better by the month), New England's Tom Brady (5.33), and Philly's Donovan McNabb (5.31).

PLAYER/TEAM	NFL RATING	PER
<b>M. Bulger, STL</b>	107.4	7.24
<b>D. Bledsoe, BUF</b>	96.0	6.89
<b>B. Favre, GB</b>	101.7	6.88
<b>C. Pennington, NYJ</b>	94.3	6.75
<b>R. Gannon, OAK</b>	101.2	6.71
<b>M. Vick, ATL</b>	85.2	6.53
<b>K. Collins, NYG</b>	85.2	6.30
<b>R. Peete, CAR</b>	84.1	6.23
<b>T. Maddox, PIT</b>	97.9	6.20
<b>M. Brunell, JAX</b>	83.6	6.11
<b>B. Johnson, TB</b>	90.0	5.95
<b>J. Garcia, SF</b>	91.4	5.86

Louis Rams' Marc Bulger has been passing at a level of effectiveness that nearly matches Mr. Warner's, and is well above the starting QB's numbers in his four games this season, though there were indications that Mr. Warner's damaged pinky was affecting his performance.

• It's the year of the fill-in quarterback. In addition to Mr. Bulger, the Pittsburgh Steelers' Tommy Maddox (6.20 PER) and the New York Jets' Chad Pennington (6.75 PER) are performing well above the level of the passers they replaced. (Until benched, Vinny Testaverde was at 4.08, Kordell Stewart was 4.56.)

• Remember "The Age of the Run-

ning Quarterback?" We tried to incorporate running into PER and found it hardly mattered. Take Green Bay's Brett Favre, who has 195 completions, and Philadelphia's Donovan McNabb, who has 181. Mr. Favre has averaged 7.3 yards per play on his combined passing and rushing (that is, 2,224 passing and just 25 yards rushing) to Mr. McNabb's 6.3 (2,034 yards passing and 463 yards rushing). While the Eagle has more total yards, there's no question as to who's more effective. A quarterback must still be judged primarily on his ability to throw the ball, no matter how good a runner he is.

A Point After: Serious fans ought to check out Eddie Epstein's "Dominance—The Best Seasons of Pro Football's Greatest Teams" (Brassey's, 353 pages, \$24.95), which asks and answers questions such as "Which NFL team had the most dominant offense of all time?" and "Were the 1972 Miami Dolphins disrespected?" Mr. Epstein also picks the most dominant team in NFL history. I don't agree with all of his conclusions, but even when I didn't, his arguments forced me to stop and re-examine my own. This is without a doubt the best book on pro football analysis ever written.



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