

# Predicting NFL Wide Receiver Success Using Combine Measurables and PFF College Data

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```
library(tidyverse)
library(tidyr)
library(readr)
library(dplyr)
library(broom)
library(knitr)
library(nflfastR)
library(nflplotR)
library(ggrepel)
```

```
rec_2014 <- read.csv("data_pff_receiver/2014_receiver_pff_data.csv")
rec_2015 <- read.csv("data_pff_receiver/2015_receiver_pff_data.csv")
rec_2016 <- read.csv("data_pff_receiver/2016_receiver_pff_data.csv")
rec_2017 <- read.csv("data_pff_receiver/2017_receiver_pff_data.csv")
rec_2018 <- read.csv("data_pff_receiver/2018_receiver_pff_data.csv")
rec_2019 <- read.csv("data_pff_receiver/2019_receiver_pff_data.csv")
rec_2020 <- read.csv("data_pff_receiver/2020_receiver_pff_data.csv")
con_2014 <- read.csv("data_pff_receiver/2014_receiving_concept.csv")
con_2015 <- read.csv("data_pff_receiver/2015_receiving_concept.csv")
con_2016 <- read.csv("data_pff_receiver/2016_receiving_concept.csv")
con_2017 <- read.csv("data_pff_receiver/2017_receiving_concept.csv")
con_2018 <- read.csv("data_pff_receiver/2018_receiving_concept.csv")
con_2019 <- read.csv("data_pff_receiver/2019_receiving_concept.csv")
con_2020 <- read.csv("data_pff_receiver/2020_receiving_concept.csv")
dep_2014 <- read.csv("data_pff_receiver/2014_receiving_depth.csv")
dep_2015 <- read.csv("data_pff_receiver/2015_receiving_depth.csv")
dep_2016 <- read.csv("data_pff_receiver/2016_receiving_depth.csv")
dep_2017 <- read.csv("data_pff_receiver/2017_receiving_depth.csv")
dep_2018 <- read.csv("data_pff_receiver/2018_receiving_depth.csv")
dep_2019 <- read.csv("data_pff_receiver/2019_receiving_depth.csv")
dep_2020 <- read.csv("data_pff_receiver/2020_receiving_depth.csv")
sch_2015 <- read.csv("data_pff_receiver/2015_receiver_scheme.csv")
sch_2016 <- read.csv("data_pff_receiver/2016_receiving_scheme.csv")
sch_2017 <- read.csv("data_pff_receiver/2017_receiving_scheme.csv")
sch_2018 <- read.csv("data_pff_receiver/2018_receiving_scheme.csv")
sch_2019 <- read.csv("data_pff_receiver/2019_receiving_scheme.csv")
sch_2020 <- read.csv("data_pff_receiver/2020_receiving_scheme.csv")
```

```
#2020 Stats
sta_sch_2020 <- left_join(rec_2020, sch_2020, copy = FALSE,
                          by = c("player", "position", "team_name",
                                "player_game_count", "player_id",
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                                "declined_penalties", "franchise_id"))
con_dep_2020 <- left_join(con_2020, dep_2020, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de
stats_2020 <- left_join(sta_sch_2020, con_dep_2020, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de

#2019 Stats
sta_sch_2019 <- left_join(rec_2019, sch_2019, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de

con_dep_2019 <- left_join(con_2019, dep_2019, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de
stats_2019 <- left_join(sta_sch_2019, con_dep_2019, copy = FALSE,
                        by = c("player", "position", "team_name",
                            "player_game_count", "player_id",
                            "declined_penalties", "franchise_id"))

#2018 Stats
sta_sch_2018 <- left_join(rec_2018, sch_2018, copy = FALSE,
                        by = c("player", "position", "team_name",
                            "player_game_count", "player_id",
                            "declined_penalties", "franchise_id"))
con_dep_2018 <- left_join(con_2018, dep_2018, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de
stats_2018 <- left_join(sta_sch_2018, con_dep_2018, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de

#2017 Stats
sta_sch_2017 <- left_join(rec_2017, sch_2017, copy = FALSE, by = c("player", "position", "team_name", "p
con_dep_2017 <- left_join(con_2017, dep_2017, copy = FALSE, by = c("player", "position", "team_name", "p
stats_2017 <- left_join(sta_sch_2017, con_dep_2017, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de

#2016 Stats
sta_sch_2016 <- left_join(rec_2016, sch_2016, copy = FALSE,
                        by = c("player", "position", "team_name",
                            "player_game_count", "player_id",
                            "declined_penalties", "franchise_id"))
con_dep_2016 <- left_join(con_2016, dep_2016, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de
stats_2016 <- left_join(sta_sch_2016, con_dep_2016, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de

#2015 Stats
sta_sch_2015 <- left_join(rec_2015, sch_2015, copy = FALSE, by = c("player", "position", "team_name", "p
con_dep_2015 <- left_join(con_2015, dep_2015, copy = FALSE, by = c("player", "position", "team_name", "p
stats_2015 <- left_join(sta_sch_2015, con_dep_2015, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de

#2014 Stats
con_dep_2014 <- left_join(con_2014, dep_2014, copy = FALSE, by = c("player", "position", "team_name", "p
stats_2014 <- left_join(rec_2014, con_dep_2014, copy = FALSE,
                        by = c("player", "position", "team_name", "player_game_count", "player_id", "de

```

#### *#2015 Stats of 2016 DC*

```
dc_2016 <- c("Josh Doctson", "Rashard Higgins", "Daniel Braverman", "Sterling Shepard", "Corey Coleman",  
dc_2016_2 <- c("Sabian Holmes", "Kendrick Singleton", "Cameron Dickerson", "Jacob Hillyer", "Kris Kenter",  
dc2016_stats2015 <- stats_2015 %>%  
  filter(player %in% dc_2016 | player %in% dc_2016_2)
```

#### *#2014 Stats of 2015 DC*

```
dc_2015 <- c("Amari Cooper", "Tyler Lockett", "DeVante Parker",  
  "Jonathon Rumph", "Nelson Agholor", "Tony Lippett", "DeAndre Smelter",  
  "Titus Davis", "Justin Hardy", "Jaelen Strong", "Darren Waller",  
  "Rashad Greene Sr.", "Devin Smith", "Curry Sexton", "Kenny Bell",  
  "Bud Sasser", "Tommy Shuler", "Ezell Ruffin", "Stefon Diggs",  
  "Matthew Miller", "Kevin White", "Jordan Taylor", "John Harris",  
  "Michael McNeely", "Joshua McCain", "Cam Worthy", "David Frazier",  
  "Lucky Whitehead", "Andre Davis", "Sammie Coates", "Vince Mayle",  
  "Christopher Harper", "Ty Montgomery", "Da'Ron Brown", "Antonio Vaughan",  
  "Chris Conley", "Jeremy Davis", "Jamison Crowder", "Darius Jennings",  
  "Shane Wynn", "Jeff Trojan", "Keiwone Malone", "Jalen Claiborne",  
  "Josh Harper", "Vince Sanders", "Bradley Marquez", "Lynquez Blair",  
  "Breshad Perriman", "Devin Funchess", "Phillip Dorsett", "Miles Gooch",  
  "Marcus Henry", "Kyle Prater", "Andrew Turzilli", "Keith Mumphery",  
  "Quan Bray", "Jordan Leslie", "Rannell Hall", "Michael Bennett",  
  "Shakim Phillips", "Clay Fuller", "Ronald Butler", "Devante Davis",  
  "Ian Hamilton", "Jarrod West", "Isiah Myers", "Jack Rhoades",  
  "Jalen Fitzpatrick", "Dominic Rufran", "Willie McNeal", "Levi Norwood",  
  "Chandler Worthy", "Antwan Goodley", "Earon Holmes", "J.J. Worton",  
  "Jordan Davis", "Deontay Greenberry", "DeAndrew White", "Eli Rogers",  
  "Josh Reese", "Joel German", "Kentrellis Showers", "Javess Blue",  
  "Malcome Kennedy", "Devin Clarke", "Demarco Robinson", "Jarred Haggins",  
  "George Farmer", "E.J. Scott", "Hunter Lee", "Tyler McCulloch", "Jimmie Hunt",  
  "Matt James", "Richy Turner", "Kenzee Jackson", "Devon Hughes",  
  "Jameon Lewis", "Nick Jones", "Manasseh Garner", "Jamarcus Nelson",  
  "Zach D'Orazio", "Sterling Griffin", "Tyler Duncan", "Jaxon Shipley",  
  "Jacob Carter", "Mario Hull", "Demetrius Wilson", "Ben Ijah", "Nigel King",  
  "Willie Byrn", "Jeric Magnant", "Jordan Pratt", "Deon Long",  
  "Cameron Peterson", "Adrian Henderson", "Taco Sumler", "Keith Sconiers",  
  "Chris Humphrey", "David Porter Jr.")  
dc_2015_2 <- c("Nick Stoner", "Issac Blakeney", "Mario Alford",  
  "Isaac Fruechte", "Markese Triplett", "Marcus Cunningham", "Kasen Williams",  
  "Keanon Lowe", "Maudrecus Humphrey", "Justyn Shackleford", "Daniel Spencer",  
  "Glenn Coleman", "Josiah Monroe", "Kevonte Martin-Manley", "Zach Walker",  
  "Damond Powell", "Scott Harding", "Joe Craig", "Kendall Brock",  
  "Kaelin Clay", "John Chelf", "Dres Anderson", "Nick Harwell", "William Boyd",  
  "Andre Lewis", "Kai De La Cruz", "Brendan Dudeck", "Kevin Weatherspoon",  
  "Marcellus Mack", "L.T. Smith", "Alex Kenney", "Dwight Macon",  
  "D.D. Goodson", "Johnathan Loyd", "Keanu Nelson", "Isaiah Roundtree",  
  "Kenzel Doe", "Darius Terrell", "Chase Cochran", "Brandon Terry",  
  "Charles Lovett", "Damiere Byrd", "Maika Mataele", "Tony Jones",  
  "B.J. Chitty", "Shane Ros", "Ralph David Abernathy IV", "Terome Grant",  
  "Trey Norman", "Jack Spady", "Markeith Ambles", "Tyler Williams",  
  "Der'rikk Thompson", "Christion Jones", "Quinton Dunbar", "Rickey Galvin",  
  "John Jakubik", "Brent Mitcham", "Martize Barr", "Deshon Foxx",  
  "Jeremé Jones", "Kristoff Williams", "Donnie King Jr.", "Michael Erdman",
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"Jackie Williams", "Jabari Carr", "Aaron Bradley", "Brandon Freeman",
"Austin Hill", "Daniel Bradbury", "Drake Whitehurst", "Andrew Maass",
"Christian Green", "Kinderick Dent", "Greg Watson", "Seth Grubb",
"Jarrad Shaw", "Lonnie Turner", "Clinton Jones", "Justin Olack",
"Adam Shapiro", "Wayne Beadle", "Landon Smith", "Jeremiah Kobena",
"Demetrius Evans", "DiAndre Campbell", "Jeffrey Jay", "Chris Perkins",
"Heath Jackson", "Keenan Montgomery", "Evan Spencer", "Jarvis West",
"Chevaughn Lawrence", "Daniel Rodriguez", "Stephen Nelson", "Kam Jones",
"T.J. Glover", "Michael Lee Harris", "Craig Wilkins", "Adam Humphries",
"Rahmaan Patterson", "Matt Milton", "Kenny Harrison",
"Courtney Williams", "Robert Johnson", "John Dunmore", "Malcolm Trail",
"Tyler Allen", "Deonte Welch", "Jake Howton", "Justin McCay",
"Adrian Flemming", "William Dukes", "Bryan Underwood", "Trey Wilkins",
"Gavin Otte", "Carl Caldwell", "Ross Apo", "Logan Hutton", "Jordan Duval",
"LeKendrick Williams", "Dallas Burroughs", "Corey Dennis", "Andre Debose")
dc2015_stats2014 <- stats_2014 %>%
  filter(player %in% dc_2015 | player %in% dc_2015_2)

```