

Analyzing 2022 NFL 4th Down Success by Team

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```
library(nflfastR)
library(tidyverse)
```

```
## -- Attaching packages ----- tidyverse 1.3.2 --
## v ggplot2 3.4.0      v purrr  0.3.5
## v tibble  3.1.8      v dplyr  1.0.10
## v tidyr   1.2.1      v stringr 1.4.1
## v readr   2.1.3      v forcats 0.5.2
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()
```

```
stats_2022 <- load_pbp(2022)
team_4th <- stats_2022 %>%
  filter(down == 4 & (play_type == "run" | play_type == "pass")) %>%
  filter(wp > 0.02 & wp < 0.98) %>%
  group_by(posteam) %>%
  summarise(avg_yds_to_go = mean(ydstogo),
            avg_field_pos = mean(yardline_100),
            count = n(),
            success_rate = sum(fourth_down_converted) / count,
            avg_gained = sum(yards_gained) / count) %>%
  arrange(desc(success_rate))
team_4th
```

```
## # A tibble: 32 x 6
##   posteam avg_yds_to_go avg_field_pos count success_rate avg_gained
##   <chr>      <dbl>      <dbl> <int>      <dbl>      <dbl>
## 1 PIT         2.7         47.2   10         0.9         5.2
## 2 LA          2.64        46.9   11         0.818        2.64
## 3 KC          2.71        22.9    7         0.714        2.29
## 4 PHI          2.37        26.8   19         0.684        1.74
## 5 HOU          5          34.3    6         0.667        2.33
## 6 WAS          3          46     11         0.636        4.18
## 7 MIN          4.6        39.8   10         0.6         7
## 8 DET          2.41        34.1   22         0.591        5.23
## 9 MIA          2.67        39.8   12         0.583        6.58
## 10 CLE         2.62        36.1   21         0.571        4.05
## # ... with 22 more rows
```