

Risky Business Week 7

Taking a Shot

It wasn't exactly David vs Goliath, but Lions head coach Dan Campbell decided to reach into his bag for a few tricks on Sunday. While it made for some exciting football, the winless Lions couldn't quite topple the Rams. There is quite a bit to unpack here, so let's look at each key decision by the Lions and how some of these aggressive moves impacted the game. With respect to the onside kick and fake punts we show a very conservative required success rate to make the aggressive action profitable, and the relative gain from the actual execution of the play. In every situation we reveal the model's pre-snap recommendation as analyzed by an extensive custom simulation. To assess and approximate required success rates for kick recoveries and first down conversions on fake punts we assume only the minimum required gain for first down, a minimum ten yard advancement of the onside kick, and average punting distance. A decision is labeled "pick-em" if the difference is less than 0.5% GWC.

- 12:04 1st quarter, Lions lead 7-0 – onside kick attempt
 - Required recovery rate: **31.5%** (risk = 26.1% GWC – 23.2% GWC, gain = 32.4% GWC – 26.1% GWC)
 - Actual gain vs alternative (pre-snap GWC): 32.8% GWC – 26.1% GWC = **6.7% GWC**
 - EdjSports' model recommendation: This of course depends on the expected recovery rate. With the assumption of this being a true surprise kick with a recovery rate of 40% it represents a small gain of nearly **+ 1% GWC**
- 11:01 1st quarter, Lions lead 7-0, fourth and 7 from the 50 yard line – fake punt attempt
 - Required conversion rate: **36.9%** (risk = 27.8% GWC - 24.0% GWC, gain = 34.3% GWC – 27.8% GWC)
 - Actual gain vs punt attempt: 35.4% GWC- 27.8% GWC = **7.6% GWC**
 - EdjSports' model recommendation: Considering a transparent first down attempt with a broader distribution of outcomes represented in the simulation, the gain is approximately **+0.6% GWC**, suggesting an even stronger agreement with the fake punt.
- 7:28 1st quarter, Lions lead 7-0, fourth and 8 from the Rams 18 yard line – field goal attempt
 - EdjSports' model recommendation: Field goal is correct by **+1.2% GWC**
- 13:40 2nd quarter, Lions lead 10-3, fourth and 3, Rams 29 yard line - field goal attempt
 - EdjSports' model recommendation: **pick-em**

- 7:07 2nd quarter, Lions lead 13-10, 4th and 2 from the Detroit 38 yard line – punt attempt
 - EdjSports' model recommendation: Punt is an error by **-1.5% GWC**

- 0:04 2nd quarter, Lions trail 17-13, 4th and 15 on the Rams 23 yard line – field goal attempt
 - EdjSports' model recommendation: field goal is correct by **+3.5% GWC**

- 10:02 3rd quarter, Lions trail 17-16, fourth and 8 on the Lions 35 yard line - fake punt attempt
 - Required conversion rate: **41.9%** (risk = 20.6% GWC- 15.2% GWC, gain = 28.1% GWC - 20.6% GWC)
 - Actual gain vs punt attempt: 30.7% GWC – 20.6% GWC = **10.1% GWC**
 - EdjSports' model recommendation: pick-em based upon a transparent first down attempt and a conservative 8 yard gain. However, this actually argues strongly in favor of the Lions fake punt attempt with respect to the surprise element and opportunity for extra yardage on a successful conversion.

- 6:14 3rd quarter, Lions trail 17-16, fourth and 1 on the Rams 18 yard line – first down attempt
 - EdjSports' model recommendation: first down attempt is correct by **+4.9% GWC**

- 1:43 3rd quarter, Lions trail 17-16, 4th and 7 on the Rams 13 yard line - field goal attempt
 - EdjSports' model recommendation: **pick-em**

This was an outstanding play-calling effort by Dan Campbell. Too often we witness teams simply resigning themselves to a slow death when entering a game as a substantial underdog. He clearly recognized that increasing variance through some additional risk was warranted in this match-up. Because of this strategy, the Lions remained in this game until late in the fourth quarter when the goal line interception occurred. This turnover with 4:53 remaining in the game, after nearly a nine minute drive, dropped their GWC from 24.4% to 9.9% and was a major blow to what could have been their first win of the season.