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KEEPING SCORE

Saints' Risky Decisions Were Both Calculated and Crucial

By BRIAN BURKE

Coach Sean Payton made daring decisions on the way to New Orleans's first Super Bowl victory. Toward the end of the first half on Sunday night, trailing by 10-3, he called for a run on fourth-and-goal from the 1.

He later opted for an onside kick to open the second half, perhaps the game's most aggressive call. And after his team scored the go-ahead touchdown in the fourth quarter, he called for the 2-point conversion. Let's take a look at all three decisions. Daring, yes; but did he have the numbers on his side?

The Fourth-and-1

There are different approaches to analyzing whether Payton made the right call on fourth down. One way is straightforward — will the Saints score? By this measure, it was an easy call. Historical analysis shows a team should go for it on fourth-and-goal from anywhere inside the 6.

But another way to analyze the call is to determine how much it will help a team win, or a statistic called Win Probability. Win Probability is an in-game estimate of a team's chances of victory derived from the score and other game variables based on regular-season statistics from the past decade.

With a little less than two minutes to go in the half and a fourth-and-goal on the 1 and the Saints trailing, 10-3, the Win Probability analysis agrees with the go-for-it call. A field goal gives the Saints a 0.32 Win Probability. A touchdown ties the score and gives the Saints a 0.48 Win Probability. A failed attempt gives the Colts a first down at their 1 with 1 minute 55 seconds to play in the half and drops the Saints' Win Probability to 0.26. It was certainly a high-stakes play. Fourth-and-goal from the 1 plays are converted 68 percent of the time. This makes the overall decision to go for it worth a 0.41 Win Probability:

0.68 * 0.48 + (1-0.68) * 0.26 = 0.41 WP

Going for the touchdown was the better call, 0.41 versus 0.32 Win Probability.

The Onside Kick

Onside kicks are more successful when they are not expected. Since 2000, slightly more than 60 percent of unexpected onside kicks have been recovered by the kicking team.

In this case, the Saints were behind by 4. A deep kick would typically give the Colts a first-and-10 near their own 30, translating to a 0.32 Win Probability for the Saints. A failed onside kick gives the Colts a first down at the Saints' 40 or so, worth a 0.26 Win Probability to the Saints. A successful recovery gives the Saints possession at their own 40, giving them a 0.39 Win Probability. In total, the onside attempt is worth a 0.34 Win Probability:

$$0.60 * 0.39 + (1-0.60) * 0.27 = 0.34 \text{ WP}$$

The onside attempt was a good gamble according to the numbers, but not by much — 0.34 versus 0.32 Win Probability.

The 2-Point Conversion

After scoring a go-ahead touchdown with 5:46 to play, Payton faced another decision. The score was 22-17, and an extra point would mean only a 6-point lead, leaving the Saints vulnerable to losing with a Colts touchdown. A 2-point conversion would make it a 7-point lead, and a Colts touchdown would probably only tie.

Extra points are nearly automatic, succeeding 99 percent of the time. Kicking would produce a 0.78 Win Probability for the Saints. A successful 2-point conversion would give the Saints a 0.88 Win Probability, and a failed conversion attempt would give the Saints a 0.77 Win Probability. The 2-point attempt was worth:

$$0.50 * 0.88 + (1-0.50) * 0.77 = 0.83 \text{ WP}$$

So the 2-point attempt was a good call, 0.83 versus 0.78 Win Probability.

It was not as if Payton had these numbers in his head Sunday, but he did understand that if he wanted to reap the greatest reward, he needed to take some risks.

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