

# Success from NCAA to NFL

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## Introduction

College football excites hundreds of thousands of people across America year by year, and many collegiate players dream of playing professionally in the NFL. Only a small percentage (1.6%) of college-level players fulfill that dream and get drafted into the NFL. Within this extremely selective process, certain universities and their respective conferences produce more NFL-bound athletes than others. However, does draft success equate to professional success? We are looking to investigate which NCAA conference produces the most successful players in the NFL.

Our final dataset will be composed of 258 individual datasets. Our first dataset (<https://www.pro-football-reference.com/schools/> (<https://www.pro-football-reference.com/schools/>)) lists 847 different colleges/universities in America based on how many of their players have gone on to play in the NFL. The dataset also lists the number of current active professional players, number of Hall of Famers, number of Pro Bowl selections, total NFL games played amongst alumni, total touchdowns scored by alumni, and the alumnus with the highest career Approximate Value. Each unique row represents an individual school, and the dataset contains both numeric and categorical variables. Our second dataset (<https://collegefootballdata.com/exporter/teams/fbs> (<https://collegefootballdata.com/exporter/teams/fbs>)) lists every school that has an intercollegiate football program, and also lists each school's conference. In this dataset, a unique row also represents an individual school, and only categorical variables are present. Our third dataset ([https://www.pro-football-reference.com/leaders/career\\_av\\_career.htm](https://www.pro-football-reference.com/leaders/career_av_career.htm) ([https://www.pro-football-reference.com/leaders/career\\_av\\_career.htm](https://www.pro-football-reference.com/leaders/career_av_career.htm))) lists the top 255 NFL players of all time based on their weighted Approximate Value, which is a measure of the player's impact on the team based on performance and longevity. The dataset also lists the years of a player's career, as well as the number of different teams a player played for. In this dataset, a row represents an individual NFL player, and both numeric and categorical variables are present.

The remaining 255 datasets (links to each player in [https://www.pro-football-reference.com/leaders/career\\_av\\_career.htm](https://www.pro-football-reference.com/leaders/career_av_career.htm) ([https://www.pro-football-reference.com/leaders/career\\_av\\_career.htm](https://www.pro-football-reference.com/leaders/career_av_career.htm))) list yearly statistics for each player's career. The datasets list various statistics like age, team, position, number, games played, and Approximate Value, along with various position-specific statistics. Each unique row represents a year of a player's career, and the datasets contain both numeric and categorical variables.

Based on these datasets, we may expect to see a positive correlation between a conference's average weighted Approximate Value and the number of professional players it has produced.

## Tidying

All of the datasets are tidy, so tidying functions will be used later for wrangling data.

## Wrangling/Joining

For the wAV\_leaders dataset, there were originally 255 observations (players) and 5 unique IDs (Rank, Player, wAV, Years, Tm). Since all 5 of the IDs were unique to the wAV\_leaders dataset when compared to the other datasets, the School ID variable was added beforehand to provide a common variable for joining. Since the datasets were

joined by the School variable, each school was designated as an individual observation, and variables that applied to individual players were removed. The number of players from each school was generated as a new variable, and the total wAV value for each school was calculated by adding together individual player wAV values after grouping by school.

By observing the first few rows of the new wAV\_schools dataset, we can see that two schools have produced the most number of successful players: Miami (FL) and USC.

```
# Create new object in environment
wAV_schools <- wAV_leaders %>%
  select(-Rank, -Tm, -Years) %>% # Remove specific column variables
  relocate(School) %>% # Move school variable to the front of the dataset
  group_by(School) %>% # Create subsets by school
  mutate(`Top Players` = n()) %>% # Create new variable counting number of observations
  of each school
  select(-Player) %>% # Remove player column variable
  mutate(`Total wAV` = sum(wAV)) %>% # Create new variable calculating the total wAV value
  of each school
  select (-wAV) %>% # Remove wAV column variable
  distinct() %>% # Remove duplicate rows
  arrange(desc(`Total wAV`)) # Arrange by variable in descending order
head(wAV_schools) # Quick look at beginning of dataset
```

```
## # A tibble: 6 × 3
## # Groups:   School [6]
##   School      `Top Players` `Total wAV`
##   <chr>          <int>      <dbl>
## 1 Miami (FL)         14        1524
## 2 USC                11        1230
## 3 Pittsburgh         8         876
## 4 Alabama            7         684
## 5 Ohio St.           6         614
## 6 Nebraska           6         604
```

To prepare the joining of the first three datasets (college, conference, wAV), the conference dataset's names for each school must match the names in the college dataset.

```

# Save object in environment
ncaa_schools_adj <- ncaa_schools %>%
  mutate(School = ifelse(School == "Miami",str_replace(School, "Miami", "Miami (FL)",School), # Replace specific string with a different string
    School = ifelse(School == "Grambling",str_replace(School, "Grambling","Grambling State"),School),
    School = ifelse(School == "NC State",str_replace(School, "NC State","North Carolina State"),School),
    School = ifelse(School == "Ole Miss",str_replace(School, "Ole Miss","Mississippi"),School),
    School = ifelse(School == "Mississippi Valley State",str_replace(School, "Mississippi Valley State","Miss. Valley State"),School),
    School = ifelse(School == "Southern Mississippi",str_replace(School, "Southern Mississippi","Southern Miss"),School),
    School = ifelse(School == "UTEP",str_replace(School, "UTEP","Texas-El Paso"),School),
    School = ifelse(School == "Prairie View",str_replace(School, "Prairie View","Prairie View A&M"),School),
    School = ifelse(School == "Maryland-Eastern Shore",str_replace(School, "Maryland-Eastern Shore","Md-Eastern Shore"),School))

```

Before joining the datasets together, the some column variables in the college dataset were removed. Since the focus is on colleges/conferences producing successful NFL players, statistics that pertain to individual players do not provide any helpful information. Additionally, the names of certain schools were adjusted to match with the names in the conference dataset.

Before joining, the college dataset had 847 observations with 5 unique IDs (Players, Hall of Famers, Pro Bowl Selections, Games Played, Touchdowns), the wAV dataset had 107 observations with 2 unique IDs (Top Players, Total wAV), and the conference dataset had 842 observations with 1 unique ID (Conference). Each dataset had the School ID in common.

After joining the wAV dataset to the college dataset and filtering out any schools that did not produce any of the top 255 players, there were 107 observations left, matching the wAV dataset's original number of observations. After joining the conference dataset to the new college dataset, the number of observations remained constant because the joining simply added the Conference ID to the college dataset.

```
# Create new object in environment
college_totals <- college_stats %>%
  select(-Rk,-State,-`Active Players`, -`Highest Career Approximate Value`, -`Approximate
Value`) %>% # Remove specific column variables
  left_join(wAV_schools, by="School") %>% # Apply left_join
  filter(!School=='None') %>% # Remove observations that are empty in the School variable
  filter_at(vars(`Top Players`, `Total wAV`), all_vars(!is.na(.))) %>% # Remove rows with
NA values in specific columns
  arrange(desc(`Total wAV`)) %>% # Arrange by specific variable
  mutate(School = str_replace(School, "St\\\\.", "State"), # Replace specific string with
a different string
         School = str_replace(School, "Col\\\\.", "College"),
         School = str_replace(School, "East\\\\.", "Eastern")) %>%
  left_join(ncaa_schools_adj, by = "School") %>% # Apply left_join
  relocate(Conference, .after=School) # Move conference variable to display following school
variable
```

To provide a first look at how each conference compares to one another, we can look at the number of schools in each conference that produce NFL stars. This indicates a conference's strength and depth in competitiveness, as a strong conference would have many different schools producing high-level talent.

```
# Count number of schools represented in the top 255 players for each conference
college_totals %>%
  group_by(Conference) %>% # Create subsets by conference
  summarize(n=n()) %>% # Count number of schools represented in each conference
  mutate(prop_n=n/sum(n),
         prop_n=round(prop_n,3)) %>% # Create new variable to display proportion of schools
  arrange(desc(n)) # Arrange in descending order
```

```
## # A tibble: 28 × 3
##   Conference      n prop_n
##   <chr>      <int> <dbl>
## 1 ACC          13  0.121
## 2 Big Ten       12  0.112
## 3 SEC           12  0.112
## 4 Pac-12        10  0.093
## 5 Big 12         9  0.084
## 6 SWAC           9  0.084
## 7 Mountain West  5  0.047
## 8 American Athletic 4  0.037
## 9 Mid-American   4  0.037
## 10 Conference USA 3  0.028
## # ... with 18 more rows
```

Schools in the ACC are represented the most within the top 255 players. There also appears to be a slight gap in this category, with the top six conferences (ACC, Big Ten, SEC, Pac-12, Big 12, SWAC) having more schools that produce top-level NFL players.

Another metric to determine success is the number of selections for the Pro Bowl, with well-performing players generally selected for the Pro Bowl after every season.

```
college_totals %>%
  group_by(Conference) %>%
  summarize(`Pro Bowl Selections` = sum(`Pro Bowl Selections`)) %>%
  arrange(desc(`Pro Bowl Selections`))
```

```
## # A tibble: 28 × 2
##   Conference      `Pro Bowl Selections`
##   <chr>          <dbl>
## 1 Big Ten          1142
## 2 SEC              1056
## 3 ACC              963
## 4 Pac-12           914
## 5 Big 12           523
## 6 SWAC             280
## 7 FBS Independents 219
## 8 American Athletic 133
## 9 Mountain West    127
## 10 Conference USA    75
## # ... with 18 more rows
```

This time, there is a significant gap between the four conferences at the top (Big Ten, SEC, ACC, Pac-12) and the rest of the NCAA. We can also see that the top conference in pro bowl selections (Big Ten) differs from the top conference in school representation (ACC).

```
# Find total number of Hall of Famers from each conference
college_totals %>%
  group_by(Conference) %>% # Create subsets by conference
  summarize(`Hall of Famers` = sum(`Hall of Famers`)) %>% # Find totals for each conference based on variable
  arrange(desc(`Hall of Famers`)) # Arrange by variable in descending order
```

```
## # A tibble: 28 × 2
##   Conference      `Hall of Famers`
##   <chr>          <dbl>
## 1 Big Ten          58
## 2 ACC              47
## 3 Pac-12           45
## 4 SEC              36
## 5 Big 12           18
## 6 SWAC             18
## 7 FBS Independents 15
## 8 American Athletic 11
## 9 Conference USA     5
## 10 MEAC             5
## # ... with 18 more rows
```

```
#Find total wAV value for each conference
college_totals %>%
  group_by(Conference) %>% # Create subsets by conference
  summarize(`Total wAV` = sum(`Total wAV`)) %>% # Calculate sum of total wAV for each conference
  arrange(desc(`Total wAV`)) # Arrange by variable in descending order
```

```
## # A tibble: 28 × 2
##   Conference      `Total wAV`
##   <chr>          <dbl>
## 1 ACC              5444
## 2 Big Ten          4125
## 3 SEC              4120
## 4 Pac-12           3973
## 5 SWAC             1800
## 6 Big 12           1490
## 7 Mountain West    883
## 8 Mid-American      743
## 9 FBS Independents 710
## 10 American Athletic 496
## # ... with 18 more rows
```

According to the total wAV for each conference, the ACC has produced the most successful NFL players. Like the distribution of Pro Bowl selections, there is a significant gap in total wAV value after the top four conferences.

To observe each conference's yearly wAV progression, the 255 player datasets must first be joined together. Each player dataset was cleaned to display seasonal AV values, with the observation for the 2022 season removed since the season was ongoing. Additionally, a weight function was created to apply to each player's AV values and match the wAV value for each player (100% of the best season, 95% of the second-best season, 90% of the third-best season, etc.). Each dataset was appended to the previous rendition, then saved as a new rendition.

```

# Create function to calculate wAV values for each season
weight <- function(x){
  (1+0.05*(1-x))
}
# Create new object in environment
tom_brady_av <- tom_brady %>%
  select(Year,AV) %>% # Remove all column except year and AV
  filter(!(Year %in% c('Career','20 yrs','3 yrs','2022')))) # Remove specific rows
w <- c() # Store empty vector
for(i in seq_along(tom_brady_av$AV)){ # Run for-loop to create weight vector for each ye
ar
  w[i] <- weight(i)
}
player_yearly_wAV <- tom_brady_av %>% # Save object in environment
  mutate(Year = str_replace(Year,"\\*",""), # Replace specific string in variable
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>% # Arrange in descending order of AV
  mutate(w = w, # Create new variable for weight
         wAV = AV*w) %>% # Create new variable for wAV
  arrange(Year) %>% # Arrange by year
  select(-AV,-w) %>% # Remove specific variables
  pivot_wider(names_from = Year, # differentiate by year
              values_from = wAV) %>% # keep values of wAV in corresponding variable
  mutate(Player = "Tom Brady") %>% # Create new variable
  relocate(Player) # Move player variable to front of dataset
peyton_manning_av <- peyton_manning %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','13 yrs','4 yrs'))))
w <- c()
for(i in seq_along(peyton_manning_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- peyton_manning_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Peyton Manning") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV) # Append to specific dataset
drew_brees_av <- drew_brees %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','15 yrs','5 yrs'))))
w <- c()
for(i in seq_along(drew_brees_av$AV)){
  w[i] <- weight(i)
}

```

```

player_yearly_wAV <- drew_brees_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Drew Brees") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
reggie_white_av <- reggie_white %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '8 yrs', '6 yrs', '1 yr'))))
w <- c()
for(i in seq_along(reggie_white_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- reggie_white_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Reggie White") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jerry_rice_av <- jerry_rice %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '16 yrs', '4 yrs', '1 yr')),
         !is.na(Year)) # Remove observations with NA values in year
w <- c()
for(i in seq_along(jerry_rice_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jerry_rice_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jerry Rice") %>%

```



```

relocate(Player) %>%
bind_rows(player_yearly_wAV)
ray_lewis_av <- ray_lewis %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(ray_lewis_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ray_lewis_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ray Lewis") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
aaron_rodgers_av <- aaron_rodgers %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','2022'))))
w <- c()
for(i in seq_along(aaron_rodgers_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- aaron_rodgers_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Aaron Rodgers") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
brett_favre_av <- brett_favre %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','16 yrs','2 yrs','1 yr','1 yr'))))
w <- c()
for(i in seq_along(brett_favre_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- brett_favre_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%

```

```

  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Brett Favre") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
bruce_smith_av <- bruce_smith %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','15 yrs','4 yrs'))))
w <- c()
for(i in seq_along(bruce_smith_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- bruce_smith_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Bruce Smith") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
philip_rivers_av <- philip_rivers %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','16 yrs','1 yr'))))
w <- c()
for(i in seq_along(philip_rivers_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- philip_rivers_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Philip Rivers") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
fran_tarkenton_av <- fran_tarkenton %>%
  select(Year,AV) %>%

```

```

  filter(!(Year %in% c('Career','13 yrs','5 yrs'))))
w <- c()
for(i in seq_along(fran_tarkenton_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- fran_tarkenton_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Fran Tarkenton") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
lawrence_taylor_av <- lawrence_taylor %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(lawrence_taylor_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- lawrence_taylor_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Lawrence Taylor") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
dan_marino_av <- dan_marino %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(dan_marino_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- dan_marino_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%

```

```

select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Dan Marino") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
matt_ryan_av <- matt_ryan %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','14 yrs','1 yr','2022'))))
w <- c()
for(i in seq_along(matt_ryan_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- matt_ryan_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
             values_from = wAV) %>%
  mutate(Player = "Matt Ryan") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
alan_page_av <- alan_page %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','4 yrs')),
         !is.na(Year))
w <- c()
for(i in seq_along(alan_page_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- alan_page_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
             values_from = wAV) %>%
  mutate(Player = "Alan Page") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
rod_woodson_av <- rod_woodson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','4 yrs','2 yrs','1 yr'))))
w <- c()
for(i in seq_along(rod_woodson_av$AV)){

```

```

w[i] <- weight(i)
}
player_yearly_wAV <- rod_woodson_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Rod Woodson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
derrick_brooks_av <- derrick_brooks %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(derrick_brooks_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- derrick_brooks_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Derrick Brooks") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
john_elway_av <- john_elway %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(john_elway_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- john_elway_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%

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mutate(Player = "John Elway") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
bruce_matthews_av <- bruce_matthews %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(bruce_matthews_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- bruce_matthews_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Bruce Matthews") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
anthony_munoz_av <- anthony_munoz %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(anthony_munoz_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- anthony_munoz_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Anthony Munoz") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
junior_seau_av <- junior_seau %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','13 yrs','4 yrs','3 yrs'))))
w <- c()
for(i in seq_along(junior_seau_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- junior_seau_av %>%
  mutate(Year = str_replace(Year,"\\*",""),

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      Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
      wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
      values_from = wAV) %>%
mutate(Player = "Junior Seau") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
marshall_faulk_av <- marshall_faulk %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '7 yrs', '5 yrs'))))
w <- c()
for(i in seq_along(marshall_faulk_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- marshall_faulk_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
      Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
      wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
      values_from = wAV) %>%
mutate(Player = "Marshall Faulk") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
steve_young_av <- steve_young %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '13 yrs', '2 yrs'))))
w <- c()
for(i in seq_along(steve_young_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- steve_young_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
      Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
      wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
      values_from = wAV) %>%
mutate(Player = "Steve Young") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
carl_eller_av <- carl_eller %>%

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  select(Year,AV) %>%
  filter(!(Year %in% c('Career','15 yrs','1 yr'))))
w <- c()
for(i in seq_along(carl_eller_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- carl_eller_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Carl Eller") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ben_roethlisberger_av <- ben_roethlisberger %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(ben_roethlisberger_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ben_roethlisberger_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ben Roethlisberger") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
julius_peppers_av <- julius_peppers %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','4 yrs','3 yrs'))))
w <- c()
for(i in seq_along(julius_peppers_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- julius_peppers_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%

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  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
               values_from = wAV) %>%
  mutate(Player = "Julius Peppers") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
randall_mcdaniel_av <- randall_mcdaniel %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','2 yrs'))))
w <- c()
for(i in seq_along(randall_mcdaniel_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- randall_mcdaniel_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
               values_from = wAV) %>%
  mutate(Player = "Randall McDaniel") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
emmitt_smith_av <- emmitt_smith %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','13 yrs','2 yrs'))))
w <- c()
for(i in seq_along(emmitt_smith_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- emmitt_smith_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
               values_from = wAV) %>%
  mutate(Player = "Emmitt Smith") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ladainian_tomlinson_av <- ladainian_tomlinson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','9 yrs','2 yrs'))))
w <- c()
for(i in seq_along(ladainian_tomlinson_av$AV)){

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w[i] <- weight(i)
}
player_yearly_wAV <- ladaianian_tomlinson_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "LaDainian Tomlinson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
deion_sanders_av <- deion_sanders %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '5 yrs', '5 yrs', '2 yrs', '1 yr', '1 yr'))))
w <- c()
for(i in seq_along(deion_sanders_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- deion_sanders_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Deion Sanders") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
walter_payton_av <- walter_payton %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(walter_payton_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- walter_payton_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%

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mutate(Player = "Walter Payton") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
russell_wilson_av <- russell_wilson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','1 yr','2022'))))
w <- c()
for(i in seq_along(russell_wilson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- russell_wilson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Russell Wilson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
joe_montana_av <- joe_montana %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','13 yrs','2 yrs'))))
w <- c()
for(i in seq_along(joe_montana_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- joe_montana_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Joe Montana") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
randy_moss_av <- randy_moss %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','8 yrs','4 yrs','2 yrs','1 yr','1 yr')),
         !is.na(Year))
w <- c()
for(i in seq_along(randy_moss_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- randy_moss_av %>%

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mutate(Year = str_replace(Year, "\\*", ""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Randy Moss") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
mike_singletary_av <- mike_singletary %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(mike_singletary_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- mike_singletary_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Mike Singletary") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
dan_fouts_av <- dan_fouts %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(dan_fouts_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- dan_fouts_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Dan Fouts") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)

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marvin_harrison_av <- marvin_harrison %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(marvin_harrison_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- marvin_harrison_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Marvin Harrison") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ronnie_lott_av <- ronnie_lott %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','2 yrs','2 yrs'))))
w <- c()
for(i in seq_along(ronnie_lott_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ronnie_lott_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ronnie Lott") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
michael_strahan_av <- michael_strahan %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(michael_strahan_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- michael_strahan_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,

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      wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Michael Strahan") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
terrell_owens_av <- terrell_owens %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','8 yrs','3 yrs','2 yrs','1 yr','1 yr'))))
w <- c()
for(i in seq_along(terrell_owens_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- terrell_owens_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Terrell Owens") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
eli_manning_av <- eli_manning %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(eli_manning_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- eli_manning_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Eli Manning") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ken_anderson_av <- ken_anderson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()

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for(i in seq_along(ken_anderson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ken_anderson_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ken Anderson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
barry_sanders_av <- barry_sanders %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(barry_sanders_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- barry_sanders_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Barry Sanders") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
brian_urlacher_av <- brian_urlacher %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(brian_urlacher_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- brian_urlacher_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,

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        values_from = wAV) %>%
mutate(Player = "Brian Urlacher") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
paul_krause_av <- paul_krause %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','4 yrs'))))
w <- c()
for(i in seq_along(paul_krause_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- paul_krause_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Paul Krause") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jeff_saturday_av <- jeff_saturday %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','13 yrs','1 yr'))))
w <- c()
for(i in seq_along(jeff_saturday_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jeff_saturday_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jeff Saturday") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jason_taylor_av <- jason_taylor %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','13 yrs','1 yr','1 yr'))))
w <- c()
for(i in seq_along(jason_taylor_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jason_taylor_av %>%

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mutate(Year = str_replace(Year, "\\*", ""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Jason Taylor") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
champ_bailey_av <- champ_bailey %>%
select(Year, AV) %>%
filter(!(Year %in% c('Career', '10 yrs', '5 yrs'))))
w <- c()
for(i in seq_along(champ_bailey_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- champ_bailey_av %>%
mutate(Year = str_replace(Year, "\\*", ""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Champ Bailey") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
warren_sapp_av <- warren_sapp %>%
select(Year, AV) %>%
filter(!(Year %in% c('Career', '9 yrs', '4 yrs'))))
w <- c()
for(i in seq_along(warren_sapp_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- warren_sapp_av %>%
mutate(Year = str_replace(Year, "\\*", ""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Warren Sapp") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)

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merlin_olsen_av <- merlin_olsen %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(merlin_olsen_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- merlin_olsen_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Merlin Olsen") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
warren_moon_av <- warren_moon %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','3 yrs','2 yrs','2 yrs'))))
w <- c()
for(i in seq_along(warren_moon_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- warren_moon_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Warren Moon") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
randy_white_av <- randy_white %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(randy_white_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- randy_white_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,

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      wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Randy White") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
reggie_wayne_av <- reggie_wayne %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(reggie_wayne_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- reggie_wayne_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Reggie Wayne") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
charles_woodson_av <- charles_woodson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','7 yrs'))))
w <- c()
for(i in seq_along(charles_woodson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- charles_woodson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Charles Woodson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
zach_thomas_av <- zach_thomas %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','1 yr'))))
w <- c()

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for(i in seq_along(zach_thomas_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- zach_thomas_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Zach Thomas") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
cam_newton_av <- cam_newton %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '10 yrs', '1 yr'))))
w <- c()
for(i in seq_along(cam_newton_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- cam_newton_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Cam Newton") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
mike_webster_av <- mike_webster %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '15 yrs', '2 yrs'))))
w <- c()
for(i in seq_along(mike_webster_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- mike_webster_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,

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        values_from = wAV) %>%
mutate(Player = "Mike Webster") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
chris_doleman_av <- chris_doleman %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','3 yrs','2 yrs'))))
w <- c()
for(i in seq_along(chris_doleman_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- chris_doleman_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Chris Doleman") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jahri_evans_av <- jahri_evans %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','1 yr'))))
w <- c()
for(i in seq_along(jahri_evans_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jahri_evans_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jahri Evans") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
johnny_unitas_av <- johnny_unitas %>%
  select(Year,AV) %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  filter(!(Year %in% c('Career','17 yrs','1 yr','1956','1957','1958','1959'))))
w <- c()
for(i in seq_along(johnny_unitas_av$AV)){
  w[i] <- weight(i)
}

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}
player_yearly_wAV <- johnny_unitas_av %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Johnny Unitas") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jack_ham_av <- jack_ham %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(jack_ham_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jack_ham_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jack Ham") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
will_shields_av <- will_shields %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(will_shields_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- will_shields_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Will Shields") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)

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edgerrin_james_av <- edgerrin_james %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','7 yrs','3 yrs','1 yr')))
w <- c()
for(i in seq_along(edgerrin_james_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- edgerrin_james_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Edgerrin James") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
matthew_stafford_av <- matthew_stafford %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','2 yrs','2022')))
w <- c()
for(i in seq_along(matthew_stafford_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- matthew_stafford_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Matthew Stafford") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ted_hendricks_av <- ted_hendricks %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','9 yrs','5 yrs','1 yr')))
w <- c()
for(i in seq_along(ted_hendricks_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ted_hendricks_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,

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      wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ted Hendricks") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
rickey_jackson_av <- rickey_jackson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','13 yrs','2 yrs'))))
w <- c()
for(i in seq_along(rickey_jackson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- rickey_jackson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Rickey Jackson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
john_hannah_av <- john_hannah %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(john_hannah_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- john_hannah_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "John Hannah") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jim_otto_av <- jim_otto %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()

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for(i in seq_along(jim_otto_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jim_otto_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jim Otto") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jack_youngblood_av <- jack_youngblood %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(jack_youngblood_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jack_youngblood_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jack Youngblood") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
bob_lilly_av <- bob_lilly %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(bob_lilly_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- bob_lilly_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,

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        values_from = wAV) %>%
mutate(Player = "Bob Lilly") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
willie_roaf_av <- willie_roaf %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','9 yrs','4 yrs'))))
w <- c()
for(i in seq_along(willie_roaf_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- willie_roaf_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Willie Roaf") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jack_lambert_av <- jack_lambert %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(jack_lambert_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jack_lambert_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jack Lambert") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
aaron_donald_av <- aaron_donald %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','2022'))))
w <- c()
for(i in seq_along(aaron_donald_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- aaron_donald_av %>%

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mutate(Year = str_replace(Year, "\\*", ""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Aaron Donald") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
thurman_thomas_av <- thurman_thomas %>%
select(Year, AV) %>%
filter(!(Year %in% c('Career', '12 yrs', '1 yr'))))
w <- c()
for(i in seq_along(thurman_thomas_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- thurman_thomas_av %>%
mutate(Year = str_replace(Year, "\\*", ""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Thurman Thomas") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
terrell_suggs_av <- terrell_suggs %>%
select(Year, AV) %>%
filter(!(Year %in% c('Career', '16 yrs', '1 yr', '1 yr')),
       !is.na(Year))
w <- c()
for(i in seq_along(terrell_suggs_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- terrell_suggs_av %>%
mutate(Year = str_replace(Year, "\\*", ""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Terrell Suggs") %>%
relocate(Player) %>%

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  bind_rows(player_yearly_wAV)
aeneas_williams_av <- aeneas_williams %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','4 yrs'))))
w <- c()
for(i in seq_along(aeneas_williams_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- aeneas_williams_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Aeneas Williams") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
bobby_wagner_av <- bobby_wagner %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','1 yr','2022'))))
w <- c()
for(i in seq_along(bobby_wagner_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- bobby_wagner_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Bobby Wagner") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
randall_cunningham_av <- randall_cunningham %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','3 yrs','1 yr','1 yr'))))
w <- c()
for(i in seq_along(randall_cunningham_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- randall_cunningham_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%

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mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Randall Cunningham") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
joe_greeney_av <- joey_greeney %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(joey_greeney_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- joey_greeney_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Joe Greene") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
len_dawson_av <- len_dawson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','14 yrs','3 yrs','2 yrs','1957','1958','1959'))))
w <- c()
for(i in seq_along(len_dawson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- len_dawson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Len Dawson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
willie_brown_av <- willie_brown %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','4 yrs'))))

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```

w <- c()
for(i in seq_along(willie_brown_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- willie_brown_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Willie Brown") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ronde_barber_av <- ronde_barber %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(ronde_barber_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ronde_barber_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ronde Barber") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
mike_haynes_av <- mike_haynes %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '7 yrs', '7 yrs'))))
w <- c()
for(i in seq_along(mike_haynes_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- mike_haynes_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%

```

```

pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Mike Haynes") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
paul_warfield_av <- paul_warfield %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','8 yrs','5 yrs'))))
w <- c()
for(i in seq_along(paul_warfield_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- paul_warfield_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Paul Warfield") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
kevin_mawae_av <- kevin_mawae %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','8 yrs','4 yrs','4 yrs'))))
w <- c()
for(i in seq_along(kevin_mawae_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- kevin_mawae_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Kevin Mawae") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
gene_upshaw_av <- gene_upshaw %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(gene_upshaw_av$AV)){
  w[i] <- weight(i)
}

```

```

player_yearly_wAV <- gene_upshaw_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Gene Upshaw") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jim_brown_av <- jim_brown %>%
  select(Year, AV) %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  filter(!(Year %in% c('Career', '1957', '1958', '1959'))))
w <- c()
for(i in seq_along(jim_brown_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jim_brown_av %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jim Brown") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
john_randle_av <- john_randle %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '11 yrs', '3 yrs'))))
w <- c()
for(i in seq_along(john_randle_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- john_randle_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "John Randle") %>%
  relocate(Player) %>%

```



```

  bind_rows(player_yearly_wAV)
alan_faneca_av <- alan_faneca %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','2 yrs','1 yr')))
w <- c()
for(i in seq_along(alan_faneca_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- alan_faneca_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Alan Faneca") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
terry_bradshaw_av <- terry_bradshaw %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(terry_bradshaw_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- terry_bradshaw_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Terry Bradshaw") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jim_tyrer_av <- jim_tyrer %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','13 yrs','1 yr')))
w <- c()
for(i in seq_along(jim_tyrer_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jim_tyrer_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%

```

```

mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Jim Tyrer") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
jj_watt_av <- jj_watt %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career','10 yrs','2 yrs','2022'))))
w <- c()
for(i in seq_along(jj_watt_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jj_watt_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "J.J. Watt") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
tony_dorsett_av <- tony_dorsett %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career','11 yrs','1 yr'))))
w <- c()
for(i in seq_along(tony_dorsett_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- tony_dorsett_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Tony Dorsett") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
donovan_mcnabb_av <- donovan_mcnabb %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career','11 yrs','1 yr','1 yr'))))

```

```

w <- c()
for(i in seq_along(donovan_mcnabb_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- donovan_mcnabb_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Donovan McNabb") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
carson_palmer_av <- carson_palmer %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '7 yrs', '5 yrs', '2 yrs'))))
w <- c()
for(i in seq_along(carson_palmer_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- carson_palmer_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Carson Palmer") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
boomer_esiason_av <- boomer_esiason %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '10 yrs', '3 yrs', '1 yr'))))
w <- c()
for(i in seq_along(boomer_esiason_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- boomer_esiason_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%

```

```

pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Boomer Esiason") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
john_hadl_av <- john_hadl %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','2 yrs','2 yrs','2 yrs')),
         !is.na(Year))
w <- c()
for(i in seq_along(john_hadl_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- john_hadl_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "John Hadl") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
herb_adderley_av <- herb_adderley %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','9 yrs','3 yrs')))
w <- c()
for(i in seq_along(herb_adderley_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- herb_adderley_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Herb Adderley") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
tim_brown_av <- tim_brown %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','16 yrs','1 yr')))
w <- c()
for(i in seq_along(tim_brown_av$AV)){
  w[i] <- weight(i)
}

```

```

}
player_yearly_wAV <- tim_brown_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Tim Brown") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
sonny_jurgensen_av <- sonny_jurgensen %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '11 yrs', '7 yrs', '1957', '1958', '1959'))))
w <- c()
for(i in seq_along(sonny_jurgensen_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- sonny_jurgensen_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Sonny Jurgensen") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
drew_bledsoe_av <- drew_bledsoe %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '9 yrs', '3 yrs', '2 yrs'))))
w <- c()
for(i in seq_along(drew_bledsoe_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- drew_bledsoe_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Drew Bledsoe") %>%

```

```

relocate(Player) %>%
bind_rows(player_yearly_wAV)
bobby_bell_av <- bobby_bell %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(bobby_bell_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- bobby_bell_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Bobby Bell") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
nick_buoniconti_av <- nick_buoniconti %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','7 yrs','7 yrs'))))
w <- c()
for(i in seq_along(nick_buoniconti_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- nick_buoniconti_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Nick Buoniconti") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
larry_little_av <- larry_little %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','2 yrs'))))
w <- c()
for(i in seq_along(larry_little_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- larry_little_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%

```

```

  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Larry Little") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
michael_irvin_av <- michael_irvin %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(michael_irvin_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- michael_irvin_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Michael Irvin") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
derrick_thomas_av <- derrick_thomas %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(derrick_thomas_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- derrick_thomas_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Derrick Thomas") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
roger_staubach_av <- roger_staubach %>%
  select(Year,AV) %>%

```

```

  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(roger_staubach_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- roger_staubach_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Roger Staubach") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ron_yary_av <- ron_yary %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '14 yrs', '1 yr'))))
w <- c()
for(i in seq_along(ron_yary_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ron_yary_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ron Yary") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
brian_dawkins_av <- brian_dawkins %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '13 yrs', '3 yrs'))))
w <- c()
for(i in seq_along(brian_dawkins_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- brian_dawkins_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%

```



```

select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Brian Dawkins") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
rod_smith_av <- rod_smith %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(rod_smith_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- rod_smith_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Rod Smith") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
marcus_allen_av <- marcus_allen %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career','11 yrs','5 yrs'))))
w <- c()
for(i in seq_along(marcus_allen_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- marcus_allen_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Marcus Allen") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
bob_griese_av <- bob_griese %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(bob_griese_av$AV)){
  w[i] <- weight(i)
}

```

```

}
player_yearly_wAV <- bob_griese_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Bob Griese") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
orlando_pace_av <- orlando_pace %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '12 yrs', '1 yr'))))
w <- c()
for(i in seq_along(orlando_pace_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- orlando_pace_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Orlando Pace") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
franco_harris_av <- franco_harris %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '12 yrs', '1 yr'))))
w <- c()
for(i in seq_along(franco_harris_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- franco_harris_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Franco Harris") %>%

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relocate(Player) %>%
bind_rows(player_yearly_wAV)
jimmy_johnson_av <- jimmy_johnson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(jimmy_johnson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jimmy_johnson_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jimmy Johnson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
deacon_jones_av <- deacon_jones %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','2 yrs','1 yr'))))
w <- c()
for(i in seq_along(deacon_jones_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- deacon_jones_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Deacon Jones") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
gary_zimmerman_av <- gary_zimmerman %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','7 yrs','5 yrs'))))
w <- c()
for(i in seq_along(gary_zimmerman_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- gary_zimmerman_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%

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  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Gary Zimmerman") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jim_kelly_av <- jim_kelly %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(jim_kelly_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jim_kelly_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jim Kelly") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
darrell_green_av <- darrell_green %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(darrell_green_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- darrell_green_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Darrell Green") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
calais_campbell_av <- calais_campbell %>%
  select(Year,AV) %>%

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  filter(!(Year %in% c('Career','9 yrs','3 yrs','3 yrs','2022'))))
w <- c()
for(i in seq_along(calais_campbell_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- calais_campbell_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Calais Campbell") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
steve_largent_av <- steve_largent %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(steve_largent_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- steve_largent_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Steve Largent") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
mick_tingelhoff_av <- mick_tingelhoff %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(mick_tingelhoff_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- mick_tingelhoff_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%

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select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Mick Tingelhoff") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
willie_davis_av <- willie_davis %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','2 yrs','1958','1959'))))
w <- c()
for(i in seq_along(willie_davis_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- willie_davis_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
             values_from = wAV) %>%
  mutate(Player = "Willie Davis") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
isiah_robertson_av <- isiah_robertson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','8 yrs','4 yrs'))))
w <- c()
for(i in seq_along(isiah_robertson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- isiah_robertson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
             values_from = wAV) %>%
  mutate(Player = "Isiah Robertson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
tiki_barber_av <- tiki_barber %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(tiki_barber_av$AV)){
  w[i] <- weight(i)
}

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}
player_yearly_wAV <- tiki_barber_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Tiki Barber") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
steve_smith_sr_av <- steve_smith_sr %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '13 yrs', '3 yrs'))))
w <- c()
for(i in seq_along(steve_smith_sr_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- steve_smith_sr_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Steve Smith Sr.") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
james_lofton_av <- james_lofton %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '9 yrs', '4 yrs', '2 yrs', '1 yr', '1 yr')),
         !is.na(Year))
w <- c()
for(i in seq_along(james_lofton_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- james_lofton_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%

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mutate(Player = "James Lofton") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
curtis_martin_av <- curtis_martin %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','8 yrs','3 yrs'))))
w <- c()
for(i in seq_along(curtis_martin_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- curtis_martin_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Curtis Martin") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
logan_mankins_av <- logan_mankins %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','9 yrs','2 yrs'))))
w <- c()
for(i in seq_along(logan_mankins_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- logan_mankins_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Logan Mankins") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jim_marshall_av <- jim_marshall %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','19 yrs','1 yr'))))
w <- c()
for(i in seq_along(jim_marshall_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jim_marshall_av %>%
  mutate(Year = str_replace(Year,"\\*",""),

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      Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jim Marshall") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
dan_hampton_av <- dan_hampton %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(dan_hampton_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- dan_hampton_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Dan Hampton") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
steve_wisniewski_av <- steve_wisniewski %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(steve_wisniewski_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- steve_wisniewski_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Steve Wisniewski") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
tom_nalen_av <- tom_nalen %>%

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  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(tom_nalen_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- tom_nalen_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Tom Nalen") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ed_reed_av <- ed_reed %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','1 yr','1 yr'))),
         !is.na(Year))
w <- c()
for(i in seq_along(ed_reed_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ed_reed_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ed Reed") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
kevin_williams_av <- kevin_williams %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','1 yr','1 yr'))))
w <- c()
for(i in seq_along(kevin_williams_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- kevin_williams_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,

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      wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Kevin Williams") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
richmond_webb_av <- richmond_webb %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','2 yrs'))))
w <- c()
for(i in seq_along(richmond_webb_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- richmond_webb_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Richmond Webb") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
sam_mills_av <- sam_mills %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','9 yrs','3 yrs'))))
w <- c()
for(i in seq_along(sam_mills_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- sam_mills_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Sam Mills") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
larry_allen_av <- larry_allen %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','2 yrs'))))
w <- c()

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for(i in seq_along(larry_allen_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- larry_allen_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Larry Allen") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
don_maynard_av <- don_maynard %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '13 yrs', '1 yr', '1 yr', '1958', '1959'))))
w <- c()
for(i in seq_along(don_maynard_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- don_maynard_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Don Maynard") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
justin_smith_av <- justin_smith %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '7 yrs', '7 yrs'))))
w <- c()
for(i in seq_along(justin_smith_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- justin_smith_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,

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      values_from = wAV) %>%
mutate(Player = "Justin Smith") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
adrian_peterson_av <- adrian_peterson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','2 yrs','1 yr','1 yr','1 yr','1 yr','1 yr'))),
    !is.na(Year))
w <- c()
for(i in seq_along(adrian_peterson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- adrian_peterson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
    Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
    wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
    values_from = wAV) %>%
  mutate(Player = "Adrian Peterson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
isaac_bruce_av <- isaac_bruce %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','14 yrs','2 yrs'))))
w <- c()
for(i in seq_along(isaac_bruce_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- isaac_bruce_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
    Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
    wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
    values_from = wAV) %>%
  mutate(Player = "Isaac Bruce") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jared_allen_av <- jared_allen %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','6 yrs','4 yrs','2 yrs','1 yr'))),
    !is.na(Year))
w <- c()
for(i in seq_along(jared_allen_av$AV)){
  w[i] <- weight(i)
}

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}
player_yearly_wAV <- jared_allen_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jared Allen") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
demarcus_ware_av <- demarcus_ware %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '9 yrs', '3 yrs'))))
w <- c()
for(i in seq_along(demarcus_ware_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- demarcus_ware_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "DeMarcus Ware") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
steve_mcmichael_av <- steve_mcmichael %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '13 yrs', '1 yr', '1 yr'))))
w <- c()
for(i in seq_along(steve_mcmichael_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- steve_mcmichael_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Steve McMichael") %>%

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relocate(Player) %>%
bind_rows(player_yearly_wAV)
von_miller_av <- von_miller %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','1 yr','1 yr','2022')),
         !is.na(Year))
w <- c()
for(i in seq_along(von_miller_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- von_miller_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Von Miller") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
lem_barney_av <- lem_barney %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(lem_barney_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- lem_barney_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Lem Barney") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
haloti_ngata_av <- haloti_ngata %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','9 yrs','3 yrs','1 yr'))))
w <- c()
for(i in seq_along(haloti_ngata_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- haloti_ngata_av %>%
  mutate(Year = str_replace(Year,"\\*",""),

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      Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
      wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
      values_from = wAV) %>%
mutate(Player = "Haloti Ngata") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
andrew_whitworth_av <- andrew_whitworth %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '11 yrs', '5 yrs'))))
w <- c()
for(i in seq_along(andrew_whitworth_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- andrew_whitworth_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
      Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
      wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
      values_from = wAV) %>%
mutate(Player = "Andrew Whitworth") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
ndamukong_suh_av <- ndamukong_suh %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '5 yrs', '3 yrs', '3 yrs', '1 yr'))))
w <- c()
for(i in seq_along(ndamukong_suh_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ndamukong_suh_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
      Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
      wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
      values_from = wAV) %>%
mutate(Player = "Ndamukong Suh") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
chris_hanburger_av <- chris_hanburger %>%

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  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(chris_hanburger_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- chris_hanburger_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Chris Hanburger") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ricky_watters_av <- ricky_watters %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','4 yrs','3 yrs','3 yrs'))))
w <- c()
for(i in seq_along(ricky_watters_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ricky_watters_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ricky Watters") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
mel_renfro_av <- mel_renfro %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(mel_renfro_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- mel_renfro_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%

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  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Mel Renfro") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
torry_holt_av <- torry_holt %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','1 yr'))))
w <- c()
for(i in seq_along(torry_holt_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- torry_holt_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Torry Holt") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
julio_jones_av <- julio_jones %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','1 yr','1 yr','2022'))))
w <- c()
for(i in seq_along(julio_jones_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- julio_jones_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Julio Jones") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
john_brodie_av <- john_brodie %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','1957','1958','1959'))))
w <- c()
for(i in seq_along(john_brodie_av$AV)){

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w[i] <- weight(i)
}
player_yearly_wAV <- john_brodie_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "John Brodie") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
wilber_marshall_av <- wilber_marshall %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '5 yrs', '4 yrs', '1 yr', '1 yr', '1 yr'))))
w <- c()
for(i in seq_along(wilber_marshall_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- wilber_marshall_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Wilber Marshall") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
steve_mcnair_av <- steve_mcnair %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '11 yrs', '2 yrs'))))
w <- c()
for(i in seq_along(steve_mcnair_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- steve_mcnair_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%

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mutate(Player = "Steve McNair") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
cris_carter_av <- cris_carter %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','3 yrs','1 yr'))))
w <- c()
for(i in seq_along(cris_carter_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- cris_carter_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Cris Carter") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
lance_alworth_av <- lance_alworth %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','9 yrs','2 yrs'))))
w <- c()
for(i in seq_along(lance_alworth_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- lance_alworth_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Lance Alworth") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
pat_swilling_av <- pat_swilling %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','7 yrs','3 yrs','2 yrs'))))
w <- c()
for(i in seq_along(pat_swilling_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- pat_swilling_av %>%
  mutate(Year = str_replace(Year,"\\*",""),

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      Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Pat Swilling") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
oj_simpson_av <- oj_simpson %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '9 yrs', '2 yrs'))))
w <- c()
for(i in seq_along(oj_simpson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- oj_simpson_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "O.J. Simpson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
lance_briggs_av <- lance_briggs %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(lance_briggs_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- lance_briggs_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Lance Briggs") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
lomas_brown_av <- lomas_brown %>%

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  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','3 yrs','2 yrs','1 yr','1 yr'))))
w <- c()
for(i in seq_along(lomas_brown_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- lomas_brown_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Lomas Brown") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
patrick_peterson_av <- patrick_peterson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','2 yrs','2022'))))
w <- c()
for(i in seq_along(patrick_peterson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- patrick_peterson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Patrick Peterson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
alex_karras_av <- alex_karras %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','1958','1959'))))
w <- c()
for(i in seq_along(alex_karras_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- alex_karras_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%

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  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
               values_from = wAV) %>%
  mutate(Player = "Alex Karras") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
richard_dent_av <- richard_dent %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','1 yr','1 yr','1 yr'))))
w <- c()
for(i in seq_along(richard_dent_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- richard_dent_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
               values_from = wAV) %>%
  mutate(Player = "Richard Dent") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
roman_gabriel_av <- roman_gabriel %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','5 yrs'))))
w <- c()
for(i in seq_along(roman_gabriel_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- roman_gabriel_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
               values_from = wAV) %>%
  mutate(Player = "Roman Gabriel") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
andre_reed_av <- andre_reed %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','15 yrs','1 yr'))))
w <- c()
for(i in seq_along(andre_reed_av$AV)){

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w[i] <- weight(i)
}
player_yearly_wAV <- andre_reed_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Andre Reed") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
alex_smith_av <- alex_smith %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '7 yrs', '5 yrs', '2 yrs'))))
w <- c()
for(i in seq_along(alex_smith_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- alex_smith_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Alex Smith") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
walter_jones_av <- walter_jones %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(walter_jones_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- walter_jones_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%

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mutate(Player = "Walter Jones") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
cortez_kennedy_av <- cortez_kennedy %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(cortez_kennedy_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- cortez_kennedy_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Cortez Kennedy") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
mel_blount_av <- mel_blount %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(mel_blount_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- mel_blount_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Mel Blount") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
hardy_nickerson_av <- hardy_nickerson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','7 yrs','6 yrs','2 yrs','1 yr'))))
w <- c()
for(i in seq_along(hardy_nickerson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- hardy_nickerson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),

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      Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
      wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
      values_from = wAV) %>%
mutate(Player = "Hardy Nickerson") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
richard_sherman_av <- richard_sherman %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '7 yrs', '3 yrs', '1 yr'))))
w <- c()
for(i in seq_along(richard_sherman_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- richard_sherman_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
      Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
      wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
      values_from = wAV) %>%
mutate(Player = "Richard Sherman") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
ron_mcdole_av <- ron_mcdole %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '8 yrs', '8 yrs', '1 yr', '1 yr'))))
w <- c()
for(i in seq_along(ron_mcdole_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ron_mcdole_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
      Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
      wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
      values_from = wAV) %>%
mutate(Player = "Ron McDole") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
cornell_green_av <- cornell_green %>%

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  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(cornell_green_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- cornell_green_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Cornell Green") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
rich_gannon_av <- rich_gannon %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','6 yrs','6 yrs','4 yrs','1 yr'))))
w <- c()
for(i in seq_along(rich_gannon_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- rich_gannon_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Rich Gannon") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
henry_ellard_av <- henry_ellard %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','5 yrs','1 yr')),
         !is.na(Year))
w <- c()
for(i in seq_along(henry_ellard_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- henry_ellard_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,

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      wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Henry Ellard") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
dave_krieg_av <- dave_krieg %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','2 yrs','2 yrs','1 yr','1 yr','1 yr'))))
w <- c()
for(i in seq_along(dave_krieg_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- dave_krieg_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Dave Krieg") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jason_peters_av <- jason_peters %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','5 yrs','1 yr','1 yr','2022'))))
w <- c()
for(i in seq_along(jason_peters_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jason_peters_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jason Peters") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
vinny_testaverde_av <- vinny_testaverde %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','7 yrs','6 yrs','3 yrs','2 yrs','1 yr','1 yr','1 yr'))))
w <- c()

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for(i in seq_along(vinny_testaverde_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- vinny_testaverde_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Vinny Testaverde") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
george_blanda_av <- george_blanda %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '10 yrs', '9 yrs', '7 yrs', '1 yr', '1949', '1950', '1951', '1952', '1953', '1954', '1955', '1956', '1957', '1958', '1959')),
         !is.na(Year))
w <- c()
for(i in seq_along(george_blanda_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- george_blanda_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "George Blanda") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
mark_brunell_av <- mark_brunell %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '9 yrs', '3 yrs', '2 yrs', '2 yrs', '1 yr'))))
w <- c()
for(i in seq_along(mark_brunell_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- mark_brunell_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%

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select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Mark Brunell") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
warrick_dunn_av <- warrick_dunn %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career','6 yrs','6 yrs'))))
w <- c()
for(i in seq_along(warrick_dunn_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- warrick_dunn_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Warrick Dunn") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
ken_riley_av <- ken_riley %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(ken_riley_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ken_riley_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Ken Riley") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
neil_smith_av <- neil_smith %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career','9 yrs','3 yrs','1 yr'))))
w <- c()
for(i in seq_along(neil_smith_av$AV)){
  w[i] <- weight(i)
}

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}
player_yearly_wAV <- neil_smith_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Neil Smith") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
troy_polamalu_av <- troy_polamalu %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(troy_polamalu_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- troy_polamalu_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Troy Polamalu") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
buck_buchanan_av <- buck_buchanan %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(buck_buchanan_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- buck_buchanan_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Buck Buchanan") %>%

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relocate(Player) %>%
bind_rows(player_yearly_wAV)
dermontti_dawson_av <- dermontti_dawson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(dermontti_dawson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- dermontti_dawson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Dermontti Dawson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
eric_allen_av <- eric_allen %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','7 yrs','4 yrs','3 yrs'))))
w <- c()
for(i in seq_along(eric_allen_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- eric_allen_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Eric Allen") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
mike_kenn_av <- mike_kenn %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(mike_kenn_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- mike_kenn_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%

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  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Mike Kenn") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
troy_aikman_av <- troy_aikman %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(troy_aikman_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- troy_aikman_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Troy Aikman") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
kurt_warner_av <- kurt_warner %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','6 yrs','5 yrs','1 yr'))))
w <- c()
for(i in seq_along(kurt_warner_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- kurt_warner_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Kurt Warner") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
forrest_gregg_av <- forrest_gregg %>%
  select(Year,AV) %>%

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    mutate(Year = str_replace(Year, "\\*", ""),
           Year = str_replace(Year, "\\+", "")) %>%
  filter(!(Year %in% c('Career', '14 yrs', '1 yr', '1956', '1957', '1958', '1959'))))
w <- c()
for(i in seq_along(forrest_gregg_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- forrest_gregg_av %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Forrest Gregg") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
harry_carson_av <- harry_carson %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(harry_carson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- harry_carson_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
           Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Harry Carson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
tony_gonzalez_av <- tony_gonzalez %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '12 yrs', '5 yrs'))))
w <- c()
for(i in seq_along(tony_gonzalez_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- tony_gonzalez_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
           Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%

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select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Tony Gonzalez") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
jonathan_ogden_av <- jonathan_ogden %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(jonathan_ogden_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jonathan_ogden_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
             values_from = wAV) %>%
  mutate(Player = "Jonathan Ogden") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
willie_wood_av <- willie_wood %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(willie_wood_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- willie_wood_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
             values_from = wAV) %>%
  mutate(Player = "Willie Wood") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jim_hart_av <- jim_hart %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','18 yrs','1 yr'))))
w <- c()
for(i in seq_along(jim_hart_av$AV)){
  w[i] <- weight(i)
}

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}
player_yearly_wAV <- jim_hart_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jim Hart") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ken_houston_av <- ken_houston %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '8 yrs', '6 yrs'))))
w <- c()
for(i in seq_along(ken_houston_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ken_houston_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ken Houston") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
roger_craig_av <- roger_craig %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '8 yrs', '2 yrs', '1 yr'))))
w <- c()
for(i in seq_along(roger_craig_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- roger_craig_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Roger Craig") %>%

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relocate(Player) %>%
bind_rows(player_yearly_wAV)
london_fletcher_av <- london_fletcher %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','7 yrs','5 yrs','4 yrs'))))
w <- c()
for(i in seq_along(london_fletcher_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- london_fletcher_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "London Fletcher") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ray_nitschke_av <- ray_nitschke %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','1958','1959'))))
w <- c()
for(i in seq_along(ray_nitschke_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ray_nitschke_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ray Nitschke") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
howie_long_av <- howie_long %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(howie_long_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- howie_long_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%

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  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Howie Long") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
charley_taylor_av <- charley_taylor %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(charley_taylor_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- charley_taylor_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Charley Taylor") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
james_farrior_av <- james_farrior %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','5 yrs'))))
w <- c()
for(i in seq_along(james_farrior_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- james_farrior_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "James Farrior") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
lemar_parrish_av <- lemar_parrish %>%
  select(Year,AV) %>%

```

```

  filter(!(Year %in% c('Career','8 yrs','4 yrs','1 yr'))))
w <- c()
for(i in seq_along(lemar_parrish_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- lemar_parrish_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Lemar Parrish") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
bobby_boyd_av <- bobby_boyd %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(bobby_boyd_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- bobby_boyd_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Bobby Boyd") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
henry_jordan_av <- henry_jordan %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','2 yrs','1957','1958','1959'))))
w <- c()
for(i in seq_along(henry_jordan_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- henry_jordan_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%

```

```

select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Henry Jordan") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
tony_romo_av <- tony_romo %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(tony_romo_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- tony_romo_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Tony Romo") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
chuck_howley_av <- chuck_howley %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career','13 yrs','2 yrs','1958','1959'))))
w <- c()
for(i in seq_along(chuck_howley_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- chuck_howley_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Chuck Howley") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
steve_hutchinson_av <- steve_hutchinson %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career','6 yrs','5 yrs','1 yr'))))
w <- c()
for(i in seq_along(steve_hutchinson_av$AV)){
  w[i] <- weight(i)
}

```



```

}
player_yearly_wAV <- steve_hutchinson_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Steve Hutchinson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
andre_johnson_av <- andre_johnson %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '12 yrs', '1 yr', '1 yr'))))
w <- c()
for(i in seq_along(andre_johnson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- andre_johnson_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Andre Johnson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
dick_schafrath_av <- dick_schafrath %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '1959'))))
w <- c()
for(i in seq_along(dick_schafrath_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- dick_schafrath_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Dick Schafrath") %>%

```

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relocate(Player) %>%
bind_rows(player_yearly_wAV)
frank_gore_av <- frank_gore %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','3 yrs','1 yr','1 yr','1 yr'))))
w <- c()
for(i in seq_along(frank_gore_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- frank_gore_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Frank Gore") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
clay_matthews_av <- clay_matthews %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','16 yrs','3 yrs'))))
w <- c()
for(i in seq_along(clay_matthews_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- clay_matthews_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Clay Matthews") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
too_tall_jones_av <- too_tall_jones %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(too_tall_jones_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- too_tall_jones_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%

```

```

  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Too Tall Jones") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
johnny_robinson_av <- johnny_robinson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(johnny_robinson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- johnny_robinson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Johnny Robinson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
trent_green_av <- trent_green %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','6 yrs','2 yrs','2 yrs','1 yr'))))
w <- c()
for(i in seq_along(trent_green_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- trent_green_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Trent Green") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
jimmy_smith_av <- jimmy_smith %>%
  select(Year,AV) %>%

```

```

  filter(!(Year %in% c('Career','11 yrs','1 yr'))))
w <- c()
for(i in seq_along(jimmy_smith_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- jimmy_smith_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Jimmy Smith") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
joe_namath_av <- joe_namath %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','1 yr'))))
w <- c()
for(i in seq_along(joe_namath_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- joe_namath_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Joe Namath") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
darrelle_revis_av <- darrelle_revis %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','8 yrs','1 yr','1 yr','1 yr'))))
w <- c()
for(i in seq_along(darrelle_revis_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- darrelle_revis_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%

```

```

select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Darrelle Revis") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
larry_fitzgerald_av <- larry_fitzgerald %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(larry_fitzgerald_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- larry_fitzgerald_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Larry Fitzgerald") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
mike_munchak_av <- mike_munchak %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(mike_munchak_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- mike_munchak_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Mike Munchak") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
karl_mecklenburg_av <- karl_mecklenburg %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(karl_mecklenburg_av$AV)){
  w[i] <- weight(i)
}

```

```

}
player_yearly_wAV <- karl_mecklenburg_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Karl Mecklenburg") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
antonio_gates_av <- antonio_gates %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(antonio_gates_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- antonio_gates_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Antonio Gates") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
patrick_willis_av <- patrick_willis %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(patrick_willis_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- patrick_willis_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Patrick Willis") %>%

```

```

relocate(Player) %>%
bind_rows(player_yearly_wAV)
willie_anderson_av <- willie_anderson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','12 yrs','1 yr'))))
w <- c()
for(i in seq_along(willie_anderson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- willie_anderson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Willie Anderson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
harold_jackson_av <- harold_jackson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','6 yrs','4 yrs','4 yrs','1 yrs','1 yr'))))
w <- c()
for(i in seq_along(harold_jackson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- harold_jackson_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Harold Jackson") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
art_shell_av <- art_shell %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(art_shell_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- art_shell_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%

```

```

  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Art Shell") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
wayne_walker_av <- wayne_walker %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','1958','1959'))))
w <- c()
for(i in seq_along(wayne_walker_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- wayne_walker_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Wayne Walker") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
ken_stabler_av <- ken_stabler %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','10 yrs','3 yrs','2 yrs'))))
w <- c()
for(i in seq_along(ken_stabler_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- ken_stabler_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Ken Stabler") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
joe_flacco_av <- joe_flacco %>%
  select(Year,AV) %>%

```



```

  filter(!(Year %in% c('Career','11 yrs','3 yrs','1 yr','2022'))))
w <- c()
for(i in seq_along(joe_flacco_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- joe_flacco_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Joe Flacco") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
kevin_greeney_av <- kevin_greeney_av %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','8 yrs','3 yrs','3 yrs','1 yr'))))
w <- c()
for(i in seq_along(kevin_greeney_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- kevin_greeney_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Kevin Greene") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
cameron_jordan_av <- cameron_jordan_av %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','2022'))))
w <- c()
for(i in seq_along(cameron_jordan_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- cameron_jordan_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%

```

```

select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Cameron Jordan") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
marshal_yanda_av <- marshal_yanda %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(marshal_yanda_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- marshal_yanda_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Marshal Yanda") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
larry_grantham_av <- larry_grantham %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(larry_grantham_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- larry_grantham_av %>%
mutate(Year = str_replace(Year,"\\*",""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV,-w) %>%
pivot_wider(names_from = Year,
             values_from = wAV) %>%
mutate(Player = "Larry Grantham") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
michael_vick_av <- michael_vick %>%
select(Year,AV) %>%
filter(!(Year %in% c('Career','6 yrs','5 yrs','1 yr','1 yr'))))
w <- c()
for(i in seq_along(michael_vick_av$AV)){
  w[i] <- weight(i)
}

```

```

}
player_yearly_wAV <- michael_vick_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Michael Vick") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
antonio_brown_av <- antonio_brown %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '9 yrs', '2 yrs', '1 yr'))))
w <- c()
for(i in seq_along(antonio_brown_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- antonio_brown_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Antonio Brown") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
eric_dickerson_av <- eric_dickerson %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '5 yrs', '5 yrs', '1 yr', '1 yr')))) %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  filter(!(Year == ""))
w <- c()
for(i in seq_along(eric_dickerson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- eric_dickerson_av %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%

```

```

mutate(Player = "Eric Dickerson") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
charlie_joiner_av <- charlie_joiner %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','11 yrs','4 yrs','4 yrs')),
         !is.na(Year))
w <- c()
for(i in seq_along(charlie_joiner_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- charlie_joiner_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Charlie Joiner") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
bart_starr_av <- bart_starr %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','1956','1957','1958','1959'))))
w <- c()
for(i in seq_along(bart_starr_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- bart_starr_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Bart Starr") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
larry_wilson_av <- larry_wilson %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(larry_wilson_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- larry_wilson_av %>%

```

```

mutate(Year = str_replace(Year, "\\*", ""),
       Year = str_replace(Year, "\\+", "")) %>%
arrange(desc(AV)) %>%
mutate(w = w,
       wAV = AV*w) %>%
arrange(Year) %>%
select(-AV, -w) %>%
pivot_wider(names_from = Year,
            values_from = wAV) %>%
mutate(Player = "Larry Wilson") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
steve_grogan_av <- steve_grogan %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(steve_grogan_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- steve_grogan_av %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Steve Grogan") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
tom_mack_av <- tom_mack %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(tom_mack_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- tom_mack_av %>%
  mutate(Year = str_replace(Year, "\\*", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Tom Mack") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
john_abraham_av <- john_abraham %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '7 yrs', '6 yrs', '2 yrs'))))

```

```

w <- c()
for(i in seq_along(john_abraham_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- john_abraham_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "John Abraham") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
phil_simms_av <- phil_simms %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(phil_simms_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- phil_simms_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Phil Simms") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
luke_kuechly_av <- luke_kuechly %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(luke_kuechly_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- luke_kuechly_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,

```

```

        values_from = wAV) %>%
mutate(Player = "Luke Kuechly") %>%
relocate(Player) %>%
bind_rows(player_yearly_wAV)
james_harrison_av <- james_harrison %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','14 yrs','1 yr','1 yr'))),
        !is.na(Year))
w <- c()
for(i in seq_along(james_harrison_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- james_harrison_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "James Harrison") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
donnie_shell_av <- donnie_shell %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(donnie_shell_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- donnie_shell_av %>%
  mutate(Year = str_replace(Year,"\\*",""),
        Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
        wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Donnie Shell") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
richard_seymour_av <- richard_seymour %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career','8 yrs','4 yrs'))))
w <- c()
for(i in seq_along(richard_seymour_av$AV)){
  w[i] <- weight(i)
}

```

```

player_yearly_wAV <- richard_seymour_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Richard Seymour") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
cornelius_bennett_av <- cornelius_bennett %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '9 yrs', '3 yrs', '2 yrs'))))
w <- c()
for(i in seq_along(cornelius_bennett_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- cornelius_bennett_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Cornelius Bennett") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV)
wes_welker_av <- wes_welker %>%
  select(Year, AV) %>%
  filter(!(Year %in% c('Career', '6 yrs', '3 yrs', '2 yrs', '1 yr', '1 yr')),
         !is.na(Year))
w <- c()
for(i in seq_along(wes_welker_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- wes_welker_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV, -w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Wes Welker") %>%

```



```

relocate(Player) %>%
bind_rows(player_yearly_wAV)
roger_wehrli_av <- roger_wehrli %>%
  select(Year,AV) %>%
  filter(!(Year %in% c('Career'))))
w <- c()
for(i in seq_along(roger_wehrli_av$AV)){
  w[i] <- weight(i)
}
player_yearly_wAV <- roger_wehrli_av %>%
  mutate(Year = str_replace(Year, "\\*", ""),
         Year = str_replace(Year, "\\+", "")) %>%
  arrange(desc(AV)) %>%
  mutate(w = w,
         wAV = AV*w) %>%
  arrange(Year) %>%
  select(-AV,-w) %>%
  pivot_wider(names_from = Year,
              values_from = wAV) %>%
  mutate(Player = "Roger Wehrli") %>%
  relocate(Player) %>%
  bind_rows(player_yearly_wAV) %>%
  select(sort(colnames(player_yearly_wAV))) %>% # Arrange columns in chronological order
  relocate(Player) # Move player column to front of dataset

```

After joining the wAV dataset to the new college dataset and removing other unwanted ID variables, the new yearly wAV dataset can be joined to the resultant dataset by the Player ID variable. Before joining, the leaders dataset had 255 observations with 2 unique IDs (Player, wAV), while the college dataset had 107 observations with 5 unique IDs (Conference, Hall of Famers, Pro Bowl Selections, Top Players, Total wAV). After removing unnecessary ID variables, the resulting dataset had 255 observations with 1 unique ID (Conference), while the yearly wAV dataset had 255 observations of 62 unique IDs (1960-2021), with the datasets sharing the Player ID variable. Since both dataset had the same number of observations, none were dropped during joining.

After joining, the new dataset was tidied to display a general year variable in place of individual year variables, and the yearly wAV value for each conference was calculated.

```

# Create new object in environment
wAV_years <- wAV_leaders %>%
  select(-Rank,-Tm,-Years) %>% # Remove specific column variables
  mutate(School = str_replace(School, "St\\\\.", "State"), # Replace specific string with
a different string
        School = str_replace(School, "Col\\\\.", "College"),
        School = str_replace(School, "East\\\\.", "Eastern")) %>%
  left_join(college_totals,by = "School") %>% # Apply left_join
  relocate(Conference) %>% # Move conference variable to front of dataset
  select(-School,-wAV,-`Hall of Famers`, -`Pro Bowl Selections`, -`Top Players`, -`Total wA
V`) %>% # Remove specific column variables
  left_join(player_yearly_wAV,by = "Player") %>% # Apply left_join
  select(-Player) %>% # Remove player column variable
  group_by(Conference) %>% # Create subsets by conference
  summarize_all(sum,na.rm=TRUE) %>% # Add wAV values for each year
  pivot_longer(cols = c(`1960`:`2021`), # columns in table4a to put as rows
                names_to = "Year", # save 1999 and 2000 as a variable year
                values_to = "wAV") # save the cell values as a variable population

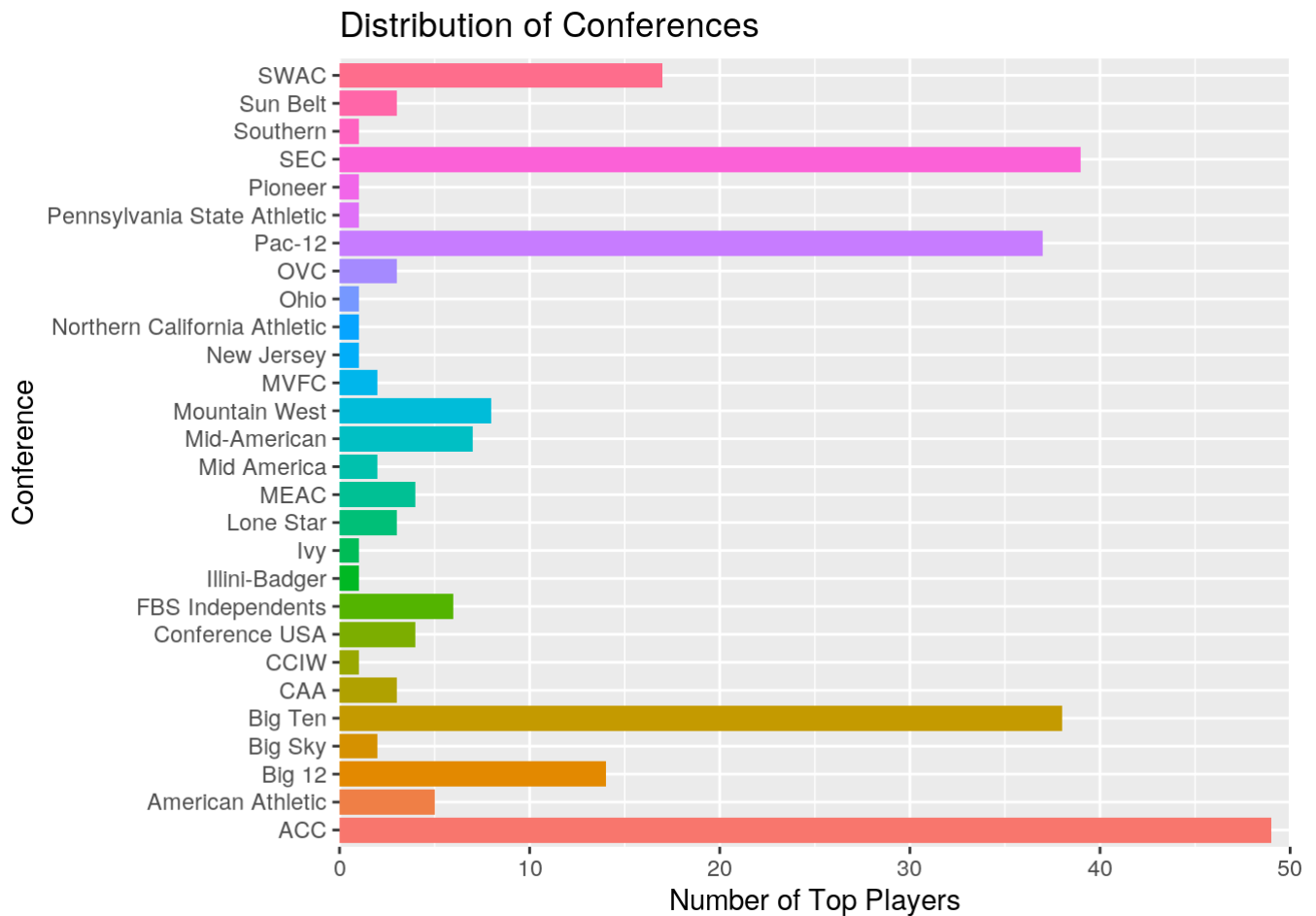
```

## Visualizing

```

# Join datasets together for ggplot visualization
wAV_leaders %>%
  mutate(School = str_replace(School, "St\\\\.", "State"), # Replace specific string with
a different string
        School = str_replace(School, "Col\\\\.", "College"),
        School = str_replace(School, "East\\\\.", "Eastern")) %>%
  left_join(ncaa_schools_adj,by="School") %>% # Apply left_join
  ggplot(aes(y=Conference,fill=Conference)) + # Create ggplot based on conference
  geom_bar() + # Create bar graph
  scale_x_continuous(expand=c(0,0), # Remove space between data and axes
                    limits=c(0,50)) + # Set x-axis to start at 0, end at 50
  labs(x="Number of Top Players",title="Distribution of Conferences") + # Create labels
  theme(legend.position="none") # Remove legend

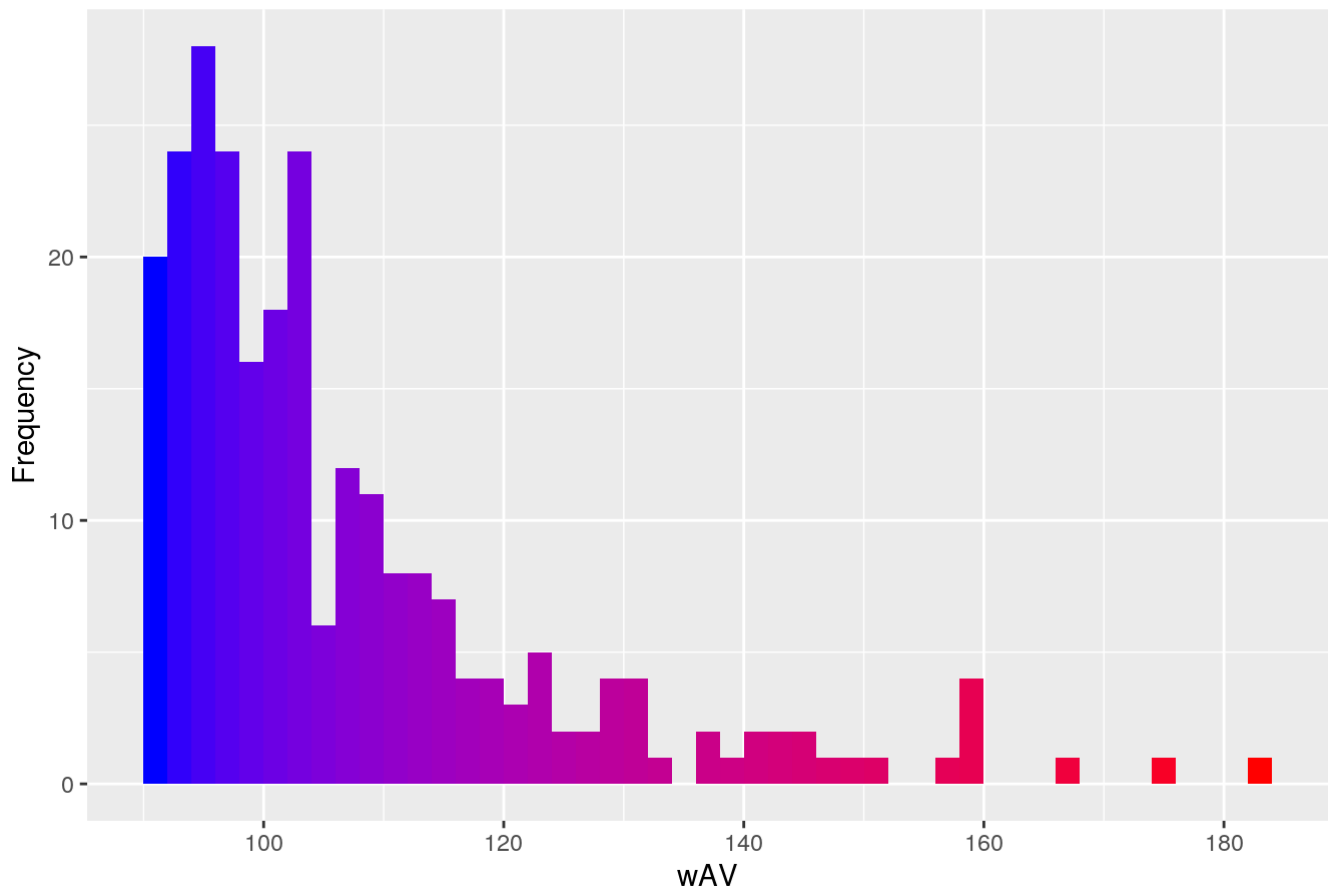
```



This bar graph depicts the distribution of conferences among the 255 players in the wAV dataset. Through this graph, we can see that four conferences make up a significant portion of the players (ACC, SEC, Big Ten, Pac-12). All four of these conferences are part of the Power Five Conferences, so this distribution is expected.

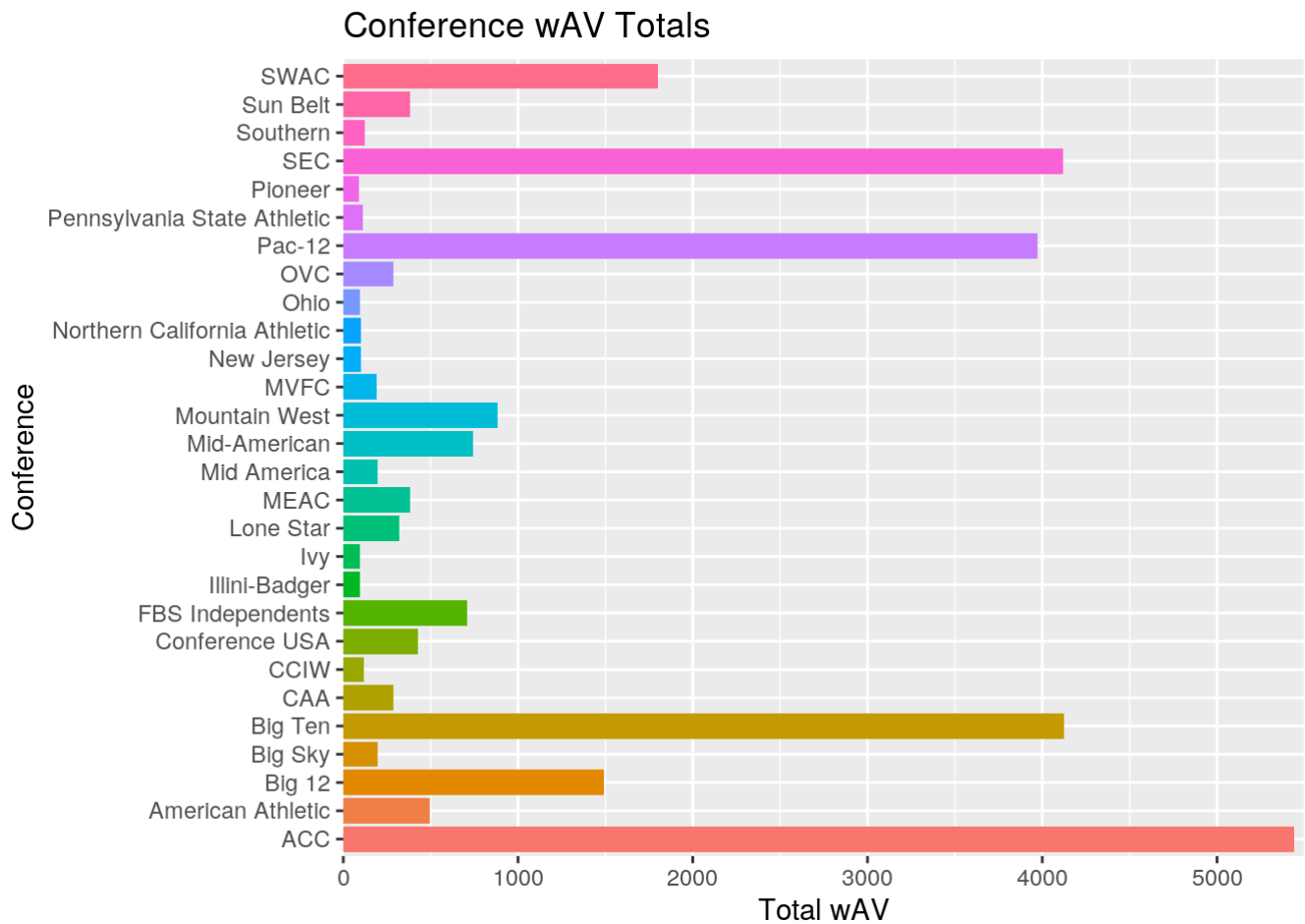
```
# Create ggplot based on wAV
ggplot(wAV_leaders,aes(x=wAV,fill=..x..)) +
  geom_histogram(binwidth = 2, center = 1) + # Create a histogram
  scale_fill_gradient(low='blue', high='red') + # Set color gradient
  labs(y="Frequency",title="Distribution of Players' wAV") + # Create labels
  theme(legend.position="none") # Remove legend
```

Distribution of Players' wAV



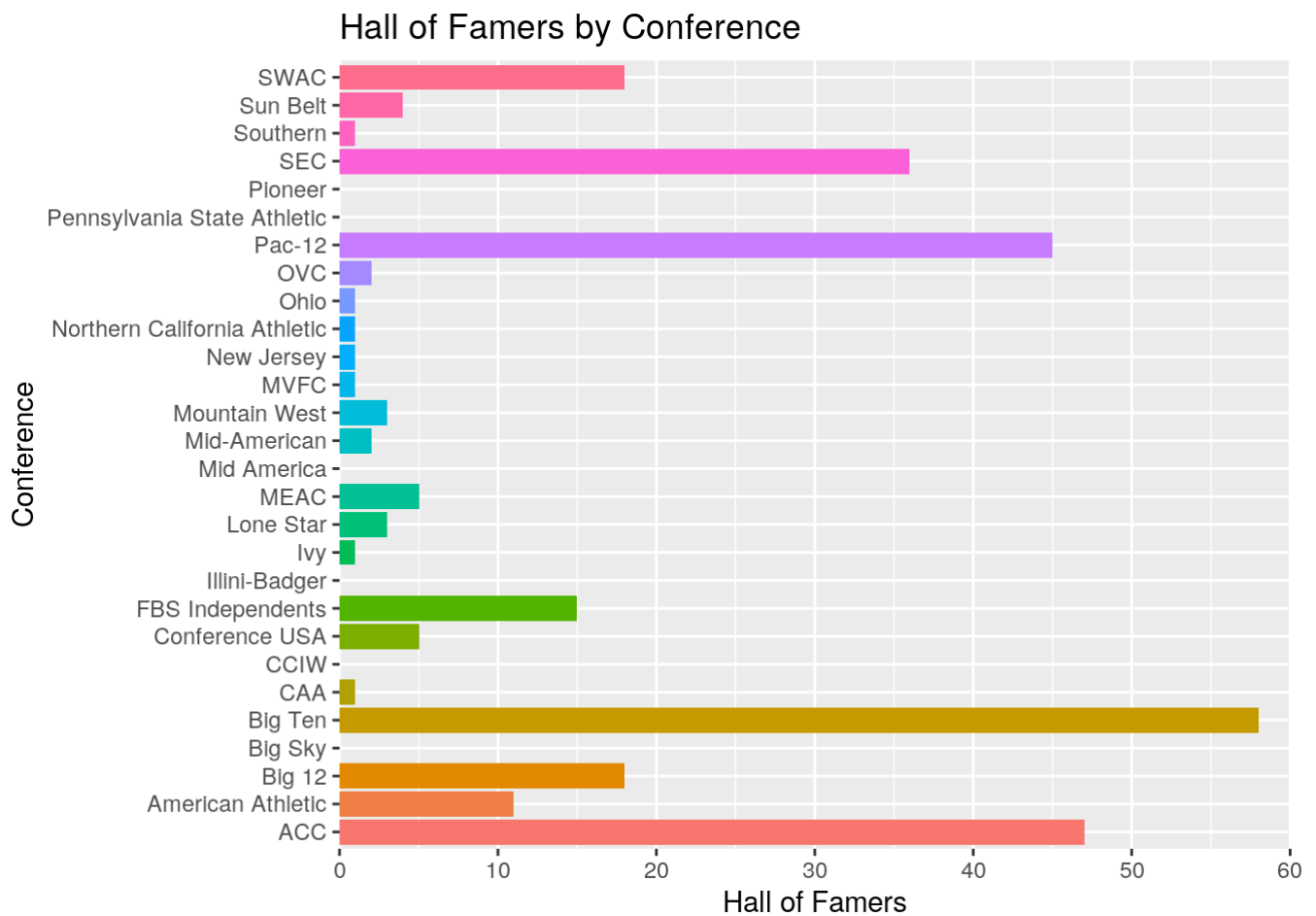
This histogram shows the distribution of wAV values for the 255 players in the wAV dataset. A right-skewed distribution is observed and expected, as only the best of the best players can maintain a high level of performance over many years of professional sports.

```
# Create ggplot based on Total wAV and Conference
ggplot(college_totals, aes(y=Conference,x=`Total wAV`,fill=Conference)) +
  geom_bar(stat="identity") +
  labs(title="Conference wAV Totals") + # Create title label
  theme(legend.position="none") +
    scale_x_continuous(expand=c(0,0), # Remove space between data and axes
                      limits=c(0,5500)) # Set x-axis to start at 0, end at 5500
```



This bar graph outlines the distribution of Total wAV for each conference. Four conferences appear to produce significantly more impactful players (ACC, SEC, Pac-12, Big Ten) than the remaining conferences, which is in line with what is to be expected.

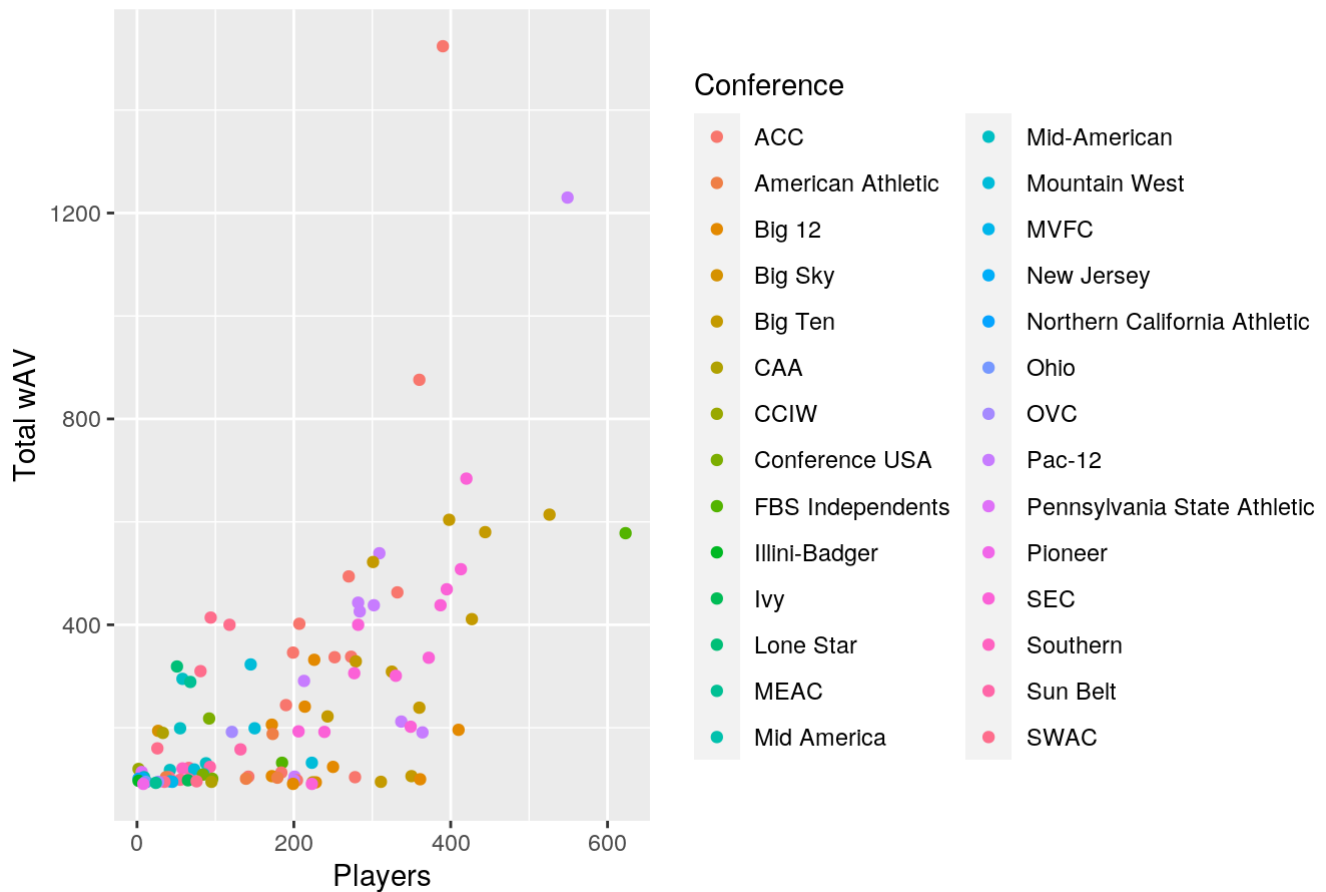
```
# Create ggplot based on Hall of Famers and Conference
ggplot(college_totals, aes(y = Conference, x = `Hall of Famers`, fill = Conference)) +
  geom_bar(stat="identity") +
  labs(title = "Hall of Famers by Conference") + # Create title label
  theme(legend.position="none") +
  scale_x_continuous(expand=c(0,0), # Remove space between data and axes
                    limits=c(0,60)) # Set x-axis to start at 0, end at 60
```



This bar graph depicts the distribution of players inducted into the Hall of Fame based on their college's conference. Like what we previously saw, there are a few conferences that stand out with producing legendary players (Big Ten, ACC, Pac-12, SEC), with a few others more behind (Big 12, SWAC, FBS Independents).

```
# Create ggplot based on Players aand Total wAV
ggplot(college_totals, aes(x = Players, y = `Total wAV`)) +
  geom_point(aes(color = Conference)) + # Color by conference
  labs(x = "Players", y = "Total wAV", title="Players vs. Total wAV") # Create labels for
axes and title
```

## Players vs. Total wAV

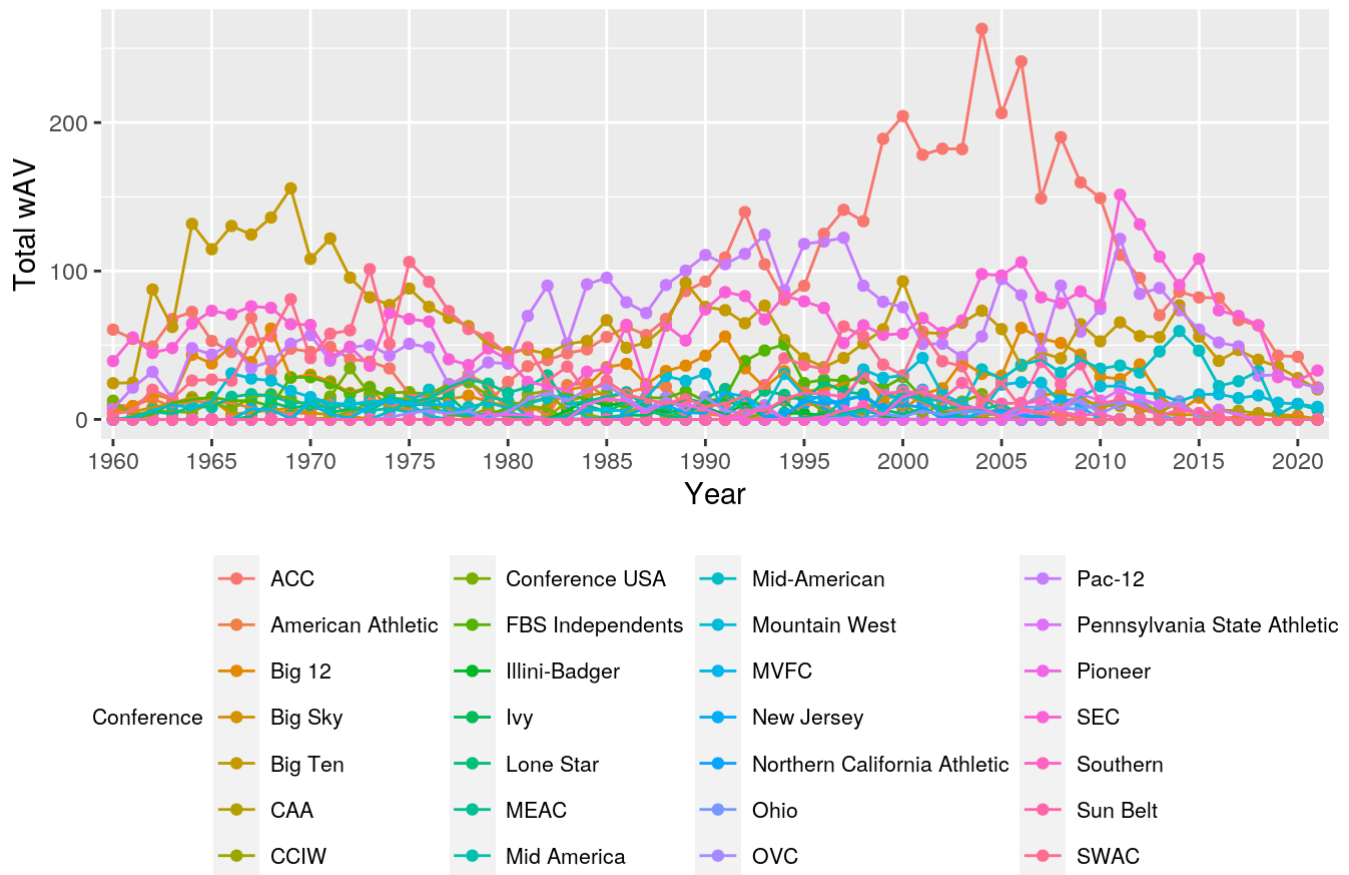


This scatter plot involves the number of NFL players each conference has historically produced and the total wAV from the top 255 players. An interesting trend is that producing NFL-level talent does not necessarily equate to long-term success in the NFL, as the FBS Independents conference has sent the most players to the NFL but is behind a few conferences in terms of its total wAV value.

```
# Create function to return every 5th value
my_breaks <- function(x, n = 5) {
  return(x[c(TRUE, rep(FALSE, n - 1))])
}

ggplot(data=wAV_years, aes(x=Year, y=wAV, color=Conference, group=Conference)) + # Create gg
plot based on year, wAV, and conference
  geom_point() + # Show data as points
  geom_line() + # Connect conference points with lines
  scale_x_discrete(breaks = my_breaks) + # Set tick-marks
  theme(legend.title=element_text(size=8), # Adjust legend sizes
        legend.text=element_text(size=8),
        legend.position="bottom") +
  guides(colour=guide_legend(nrow=7)) + # Adjust number of rows in legend
  labs(title="wAV of Conferences over Time", y='Total wAV') # Create title label
```

## wAV of Conferences over Time



This plot depicts the yearly wAV total for each conference from 1960-2021. With this, we can observe the success players from a certain conference have as a collective during a given season. Naturally, the conferences with the greatest total wAV values year-by-year generally are the Power Five conferences (ACC, Big Ten, Big 12, SEC Pac-12). However, an interesting trend is that no one conference has constantly dominated the NFL with their successful players; rather, there are peaks of success at different time periods.

## Acknowledgements

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Thank you to Srikar Sriram for creating visualizations and summary statistics.