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**Field Studies: NFL Head Coach
Hiring and Pathways in the Rooney
Rule Era**

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Abstract

The NFL's Rooney Rule, established in 2003, has required franchises to interview candidates of Color for senior football operations and head coaching positions. The purpose of this report is to describe coach hiring and firing patterns and pipelines leading to head coaching and to expand our original analyses to include seasons from the start of the Rooney Rule. The data in this study indicated differences in pipelines and pathways, experiences, and opportunities. The analyses provided details to the racial/ethnic composition of the 18 seasons since the Rooney Rule was implemented and answered the question, "What are the similarities and differences for coaches of Color and White coaches?" These data pointed to possible challenges, barriers, and opportunities. Although there were years with spiked increases in hiring diversity, neither bookend, nor aggregate, nor year-to-year comparisons showed a steady or consistent increase in the number of head coaches of Color, offensive coordinators of Color, or defensive coordinators of Color hired over the 18 seasons examined here. Future directions are discussed.

Introduction

In 2019, the Global Sport Institute at Arizona State University, with help from the Paul Robeson Research Center for Innovative Academic & Athletic Prowess at the University of Central Florida, developed a [working paper](#) (Brooks et al., 2019) that reviewed the hiring patterns for head coaches of Color in the National Football League (NFL) across a ten-season window. The original paper cited the Rooney Rule as the impetus for examining the current state of hiring and firing and for investigating pipelines and pathways for head coaches of Color compared to White head coaches.

The NFL's Rooney Rule, established in 2003, has required franchises to interview candidates of Color for senior football operations and head coaching positions. After Tony Dungy and Dennis Green were fired following the 2002 season, despite their relative success, civil rights lawyers Johnnie Cochran and Cyrus Mehri (2002) published [a study](#) that revealed African American head coaches were "last hired and first fired" when compared to their White counterparts, despite having higher winning percentages.

Before the Rooney Rule was established, a variety of sources identified racial inequities in sport (e.g. Bivens & Leonard, 1994; Shropshire, 1996; Wilbon, 1999). Since the onset of the Rooney Rule, researchers and media outlets have asked, "Has the Rooney Rule's interview quota led to more head coaches of Color getting and keeping their jobs?" In an update to their 2004 and 2009 studies, Madden & Ruther (2011)

focused on the diminished early finding that African American head coaches performed better than White head coaches and cited the continued absence of African American offensive coordinators being promoted to head coach between 2003-09. Another quantitative study (Braddock et al., 2012) identified the effects of race on access to coaching positions in the NFL, finding that race limits access.

The media has had mixed reviews of race in the NFL since the implementation of the Rooney Rule. In a Business Insider article written in 2017, Gaines touted the success of the Rooney Rule by examining total numbers of minority head coaches. However, he did not examine year-to-year hiring patterns. In a 2014 Washington Post article, Mark Maske offered “praise” for the NFL when two minority head coaches were hired, because none had been hired the year before. More recently, media outlets have criticized the lack of diversity in the NFL (e.g. Armour, 2019; Today Show, 2020), but they have presented only limited examples of head coach hiring related to race and ethnicity. These smaller data sets and snapshots have not captured the full picture of hiring patterns. The need for more comprehensive analyses drove the data collection in the initial study.

The Global Sport Institute published [an analysis](#) (Brooks et al., 2019) of hiring and firing trends of NFL head coaches, offensive coordinators, and defensive coordinators for the decade that spanned the 2009-10 NFL season through the 2018-19 season. In short, our report found that while most coaches from 2009-19 were former players, and most players have been men of Color, the vast majority of coaches were White. As measured by previous playing and coaching experience, coaches of Color had more robust statistics when hired than White coaches. Regardless of ethnicity, all outgoing head coaches achieved similar winning percentages. The age at the time of hire showed a wider range for White head coaches than coaches of Color, and White head coaches were also hired more frequently and for more senior positions after being fired. Lastly, offensive coordinators, the vast majority of whom are White, were much more likely than defensive coordinators to be hired as head coaches.

As we pursued a deeper understanding of the pipeline, the equity of hiring processes, the league and franchise organizational practices, and the persistence of disparate outcomes, we stepped back to analyze all head coach and coordinator hiring and firing from the year prior to the Rooney Rule going into effect in 2003 and expanded our previous analysis by six seasons. We also added the 2019-20 season.

The purpose of this report was to explore and report on coach hiring and firing patterns and pipelines leading to head coaching in seasons beginning from the start of the Rooney Rule. As in the initial working paper, we aimed to report the data, not to extrapolate how or why these patterns occurred.

Method

All of the data presented have been gathered from publicly accessible sources, such as news articles that report on coaches' entrance into and exit from positions. There were three phases to our research. The initial two rounds of data collection were done in 2018 for our first Field Study, a ten-year snapshot that analyzed the hiring patterns of head coaches, offensive coordinators, and defensive coordinators during the 2009-10 – 2018-19 seasons. The first round was data collection and preliminary analysis done by the Paul Robeson Research Center for Innovative Academic & Athletic Prowess (PRRC). PRRC, under the direction of Dr. C. Keith Harrison, compiled data from all changes at head coach, offensive coordinator, and defensive coordinator levels in the NFL. The data included information on the race/ethnicity of both hired and fired coaches, prior coaching position, and next coaching position (in the case of the coach leaving the position). This phase was followed by additional analysis of the PRRC data and a second round of data collection. Global Sport Institute added age, playing experience, and basic descriptive statistics, and conducted a second analysis of all the data.

For the present study, a third round of data collection and analysis was done solely by the Global Sport Institute. The 2002-03 – 2008-09 seasons were captured along with the 2019-20 season. The 18 seasons of data in this report included detailed breakdowns of the following for head coaches, defensive coordinators, and offensive coordinators: race or ethnicity of incoming and outgoing coaches; positions prior to and after stints as coach or coordinator; age at hire; previous playing and coaching experience; winning percentages; length of tenure as coach or coordinator; and next job after leaving a coaching position. An important methodology update was in how offensive and defensive coordinator vacancies were counted. In the previous study iteration, if the position was left unfilled, the head coach was determined to occupy that vacancy, and therefore, his descriptive data were used. In the current study, no data were entered for vacant outgoing or incoming offensive or defensive coordinator positions.

All figures represent data captured prior to the start of the 2020-21 NFL season, in order to capture hiring and firing outcomes of the completed 2019-20 season. Figures do not represent any coaching changes that happened during the 2020-21 season. In our analyses, we defined "hires" as officially-hired coaches who were not designated as interim. We excluded interim coaches because, by definition, they are temporary and transient in nature and therefore may add variability to the data that is not representative of actual hiring patterns. However, if a coach started as interim and was the official subsequent hire, then he was included in this data set.

Results

Head Coaches

Racial/Ethnic Breakdown of Incoming and Outgoing NFL Head Coaches – 2002-03 vs. 2019-20

There were a total of 115 head coaching changes during the span of this study. Table 1 details the race/ethnicity of incoming head coaches each season from 2002-03 through 2019-20. The full list of incoming and outgoing head coaches can be found in Appendix A. Though there was little variation in the racial/ethnic makeup of head coaches hired in this timeframe, some years stood out. For example, the 2008-09 and 2010-11 seasons marked the only seasons where more than two head coaches of Color were hired. However, the 2008-09 season was also the season with the greatest number of total head coach hires. The 2005-06 season was a close second for total number of new head coach hires, but in that season, 90% of the hires were White head coaches. Since the implementation of the Rooney Rule, there were three seasons when no head coaches of Color were hired and four seasons when no African American head coaches were hired. White head coaches were hired in every season.

Table 1

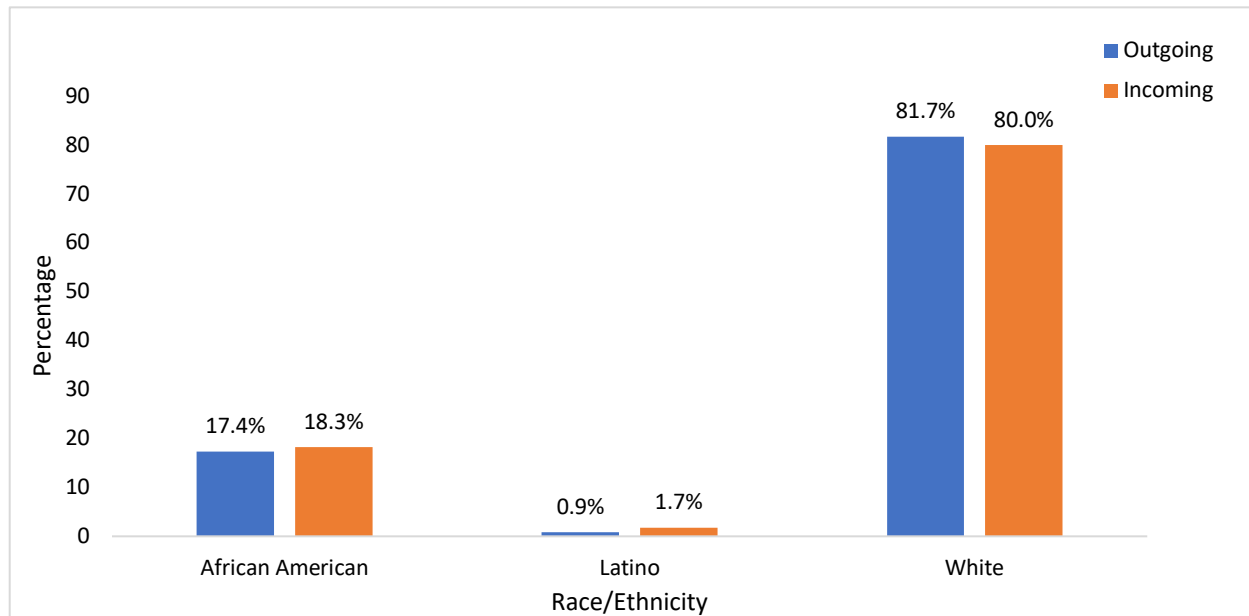
Incoming Head Coaches by Race/Ethnicity for 2002-03 – 2019-20

| Season Ending | Race/Ethnicity | | | Total |
|------------------|---------------------|--------|-------|-------|
| | African American | Latino | White | |
| 2003 | 1 | 0 | 4 | 5 |
| 2004 | 2 | 0 | 5 | 7 |
| 2005 | 1 | 0 | 2 | 3 |
| 2006 | 2 | 0 | 8 | 10 |
| 2007 | 1 | 0 | 6 | 7 |
| 2008 | 0 | 0 | 4 | 4 |
| 2009 | 3 | 0 | 8 | 11 |
| 2010 | 0 | 0 | 3 | 3 |
| 2011 | 2 | 1 | 4 | 7 |
| 2012 | 1 | 0 | 6 | 7 |
| 2013 | 0 | 0 | 8 | 8 |
| 2014 | 2 | 0 | 4 | 6 |
| 2015 | 1 | 0 | 5 | 6 |
| 2016 | 1 | 0 | 5 | 6 |
| 2017 | 2 | 0 | 4 | 6 |
| 2018 | 1 | 0 | 5 | 6 |
| 2019 | 1 | 0 | 7 | 8 |
| 2020 | 0 | 1 | 4 | 5 |
| Total | 21 | 2 | 92 | 115 |

The cumulative incoming and outgoing head coach numbers also showed negligible variability regarding racial/ethnic makeup. Figure 1 shows the racial/ethnic percentages of incoming and outgoing NFL head coaches for the entire 18-year window.

Figure 1

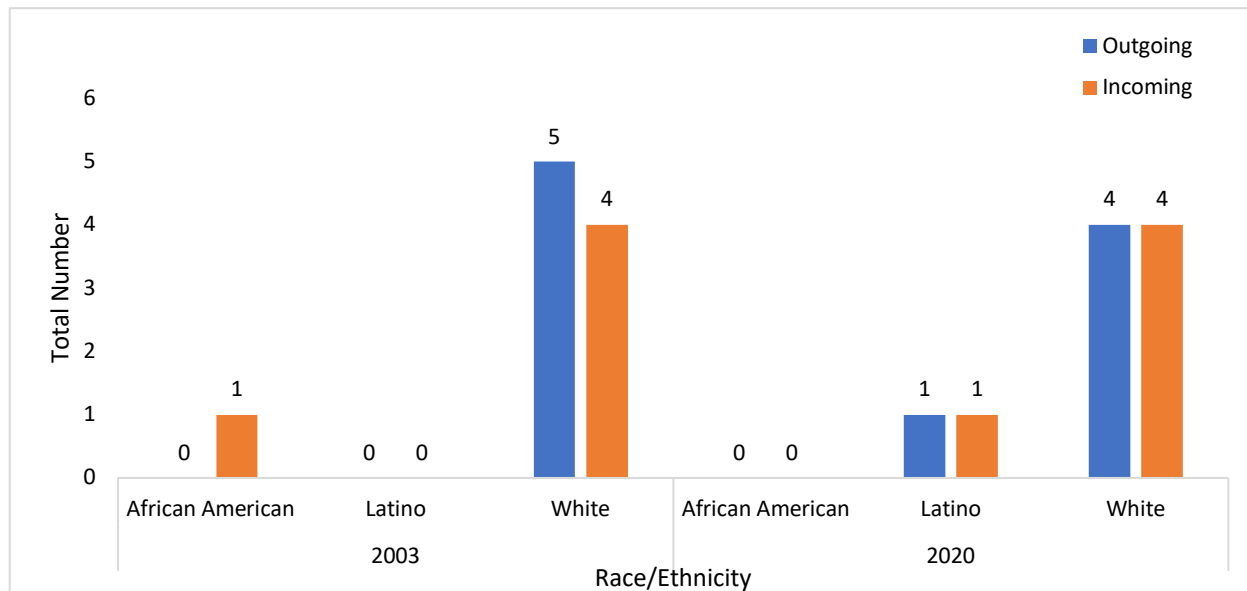
Percentages of Incoming and Outgoing Head Coaches by Race/Ethnicity for 2002-03 – 2019-20



A comparison of head coach race/ethnicity between the first year the Rooney Rule was implemented and the 2019-20 season also painted a picture of minimal change. Figure 2 shows a bookend comparison of racial/ethnic breakdown of incoming and outgoing head coaches in the 2002-03 and 2019-20 seasons.

Figure 2

Incoming and Outgoing Head Coaches by Race/Ethnicity in 2002-03 vs. 2019-20



As was noted in the initial Brooks et al., 2019 Field Study, these snapshot summaries painted a picture of minimal change in the post-Rooney Rule era but failed to offer insights into hiring and firing patterns, and more importantly, pathways, timelines, and trajectories for becoming a head coach in the NFL.

NFL Head Coaches by Coaching Experience

Given the popular assertion that sports leagues have provided opportunities based on demonstrated skill and success, such as Vic Fangio’s 2020 reported assertion that the NFL is a “league of meritocracy” (Bonesteel, 2020), it was important to examine relevant measures, such as win-loss records and prior coaching experience. The winning percentages means and ranges looked very similar between the head coaches of Color and White head coaches. Table 2 shows the range, mean, and standard deviation for winning percentages by race/ethnicity for outgoing head coaches.

Table 2

Range, Mean, and Standard Deviation of Winning Percentages for Outgoing Head Coaches by Race/Ethnicity for 2002-03 – 2019-20

| | N | Range | Mean | Standard Deviation |
|--------------|----|-----------|------|--------------------|
| White HCs | 94 | .063-.719 | .427 | .138 |
| HCs of Color | 21 | .075-.759 | .392 | .166 |

Note. HC = Head Coach.

Presumably, winning should have predicted a long tenure as a head coach. It could predict that the number of years with a team would be similar for White head

coaches and head coaches of Color given that the winning records are similar. Table 3 shows the range, mean, and standard deviation for years with a team by race/ethnicity for outgoing head coaches.

Table 3

Range, Mean, and Standard Deviation of Years with the Team for Outgoing Head Coaches by Race/Ethnicity for 2002-03 – 2019-20

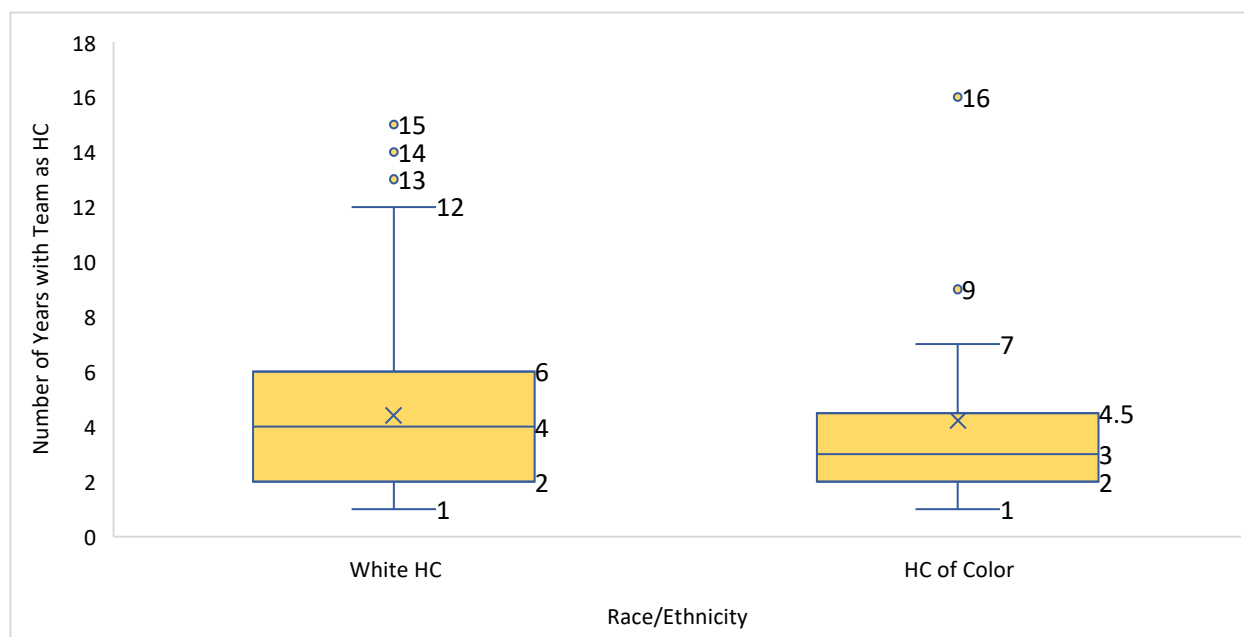
| | N | Range | Mean | Standard Deviation |
|--------------|----|-------|------|--------------------|
| White HCs | 94 | 1-15 | 4.40 | 3.06 |
| HCs of Color | 21 | 1-16 | 4.42 | 3.52 |

Note. HC = Head Coach.

Despite the seemingly similar numbers for mean years with a team, there was a different pattern in the distribution of those numbers. The bulk of White head coaches were distributed across two to six years, with four head coaches maintaining their positions for more than 12 years. For head coaches of Color, only four maintained their positions for more than five years, with one outlier holding his title for 16 years (Marvin Lewis as head coach of the Cincinnati Bengals). That 16-year outlier boosted the mean years of head coach. The box and whisker plots in Figure 3 provide a visual comparison of the distribution of years for White head coaches and head coaches of Color.

Figure 3

Boxplot of Number of Years with the Team as Head Coach by Race/Ethnicity for 2002-03 – 2019-20



Note. HC = Head Coach.

Further exploration of the relationship between winning and time with the team as a head coach is warranted. A look at winning percentages for outgoing White head coaches and head coaches of Color supported a meritocratic ideology. Simple bivariate correlational analyses showed no significant correlations between race/ethnicity and winning percentages or number of years a head coach remained in his position. Only winning percentage and years with the team were significantly positively correlated. The higher the winning percentage, the longer a head coach remained with the team. Table 4 shows correlational analyses for race/ethnicity, winning percentage, and years with the team.

Table 4

Correlation Coefficients and p Values for Winning Percentage and Years with Team for Head Coaches of Color (n = 115) for 2002-03 – 2019-20

| | HC of Color | Winning Percentage |
|---------------------|----------------|--------------------|
| Winning Percentage | -.094 (.32) | |
| Years with the Team | -.021 (.83) | .584* (<.001) |

Note. HC = Head Coach.

* $p < .001$ (2-tailed).

Meritocracy should not only be considered in how a job is kept or lost, but also in how it is obtained. Indeed, coaches forged a variety of pathways to obtaining their head coaching positions. A look at all the head coaches hired between the seasons ending in 2003 and 2020 showed 13 different job titles held immediately prior to becoming a head coach. However, for head coaches of Color, the number of different prior roles held dwindled to seven and were more concentrated in position-specific coaching roles. Table 5 breaks down the immediate previous job of incoming head coaches by race/ethnicity.

Table 5

Immediate Previously Held Position of Incoming Head Coaches by Race/Ethnicity for 2002-03 – 2019-20

| Prior Position | Race/Ethnicity | | | Total |
|----------------|------------------|--------|-------|-------|
| | African American | Latino | White | |
| College HC | 0 | 0 | 10 | 10 |
| DB Coach | 1 | 0 | 2 | 3 |
| DC | 9 | 1 | 20 | 30 |
| DL Coach | 0 | 0 | 1 | 1 |
| HC | 3 | 1 | 14 | 18 |
| LB Coach | 2 | 0 | 0 | 2 |
| NFL Other | 0 | 0 | 1 | 1 |
| OC | 4 | 0 | 35 | 39 |
| OL Coach | 0 | 0 | 3 | 3 |
| Non-Coaching | 1 | 0 | 1 | 2 |
| Other HC | 0 | 0 | 1 | 1 |
| QB Coach | 1 | 0 | 3 | 4 |
| Retired | 0 | 0 | 1 | 1 |
| Total | 21 | 2 | 92 | 115 |

Note. Unless otherwise specified coaching positions are in the National Football League; HC = Head Coach; DB = Defensive Back; DC = Defensive Coordinator; DL = Defensive Line; LB = Linebacker; NFL = National Football League; OC = Offensive Coordinator; OL = Offensive Line; Other HC = Head Coach in another league; QB = Quarterback.

Similar to the data reported in the initial NFL Field Study (Brooks et al., 2019), only White head coaches moved from college coaching positions directly into NFL head coaching jobs. A noteworthy change in this updated data set was the first ever back-to-back head coaching positions held by a head coach of Color, Ron Rivera. There were also second chances that were not back-to-back that also reflected varying pathways. For example, two distinct pathways in the “non-coaching” category were Art Shell, who served as an NFL executive, and Jon Gruden, who coached for a day school and founded the Fired Football Coaches Association before returning to head coaching positions.

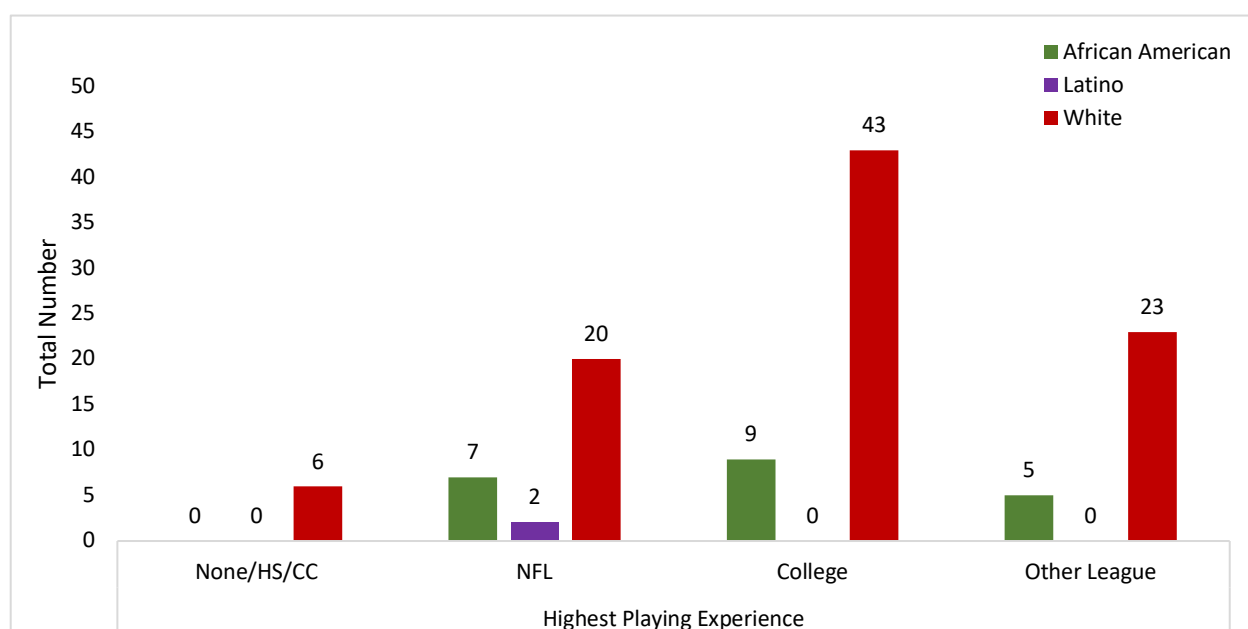
For head coaches of Color, the strongest pathway to becoming a head coach was defensive coordinator. For White head coaches, offensive coordinator was the salient pathway. However, more than twice as many White head coaches emerged from defensive coordinator positions than coaches of Color, a pattern noted in the original study.

NFL New-Hire Head Coaches by Playing Experience

Playing experience was a factor often considered when discussing “qualifications” for head coaching positions, though these qualifications were poorly defined in the public space. Our initial study found that head coaches of Color had higher levels of playing experience compared to their White peers. Only White head coaches came from playing backgrounds that peaked below the college level. With the additional years’ data included, this pattern held. Figure 4 shows highest level of playing experience broken down by race/ethnicity.

Figure 4

Incoming Head Coaches’ Highest Playing Experience by Race/Ethnicity for 2002-03 – 2019-20



Note. HS = High School; CC = Community College; NFL = National Football League.

NFL New-Hire Head Coaches by Age

Consistent with the initial analyses in the smaller data set, mean age at time of hire remained similar for White head coaches and coaches of Color. Similar age ranges were also observed, as head coaches of Color had a more truncated hiring age range than their White counterparts. In the 18 seasons included in these analyses, there were five White head coaches and two head coaches of Color hired when they were age 60 or older, with Bruce Arians being the oldest when hired by Tampa Bay at age 66. Table 6 provides the mean age and age range by race/ethnicity for incoming head coaches.

Table 6

Mean Age and Age Range at Time of Hire for Incoming Head Coaches by Race/Ethnicity for 2002-03 – 2019-20

| | N | Range | Mean | Standard Deviation |
|--------------|----|-------|------|--------------------|
| White HCs | 92 | 30-66 | 47.5 | 7.81 |
| HCs of Color | 23 | 32-63 | 49.4 | 7.81 |

Note. HC = Head Coach; Age in years.

White head coaches did not just represent the oldest age at time of hire, but the youngest as well, with Sean McVay hired as Rams head coach at age 30. Nineteen White head coaches were hired at age 40 or younger, and Adam Gase and Eric Mangini were both hired twice before they turned 41. Three head coaches of Color were hired at age 40 or younger: Brian Flores (37), Mike Tomlin (34), and the youngest, Raheem Morris (32). Of the 19 White head coaches aged 40 or younger hired, seven replaced older head coaches of Color. All three head coaches of Color in this age category replaced White head coaches.

Next Opportunities for Head Coaches

The emergence of Ron Rivera as the first fired head coach of Color to get an immediate second chance as a head coach (with the Washington team) after being let go as the Carolina Panther's head coach offers a potential promise of change. However, beyond that one example, the pathways for head coaches after their tenure ended was variable, with different opportunities for head coaches of Color compared to White head coaches. Although Herm Edwards left his head coaching position with the New York Jets for a head coaching position with the Kansas City Chiefs, he was not fired and rehired. He was traded for a 2006 fourth round draft pick (Pasquarelli, 2006). His circumstances were atypical and do not represent the fired-rehired pathway discussed here.

The majority of African American head coaches went on to defensive coordinator positions, a major pipeline for African American head coaches. The majority of White head coaches went to offensive coordinator positions, a major pipeline for White head coaches. White head coaches were more likely to move to another head coaching position in either the NFL or college. Table 7 details the next opportunity for outgoing head coaches in our sample.

Table 7

Next Opportunity for Head Coaches by Race/Ethnicity for 2002-03 – 2019-20

| Next Position | Race/Ethnicity | | | Total |
|---------------|------------------|--------|-------|-------|
| | African American | Latino | White | |
| Head Coach | 1 | 1 | 10 | 12 |
| Assistant HC | 0 | 0 | 4 | 4 |
| DB Coach | 1 | 0 | 1 | 2 |
| DC | 5 | 0 | 14 | 19 |
| DL Coach | 0 | 0 | 1 | 1 |
| DA Coach | 0 | 0 | 1 | 1 |
| LB Coach | 1 | 0 | 1 | 2 |
| TE Coach | 0 | 0 | 3 | 3 |
| OC | 1 | 0 | 21 | 22 |
| OL Coach | 0 | 0 | 2 | 2 |
| ST Coach | 1 | 0 | 0 | 1 |
| QB Coach | 1 | 0 | 1 | 2 |
| NFL Executive | 0 | 0 | 2 | 2 |
| NFL Other | 1 | 0 | 5 | 6 |
| College HC | 1 | 0 | 10 | 11 |
| College DC | 0 | 0 | 1 | 1 |
| College Other | 1 | 0 | 0 | 1 |
| Media | 3 | 0 | 7 | 10 |
| Retired | 0 | 0 | 3 | 3 |
| Unemployed | 3 | 0 | 7 | 8 |
| Total | 20 | 1 | 94 | 115 |

Note. Unless otherwise specified coaching positions are in the National Football League; HC = Head Coach; DB = Defensive Back; DC = Defensive Coordinator; DL = Defensive Line; DA = Defensive Assistant; LB = Linebacker; TE = Tight End; OC = Offensive Coordinator; OL = Offensive Line; ST = Special Teams; QB = Quarterback; NFL = National Football League.

Offensive Coordinators

Racial/Ethnic Breakdown of Incoming and Outgoing NFL Offensive Coordinators – 2002-03 vs. 2019-20

In order to more deeply examine the pathways to becoming a head coach in the NFL, an in-depth look at the two major pipelines, offensive and defensive coordinators, was warranted. The offensive coordinator was the most prolific pathway to becoming a head coach for White coaches. As with head coaching data, coaching experience was examined in terms of prior position held, winning percentages, and years with the team as offensive coordinator. Playing experience and age data were also explored. Table 8 details the race/ethnicity of incoming offensive coordinators each season from 2002-03 through 2019-20. The full list of incoming and outgoing offensive coordinators can be found in Appendix B.

Table 8

Incoming Offensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| Season Ending | Race/Ethnicity | | | | Unfilled | Total |
|------------------|---------------------|--------|---------------------|-------|----------|-------|
| | African American | Latino | Chinese American | White | | |
| 2003 | 3 | 0 | 0 | 4 | 1 | 8 |
| 2004 | 3 | 0 | 0 | 8 | 0 | 11 |
| 2005 | 1 | 0 | 1 | 11 | 1 | 14 |
| 2006 | 0 | 0 | 0 | 14 | 0 | 14 |
| 2007 | 2 | 0 | 0 | 12 | 1 | 15 |
| 2008 | 1 | 0 | 0 | 10 | 0 | 11 |
| 2009 | 1 | 0 | 0 | 8 | 4 | 13 |
| 2010 | 2 | 0 | 0 | 8 | 0 | 10 |
| 2011 | 0 | 0 | 0 | 10 | 2 | 12 |
| 2012 | 0 | 0 | 0 | 17 | 0 | 17 |
| 2013 | 2 | 0 | 0 | 12 | 0 | 14 |
| 2014 | 1 | 0 | 0 | 12 | 0 | 13 |
| 2015 | 1 | 0 | 0 | 15 | 0 | 16 |
| 2016 | 3 | 0 | 0 | 10 | 0 | 13 |
| 2017 | 0 | 0 | 0 | 12 | 0 | 12 |
| 2018 | 0 | 0 | 0 | 21 | 0 | 21 |
| 2019 | 1 | 0 | 0 | 15 | 0 | 16 |
| 2020 | 0 | 0 | 0 | 11 | 1 | 12 |
| Total | 21 | 0 | 1 | 210 | 10 | 242 |

A notable difference between the head coaching and offensive coordinator data sets was the total absence of Latino offensive coordinators and the presence of one offensive coordinator who was Chinese American. The presence of a Chinese American offensive coordinator marked the first Chinese American in the data set across all coaching positions examined. The 2002-03 and 2015-16 seasons saw the highest percentages of African American offensive coordinators hired. There were six years since the start of the Rooney Rule where no offensive coordinators of Color were hired, but White offensive coordinators were hired every year and constituted the majority of hires every year. The 2017-18 season had the greatest number of openings and 100% of them were filled with White offensive coordinators. There were three years in which no offensive coordinators of Color were hired but there were positions left unfilled in those years. Overall, ten times as many White offensive coordinators as African American offensive coordinators were hired between seasons ending 2003 and 2020.

Similar to the head coaching data, a look at race/ethnicity across all the seasons in this study and the bookend seasons comparison showed little variance. Figure 5 shows the racial/ethnic percentages of incoming and outgoing NFL offensive coordinators for the entire 18-year window. Figure 6 shows a bookend comparison of racial/ethnic breakdown of incoming and outgoing offensive coordinators in the 2002-03 and 2019-20 seasons.

Figure 5

Percentages of Incoming and Outgoing Offensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

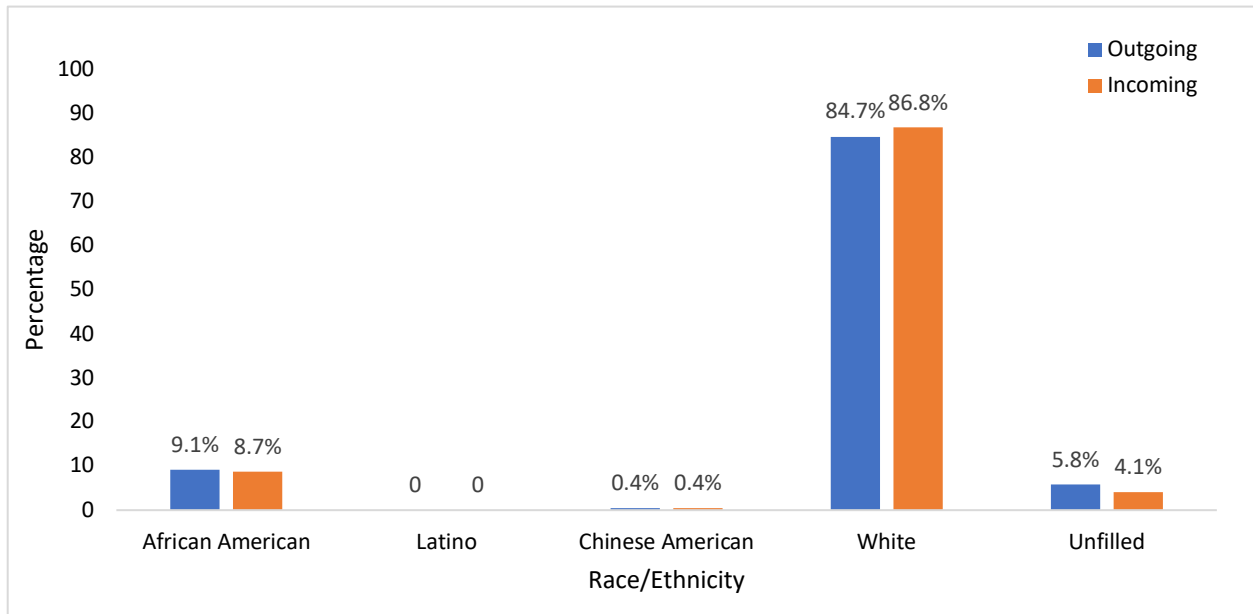
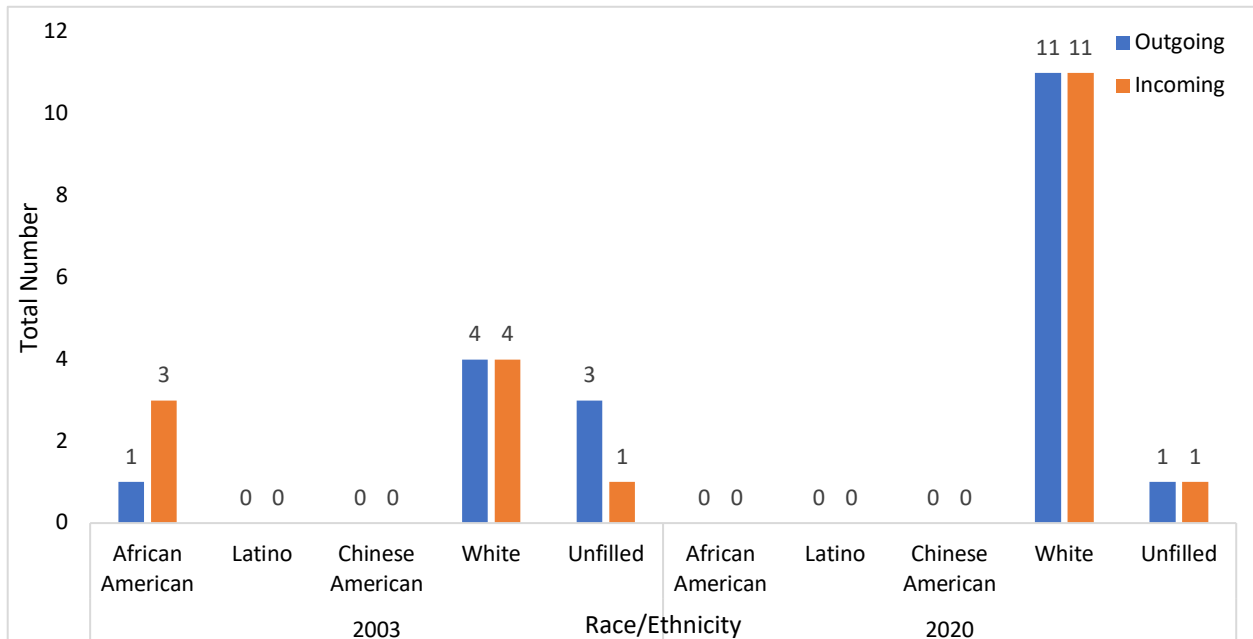


Figure 6

Incoming and Outgoing Offensive Coordinators by Race/Ethnicity in 2002-03 vs. 2019-20



NFL Offensive Coordinators by Coaching Experience

In the previous iteration, there was no exploration of the pathways leading to the major pipelines. In terms of examining challenges and opportunities, it was beneficial to ask where NFL offensive coordinators come from and how their experiences and successes compare across race/ethnicity. Table 9 compares the range, mean, and standard deviations for winning percentages for offensive coordinators of Color compared to their White colleagues.

Table 9

Range, Mean, and Standard Deviation of Winning Percentages for Outgoing Offensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| | N | Range | Mean | Standard Deviation |
|--------------|-----|-----------|------|--------------------|
| White OCs | 205 | .000-.875 | .457 | .157 |
| OCs of Color | 23 | .075-.688 | .408 | .176 |

Note. OC = Offensive Coordinator.

Again, winning percentages were similar for offensive coordinators of Color and White offensive coordinators. Table 10 provides the ranges, means, and standard deviations for years spent as offensive coordinators.

Table 10

Range, Mean, and Standard Deviation of Years with the Team for Outgoing Offensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

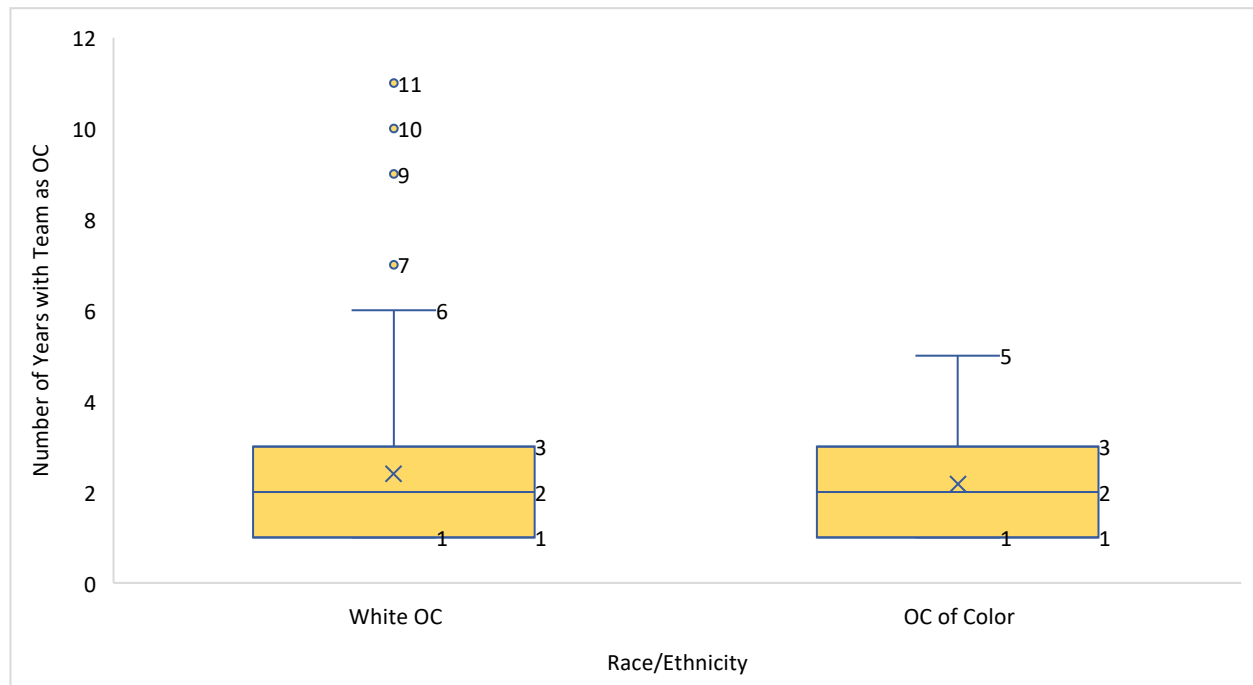
| | N | Range | Mean | Standard Deviation |
|--------------|-----|-------|------|--------------------|
| White OCs | 205 | 1-11 | 2.40 | 1.72 |
| OCs of Color | 23 | 1-5 | 2.17 | 1.11 |

Note. OC = Offensive Coordinator.

The tenure range for offensive coordinators of Color was more restricted than that of White offensive coordinators. Given the small number of offensive coordinators of Color, inferential statistical analyses were not completed. As a result, it was difficult to determine what drove this somewhat truncated range. However, examination of the distribution on a box and whisker plot showed that White offensive coordinators had several outliers at the upper extension of the range and the bulk of the distribution was similar to that of offensive coordinators of Color. Figure 7 shows the box and whiskers plot of the data.

Figure 7

Boxplot of Number of Years with the Team as Offensive Coordinator by Race/Ethnicity for 2002-03 – 2019-20



Note. OC = Offensive Coordinator.

A final examination of the offensive coordinator pipeline was directed at the positions held just prior to being hired as offensive coordinator. The positions offensive coordinators held prior to being hired is broken down by race in Table 11.

Table 11

Immediate Previously Held Position of Incoming Offensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| Prior Position | Race/Ethnicity | | | | Total |
|-------------------|------------------|--------|------------------|-------|-------|
| | African American | Latino | Chinese American | White | |
| College HC | 0 | 0 | 0 | 10 | 10 |
| College OC | 1 | 0 | 1 | 4 | 6 |
| College Position | 0 | 0 | 0 | 3 | 3 |
| Non-coach College | 0 | 0 | 0 | 3 | 3 |
| HC | 1 | 0 | 0 | 21 | 22 |
| AHC | 0 | 0 | 0 | 5 | 5 |
| OC | 4 | 0 | 0 | 48 | 52 |
| OL Coach | 0 | 0 | 0 | 13 | 13 |
| QB | 1 | 0 | 0 | 67 | 68 |
| RB Coach | 7 | 0 | 0 | 3 | 10 |
| WR Coach | 5 | 0 | 0 | 8 | 13 |
| TE Coach | 0 | 0 | 0 | 14 | 14 |
| NFL Other | 1 | 0 | 0 | 6 | 7 |
| HC Other Pro | 0 | 0 | 0 | 2 | 2 |
| Retired | 0 | 0 | 0 | 1 | 1 |
| Unemployed | 1 | 0 | 0 | 2 | 3 |
| Total | 21 | 0 | 1 | 210 | 232 |

Note. Unless otherwise specified coaching positions are in the National Football League; HC = Head Coach; OC = Offensive Coordinator; AHC = Assistant Head Coach; OL = Offensive Line; QB = Quarterback; RB = Running Back; WR = Wide Receiver; TE = Tight End; Other Pro = other professional league.

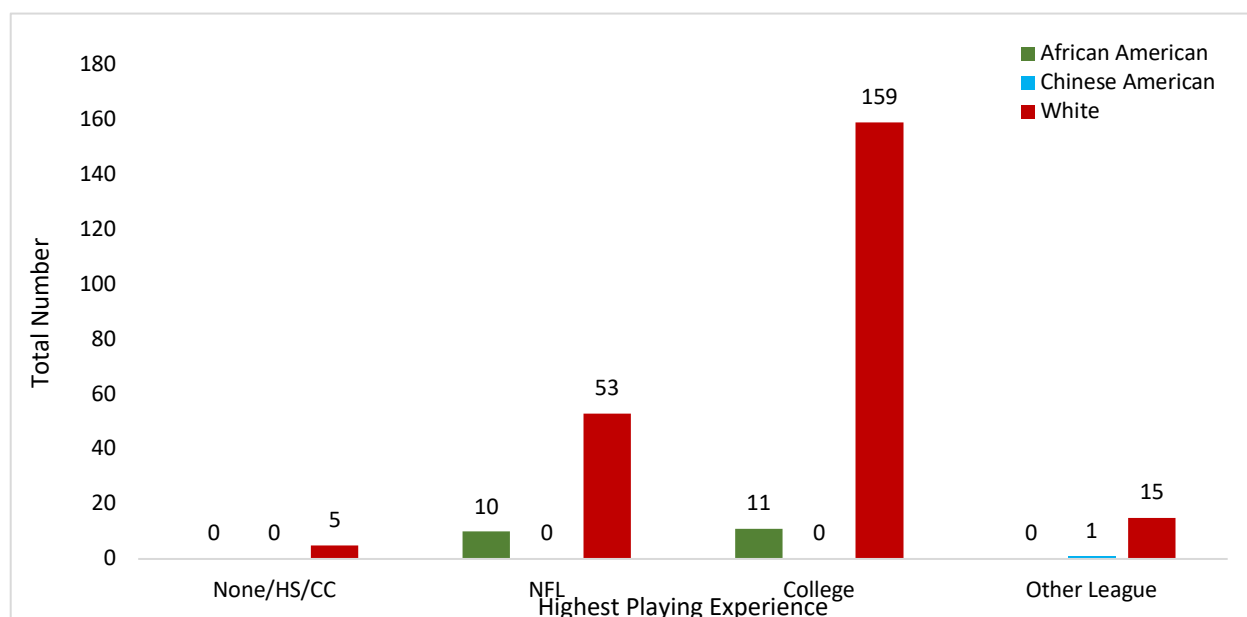
Given that the offensive coordinator position was a major path for White head coaches, it was not surprising that the majority of offensive coordinators in this sample are White. It was noteworthy that the greatest numbers of African American offensive coordinators came from running back and wide receiver coaching positions. White offensive coordinators came from a wider range of coaching titles, with the heaviest concentration in quarterback coaching positions.

NFL New-Hire Offensive Coordinators by Playing Experience

As a whole, most offensive coordinators played at least at the college level. As was observed in the head coaching data, only White offensive coordinators obtained their position without having at least college-level playing experience. Figure 8 shows highest level of playing experience broken down by race/ethnicity.

Figure 8

Incoming Offensive Coordinators' Highest Playing Experience by Race/Ethnicity for 2002-03 – 2019-20



Note. HS = High School; CC = Community College; NFL = National Football League.

NFL New-Hire Offensive Coordinators by Age

The mean age at time of hire for offensive coordinators of Color was similar to that of White offensive coordinators. Again, there was a truncated age range. Table 12 lists the range, mean, and standard deviation by race/ethnicity for offensive coordinators.

Table 12

Mean Age and Age Range at Time of Hire for Incoming Offensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| | N | Range | Mean | Standard Deviation |
|--------------|-----|-------|------|--------------------|
| White OCs | 210 | 20-68 | 45.9 | 9.40 |
| OCs of Color | 22 | 37-63 | 48.5 | 8.17 |

Note. OC = Offensive Coordinator; Age in years.

Offensive coordinators of Color age 40 and under were hired at lower rates, proportionally, compared to White offensive coordinators, 18% and 31% respectively. However, for older offensive coordinators, the opposite was true. Offensive coordinators age 60 or older made up almost 14% of offensive coordinators of Color hired in the 18-seasons included in this study. Their White counterparts age 60 or older only made up 8% of White offensive coordinators hired.

Next Opportunities for Offensive Coordinators

Given that the offensive coordinator position was a stronger pipeline to head coaching for White offensive coordinators compared to offensive coordinators of Color, it was necessary to examine the historical next opportunities for those leaving the position. Table 13 lists the next position obtained by outgoing offensive coordinators.

Table 13

Next Opportunity for Offensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| Next Position | Race/Ethnicity | | | Total |
|-------------------|------------------|------------------|-------|-------|
| | African American | Chinese American | White | |
| HC | 3 | 0 | 35 | 38 |
| AHC | 0 | 0 | 4 | 4 |
| OC | 2 | 0 | 41 | 43 |
| OL | 0 | 0 | 8 | 8 |
| QB | 1 | 0 | 10 | 11 |
| WR | 2 | 0 | 3 | 5 |
| TE | 0 | 0 | 6 | 6 |
| RB | 3 | 0 | 0 | 3 |
| NFL Position | 5 | 0 | 30 | 35 |
| NFL Other | 1 | 0 | 14 | 15 |
| College HC | 0 | 0 | 8 | 8 |
| College OC | 0 | 1 | 6 | 7 |
| College Position | 0 | 0 | 1 | 1 |
| Non-Coach College | 0 | 0 | 1 | 1 |
| HC Other Pro | 0 | 0 | 2 | 2 |
| Other Pro Coach | 0 | 0 | 1 | 1 |
| Media | 0 | 0 | 1 | 1 |
| Retired | 2 | 0 | 7 | 9 |
| Unemployed | 3 | 0 | 26 | 29 |
| Other | 0 | 0 | 1 | 1 |
| Total | 22 | 1 | 205 | 228 |

Note. Unless otherwise specified coaching positions are in the National Football League; HC = Head Coach; AHC = Assistant Head Coach; OC = Offensive Coordinator; OL = Offensive Line; QB = Quarterback; WR = Wide Receiver; TE = Tight End; RB = Running Back; NFL = National Football League; Other Pro = other professional league.

White offensive coordinators had a broader range of opportunities when they left their positions. Offensive coordinators of Color moved to NFL head coaching positions at close to the same proportion as White offensive coordinators. However, the numbers of offensive coordinators of Color were so low throughout this 18-season data set that even if 100% moved into head coaching positions, the number of head coaches of Color would remain relatively low.

Defensive Coordinators

The second most fluid pipeline into head coaching in the NFL, defensive coordinator, was one that appeared more accessible to coaches of Color. A deeper assessment of the path and experience of defensive coordinators in this sample provided a broader view of hiring patterns. Of note in the 2019-20 season, the Minnesota Vikings hired two co-defensive coordinators, one African American, Andre Patterson, and one White defensive coordinator, Adam Zimmer. They were counted separately for the purposes of these analyses. Therefore, the number of defensive coordinator positions may not match in some data representing incoming defensive coordinators. The full list of incoming and outgoing defensive coordinators can be found in Appendix C.

Racial/Ethnic Breakdown of Incoming and Outgoing NFL Defensive Coordinators – 2002-03 vs. 2019-20

Looking across all the seasons included in these analyses, the defensive coordinator position offered greater diversity than either the head coach or offensive coordinator positions. It is noteworthy that, while Latinos did not have a presence in the offensive coordinator position, they did in the defensive coordinator position. The presence of an Arab American defensive coordinator marked the first Arab American in the data across all coaching positions examined. Table 14 contains a breakdown of the racial/ethnic makeup of defensive coordinators over the 18-season timespan evaluated here.

Table 14

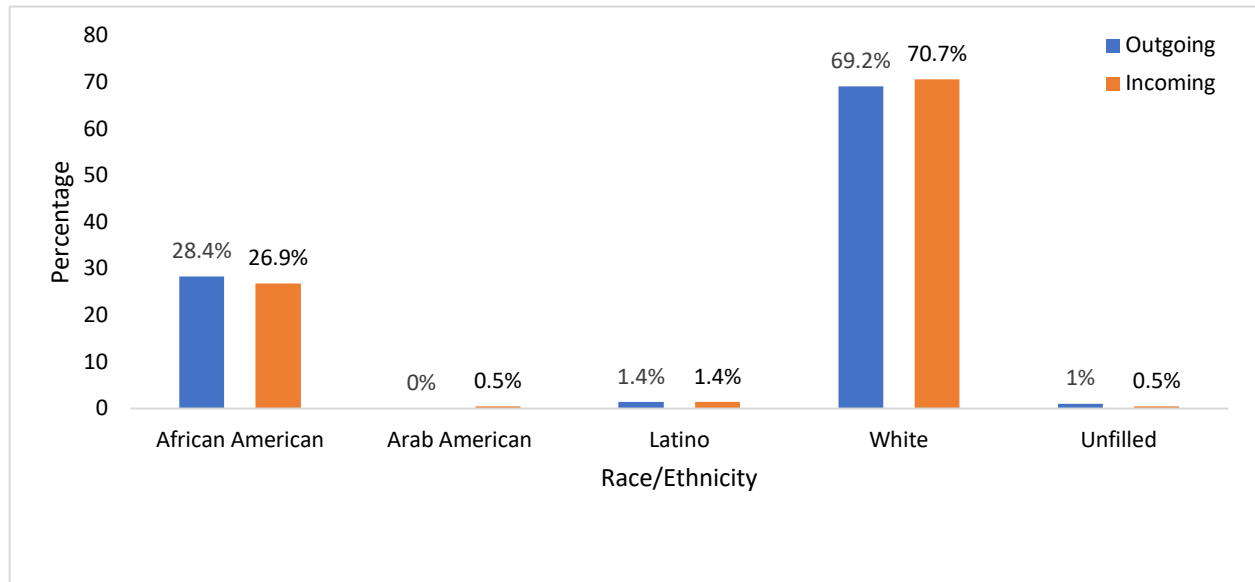
Incoming Defensive Coordinators by Race/Ethnicity for 2002-03 - 2019-20

| Season Ending | Race/Ethnicity | | | | Unfilled | Total |
|------------------|---------------------|------------------|--------|-------|----------|-------|
| | African American | Arab American | Latino | White | | |
| 2003 | 3 | 0 | 0 | 5 | 0 | 8 |
| 2004 | 3 | 0 | 1 | 11 | 0 | 15 |
| 2005 | 0 | 0 | 0 | 7 | 0 | 7 |
| 2006 | 3 | 0 | 0 | 8 | 0 | 11 |
| 2007 | 3 | 0 | 0 | 6 | 0 | 9 |
| 2008 | 2 | 0 | 0 | 4 | 0 | 6 |
| 2009 | 3 | 0 | 1 | 17 | 1 | 22 |
| 2010 | 4 | 0 | 0 | 6 | 0 | 10 |
| 2011 | 2 | 0 | 1 | 11 | 0 | 14 |
| 2012 | 1 | 0 | 0 | 12 | 0 | 13 |
| 2013 | 5 | 0 | 0 | 7 | 0 | 12 |
| 2014 | 5 | 0 | 0 | 5 | 0 | 10 |
| 2015 | 3 | 0 | 0 | 11 | 0 | 14 |
| 2016 | 2 | 0 | 0 | 6 | 0 | 8 |
| 2017 | 4 | 1 | 0 | 6 | 0 | 11 |
| 2018 | 5 | 0 | 0 | 9 | 0 | 14 |
| 2019 | 4 | 0 | 0 | 6 | 0 | 10 |
| 2020 | 4 | 0 | 0 | 10 | 0 | 14 |
| Total | 56 | 1 | 3 | 147 | 1 | 208 |

The number of defensive coordinators of Color hired did not increase in seasons when greater numbers of hires were made, such as in 2009. The seasons ending in 2013 and 2014 both had the highest number of African Americans hired, and 2014 was the only year when the same number of defensive coordinators of Color and White defensive coordinators were hired. Despite the diverse hiring in this position, the total numbers of defensive coordinators of Color hired represented a fraction of the total number of White defensive coordinators hired. Figure 9 shows the percentages of incoming and outgoing defensive coordinators by race/ethnicity.

Figure 9

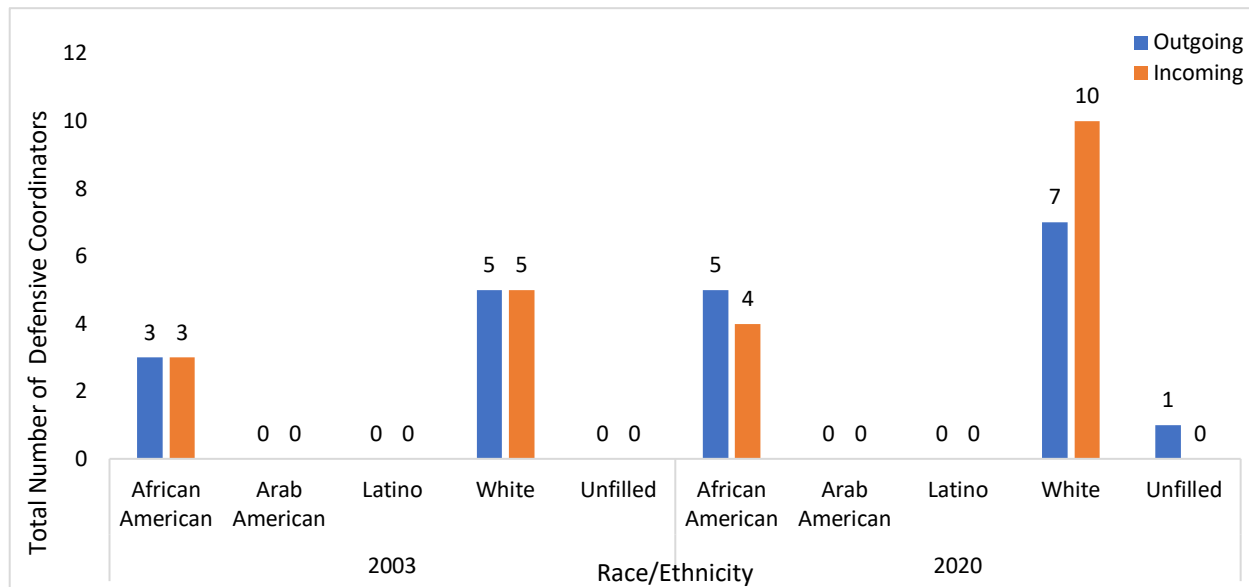
Percentages of Incoming and Outgoing Defensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20



The percentages of incoming and outgoing defensive coordinators across all the years showed a relatively stable distribution within each race/ethnicity. However, a breakdown of the total numbers incoming and outgoing at the start of the Rooney Rule era and the season ending 2020 showed a slight decrease in African Americans and an increase in White defensive coordinators hired. Figure 10 shows a bookend season comparison of incoming and outgoing defensive coordinators by race/ethnicity.

Figure 10

Incoming and Outgoing Defensive Coordinators by Race/Ethnicity in 2002-03 vs. 2019-20



NFL Defensive Coordinators by Coaching Experience

The same parameters explored in head coaching and offensive coordinators coaching experience, winning percentages, tenure in position, and prior coaching experience were examined within outgoing and incoming defensive coordinators. Table 15 provides the range, mean, and standard deviation for outgoing defensive coordinators by race/ethnicity.

Table 15

Range, Mean, and Standard Deviation of Winning Percentages for Outgoing Defensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| | N | Range | Mean | Standard Deviation |
|--------------|-----|----------|------|--------------------|
| White DCs | 144 | .013-.84 | .467 | .158 |
| DCs of Color | 62 | .06-.76 | .451 | .154 |

Note. DC = Defensive Coordinator.

As with the other coaching positions analyzed, the winning percentage was not different according to racial/ethnic groups. When looking at years in their position, defensive coordinators had a truncated range, although the mean years as defensive coordinator were similar. Table 16 details the range, mean, and standard deviation of defensive coordinators' tenure by race/ethnicity.

Table 16

Range, Mean, and Standard Deviation of Years with the Team for Outgoing Defensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| | N | Range | Mean | Standard Deviation |
|--------------|-----|-------|------|--------------------|
| White DCs | 144 | 1-13 | 2.40 | 1.72 |
| DCs of Color | 62 | 1-7 | 2.17 | 1.11 |

Note. DC = Defensive Coordinator.

Again, these disparate ranges suggested that the distributions may be different between White defensive coordinators and defensive coordinators of Color. Similar to the head coaching data, the bulk of White defensive coordinators held tenure in their positions for two to four years but several held positions for more than seven years, which was equal to the longest tenure for a defensive coordinator of Color.

Figure 11

Boxplot of Number of Years with the Team as Defensive Coordinator by Race/Ethnicity for 2002-03 – 2019-20



Note. DC = Defensive Coordinator.

Simple correlational analyses were conducted to determine whether there was a relationship between race/ethnicity, time in defensive coordinator position, and winning percentage. Unlike head coaching data, number of years with a team was significantly negatively correlated with being a defensive coordinator of Color and significantly positively correlated with winning percentage. Defensive coordinators of Color had

shorter tenures and those with more wins had longer tenures. Table 17 shows correlational analyses for those parameters.

Table 17

Correlation Coefficients and p Values of Winning Percentage and Years with Team for Defensive Coordinator of Color (n = 206) for 2002-03 – 2019-20

| | DC of Color | Winning Percentage |
|---------------------|------------------|--------------------|
| Winning Percentage | -.047 (.498) | |
| Years with the Team | -.139* (.046) | .325** (<.001) |

Note. DC = Defensive Coordinator.

* $p < .05$ (2-tailed); ** $p < .001$ (2-tailed)

With years with the team as the dependent variable, the significantly correlated variables (defensive coordinator of Color and winning percentage) were entered as predictor variables in a multiple linear regression analysis. The regression model was significant ($R^2_{adj} = .112$, $F(2, 203) = 13.95$, $p < .001$). The analysis showed that only winning percentage significantly predicted years with team as a defensive coordinator ($\beta = .319$, $t = 4.84$, $p < .001$). Being a defensive coordinator of Color did not significantly predict time with the team, but approached significance ($\beta = -.124$, $t = -1.89$, $p = .061$). It would be beneficial to examine this relationship with a larger sample size of defensive coordinators of Color.

As with head coaches and offensive coordinators, prior coaching positions held by the defensive coordinators hired during this 18-season period were also examined. Table 18 summarizes immediate prior position by race/ethnicity for incoming defensive coordinators.

Table 18

Immediate Previously Held Position of Incoming Defensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| Prior Position | Race/Ethnicity | | | | Total |
|------------------|------------------|--------|---------------|-------|-------|
| | African American | Latino | Arab American | White | |
| College AHC | 0 | 0 | 0 | 1 | 1 |
| College DC | 0 | 0 | 0 | 3 | 3 |
| College Position | 0 | 0 | 0 | 1 | 1 |
| HC | 8 | 0 | 0 | 17 | 25 |
| AHC | 2 | 0 | 0 | 1 | 3 |
| DC | 13 | 0 | 0 | 35 | 48 |
| DL Coach | 5 | 0 | 0 | 8 | 13 |
| LB Coach | 6 | 2 | 1 | 51 | 60 |
| DB Coach | 15 | 0 | 0 | 10 | 25 |
| DE Coach | 0 | 0 | 0 | 1 | 1 |
| CB Coach | 0 | 0 | 0 | 1 | 1 |
| TE Coach | 0 | 0 | 0 | 1 | 1 |
| OL Coach | 0 | 1 | 0 | 0 | 1 |
| NFL Other | 6 | 0 | 0 | 12 | 18 |
| HC Other Pro | 0 | 0 | 0 | 1 | 1 |
| DC Other Pro | 0 | 0 | 0 | 1 | 1 |
| Media | 0 | 0 | 0 | 1 | 1 |
| Retired | 1 | 0 | 0 | 0 | 1 |
| Unemployed | 0 | 0 | 0 | 2 | 2 |
| Total | 56 | 3 | 1 | 147 | 207 |

Note. Unless otherwise specified coaching positions are in the National Football League; HC = Head Coach; AHC = Assistant Head Coach; DC = Defensive Coordinator; DL = Defensive Line; LB = Linebacker; DB = Defensive Back; DE = Defensive End; CB = Cornerback; TE = Tight End; OL = Offensive Line; NFL = National Football League; Other = non-coaching position; Other Pro = other professional league.

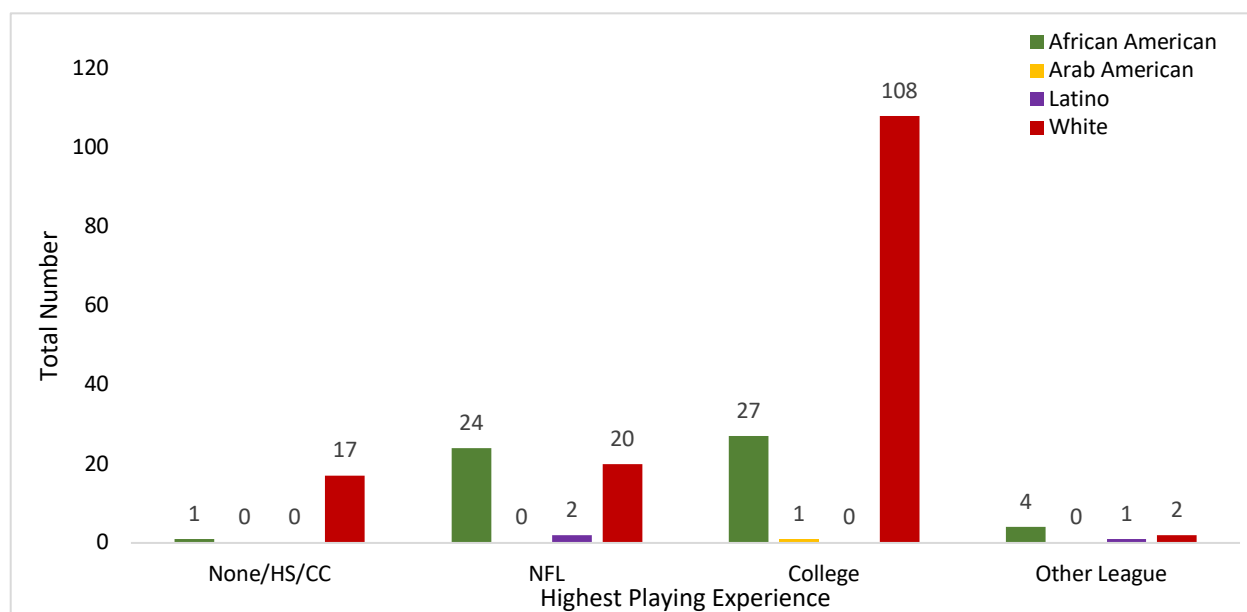
The strongest pipeline for coaches of Color to obtain defensive coordinator positions was through experience as an NFL defensive backs coach, the only immediate prior position held by more African American than White defensive coordinators. Overall, more defensive coordinators came from NFL linebackers coaching positions than any other coaching position. It was the strongest pathway for White defensive coordinators, but also was the only position held by African American, Latino, and Arab American defensive coordinators. The defensive coordinator pipeline had one coaching pathway that was not utilized by White defensive coordinators, which was NFL offensive line coach. This pattern is in contrast to the offensive coordinator pipeline, which did not have any pathways unutilized by White coordinators.

NFL New-Hire Defensive Coordinators by Playing Experience

Playing experience for defensive coordinators differed slightly from head coach and offensive coordinator data. There was one African American defensive coordinator, Al Holcomb, whose highest level of playing experience was below the college level. For the other coaching positions explored in this study, only White coaches' highest level of playing experience fell below the college level. However, limited playing experience was less of an exception for White defensive coordinators, of whom nearly 12% had no significant playing experience compared to what equated to less than 2% of African American defensive coordinators. Overall, most defensive coordinators had college or NFL playing experience regardless of race or ethnicity. Figure 12 shows the highest level of playing experience by race/ethnicity.

Figure 12

Incoming Defensive Coordinators' Highest Playing Experience by Race/Ethnicity for 2002-03 – 2019-20



Note. HS = High School; CC = Community College; NFL = National Football League.

NFL New-Hire Defensive Coordinators by Age

We again observed a somewhat truncated age range for defensive coordinators of Color compared to White defensive coordinators despite similar mean ages. Table 19 provides the range, mean, and standard deviation of age at hire by race/ethnicity for defensive coordinators.

Table 19

Mean Age and Age Range at Time of Hire for Incoming Defensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| | N | Range | Mean | Standard Deviation |
|--------------|-----|-------|-------|--------------------|
| White DCs | 147 | 34-77 | 50.65 | 9.01 |
| DCs of Color | 60 | 32-70 | 47.63 | 8.03 |

Note. DC = Defensive Coordinator; Age in years.

The upper end of the age range for all defensive coordinators was older than either offensive coordinators or head coaches, with White defensive coordinators having the oldest new hires. Only African American and White defensive coordinators were hired at age 60 or older during this timeframe. Examination of defensive coordinators age 60 or older by race/ethnicity showed that nine White defensive coordinators age 65 or older were hired. Two of those nine were older than the only two African American defensive coordinators hired in this age group, both of whom were age 70.

Next Opportunities for Defensive Coordinators

The data indicated a truncated tenure for defensive coordinators of Color compared to their White counterparts. Given that this was an examination of pipelines to head coaching, it was important to evaluate the post-defensive coordinator opportunities for those leaving the position. Table 20 details next opportunities for outgoing defensive coordinators by race/ethnicity.

Table 20

Next Opportunity for Defensive Coordinators by Race/Ethnicity for 2002-03 – 2019-20

| Prior Position | Race/Ethnicity | | | Total |
|---------------------|------------------|--------|-------|-------|
| | African American | Latino | White | |
| College HC | 0 | 0 | 3 | 3 |
| College DC | 0 | 0 | 5 | 5 |
| College Position | 1 | 0 | 1 | 2 |
| College Other | 1 | 0 | 4 | 5 |
| HC | 9 | 1 | 23 | 33 |
| AHC | 2 | 0 | 6 | 8 |
| Interim HC | 1 | 0 | 0 | 1 |
| DC | 16 | 0 | 33 | 49 |
| DL Coach | 0 | 0 | 1 | 1 |
| NFL Position | 15 | 2 | 32 | 49 |
| NFL Other | 6 | 0 | 14 | 20 |
| DC Other Pro | 0 | 0 | 1 | 1 |
| Non-Coach Other Pro | 0 | 0 | 1 | 1 |
| Retired | 1 | 0 | 5 | 6 |
| Unemployed | 7 | 0 | 15 | 22 |
| Total | 59 | 3 | 144 | 206 |

Note. Unless otherwise specified coaching positions are in the National Football League; HC = Head Coach; DC = Defensive Coordinator; AHC = Assistant Head Coach; DL = Defensive Line; NFL = National Football League; Other Pro = other professional league.

More African American defensive coordinators moved into head coaching positions within the NFL immediately after leaving their defensive coordinator position compared to those leaving offensive coordinator positions. This pattern was evident in the head coaching pipeline data as well. The largest number of African American defensive coordinators went to other NFL defensive coordinator positions or became NFL position coaches. These were the same patterns for White defensive coordinators and at similar proportions. Moving to an interim NFL head coach was only done by an African American defensive coordinator, Romeo Crennel, who was hired by the Houston Texans. He was their first African American head coach and the oldest head coach in the NFL at the time. His head coaching data were not captured in this study, as interim coaching data were not included.

Discussion

Head Coaches

The findings from this updated study support and strengthen the findings of the initial working paper. Whether examining the number of new head coaches hired over the entire 18-season span, or examining bookend numbers comparing 2002-03 and 2019-20 seasons, head coaches of Color have not experienced consistent increased numbers of annual new hires since the onset of the Rooney Rule. They continue to comprise a small percentage of the total head coaches in the NFL, compared to White head coaches. One data point not observed in the initial study is the back-to-back hiring of a coach of Color, Ron Rivera, by two different teams without a gap in his role as a head coach. This single data point offers promise but is indeed only a single data point and does not connote a pattern. It also does not extend to African American head coaches hired during this timeframe.

The data presented here add to the literature citing the disappearance of the previously observed superior winning statistics for African American head coaches (Madden & Ruther, 2011). Indeed, the head coaches included in this study demonstrate similar win-loss percentages regardless of race/ethnicity. Further, years with a team are related to winning percentage, not race or ethnicity. However, the head coaching tenure for head coaches of Color is somewhat truncated barring Marvin Lewis' 16-season outlier. With the disproportionately low number of head coaches of Color hired in this timeframe, these statistical analyses should be viewed cautiously.

The pipeline to becoming a head coach does not change with this study's additional data. In both analyses the strongest pathway to head coach for men of Color is through defensive coordinator positions. For White head coaches it is through offensive coordinator positions. These findings are consistent with other studies (e.g. Madden & Ruther, 2011; Braddock et al., 2012). The head coaches of Color in the expanded data set still demonstrate more consistent playing experience at the college and NFL levels compared to their White colleagues. Additionally, White head coaches still represent the only group to advance to NFL head coach without having other NFL coaching experience. Overall, compared to head coaches of Color, White head coaches' qualifications include more options for level of playing and coaching experience, and they are presented with a greater variety of coaching options when their time as head coach ends.

Offensive Coordinators

The analyses of offensive coordinator hiring patterns target more variables than the earlier iteration. These additional data allow for the identification of patterns not

previously explored. It is not surprising that most White head coaches come from offensive coordinator backgrounds. There are ten times as many White coaches hired into offensive coordinator positions than there are African American coaches in the 18-season timeframe. There are no Latino offensive coordinators hired in this timeframe, but there is a Chinese American offensive coordinator hired – the only Chinese American in any coaching positions. Compared to the other main pipeline to head coach, defensive coordinator, there is far less diversity in NFL offensive coordinators hired. A noteworthy hire by the Tennessee Titans in 2005 is Norm Chow, the only Chinese American hired into any coaching position included in this data set.

The largest number of offensive coordinators comes from quarterback coaching positions. Of the 68 quarterback coaches who become offensive coordinators during this time, 67 of them are White. Given that the quarterback position itself has historically been given to White players, and the recent relative influx of African Americans playing quarterback in the NFL (Faller, 2020), it begs the question, “Will the future offer a more robust player pathway to the offensive side of coaching?” The data collected for this study do not include playing experience related to position, only level of play beyond high school. Similar to head coaches, when compared to offensive coordinators of Color, White offensive coordinators come from more varied playing and coaching experience and have a greater variety of next coaching opportunities.

Defensive Coordinators

Although similar to the findings for head coaches and offensive coordinators in many lights, some interesting differences arise in this major gateway to head coaching. First, the racial/ethnic composition is more diverse. This is not a surprising finding given that most head coaches of Color come from a defensive coordinator background, including the one and only Arab American coach. A unique picture emerges in the pathway to becoming a defensive coordinator. First, there is a prior position occupied by an incoming defensive coordinator of Color that is not occupied by a White defensive coordinator, something not observed in either head coach or offensive coordinator prior positions. Also, most African American defensive coordinators are previously defensive back coaches and outnumber White defensive coordinators from this position. Finally, the pathway from linebacker coach to defensive coordinator is the lone example of a pathway shared by coaches from four different racial/ethnic backgrounds; African American, Arab American, Latino, and White.

In terms of metrics of success, there is a correlation between race/ethnicity and tenure as defensive coordinator. However, when further explored the race/ethnicity does not significantly predict tenure with the team. The limited sample size of defensive coordinators of Color has to be considered. Given that the predictive relationship approached significance, a future larger sample may provide more robust analysis opportunities.

Despite its greater diversity compared to head coach and offensive coordinator roles, defensive coordinators share some diversity limitations with the other coaching jobs. White defensive coordinators come from a wider range of playing levels, a wider range of coaching experiences, and enjoy a wider variety of future opportunities.

General Discussion

The data in this study indicate differences in pipelines and pathways, experiences, and opportunities. The analyses provide answers to the questions, “What does the racial/ethnic composition of the 18 seasons look like since the Rooney Rule was implemented?” and “What are the similarities and differences for coaches of Color and White coaches?” These data point to possible challenges, barriers, and, yes, opportunities. At the end of the analyses, although there are spiked increases in hiring diversity, neither bookend, nor aggregate, nor year-to-year comparisons show a consistent year-to-year increase in the number of head coaches of Color, offensive coordinators of Color, or defensive coordinators of Color hired in the 18 seasons examined here.

Future Directions

Future research should continue to examine the patterns elucidated here, but should extend beyond the “What does it look like?” into exploring “Why does it look this way?” and, “What can we do to change it?” Digging deeper into the pipeline will be relevant as the player landscape changes and women continue to enter the NFL in a variety of coaching roles. Positions previously played by offensive and defensive coordinators should be explored as the NFL enters an era of increasing numbers of African American men playing quarterback. Will this influence the future of coaching? Will “qualifications” include factors unrelated to playing experience as women take a stronger foothold in NFL coaching? As their numbers grow, researchers will want to examine pipelines related to gender in addition to race and ethnicity.

Investigators should also examine ways in which networks affect coach hiring for race, ethnicity, and gender. Shropshire (1996) discussed how social circles and private relationships influence hiring in sport, describing how the “ol’ boys’ network” sometimes results in White franchise owners hiring former teammates and players who resemble them. Research on gender and race pay gaps may provide some context, such as Reskin et al.’s (1999) findings that all-female nursing units and non-White majority units earn less on average compared to units with some males and majority White nurses. It will be beneficial to examine coaching in the NFL and other leagues through these lenses to better understand how to move the ball forward in terms of equity and inclusion.

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Appendix A

Incoming and outgoing head coaches 2002-20

| Season | Team | Outgoing Head Coach | Incoming Head Coach |
|---------|----------------------|---------------------|---------------------|
| 2019-20 | Carolina Panthers | Ron Rivera | Matt Rhule |
| 2019-20 | Cleveland Browns | Freddie Kitchens | Kevin Stefanski |
| 2019-20 | Dallas Cowboys | Jason Garrett | Mike McCarthy |
| 2019-20 | New York Giants | Pat Shurmur | Joe Judge |
| 2019-20 | Washington | Jay Gruden | Ron Rivera |
| 2018-19 | Arizona Cardinals | Steve Wilks | Kliff Kingsbury |
| 2018-19 | Cincinnati Bengals | Marvin Lewis | Zac Taylor |
| 2018-19 | Cleveland Browns | Hue Jackson | Freddie Kitchens |
| 2018-19 | Denver Broncos | Vance Joseph | Vic Fangio |
| 2018-19 | Green Bay Packers | Mike McCarthy | Matt LaFleur |
| 2018-19 | Miami Dolphins | Adam Gase | Brian Flores |
| 2018-19 | New York Jets | Todd Bowles | Adam Gase |
| 2018-19 | Tampa Bay Buccaneers | Dirk Koetter | Bruce Arians |
| 2017-18 | Arizona Cardinals | Bruce Arians | Steve Wilks |
| 2017-18 | Chicago Bears | John Fox | Matt Nagy |
| 2017-18 | Detroit Lions | Jim Caldwell | Matt Patricia |
| 2017-18 | Indianapolis Colts | Chuck Pagano | Frank Reich |
| 2017-18 | New York Giants | Ben McAdoo | Pat Shurmur |
| 2017-18 | Oakland Raiders | Jack Del Rio | Jon Gruden |
| 2016-17 | Buffalo Bills | Rex Ryan | Sean McDermott |
| 2016-17 | Denver Broncos | Gary Kubiak | Vance Joseph |
| 2016-17 | Jacksonville Jaguars | Gus Bradley | Doug Marrone |
| 2016-17 | San Diego Chargers | Mike McCoy | Anthony Lynn |
| 2016-17 | Los Angeles Rams | Jeff Fisher | Sean McVay |
| 2016-17 | San Francisco 49ers | Chip Kelly | Kyle Shanahan |
| 2015-16 | Cleveland Browns | Mike Pettine | Hue Jackson |
| 2015-16 | Miami Dolphins | Joe Philbin | Adam Gase |
| 2015-16 | New York Giants | Tom Coughlin | Ben McAdoo |
| 2015-16 | Philadelphia Eagles | Chip Kelly | Doug Pederson |
| 2015-16 | San Francisco 49ers | Jim Tomsula | Chip Kelly |
| 2015-16 | Tampa Bay Buccaneers | Lovie Smith | Dirk Koetter |
| 2014-15 | Atlanta Falcons | Mike Smith | Dan Quinn |
| 2014-15 | Buffalo Bills | Doug Marrone | Rex Ryan |
| 2014-15 | Chicago Bears | Marc Trestman | John Fox |
| 2014-15 | Denver Broncos | John Fox | Gary Kubiak |
| 2014-15 | New York Jets | Rex Ryan | Todd Bowles |
| 2014-15 | Oakland Raiders | Dennis Allen | Jack Del Rio |
| 2013-14 | Cleveland Browns | Rob Chudzinski | Mike Pettine |
| 2013-14 | Detroit Lions | Jim Schwartz | Jim Caldwell |

| Season | Team | Outgoing Head Coach | Incoming Head Coach |
|---------|----------------------|---------------------|---------------------|
| 2013-14 | Houston Texans | Gary Kubiak | Bill O'Brien |
| 2013-14 | Minnesota Vikings | Leslie Frazier | Mike Zimmer |
| 2013-14 | Tampa Bay Buccaneers | Greg Schiano | Lovie Smith |
| 2013-14 | Washington | Mike Shanahan | Jay Gruden |
| 2012-13 | Arizona Cardinals | Ken Whisenhunt | Bruce Arians |
| 2012-13 | Buffalo Bills | Chan Gailey | Doug Marrone |
| 2012-13 | Chicago Bears | Lovie Smith | Marc Trestman |
| 2012-13 | Cleveland Browns | Pat Shurmur | Rob Chudzinski |
| 2012-13 | Jacksonville Jaguars | Mike Mularkey | Gus Bradley |
| 2012-13 | Kansas City Chiefs | Romeo Crennel | Andy Reid |
| 2012-13 | San Diego Chargers | Norv Turner | Mike McCoy |
| 2012-13 | Philadelphia Eagles | Andy Reid | Chip Kelly |
| 2011-12 | Indianapolis Colts | Jim Caldwell | Chuck Pagano |
| 2011-12 | Jacksonville Jaguars | Jack Del Rio | Mike Mularkey |
| 2011-12 | Kansas City Chiefs | Todd Haley | Romeo Crennel |
| 2011-12 | St. Louis Rams | Steve Spagnuolo | Jeff Fisher |
| 2011-12 | Miami Dolphins | Tony Sparano | Joe Philbin |
| 2011-12 | Oakland Raiders | Hue Jackson | Dennis Allen |
| 2011-12 | Tampa Bay Buccaneers | Raheem Morris | Greg Schiano |
| 2010-11 | Carolina Panthers | John Fox | Ron Rivera |
| 2010-11 | Cleveland Browns | Eric Mangini | Pat Shurmur |
| 2010-11 | Dallas Cowboys | Wade Phillips | Jason Garrett |
| 2010-11 | Denver Broncos | Josh McDaniels | John Fox |
| 2010-11 | Minnesota Vikings | Brad Childress | Leslie Frazier |
| 2010-11 | Oakland Raiders | Tom Cable | Hue Jackson |
| 2010-11 | San Francisco 49ers | Mike Singletary | Jim Harbaugh |
| 2009-10 | Buffalo Bills | Dick Jauron | Chan Gailey |
| 2009-10 | Seattle Seahawks | Jim Mora | Pete Carroll |
| 2009-10 | Washington | Jim Zorn | Mike Shanahan |
| 2008-09 | Cleveland Browns | Romeo Crennel | Eric Mangini |
| 2008-09 | Denver Broncos | Mike Shanahan | Josh McDaniels |
| 2008-09 | Detroit Lions | Rod Marinelli | Jim Schwartz |
| 2008-09 | Indianapolis Colts | Tony Dungy | Jim Caldwell |
| 2008-09 | Kansas City Chiefs | Herm Edwards | Todd Haley |
| 2008-09 | St. Louis Rams | Scott Linehan | Steve Spagnuolo |
| 2008-09 | New York Jets | Eric Mangini | Rex Ryan |
| 2008-09 | Oakland Raiders | Lane Kiffin | Tom Cable |
| 2008-09 | San Francisco 49ers | Mike Nolan | Mike Singletary |
| 2008-09 | Seattle Seahawks | Mike Holmgren | Jim Mora |
| 2008-09 | Tampa Bay Buccaneers | John Gruden | Raheem Morris |
| 2007-08 | Atlanta Falcons | Bobby Petrino | Mike Smith |
| 2007-08 | Baltimore Ravens | Brian Billick | John Harbaugh |

| Season | Team | Outgoing Head Coach | Incoming Head Coach |
|---------|----------------------|----------------------|---------------------|
| 2007-08 | Miami Dolphins | Cam Cameron | Tony Sparano |
| 2007-08 | Washington | Joe Gibbs | Jim Zorn |
| 2006-07 | Arizona Cardinals | Dennis Green | Ken Whisenhunt |
| 2006-07 | Atlanta Falcons | Jim Mora | Bobby Petrino |
| 2006-07 | Dallas Cowboys | Bill Parcells | Wade Phillips |
| 2006-07 | San Diego Chargers | Marty Schottenheimer | Norv Turner |
| 2006-07 | Miami Dolphins | Nick Saban | Cam Cameron |
| 2006-07 | Oakland Raiders | Art Shell | Lane Kiffin |
| 2006-07 | Pittsburgh Steelers | Bill Cowher | Mike Tomlin |
| 2005-06 | Buffalo Bills | Mike Mularkey | Dick Jauron |
| 2005-06 | Detroit Lions | Steve Mariucci | Rod Marinelli |
| 2005-06 | Green Bay Packers | Mike Sherman | Mike McCarthy |
| 2005-06 | Houston Texans | Dom Capers | Gary Kubiak |
| 2005-06 | Kansas City Chiefs | Dick Vermeil | Herm Edwards |
| 2005-06 | St. Louis Rams | Mike Martz | Scott Linehan |
| 2005-06 | Minnesota Vikings | Mike Tice | Brad Childress |
| 2005-06 | New Orleans Saints | Jim Haslett | Sean Payton |
| 2005-06 | New York Jets | Herm Edwards | Eric Mangini |
| 2005-06 | Oakland Raiders | Norv Turner | Art Shell |
| 2004-05 | Cleveland Browns | Butch Davis | Romeo Crennel |
| 2004-05 | Miami Dolphins | Dave Wannstedt | Nick Saban |
| 2004-05 | San Francisco 49ers | Dennis Erickson | Mike Nolan |
| 2003-04 | Arizona Cardinals | Dave McGinnis | Dennis Green |
| 2003-04 | Atlanta Falcons | Dan Reeves | Jim Mora |
| 2003-04 | Buffalo Bills | Gregg Williams | Mike Mularkey |
| 2003-04 | Chicago Bears | Dick Jauron | Lovie Smith |
| 2003-04 | New York Giants | Jim Fassel | Tom Coughlin |
| 2003-04 | Oakland Raiders | Bill Callahan | Norv Turner |
| 2003-04 | Washington | Steve Spurrier | Joe Gibbs |
| 2002-03 | Cincinnati Bengals | Dick LeBeau | Marvin Lewis |
| 2002-03 | Dallas Cowboys | Dave Campo | Bill Parcells |
| 2002-03 | Detroit Lions | Marty Mornhinweg | Steve Mariucci |
| 2002-03 | Jacksonville Jaguars | Tom Coughlin | Jack Del Rio |
| 2002-03 | San Francisco 49ers | Steve Mariucci | Dennis Erickson |

Appendix B

Incoming and outgoing offensive coordinators 2002-20

| Season | Team | Incoming OC | Outgoing OC |
|---------|----------------------|-------------------|-------------------|
| 2019-20 | Cleveland Browns | Todd Monken | Alex Van Pelt |
| 2019-20 | Denver Broncos | Rich Scangarello | Pat Shurmur |
| 2019-20 | Jacksonville Jaguars | John DeFilippo | Jay Gruden |
| 2019-20 | Los Angeles Chargers | Ken Whisenhunt | Shane Steichen |
| 2019-20 | Miami Dolphins | Chad O'Shea | Chan Gailey |
| 2019-20 | New York Giants | Mike Shula | Jason Garrett |
| 2019-20 | Philadelphia Eagles | Mike Groh | Unfilled |
| 2019-20 | Washington | Kevin O'Connell | Scott Turner |
| 2019-20 | Chicago Bears | Mark Helfrich | Bill Lazor |
| 2019-20 | Minnesota Vikings | Kevin Stefanski | Gary Kubiak |
| 2019-20 | Carolina Panthers | Norv Turner | Joe Brady |
| 2019-20 | Los Angeles Rams | Unfilled | Kevin O'Connell |
| 2018-19 | Arizona Cardinals | Mike McCoy | Tom Clements |
| 2018-19 | Atlanta Falcons | Steve Sarkisian | Dirk Koetter |
| 2018-19 | Baltimore Ravens | Marty Mornhinweg | Greg Roman |
| 2018-19 | Cincinnati Bengals | Bill Lazor | Brian Callahan |
| 2018-19 | Cleveland Browns | Freddie Kitchens | Todd Monken |
| 2018-19 | Dallas Cowboys | Scott Linehan | Kellen Moore |
| 2018-19 | Denver Broncos | Bill Musgrave | Rich Scangarello |
| 2018-19 | Detroit Lions | Jim Bob Cooter | Darrell Bevell |
| 2018-19 | Green Bay Packers | Jim Hostler | Nathaniel Hackett |
| 2018-19 | Houston Texans | Unfilled | Tim Kelly |
| 2018-19 | Jacksonville Jaguars | Scott Milanovich | John DeFilippo |
| 2018-19 | Miami Dolphins | Dowell Loggains | Chad O'Shea |
| 2018-19 | New York Jets | Jeremy Bates | Dowell Loggains |
| 2018-19 | Tampa Bay Buccaneers | Todd Monken | Byron Leftwich |
| 2018-19 | Tennessee Titans | Matt LaFleur | Arthur Smith |
| 2018-19 | Washington | Matt Cavanaugh | Kevin O'Connell |
| 2017-18 | Arizona Cardinals | Harold Goodwin | Mike McCoy |
| 2017-18 | Buffalo Bills | Rick Dennison | Brian Daboll |
| 2017-18 | Carolina Panthers | Mike Shula | Norv Turner |
| 2017-18 | Chicago Bears | Dowell Loggains | Mark Helfrich |
| 2017-18 | Cincinnati Bengals | Ken Zampese | Bill Lazor |
| 2017-18 | Cleveland Browns | Hue Jackson | Freddie Kitchens |
| 2017-18 | Denver Broncos | Mike McCoy | Bill Musgrave |
| 2017-18 | Green Bay Packers | Edgar Bennett | Jim Hostler |
| 2017-18 | Indianapolis Colts | Rob Chudzinski | Nick Sirianni |
| 2017-18 | Jacksonville Jaguars | Nathaniel Hackett | Scott Milanovich |
| 2017-18 | Kansas City Chiefs | Matt Nagy | Eric Bieniemy |

| Season | Team | Incoming OC | Outgoing OC |
|---------|----------------------|-------------------|----------------------|
| 2017-18 | Los Angeles Rams | Matt LaFleur | Sean McVay |
| 2017-18 | Miami Dolphins | Clyde Christensen | Dowell Loggains |
| 2017-18 | Minnesota Vikings | Pat Shurmur | Kevin Stefanski |
| 2017-18 | New York Giants | Mike Sullivan | Mike Shula |
| 2017-18 | New York Jets | John Morton | Jeremy Bates |
| 2017-18 | Oakland Raiders | Todd Downing | Greg Olson |
| 2017-18 | Philadelphia Eagles | Frank Reich | Mike Groh |
| 2017-18 | Pittsburgh Steelers | Todd Haley | Randy Fichtner |
| 2017-18 | Seattle Seahawks | Darrell Bevell | Brian Schottenheimer |
| 2017-18 | Tennessee Titans | Terry Robiskie | Matt LaFleur |
| 2016-17 | Atlanta Falcons | Kyle Shanahan | Steve Sarkisian |
| 2016-17 | Baltimore Ravens | Marc Trestman | Marty Mornhinweg |
| 2016-17 | Buffalo Bills | Greg Roman | Rick Dennison |
| 2016-17 | Denver Broncos | Rick Dennison | Mike McCoy |
| 2016-17 | Houston Texans | George Godsey | Bill O'Brien |
| 2016-17 | Jacksonville Jaguars | Greg Olson | Nathaniel Hackett |
| 2016-17 | Los Angeles Rams | Rob Boras | Matt LaFleur |
| 2016-17 | Minnesota Vikings | Norv Turner | Pat Shurmur |
| 2016-17 | New York Jets | Chan Gailey | John Morton |
| 2016-17 | Oakland Raiders | Bill Musgrave | Todd Downing |
| 2016-17 | San Francisco 49ers | Curtis Modkins | Kyle Shanahan |
| 2016-17 | Washington | Sean McVay | Matt Cavanaugh |
| 2015-16 | Buffalo Bills | Greg Roman | Chris Palmer |
| 2015-16 | Chicago Bears | Adam Gase | Dowell Loggains |
| 2015-16 | Cincinnati Bengals | Hue Jackson | Ken Zampese |
| 2015-16 | Cleveland Browns | John DeFilippo | Hue Jackson |
| 2015-16 | Detroit Lions | Joe Lombardi | Jim Bob Cooter |
| 2015-16 | Kansas City Chiefs | Doug Pederson | Matt Nagy |
| 2015-16 | San Diego Chargers | Frank Reich | Ken Whisenhunt |
| 2015-16 | Miami Dolphins | Zac Taylor | Clyde Christensen |
| 2015-16 | New York Giants | Ben McAdoo | Mike Sullivan |
| 2015-16 | Philadelphia Eagles | Pat Shurmur | Frank Reich |
| 2015-16 | San Francisco 49ers | Geep Chryst | Curtis Modkins |
| 2015-16 | Tampa Bay Buccaneers | Dirk Koetter | Todd Monken |
| 2015-16 | Tennessee Titans | Jason Michael | Terry Robiskie |
| 2014-15 | Atlanta Falcons | Dirk Koetter | Kyle Shanahan |
| 2014-15 | Baltimore Ravens | Gary Kubiak | Marc Trestman |
| 2014-15 | Buffalo Bills | Nathaniel Hackett | Greg Roman |
| 2014-15 | Chicago Bears | Aaron Kromer | Adam Gase |
| 2014-15 | Cleveland Browns | Kyle Shanahan | John DeFilippo |
| 2014-15 | Denver Broncos | Adam Gase | Rick Dennison |
| 2014-15 | Green Bay Packers | Tom Clements | Edgar Bennett |

| Season | Team | Incoming OC | Outgoing OC |
|---------|----------------------|----------------------|-------------------|
| 2014-15 | Houston Texans | Bill O'Brien | George Godsey |
| 2014-15 | Indianapolis Colts | Pep Hamilton | Rob Chudzinski |
| 2014-15 | Jacksonville Jaguars | Jedd Fisch | Greg Olson |
| 2014-15 | St. Louis Rams | Brian Schottenheimer | Rob Boras |
| 2014-15 | Miami Dolphins | Bill Lazor | Zac Taylor |
| 2014-15 | New York Jets | Marty Mornhinweg | Chan Gailey |
| 2014-15 | Oakland Raiders | Greg Olson | Bill Musgrave |
| 2014-15 | San Francisco 49ers | Greg Roman | Geep Chryst |
| 2014-15 | Tampa Bay Buccaneers | Jeff Tedford | Dirk Koetter |
| 2013-14 | Baltimore Ravens | Jim Caldwell | Gary Kubiak |
| 2013-14 | Cincinnati Bengals | Jay Gruden | Hue Jackson |
| 2013-14 | Cleveland Browns | Norv Turner | Kyle Shanahan |
| 2013-14 | Dallas Cowboys | Bill Callahan | Scott Linehan |
| 2013-14 | Detroit Lions | Scott Linehan | Joe Lombardi |
| 2013-14 | Houston Texans | Rick Dennison | Bill O'Brien |
| 2013-14 | San Diego Chargers | Ken Whisenhunt | Frank Reich |
| 2013-14 | Miami Dolphins | Mike Sherman | Bill Lazor |
| 2013-14 | Minnesota Vikings | Bill Musgrave | Norv Turner |
| 2013-14 | New York Giants | Kevin Gilbride | Ben McAdoo |
| 2013-14 | Tampa Bay Buccaneers | Mike Sullivan | Jeff Tedford |
| 2013-14 | Tennessee Titans | Dowell Loggains | Jason Michael |
| 2013-14 | Washington | Kyle Shanahan | Sean McVay |
| 2012-13 | Arizona Cardinals | Mike Miller | Harold Goodwin |
| 2012-13 | Baltimore Ravens | Cam Cameron | Jim Caldwell |
| 2012-13 | Buffalo Bills | Curtis Modkins | Nathaniel Hackett |
| 2012-13 | Carolina Panthers | Rob Chudzinski | Mike Shula |
| 2012-13 | Chicago Bears | Mike Tice | Aaron Kromer |
| 2012-13 | Cleveland Browns | Brad Childress | Norv Turner |
| 2012-13 | Denver Broncos | Mike McCoy | Adam Gase |
| 2012-13 | Indianapolis Colts | Bruce Arians | Pep Hamilton |
| 2012-13 | Jacksonville Jaguars | Bob Bratkowski | Jedd Fisch |
| 2012-13 | Kansas City Chiefs | Brian Daboll | Doug Pederson |
| 2012-13 | San Diego Chargers | Hal Hunter | Ken Whisenhunt |
| 2012-13 | New York Jets | Tony Sparano | Marty Mornhinweg |
| 2012-13 | Oakland Raiders | Greg Knapp | Greg Olson |
| 2012-13 | Tennessee Titans | Chris Palmer | Dowell Loggains |
| 2011-12 | Atlanta Falcons | Mike Mularkey | Dirk Koetter |
| 2011-12 | Chicago Bears | Mike Martz | Mike Tice |
| 2011-12 | Cleveland Browns | Unfilled | Brad Childress |
| 2011-12 | Dallas Cowboys | Unfilled | Bill Callahan |
| 2011-12 | Green Bay Packers | Joe Philbin | Tom Clements |
| 2011-12 | Indianapolis Colts | Clyde Christensen | Bruce Arians |

| Season | Team | Incoming OC | Outgoing OC |
|---------|----------------------|----------------------|----------------------|
| 2011-12 | Jacksonville Jaguars | Dirk Koetter | Bob Bratkowski |
| 2011-12 | Kansas City Chiefs | Bill Muir | Brian Daboll |
| 2011-12 | San Diego Chargers | Clarence Shelmon | Hal Hunter |
| 2011-12 | St. Louis Rams | Josh McDaniels | Brian Schottenheimer |
| 2011-12 | Miami Dolphins | Brian Daboll | Mike Sherman |
| 2011-12 | New England Patriots | Bill O'Brien | Josh McDaniels |
| 2011-12 | New York Jets | Brian Schottenheimer | Tony Sparano |
| 2011-12 | Oakland Raiders | Al Saunders | Greg Knapp |
| 2011-12 | Philadelphia Eagles | Marty Mornhinweg | Pat Shurmur |
| 2011-12 | Pittsburgh Steelers | Bruce Arians | Todd Haley |
| 2011-12 | Tampa Bay Buccaneers | Greg Olson | Mike Sullivan |
| 2010-11 | Carolina Panthers | Jeff Davidson | Rob Chudzinski |
| 2010-11 | Cincinnati Bengals | Bob Bratkowski | Jay Gruden |
| 2010-11 | Cleveland Browns | Brian Daboll | Unfilled |
| 2010-11 | Dallas Cowboys | Jason Garrett | Unfilled |
| 2010-11 | Kansas City Chiefs | Charlie Weis | Bill Muir |
| 2010-11 | St. Louis Rams | Pat Shurmur | Josh McDaniels |
| 2010-11 | Miami Dolphins | Dan Henning | Brian Daboll |
| 2010-11 | Minnesota Vikings | Darrell Bevell | Bill Musgrave |
| 2010-11 | Oakland Raiders | Hue Jackson | Al Saunders |
| 2010-11 | San Francisco 49ers | Jimmy Raye | Greg Roman |
| 2010-11 | Seattle Seahawks | Jeremy Bates | Darrell Bevell |
| 2010-11 | Tennessee Titans | Mike Heimerdinger | Chris Palmer |
| 2009-10 | Arizona Cardinals | Unfilled | Mike Miller |
| 2009-10 | Buffalo Bills | Alex Van Pelt | Curtis Modkins |
| 2009-10 | Chicago Bears | Ron Turner | Mike Martz |
| 2009-10 | Houston Texans | Kyle Shanahan | Rick Dennison |
| 2009-10 | Indianapolis Colts | Tom Moore | Clyde Christensen |
| 2009-10 | Kansas City Chiefs | Unfilled | Charlie Weis |
| 2009-10 | New England Patriots | Unfilled | Bill O'Brien |
| 2009-10 | Oakland Raiders | Unfilled | Hue Jackson |
| 2009-10 | Seattle Seahawks | Greg Knapp | Jeremy Bates |
| 2009-10 | Washington | Sherman Smith | Kyle Shanahan |
| 2008-09 | Arizona Cardinals | Todd Haley | Unfilled |
| 2008-09 | Buffalo Bills | Turk Schonert | Alex Van Pelt |
| 2008-09 | Cleveland Browns | Rob Chudzinski | Brian Daboll |
| 2008-09 | Denver Broncos | Rick Dennison | Mike McCoy |
| 2008-09 | Detroit Lions | Jim Colletto | Scott Linehan |
| 2008-09 | Kansas City Chiefs | Chan Gailey | Unfilled |
| 2008-09 | St. Louis Rams | Al Saunders | Pat Shurmur |
| 2008-09 | New England Patriots | Josh McDaniels | Unfilled |
| 2008-09 | New Orleans Saints | Doug Marrone | Pete Carmichael |

| Season | Team | Incoming OC | Outgoing OC |
|----------|----------------------|-------------------|----------------------|
| 2008-09 | Oakland Raiders | Greg Knapp | Unfilled |
| 2008-09 | San Francisco 49ers | Mike Martz | Jimmy Raye |
| 2008-09 | Seattle Seahawks | Gil Haskell | Greg Knapp |
| 2008-09 | Tampa Bay Buccaneers | Bill Muir | Greg Olson |
| 2007- 08 | Atlanta Falcons | Hue Jackson | Mike Mularkey |
| 2007-08 | Baltimore Ravens | Rick Neuheisel | Cam Cameron |
| 2007-08 | Buffalo Bills | Steve Fairchild | Turk Schonert |
| 2007-08 | Detroit Lions | Mike Martz | Jim Colletto |
| 2007-08 | Houston Texans | Mike Sherman | Kyle Shanahan |
| 2007-08 | Kansas City Chiefs | Mike Solari | Chan Gailey |
| 2007-08 | St. Louis Rams | Greg Olson | Al Saunders |
| 2007-08 | Miami Dolphins | Unfilled | Dan Henning |
| 2007-08 | San Francisco 49ers | Jim Hostler | Mike Martz |
| 2007-08 | Tennessee Titans | Norm Chow | Mike Heimerdinger |
| 2007-08 | Washington | Don Breaux | Sherman Smith |
| 2006-07 | Arizona Cardinals | Keith Rowen | Todd Haley |
| 2006-07 | Atlanta Falcons | Greg Knapp | Hue Jackson |
| 2006-07 | Baltimore Ravens | Jim Fassel | Rick Neuheisel |
| 2006-07 | Carolina Panthers | Dan Henning | Jeff Davidson |
| 2006-07 | Cleveland Browns | Maurice Carthon | Rob Chudzinski |
| 2006-07 | Dallas Cowboys | Unfilled | Jason Garrett |
| 2006-07 | Green Bay Packers | Jeff Jagodzinski | Joe Philbin |
| 2006-07 | Houston Texans | Troy Calhoun | Mike Sherman |
| 2006-07 | Jacksonville Jaguars | Carl Smith | Dirk Koetter |
| 2006-07 | San Diego Chargers | Cam Cameron | Clarence Shelmon |
| 2006-07 | Miami Dolphins | Mike Mularkey | Unfilled |
| 2006-07 | New York Giants | John Hufnagel | Kevin Gilbride |
| 2006-07 | Oakland Raiders | Tom Walsh | Greg Knapp |
| 2006-07 | Pittsburgh Steelers | Ken Whisenhunt | Bruce Arians |
| 2006-07 | San Francisco 49ers | Norv Turner | Jim Hostler |
| 2005-06 | Buffalo Bills | Tom Clements | Steve Fairchild |
| 2005-06 | Denver Broncos | Gary Kubiak | Rick Dennison |
| 2005-06 | Detroit Lions | Ted Tollner | Mike Martz |
| 2005-06 | Green Bay Packers | Tom Rossley | Jeff Jagodzinski |
| 2005-06 | Houston Texans | Chris Palmer | Troy Calhoun |
| 2005-06 | Kansas City Chiefs | Al Saunders | Mike Solari |
| 2005-06 | St. Louis Rams | Steve Fairchild | Greg Olson |
| 2005-06 | Miami Dolphins | Scott Linehan | Mike Mularkey |
| 2005-06 | Minnesota Vikings | Steve Loney | Darrell Bevell |
| 2005-06 | New Orleans Saints | Mike Sheppard | Doug Marrone |
| 2005-06 | New York Jets | Mike Heimerdinger | Brian Schottenheimer |
| 2005-06 | Oakland Raiders | Jimmy Raye II | Tom Walsh |

| Season | Team | Incoming OC | Outgoing OC |
|---------|----------------------|-------------------|-------------------|
| 2005-06 | Philadelphia Eagles | Brad Childress | Marty Mornhinweg |
| 2005-06 | San Francisco 49ers | Mike McCarthy | Norv Turner |
| 2004-05 | Arizona Cardinals | Alex Wood | Keith Rowen |
| 2004-05 | Baltimore Ravens | Matt Cavanaugh | Jim Fassel |
| 2004-05 | Chicago Bears | Terry Shea | Ron Turner |
| 2004-05 | Cleveland Browns | Terry Robiskie | Maurice Carthon |
| 2004-05 | Dallas Cowboys | Maurice Carthon | Unfilled |
| 2004-05 | Detroit Lions | Sherman Lewis | Ted Tollner |
| 2004-05 | Jacksonville Jaguars | Bill Musgrave | Carl Smith |
| 2004-05 | Miami Dolphins | Chris Foerster | Scott Linehan |
| 2004-05 | Minnesota Vikings | Scott Linehan | Steve Loney |
| 2004-05 | New England Patriots | Charlie Weis | Josh McDaniels |
| 2004-05 | New Orleans Saints | Mike McCarthy | Mike Sheppard |
| 2004-05 | New York Jets | Paul Hackett | Mike Heimerdinger |
| 2004-05 | San Francisco 49ers | Ted Tollner | Mike McCarthy |
| 2004-05 | Tennessee Titans | Mike Heimerdinger | Norm Chow |
| 2003-04 | Arizona Cardinals | Jerry Sullivan | Alex Wood |
| 2003-04 | Atlanta Falcons | Pete Mangurian | Greg Knapp |
| 2003-04 | Buffalo Bills | Kevin Gilbride | Tom Clements |
| 2003-04 | Chicago Bears | John Shoop | Terry Shea |
| 2003-04 | Cleveland Browns | Bruce Arians | Terry Robiskie |
| 2003-04 | Miami Dolphins | Norv Turner | Chris Foerster |
| 2003-04 | New York Giants | Unfilled | John Hufnagel |
| 2003-04 | Oakland Raiders | Marc Trestman | Jimmy Raye II |
| 2003-04 | Pittsburgh Steelers | Mike Mularkey | Ken Whisenhunt |
| 2003-04 | San Francisco 49ers | Greg Knapp | Ted Tollner |
| 2003-04 | Washington | Hue Jackson | Don Breaux |
| 2002-03 | Arizona Cardinals | Rich Olson | Jerry Sullivan |
| 2002-03 | Atlanta Falcons | Unfilled | Pete Mangurian |
| 2002-03 | Dallas Cowboys | Bruce Coslet | Maurice Carthon |
| 2002-03 | Detroit Lions | Maurice Carthon | Sherman Lewis |
| 2002-03 | Jacksonville Jaguars | Unfilled | Bill Musgrave |
| 2002-03 | St. Louis Rams | Bobby Jackson | Steve Fairchild |
| 2002-03 | New York Giants | Sean Payton | Unfilled |
| 2002-03 | Washington | Unfilled | Hue Jackson |

Appendix C

Incoming and outgoing defensive coordinators 2002-20

| Season | Team | Outgoing | Incoming DC |
|---------|----------------------|-----------------|-----------------|
| 2019-20 | Atlanta Falcons | Unfilled | Jeff Ulbrich |
| 2019-20 | Los Angeles Rams | Wade Phillips | Brandon Staley |
| 2019-20 | Carolina Panthers | Eric Washington | Phil Snow |
| 2019-20 | Cleveland Browns | Steve Wilks | Joe Woods |
| 2019-20 | Dallas Cowboys | Rod Marinelli | Mike Nolan |
| 2019-20 | Detroit Lions | Paul Pasqualoni | Cory Undlin |
| 2019-20 | Houston Texans | Romeo Crennel | Anthony Weaver |
| 2019-20 | Los Angeles Rams | Wade Phillips | Brandon Staley |
| 2019-20 | Miami Dolphins | Patrick Graham | Josh Boyer |
| 2019-20 | Minnesota Vikings | George Edwards | Andre Patterson |
| 2019-20 | Minnesota Vikings | George Edwards | Adam Zimmer |
| 2019-20 | New York Giants | James Bettcher | Patrick Graham |
| 2019-20 | Tennessee Titans | Dean Pees | Jim Haslett |
| 2019-20 | Washington | Greg Manusky | Jack Del Rio |
| 2018-19 | Arizona Cardinals | Al Holcomb | Vance Joseph |
| 2018-19 | Atlanta Falcons | Marquand Manuel | Dan Quinn |
| 2018-19 | Chicago Bears | Vic Fangio | Chuck Pagano |
| 2018-19 | Cincinnati Bengals | Marvin Lewis | Lou Anarumo |
| 2018-19 | Cleveland Browns | Gregg Williams | Steve Wilks |
| 2018-19 | Denver Broncos | Joe Woods | Ed Donatell |
| 2018-19 | Kansas City Chiefs | Bob Sutton | Steve Spagnuolo |
| 2018-19 | Miami Dolphins | Matt Burke | Patrick Graham |
| 2018-19 | New York Jets | Kacy Rodgers | Gregg Williams |
| 2018-19 | Tampa Bay Buccaneers | Mark Duffner | Todd Bowles |
| 2017-18 | Arizona Cardinals | James Bettcher | Al Holcomb |
| 2017-18 | Baltimore Ravens | Dean Pees | Don Martindale |
| 2017-18 | Carolina Panthers | Steve Wilks | Eric Washington |
| 2017-18 | Cincinnati Bengals | Paul Guenther | Marvin Lewis |
| 2017-18 | Detroit Lions | Teryl Austin | Paul Pasqualoni |
| 2017-18 | Green Bay Packers | Dom Capers | Mike Pettine |
| 2017-18 | Houston Texans | Mike Vrabel | Romeo Crennel |
| 2017-18 | Indianapolis Colts | Ted Monachino | Matt Eberflus |
| 2017-18 | New England Patriots | Matt Patricia | Bill Belichick |
| 2017-18 | New York Giants | Steve Spagnuolo | James Bettcher |
| 2017-18 | Oakland Raiders | Ken Norton Jr | Paul Guenther |
| 2017-18 | Seattle Seahawks | Kris Richard | Ken Norton Jr |
| 2017-18 | Tampa Bay Buccaneers | Mike Smith | Mark Duffner |
| 2017-18 | Tennessee Titans | Dick LeBeau | Dean Pees |
| 2016-17 | Atlanta Falcons | Richard Smith | Marquand Manuel |

| Season | Team | Outgoing | Incoming DC |
|---------|----------------------|--------------------|-----------------|
| 2016-17 | Buffalo Bills | Dennis Thurman | Leslie Frazier |
| 2016-17 | Carolina Panthers | Sean McDermott | Steve Wilks |
| 2016-17 | Cleveland Browns | Ray Horton | Gregg Williams |
| 2016-17 | Denver Broncos | Wade Phillips | Joe Woods |
| 2016-17 | Houston Texans | Romeo Crennel | Mike Vrabel |
| 2016-17 | San Diego Chargers | John Pagano | Gus Bradley |
| 2016-17 | Los Angeles Rams | Gregg Williams | Wade Phillips |
| 2016-17 | Miami Dolphins | Vance Joseph | Matt Burke |
| 2016-17 | San Francisco 49ers | Jim O'Neil | Robert Saleh |
| 2016-17 | Washington | Joe Barry | Greg Manusky |
| 2015-16 | Cleveland Browns | Jim O'Neil | Ray Horton |
| 2015-16 | Indianapolis Colts | Greg Manusky | Ted Monachino |
| 2015-16 | Jacksonville Jaguars | Bob Babich | Todd Wash |
| 2015-16 | Miami Dolphins | Lou Anarumo | Vance Joseph |
| 2015-16 | Philadelphia Eagles | Billy Davis | Jim Schwartz |
| 2015-16 | San Francisco 49ers | Eric Mangini | Jim O'Neil |
| 2015-16 | Tampa Bay Buccaneers | Leslie Frazier | Mike Smith |
| 2015-16 | Tennessee Titans | Ray Horton | Dick LeBeau |
| 2014-15 | Arizona Cardinals | Todd Bowles | James Bettcher |
| 2014-15 | Atlanta Falcons | Mike Nolan | Richard Smith |
| 2014-15 | Buffalo Bills | Jim Schwartz | Dennis Thurman |
| 2014-15 | Chicago Bears | Mel Tucker | Vic Fangio |
| 2014-15 | Denver Broncos | Jack Del Rio | Wade Phillips |
| 2014-15 | Miami Dolphins | Kevin Coyle | Lou Anarumo |
| 2014-15 | New Orleans Saints | Rob Ryan | Dennis Allen |
| 2014-15 | New York Giants | Perry Fewell | Steve Spagnuolo |
| 2014-15 | New York Jets | Dennis Thurman | Kacy Rodgers |
| 2014-15 | Oakland Raiders | Jason Tarver | Ken Norton Jr |
| 2014-15 | Pittsburgh Steelers | Dick LeBeau | Keith Butler |
| 2014-15 | San Francisco 49ers | Vic Fangio | Eric Mangini |
| 2014-15 | Seattle Seahawks | Dan Quinn | Kris Richard |
| 2014-15 | Washington | Jim Haslett | Joe Barry |
| 2013-14 | Buffalo Bills | Mike Pettine | Jim Schwartz |
| 2013-14 | Cincinnati Bengals | Mike Zimmer | Paul Guenther |
| 2013-14 | Cleveland Browns | Ray Horton | Jim O'Neil |
| 2013-14 | Dallas Cowboys | Monte Kiffin | Rod Marinelli |
| 2013-14 | Detroit Lions | Gunther Cunningham | Teryl Austin |
| 2013-14 | Houston Texans | Wade Phillips | Romeo Crennel |
| 2013-14 | St. Louis Rams | Tim Walton | Gregg Williams |
| 2013-14 | Minnesota Vikings | Alan Williams | George Edwards |
| 2013-14 | Tampa Bay Buccaneers | Bill Sheridan | Leslie Frazier |
| 2013-14 | Tennessee Titans | Jerry Gray | Ray Horton |

| Season | Team | Outgoing | Incoming DC |
|---------|----------------------|-----------------|-----------------|
| 2012-13 | Arizona Cardinals | Ray Horton | Todd Bowles |
| 2012-13 | Buffalo Bills | Dave Wannstedt | Mike Pettine |
| 2012-13 | Chicago Bears | Rod Marinelli | Mel Tucker |
| 2012-13 | Cleveland Browns | Dick Jauron | Ray Horton |
| 2012-13 | Dallas Cowboys | Rob Ryan | Monte Kiffin |
| 2012-13 | Jacksonville Jaguars | Mel Tucker | Bob Babich |
| 2012-13 | Kansas City Chiefs | Romeo Crennel | Bob Sutton |
| 2012-13 | St. Louis Rams | Gregg Williams | Tim Walton |
| 2012-13 | New Orleans Saints | Steve Spagnuolo | Rob Ryan |
| 2012-13 | New York Jets | Mike Pettine | Dennis Thurman |
| 2012-13 | Philadelphia Eagles | Juan Castillo | Billy Davis |
| 2012-13 | Seattle Seahawks | Gus Bradley | Dan Quinn |
| 2011-12 | Atlanta Falcons | Brian VanGorder | Mike Nolan |
| 2011-12 | Baltimore Ravens | Chuck Pagano | Dean Pees |
| 2011-12 | Buffalo Bills | George Edwards | Dave Wannstedt |
| 2011-12 | Denver Broncos | Dennis Allen | Jack Del Rio |
| 2011-12 | Indianapolis Colts | Mike Murphy | Greg Manusky |
| 2011-12 | San Diego Chargers | Greg Manusky | John Pagano |
| 2011-12 | St. Louis Rams | Ken Flajole | Gregg Williams |
| 2011-12 | Miami Dolphins | Mike Nolan | Kevin Coyle |
| 2011-12 | Minnesota Vikings | Fred Pagac | Alan Williams |
| 2011-12 | New England Patriots | Bill Belichick | Matt Patricia |
| 2011-12 | New Orleans Saints | Gregg Williams | Steve Spagnuolo |
| 2011-12 | Oakland Raiders | Chuck Bresnahan | Jason Tarver |
| 2011-12 | Tampa Bay Buccaneers | Raheem Morris | Bill Sheridan |
| 2010-11 | Arizona Cardinals | Billy Davis | Ray Horton |
| 2010-11 | Baltimore Ravens | Greg Mattison | Chuck Pagano |
| 2010-11 | Carolina Panthers | Ron Meeks | Sean McDermott |
| 2010-11 | Cleveland Browns | Rob Ryan | Dick Jauron |
| 2010-11 | Dallas Cowboys | Paul Pasqualoni | Rob Ryan |
| 2010-11 | Denver Broncos | Don Martindale | Dennis Allen |
| 2010-11 | Houston Texans | Frank Bush | Wade Phillips |
| 2010-11 | Indianapolis Colts | Larry Coyer | Mike Murphy |
| 2010-11 | San Diego Chargers | Ron Rivera | Greg Manusky |
| 2010-11 | Minnesota Vikings | Leslie Frazier | Fred Pagac |
| 2010-11 | Oakland Raiders | John Marshall | Chuck Bresnahan |
| 2010-11 | Philadelphia Eagles | Sean McDermott | Juan Castillo |
| 2010-11 | San Francisco 49ers | Greg Manusky | Vic Fangio |
| 2010-11 | Tennessee Titans | Chuck Cecil | Jerry Gray |
| 2009-10 | Buffalo Bills | Perry Fewell | George Edwards |
| 2009-10 | Chicago Bears | Bob Babich | Rod Marinelli |
| 2009-10 | Dallas Cowboys | Wade Phillips | Paul Pasqualoni |

| Season | Team | Outgoing | Incoming DC |
|---------|----------------------|--------------------|--------------------|
| 2009-10 | Denver Broncos | Mike Nolan | Don Martindale |
| 2009-10 | Kansas City Chiefs | Clancy Pendergast | Romeo Crennel |
| 2009-10 | Miami Dolphins | Paul Pasqualoni | Mike Nolan |
| 2009-10 | New England Patriots | Dean Pees | Bill Belichick |
| 2009-10 | New York Giants | Bill Sheridan | Perry Fewell |
| 2009-10 | Tampa Bay Buccaneers | Jim Bates | Raheem Morris |
| 2009-10 | Washington | Greg Blache | Jim Haslett |
| 2008-09 | Arizona Cardinals | Clancy Pendergast | Bill Davis |
| 2008-09 | Baltimore Ravens | Rex Ryan | Greg Mattison |
| 2008-09 | Carolina Panthers | Mike Trgovac | Ron Meeks |
| 2008-09 | Cleveland Browns | Mel Tucker | Rob Ryan |
| 2008-09 | Dallas Cowboys | Brian Stewart | Unfilled |
| 2008-09 | Denver Broncos | Bob Slowik | Mike Nolan |
| 2008-09 | Detroit Lions | Joe Barry | Gunther Cunningham |
| 2008-09 | Green Bay Packers | Bob Sanders | Dom Capers |
| 2008-09 | Houston Texans | Richard Smith | Frank Bush |
| 2008-09 | Indianapolis Colts | Ron Meeks | Larry Coyer |
| 2008-09 | Jacksonville Jaguars | Gregg Williams | Mel Tucker |
| 2008-09 | Kansas City Chiefs | Gunther Cunningham | Clancy Pendergast |
| 2008-09 | San Diego | Ted Cotrell | Ron Rivera |
| 2008-09 | St. Louis Rams | Jim Haslett | Ken Flajole |
| 2008-09 | New Orleans Saints | Gary Gibbs | Gregg Williams |
| 2008-09 | New York Giants | Steve Spagnuolo | Bill Sheridan |
| 2008-09 | New York Jets | Bob Sutton | Mike Pettine |
| 2008-09 | Oakland Raiders | Rob Ryan | John Marshall |
| 2008-09 | Philadelphia Eagles | Jim Johnson | Sean McDermott |
| 2008-09 | Seattle Seahawks | John Marshall | Gus Bradley |
| 2008-09 | Tampa Bay Buccaneers | Monte Kiffin | Jim Bates |
| 2008-09 | Tennessee Titans | Jim Schwartz | Chuck Cecil |
| 2007-08 | Atlanta Falcons | Mike Zimmer | Brian VanGorder |
| 2007-08 | Cincinnati Bengals | Chuck Bresnehan | Mike Zimmer |
| 2007-08 | Cleveland Browns | Todd Grantham | Mel Tucker |
| 2007-08 | Jacksonville Jaguars | Mike Smith | Gregg Williams |
| 2007-08 | Miami Dolphins | Dom Capers | Paul Pasqualoni |
| 2007-08 | Washington | Gregg Williams | Greg Blache |
| 2006-07 | Atlanta Falcons | Ed Donatell | Mike Zimmer |
| 2006-07 | Chicago Bears | Ron Rivera | Bob Babich |
| 2006-07 | Dallas Cowboys | Mike Zimmer | Brian Stewart |
| 2006-07 | Denver Broncos | Larry Coyer | Bob Slowik |
| 2006-07 | Detroit Lions | Donnie Henderson | Joe Barry |
| 2006-07 | San Diego Chargers | Wade Phillips | Ted Cottrell |

| Season | Team | Outgoing | Incoming DC |
|---------|----------------------|---------------------|--------------------|
| 2006-07 | Minnesota Vikings | Mike Tomlin | Leslie Frazier |
| 2006-07 | New York Giants | Tim Lewis | Steve Spagnuolo |
| 2006-07 | San Francisco 49ers | Bill Davis | Greg Manusky |
| 2005-06 | Buffalo Bills | Jerry Gray | Perry Fewell |
| 2005-06 | Detroit Lions | Dick Jauron | Donnie Henderson |
| 2005-06 | Green Bay Packers | Jim Bates | Bob Sanders |
| 2005-06 | Houston Texans | Vic Fangio | Richard Smith |
| 2005-06 | St. Louis Rams | Larry Marmie | Jim Haslett |
| 2005-06 | Miami Dolphins | Richard Smith | Dom Capers |
| 2005-06 | Minnesota Vikings | Ted Cottrell | Mike Tomlin |
| 2005-06 | New England Patriots | Eric Mangini | Dean Pees |
| 2005-06 | New Orleans Saints | Rick Venturi | Gary Gibbs |
| 2005-06 | New York Jets | Donnie Henderson | Bob Sutton |
| 2005-06 | Seattle Seahawks | Ray Rhodes | John Marshall |
| 2004-05 | Baltimore Ravens | Mike Nolan | Rex Ryan |
| 2004-05 | Cincinnati Bengals | Leslie Frazier | Chuck Bresnahan |
| 2004-05 | Cleveland Browns | Dave Campo | Todd Grantham |
| 2004-05 | Green Bay Packers | Bob Slowik | Jim Bates |
| 2004-05 | Miami Dolphins | Jim Bates | Richard Smith |
| 2004-05 | New England Patriots | Romeo Crennel | Eric Mangini |
| 2004-05 | San Francisco 49ers | Willy Robinson | Billy Davis |
| 2003-04 | Arizona Cardinals | Larry Marmie | Clancy Pendergast |
| 2003-04 | Atlanta Falcons | Wade Phillips | Ed Donatell |
| 2003-04 | Chicago Bears | Greg Blache | Ron Rivera |
| 2003-04 | Detroit Lions | Kurt Schottenheimer | Dick Jauron |
| 2003-04 | Green Bay Packers | Ed Donatell | Bob Slowik |
| 2003-04 | Kansas City Chiefs | Greg Robinson | Gunther Cunningham |
| 2003-04 | San Diego Chargers | Dale Lindsey | Wade Phillips |
| 2003-04 | St. Louis Rams | Lovie Smith | Larry Marmie |
| 2003-04 | Minnesota Vikings | George O'Leary | Ted Cottrell |
| 2003-04 | New York Giants | Johnnie Lynn | Tim Lewis |
| 2003-04 | New York Jets | Ted Cottrell | Donnie Henderson |
| 2003-04 | Oakland Raiders | Chuck Bresnahan | Rob Ryan |
| 2003-04 | Pittsburgh Steelers | Tim Lewis | Dick Lebeau |
| 2003-04 | San Francisco 49ers | Jim Mora | Willy Robinson |
| 2003-04 | Washington | George Edwards | Gregg Williams |
| 2002-03 | Carolina Panthers | Jack Del Rio | Mike Trgovac |
| 2002-03 | Cincinnati Bengals | Mark Duffner | Leslie Frazier |
| 2002-03 | Cleveland Browns | Foge Fazio | Dave Campo |
| 2002-03 | Denver Broncos | Ray Rhodes | Larry Coyer |
| 2002-03 | Jacksonville Jaguars | John Pease | Mike Smith |
| 2002-03 | Minnesota Vikings | Willie Shaw | George O'Leary |

| Season | Team | Outgoing | Incoming DC |
|---------|------------------|---------------|----------------|
| 2002-03 | Seattle Seahawks | Steve Sidwell | Ray Rhodes |
| 2002-03 | Washington | Marvin Lewis | George Edwards |