

**No Room For Racism in the Premier League:
Efforts (or Lack Thereof?) to Eradicate Racism in Football**

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**This paper uses the term “football,” referring to professional European soccer.

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Abstract

The Premier League is the highest tier of professional English football. It commands a global audience unparalleled by all other professional sports, with broadcasts reaching over 800 million households in 188 countries in 2022. Despite its international reach, the Premier League faces considerable institutional and fan-driven racist treatment directed towards its minority players, and founded the No Room For Racism campaign in 2019 to combat racism in and around the league. The campaign advocates for a presentation of racial equality and harmony to viewers of the league in the UK and abroad. This research thesis leverages the concept of racist stacking to observe how Black players and players of color in the Premier League are represented differently after the implementation of the No Room For Racism campaign. Racist stacking, defined as the underrepresentation of athletes of color in positions to do with intelligence and decision making, replicate stereotypical assumptions of minority athletes' lack of intelligence and responsibility. This research finds that racist stacking has progressed to fairly represent Black players in some historically underrepresented positions, but not all. Additionally, this research uncovers discrepancies that show Black players face further underrepresentation by playing a smaller share of minutes played in their positions compared to their share of representation in those positions. This study sheds light on challenges facing Black players and players of color in professional English football, underscoring the need for continued and concrete efforts to address systemic racism in the Premier League.

Chapter 1: Literature Review

Introduction

The world of sport has been a platform for race relations on countless occasions. Whether that be Jesse Owens' victories at the 1936 Olympic Games or Colin Kaepernick's famous taking of the knee during the playing of the United States national anthem, sport has served as a platform for expression of racial tensions, protests, and double standards. In the world of professional football, racial tensions persist, with Black players and other players of color subjected to racial attacks and marginalization (Kamel & Woo-Mora, 2023). The rise of social media has given birth to a new wave of online racial abuse towards professional athletes that has never before been seen (Professional Footballers' Association, 2021). Professional leagues have expressed their commitment to combat racism in recent years as a response to a growing concern towards the treatment of minority players. The English Premier League – the highest tier of professional football in England – created the No Room For Racism campaign in March 2019 to present a united front against racial discrimination, both in and outside the footballing world (Reuspatyono, 2022). However, racial marginalization and discrimination persists in leagues across the world and in the English Premier League, which is the focus of this paper. There is ample evidence that players of different races are simply not treated with equality on several different levels (Gygax et al., 2012).

This paper will wrestle with the validity and efficacy of proposed rejection of racism by the Premier League through their anti-racist initiative known as the No Room For Racism campaign. Although professional football leagues like the Premier League have put forth statements of intolerance and combatance towards racism in the sport, institutionalized racism is

perpetuated in professional football in a variety of manners, whether that be visible instances of racial abuse towards players or underlying institutionalized biases. The primary goal of this paper is to explore how awareness of racism and racial marginalization of players of color assisted by the No Room For Racism campaign is contextualized by changing opportunities for players of color, to explore whether the actions of the league in terms of treatment of players demonstrates that there truly is "no room for racism."

The No Room For Racism Campaign Strategy

Scholars, stakeholders, and fans have debated the Premier League's No Room For Racism campaign as a tool for eradicating racism in the league, in terms of identifying both its desired impact and manners of achieving its goals. The Premier League itself has made clear in its messaging and delivery of the No Room For Racism campaign that its goals are simple: to fight discrimination "on and off the pitch" (Premier League). The Premier League champions its international players and cites them as a reason why diversity is vital to football. Furthermore, the league suggests that diversity serves as a demonstration of racial and ethnic harmony within the Premier League and notes that millions of viewers around the world observe this. In this manner, the Premier League uses the initiative to ensure that there truly is no room for racism in the league.

From an academic perspective, scholars have considered the source material for the No Room For Racism campaign's efforts to understand its desired impact. Research conducted by Reuspatyono (2022) found many connections between the No Room For Racism campaign and the Black Lives Matter movement. In its early implementation, the No Room For Racism campaign adopted the Black Lives Matter name as an adornment to players' jerseys, instead of

their names above their number on the back of the shirt. The players also began to take the knee before matches, a practice first popularized in the United States by former NFL quarterback Colin Kaepernick. Protesters have used the taking of the knee in Black Lives Matter protests as a visual tool for demonstrating resistance (Hastings, 2021). Reuspatyono's research suggested that the Premier League modeled its initial action plans for the No Room For Racism campaign after the Black Lives Matter movement to align itself with the movement's unified, socially disruptive (Hoffman et al., 2016) condemnation of racism.

Beyond these measures, the Premier League put forth an action plan through the No Room For Racism campaign in February 2021 that involved six commitments towards actively changing the culture of racial discrimination in and around the league (Premier League, 2021). The general areas in which those commitments lie are: increased pathways at the executive level for racial minorities and for women; increased managerial/coaching pathways for those groups; increased access to academy programs for youth players of color; contributions to charities that promote racial equality; "Action against racism," an all-encompassing commitment to educating youth about racial discrimination, combating racist abuse online, and increased sanctions for individuals culpable of racist abuse in stadiums; and empowering as well as monitoring Premier League clubs' promotion of diversity and equality. While some commitments include specific quantitatively measurable goals – a stated goal of 30% staff that are people of color for the league by 2031 – many others are vague and malleable. Multiple commitments of the No Room For Racism campaign are difficult to validate or monitor progression. Despite the fact that intentional cultural changes often lack clear markers of progress, the Premier League is at risk of a lack of accountability and sincerity in the completion of its stated commitments.

At the start of the currently ongoing Premier League 2023/24 season, the Premier League

walked back on one of its main public facing expressions of the No Room For Racism campaign. Players now only take the knee before “specific” matches during the season, a reduction from taking the knee before every match in previous seasons (Premier League, 2023). Actions like this one – which suggest a lack of rigid dedication to the campaign as an anti-racist policy intervention – raise questions as to whether the Premier League will maintain investment in the achievement of its stated commitments via the No Room For Racism campaign or change focus as time goes on.

Perceptions of No Room For Racism Efforts

Although a multitude of the No Room For Racism efforts to remove discrimination from the sport could be perceivable as effective, fans do not see them the same way. Fans do not perceive many of these efforts as effective in combating racism in and out of the sport. Dixon’s (2023) research found that 65% of football fans oppose the continuance of players taking the knee before matches. The study was designed to understand fan perspectives and beliefs on racism in professional football. Data was collected from surveys of 1,001 football fans with an even age distribution of participants to include generational perspectives. It was found that fans were mostly resistant to knee-taking before matches for the lack of impact that gesture has on fighting racial discrimination. Many fans considered the practice to be performative, without a tangible progressive impact on the racial struggle in football. The Premier League has yet to explain why it has reduced the frequency of player knee-taking before matches. However, this fan perception may be a contributing factor. Although Dixon’s research suggests fans desire more effective policy intervention, research has found that players of color who publicly call out racism and ask for stronger presence of interventions like the No Room For Racism campaign see an influx in the racial abuse they receive from fans (Cable et al., 2022). Fans turn on players

and become deeper entrenched in racially-charged abusive actions.

Fans view the taking of the knee as ineffective and wish for stronger protests with higher perceived impact, yet respond to players voicing similar opinions with further racist abuse. There are paradoxical perspectives between stakeholders on what effective combatance of racism in the Premier League and the No Room For Racism campaign should look like, which suggest a weakness in the campaign's efforts to develop a united front against racism in the league.

Manifestations of Racism in Professional Football

Another vital component of the conversation that surrounds institutionalized racism in the Premier League is an understanding of how racial discrimination, abuse, and marginalization is manifested in football – in stadiums, online, and during the game. Players of color are subjected to racial abuse in stadiums and online, which can often manifest in both mediums simultaneously when players are targeted. Additionally, underlying biases present themselves in action when matches take place, with differences in player treatment in match governance facilitated by race. There are numerous ways in which racism is implanted in the Premier League, and multiple phenomena often intersect to create amplified presentations of bias and inequality.

In Stadiums and Online

Historically, English football matches have been closely intertwined with overt racism. In the 1970s and 1980s, racist chanting and abuse was commonplace and widely tolerated during matches in the UK (Cable et al., 2022). The introduction of the Football Offences Act in 1991 outlawed racist chanting in stadiums, but instances of racial abuse by fans in the stands have persisted, as well as the development of new avenues to directly target players via social media

channels.

As recently as the currently ongoing 2023/24 Premier League season, players have been made to endure racial abuse from fans during and outside of matches. Wes Foderingham – the starting goalkeeper for Premier League side Sheffield United and also a Black English player – was strongly abused in a match against Tottenham Hotspur in September 2023, both by fans in attendance at the stadium during the match, as well as online after the game. After a perceived subpar performance in the match, the majority of fan comments revolved around Foderingham's skin color, with other comments threatening his family, amongst other terrible and harmful remarks (Eccleshare, 2023).

Players have experienced both forms of racist abuse during the social media era for years. Rewinding back to before the 2012 Euros – a competition held every four years that is formatted much like the World Cup, but for only European nations – a comprehensive review of historical racism and anti-semitism in stadiums in Poland and Ukraine (the host nations of the tournament) highlighted racist fan activity like throwing bananas at Black players and making monkey imitation noises. Fascist salutes were also common, and all actions were observed with little or no intervention by stewards and police present (Carrington, 2013). In that very tournament, Mario Balotelli – a Black player for Italy – faced abuse from roughly 500 Croatian fans who joined in with racist chants toward the player, including the throwing of bananas. Mario Balotelli also had a prolific stint as a professional player in England between 2010 to 2013 and again between 2014 to 2016. He faced similar racist abuse there. While playing for Liverpool FC in the Premier League in 2014, Balotelli was the recipient of an infamous tirade of racist fan activity online. Comments on Twitter repeatedly used the n-word, with one UK-based user commenting “go eat some bananas and get ebola you dirty monkey” (The Guardian, 2014).

Researchers have identified trends in online racist activity that fall in line with individual players' experiences. The Professional Footballers' Association – a UK-based footballing entity – funded a data-driven research study on the prevalence of online abuse towards football players in the UK in 2021. Examining multiple social media platforms, researchers found a 48% increase in unmoderated racist abuse online between the first and second half of the 2020/21 Premier League season. Of all abusive posts found, 50% of posting accounts came from the UK. The study also found that 56% of identified posts had been removed, however, the remaining posts were still present on social media platforms for public viewing (Professional Footballers' Association, 2021). More recently, researchers found 59,871 abusive messages on Twitter directed specifically at Premier League players during the 2021/22 season. 68% of players were found to have received abuse on the social media platform at least once during the season (Kilvington et al., 2023). Research confirms the widespread existence of racist abuse beyond what is seen in stadiums, demonstrating that racist abuse online is as pervasive in the Premier League as it is in real-time in stadiums.

On the Field

On the pitch itself, racial discrimination is equally apparent. Studies have examined discrepancies in referees' judgment of fouls in football by players of different races and shown inequality in fouls called for players dependent on their race. Gyax, Ribordy, and Wagner-Egger's (2012) research showed that tackles made by Black players on White players are quickest to be determined as fouls compared to any other combinations of characteristics in similar situations. The study surveyed 17 professional football referees, all of whom were White. The referees were shown simulated tackles in a football match, swapping out player ethnicity of both the instigating party and the receiver of the tackle. Referees demonstrated significantly

quicker response time determining a tackle as a foul when the foul was committed by a Black player on a White player. Other studies also support the existence of similar discrepancies in referee judgment of players of color. Gallo, Grund, and Reade's (2013) research looked into Premier League referees' disciplinary actions between 2006 to 2008. All the referees studied were White, and born and raised in the United Kingdom. Controlling for player, team, referee, and match statistics, the researchers uncovered that Premier League referees were 15% more likely to give a player of oppositional identity (defined as non-White, foreign players that are of the same background as predominant racial minorities in the UK) yellow cards than their White counterparts. For White referees and referees in the Premier League itself, inherent biases and discriminatory practices due to race are glaringly visible.

As of November 2023, 23 different referees have officiated matches as the center referee in the 2023/24 Premier League season. Every referee has been White (Premier League, 2023). There has not been a single match officiated in the Premier League by a Black or Asian referee since Uriah Rennie's last match in May 2008, over 15 years ago (Harris, 2023). Historical evidence of White and Premier League referees' judgment, in conjunction with a strong discrepancy in non-White referee presence in the Premier League points in the direction of continued presence of racism manifested on the field in matches.

The Big Picture

Manifestations of racism are evident in stadiums, online, and on the pitch in games. Such presentations of racial discrimination are the source material for the enactment of the No Room For Racism campaign and other anti-racist sporting policy interventions like it. Besides the identified on-field institutional biases, there are other racial marginalization practices that

manifest themselves on the field, and are demonstrated to worldwide viewers. As the Premier League has acknowledged, the league attracts large numbers of viewers from across the globe, and as such is a key player in demonstrating racial equality on its massive platform. In 2022, the Premier League was broadcast in over 800 million homes in 188 different countries (Evans, 2022). Bearing this in mind, the No Room For Racism campaign is designed to show racial equality to its fans around the world just as much as its commitment to eradication of racism in the sport. As such, identifications of other situations where institutionalized racism manifests itself on the field where viewers see it is essential to the accountability of the No Room For Racism campaign as a progressor of fighting discrimination in the Premier League.

Quantitative Methodology of Observing Underlying Racial Marginalization

Beneath the surface, there are institutional biases that contribute to racial marginalization practices in professional football. A method of understanding racial inequality in football via quantitative methods can be found by examining what researchers have termed racist stacking. Racist stacking in sport refers to the underrepresentation of Black players and players of color in roles related to responsibility and decision-making, and overrepresentation in decentralized positions that emphasize aggression and physical dominance (Nobis & Lazaridou, 2022). This phenomenon adheres to traditional stereotypes of Black people and Black athletes, in fact sustaining and promoting those stereotypes. Research conducted by Nobis and Lazaridou (2022) on the 2020/21 German Bundesliga and Bundesliga 2 season revealed striking differences in the distribution of Black players and players of color in certain positions, compared to their overall representation in their leagues. Black players made up roughly 20% of players in the dataset. Of 121 goalkeepers, none were Black. Only four goalkeepers were people of color (not Black), and the remaining 117 were White. On the opposite side, 37% of wingers in the dataset were Black.

Black men also made up 25% of all full-backs in the dataset. This research aimed to identify and highlight these discrepancies in racial representation by positions on the football pitch. This methodological strategy is useful when adapted to an observation of racist stacking trends over time. That is, how certain phenomena have influenced any change to racist stacking trends in a professional league, season by season. By looking at this across time, it may be possible to observe whether the implementation of an anti-racist initiative like the Premier League's No Room For Racism campaign impacts racist stacking in the league. Racist stacking serves as an effective measure of discrepancies between a league's public relations-focused intolerance of racism and the image of racial diversity and equality that they present to viewers of the sport in matches.

Relation of Racial Stereotypes to Racial Marginalization Practices

The discrepancies between player positioning by race are clear and quantitatively obvious through prior research. However, without an understanding of the roles and subsequent stereotypes ascribed to positions of interest in this research, few conclusions can be drawn. Research conducted by Wiemeyer (2003) involved queries for 14 professional football coaches as to what characteristics were considered optimal for different positions on the football pitch. For each position, primary characteristics were identified: goalkeepers were identified to require calmness and safety, reaction capability, and ability to play with the team; central defenders necessitated the ability to head the ball, defensive mentality, and cleverness and understanding of the game; full backs, wing backs, and wingers were grouped together and were required to show velocity and speed capability, high physical condition, and 1 versus 1 attacking threat; central midfielders needed a view and sense of the game, tactical behavior, creative ability, and ability to shoot and score; and central forwards were preferred to be able to shoot, head the ball, and have

high velocity and speed. In short, players through the center of the pitch were ascribed repeated optimal characteristics to do with their intelligence and decision-making abilities, while players on either side of the pitch and at center forward were only matched with abilities to do primarily with physical qualities. Beyond mere opinion, research also found that players on the wings of the pitch complete longer distances covered, more overall sprints, and display higher overall running speeds than their central positional counterparts (Konefal et al., 2019).

Said position characteristics appear to align with widespread racial stereotypes. Historically, people – and specifically men – of African descent have been subjected to both physiological and intellectual stereotypes. Europeans have ascribed anatomical superiority to men of African heritage, despite a complete lack of substantial scientific evidence to prove the claim (Hall, 2001). This physiological stereotype promotes the concept that African men are stronger and faster than Europeans, simply for genetic characteristics that are predetermined. Harrison Jr's (2001) research elucidated that the generational stereotyped athletic superiority of African-heritage athletes has “shaped the thinking of entire populations” (p. 98). In terms of intellect, Hall's research also explained that men of African descent are subjected to the stereotype of mental limitations and inability to exercise self-control. These stereotypes fall directly in line with the positions on the football pitch where researchers find Black players to be over and underrepresented. Black players are disproportionately overrepresented in positions to do with physical prowess, while they are rarely given roles in positions to do with decision-making and strong intellect. Moreover, Black players are subjected to positions that require more work and subsequent physical toll, making the experience of a Black player even more difficult.

There are real, noticeable physiological and intellectual differences between players that

make them suited to certain positions on the football pitch. Eventually, every position must be filled on the field. However, perceptions of physiological and intellectual differences based upon race end up reproducing racist marginalization practices like racist stacking, which shape how players of color are represented across the football pitch in an unbalanced manner. Assumptions made of Black players inevitably contribute to the institutional channeling of players of color into certain positions, and reflect an institutional bias that is pervasive in the sport as a whole. It is integral that the No Room For Racism campaign in the Premier League addresses all demonstrations of racial marginalization, particularly underlying phenomena that reinforce racial stereotypes and promote segregation. It is only then that the campaign will truly demonstrate that there is “no room for racism” in the Premier League.

Chapter 2: Methods

Overview

As previously identified in Chapter 1, racist stacking is an effective method of observing imbalances in racial demographics by position on a football pitch. When applied to a time-series method of dataframe synthesis, research can reveal changes in racial imbalances over time. The research in this thesis centers around the No Room For Racism campaign, and the time frame of racist stacking data collected is in accordance with the enactment of the campaign. Data dates back to the beginning of the 2016/17 Premier League season. This time frame allows for nearly three full seasons of data that precedes the implementation of No Room For Racism in March 2019. The time frame extends to the end of the 2022/23 Premier League season. This data is useful to demonstrate changes in positional racial imbalances after the inauguration of the campaign, and to be as up-to-date as possible for the current state of racist stacking in the Premier League as it includes the most recently concluded season. Although the time frame is relatively short and may inhibit any demonstration of longstanding trends, the time frame will still reveal whether any early changes have occurred.

Empirical Context

Traditionally, data from football matches is collected in real-time, and revolves around the collection of largely objective match events, such as the number of corners, freekicks, shots, and more. As per an article by Ahmed Walid of The Athletic (2023) examining StatsBomb's data collection techniques, live data collection necessitates five present parties: "a reviewer to check everything is correct, one person to collect all the main events, two to tag players and the location of events for each team, and an extra person to fill in information about each event." In

recent years, the development of advanced metrics and analysis has paved the way for more intricate match statistics, like match momentum and expected goals scored and conceded. However, for the purposes of this research, basic and objectively observed data about player position, nationality and background, and playing time will be sufficient for research scope.

Data Collected

Players in the Premier League

Leveraging data from Fbref.com, I built a webscraper using the Python package called BeautifulSoup that grabbed data on all individual players between the 2016/17 and 2022/23 seasons. The data sourced for each player included the following features: “Team,” referring to the team a player played on; “Player,” as in the full name of the player; and “Nation,” which shows as a three letter code for the nation from which the player is from. Each season corresponds to a specific URL on the Fbref site, so I defined a function which ran a for loop through every specified season. Subsequently, I accessed player data for each season and concatenated all that data into one dataframe. I added a new feature, “Season,” corresponding to the season from which each row of data comes from. I did this by taking the year inside my URL search query and adding it as a new column.

Playing Time

Playing time provides additional layers to how racist stacking is observed. For example, a team may have 6 center backs, of which four are people of color and only two are White. But, the two White center backs played far more than any of the other players throughout the season.

So, although White players only make up 33% of center backs in the team, White players actually make up 80% of the playing time. This can speak more to the specifics of player representation, filtered through club selection. This is also important considering the public-facing platform of football and the Premier League. Audiences view only the two White center backs of the team, not the whole squad.

To gather information about player playing time, I also built in additional data gathering into my original webscraping tool of Fbref.com to include the features “Starts,” and “Min.” “Starts” involves the number of times a player started a match during a specific season, with a maximum value of 38 (the number of games a team plays in a Premier League season). “Min” defines the number of minutes a player played during the season regardless of whether they started the match or came off the bench as a substitute, for a maximum of 90 minutes per match.

Player Position

Although Fbref.com offered a plethora of data useful for this research study, I needed to access a different data source to get each player’s position played on the football pitch. To gather this information, I used Transfermarkt.us. There were 1449 unique players names in the data set, meaning 1449 players who needed to be searched and assigned a position. To do this, I utilized a BeautifulSoup webscraping function with the purpose of having it take player names from the dataframe, automate the player search process on Transfermarkt.us, identify the player’s position played, and map that onto a dictionary containing player name and position. Certain players’ names did not match up to the names listed on Transfermarkt.us (often because the first name and last name had been reversed), so I included a for loop that tried both combinations of players’ names in case the original player name did not match to a search result on

Transfermarkt. In the event that this didn't work, I also included exception handling to assign NaN values to any players who didn't have a corresponding position to be found. This was only the case for five players, and these players were then removed from the dataset. After completing the dictionary for all players, I joined it with the original dataframe on the share player name values.

Player Nationality

From here, I converted the dataframe into a CSV file, so as to circumvent any future need for scraping from Fbref.com or Transfermarkt.us. The Fbref.com data contained country codes for a player's nationality, which I converted to the full length name of the country as a new column using a CSV file created with OpenAI. I fed OpenAI all the unique country codes in the new file and had it return a CSV file with each country code and the full country name. I merged this file on the shared country codes with the original dataframe to create one succinct data structure.

At this juncture, I began to create two new binary columns that labeled each player as English or not and as European or not. For both English and European status features, I created a function that iterated through the entire dataframe and attached binary values to each row depending on the country listed. For English players, I simply searched for the nation name "England," and attached a 1 to that row index if the code did read "England," and a 0 if it did not. For European status, I sourced a list of all recognized European sovereign states and territories from Wikipedia (Wikimedia, 2024), and then searched for all rows within my dataframe where the country name matched up to a country in the list. In a new column titled "European?," all rows where the country was found to be in Europe were assigned a 1, and those

who did not were assigned a 0. These values identify players as from England, Europe, or outside of Europe. This data shows how foreign players are potentially represented differently than players of color from England.

Race and Skin Tone

For player skin tone, I enlisted the help of a committee made up of myself and fellow Information Science BAM (Bachelor's–Accelerated Master's) students Jack Stein and Jordan Kesner. The three of us are enrolled in a Race and Technology course during the Spring 2024 semester taught by Bryan Semaan, and applied some of the concepts learned in that course to carry out ethical and cautious racial determinations of players in the dataset. A full protocol for the committee was drafted before the data collection on player skin tone took place (this protocol can be viewed in full in the appendix of this paper). The committee focused its efforts on two categories: determining if the player was non-White (anything other than a White man), and if the player was Black. This involved hand-searching each player on Transfermarkt.us, identifying their listed nationality and examining their profile picture. The three committee members split up the work so that each person viewed and evaluated roughly 1000 players, such that each player was evaluated by at least two committee members. In the event of a player that split opinion between committee members, the player was dropped from the dataset. The committee was unable to reach a unanimous agreement on 18 players in total, for an agreement rate of roughly 98%. For nearly all of the 18 disagreements, the player examined was racially mixed and could not be assigned one specific race. As such, the effects of these disagreements may slightly modify the final dataframe. This data was collected as an Excel file and merged on the original dataframe on the shared player name column.

Data Preprocessing

After collecting all necessary data for the research study, I took a few additional steps to clean the dataframe before moving on to data analysis. Specifically, all rows in which minutes played equaled 0 were dropped from the dataset. This involved roughly 300 rows of data, which upon further investigation included mostly academy and youth players who had practiced with the senior Premier League squad but had not played in any matches. In consideration of the importance of the No Room For Racism campaign's desire to show racial equality to spectators, there was no need for players in the data set who had not been a part of the league and not visible to viewers. As such, those rows were removed from the dataframe.

Additionally, several classes in the column "Position" were broken down to more specific positions than necessary for the research study. For example, for each position that was not in the center of the field there were two classes for position, such as "left back" and "right back." While these positions are different, they are ascribed the same characteristics and as such can be grouped together for the purposes of this research. All position classes were converted to eight total positions in conjunction with all positions associated with certain characteristics in prior research. Those positions are: goalkeeper, labeled as "GK"; center back, as "CB"; full back, as "FB"; defensive midfield, as "DM"; central midfield, as "CM"; attacking midfield, as "AM"; winger, as "W"; and center forward, as "CF."

Final Dataframe

	Team	Player	Nation	Starts	Min	Season	Country	English?	European?	Non-White?	Black?	Position
0	Arsenal	Alexis Sánchez	CHI	36	3217.0	2016-2017	Chile	0	0	1	0	CF
1	Arsenal	Nacho Monreal	ESP	35	3153.0	2016-2017	Spain	0	1	0	0	FB
2	Arsenal	Petr Čech	CZE	35	3097.0	2016-2017	Czech Republic	0	0	0	0	GK
3	Arsenal	Laurent Koscielny	FRA	33	2822.0	2016-2017	France	0	1	0	0	CB
4	Arsenal	Mesut Özil	GER	32	2841.0	2016-2017	Germany	0	1	1	0	AM
...
3744	Wolves	Daniel Bentley	ENG	2	180.0	2022-2023	England	1	1	0	0	GK
3745	Wolves	Joseph Hodge	IRL	1	175.0	2022-2023	Ireland	0	1	0	0	DM
3746	Wolves	Sasa Kalajdzic	AUT	1	45.0	2022-2023	Austria	0	1	0	0	CF
3747	Wolves	Dexter Lembikisa	JAM	0	23.0	2022-2023	Jamaica	0	0	1	1	FB
3748	Wolves	Connor Ronan	IRL	0	1.0	2022-2023	Ireland	0	1	0	0	CM

3749 rows × 12 columns

Fig. 1. Final dataframe after data collection and cleaning. Dimensions of the dataframe are seen in the bottom left corner.

The final dataframe consists of 3479 rows of data and 12 different features for each row.

There are zero NaN values in the dataset. There are 1444 unique players from 91 unique countries and 32 unique teams.

Analytical Approach

After having gathered and preprocessed all data, the next step involves outlining the approach to understanding trends in the data and drawing meaningful insights. The No Room For Racism campaign is an exogenous influencer that has acted as an experiment on the Premier League. From a causal inference perspective, a change in phenomena before and after the implementation of No Room For Racism should be observed. Causal inference has to do with the determination of an event’s impact on some larger phenomenon. In the case of this study, No Room For Racism is the cause, and racist stacking in the Premier League is the larger

phenomenon which may or may not be impacted.

To observe this impact, I conduct a simple statistical analysis of racist stacking before and after the treatment of the No Room For Racism campaign. Specifically, I test relativity between the three seasons that precede the inaugural season of No Room For Racism, and the three seasons that follow. The three preceding seasons include 2016-2017, 2017-2018, and 2018-2019. The three ensuing seasons include 2020-2021, 2021-2022, and 2022-2023. The 2019-2020 season is not included during statistical relativity testing for a couple of reasons. First, the No Room For Racism campaign first took full effect during this season, reshaping cultural practices in the league. However, racist stacking changes were unlikely to occur as a result of the No Room For Racism campaign during this season because of the modifications the initiative underwent in its first year, so this season can not be included in the post-treatment group. Second, this season was put on hold for several months due to the COVID-19 virus spread in early 2020. Although the season eventually resumed during the summer of 2020, there are numerous external factors that are likely to skew racist stacking that occurred during this season.

Computing relativity of racist stacking between season groups requires further work to be done on the data at hand. To prepare for relativity testing, I compute the ratio of Black players for every 1 non-Black player by position for each season, as well as the ratio of Black player minutes played for every 1 non-Black player minute played by position each season. This is done by dividing the number of Black players or minutes played by position by the number of non-Black players or players' minutes. Additionally, I compute these ratios for each season regardless of position played, both to set a baseline for racial representation in the league, as well as to conduct relativity testing on the demographics of the league as a whole.

These trends are then used to conduct T-tests of relativity before and after the implementation of the No Room For Racism campaign. A p-value of less than 0.05 signifies a statistically significant change took place, while a p-value of more than 0.05 is regarded as statistically insignificant.

In the interest of understanding how racist stacking on rosters and in terms of minutes played relate to one another, I compute a ratio of the two ratios. This means that I divide the ratio of Black players by position for every 1 non-Black player by the ratio of Black player minutes played by position for every 1 non-Black player minute played. Should the ratio of ratios equal 1, the two original ratios are aligned. That is to say, the share of Black players by position is the same as the share of minutes played by Black players by position. If the ratio of ratios is equal to more than 1, Black players in a specific position are relatively overrepresented in terms of players on the roster compared to their representation in minutes played. If the ratio of ratios is equal to less than 1, Black players in that position are relatively underrepresented in terms of players on the roster compared to their representation in minutes played. I conduct a similar T-test to determine relativity between the ratio of ratios by position before and after the implementation of the No Room For Racism campaign.

Chapter 3: Results

In this thesis, I used historical data from the Premier League to observe the effect of the No Room For Racism campaign on racist stacking by position. Below, I present the results of my analysis through a ratio of Black players on Premier League teams, a ratio of Black player minutes played on Premier League teams, and a ratio of the two phenomena.

The Whole League

Beginning with the whole Premier League, I sought to identify any changes in the number of Black players in the league, both on specific teams as well as relative to their non-Black player counterparts. There is an uptick in the ratio of Black players in the Premier League, as well as a noticeable increase in the average number of Black players per team over the course of the dataset time frame. However, the increase in the average number of Black players per team is not quite statistically significant ($p\text{-value} = 0.076$), nor is the ratio of Black players in the league.

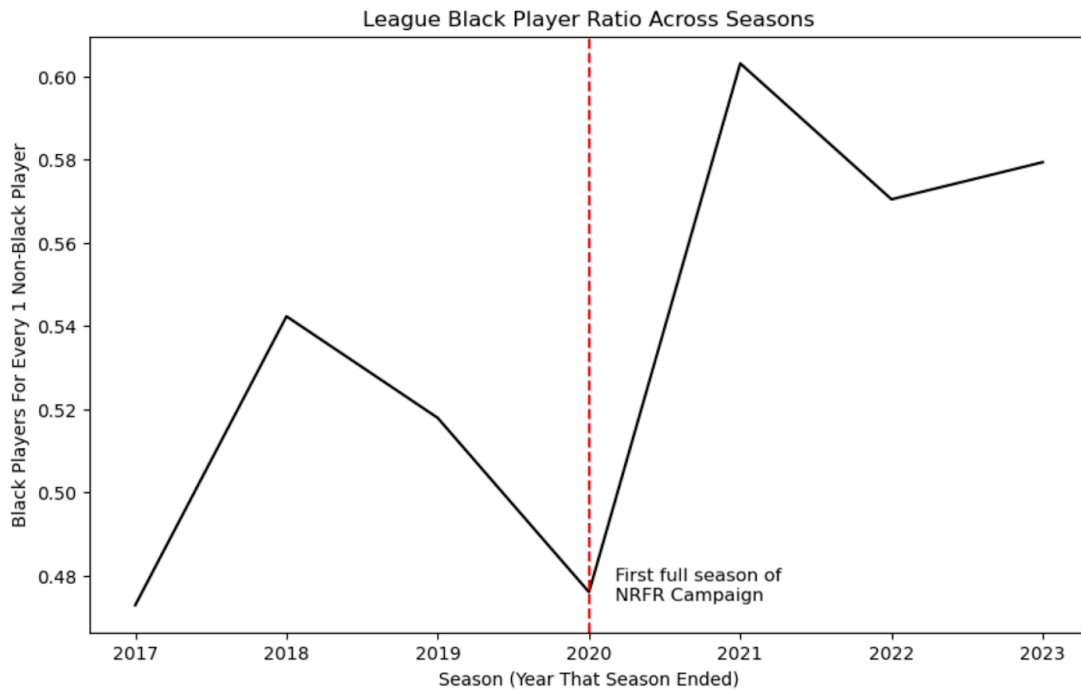


Fig. 2. Ratio of number of Black players in the Premier League for every 1 non-Black player, for each season.

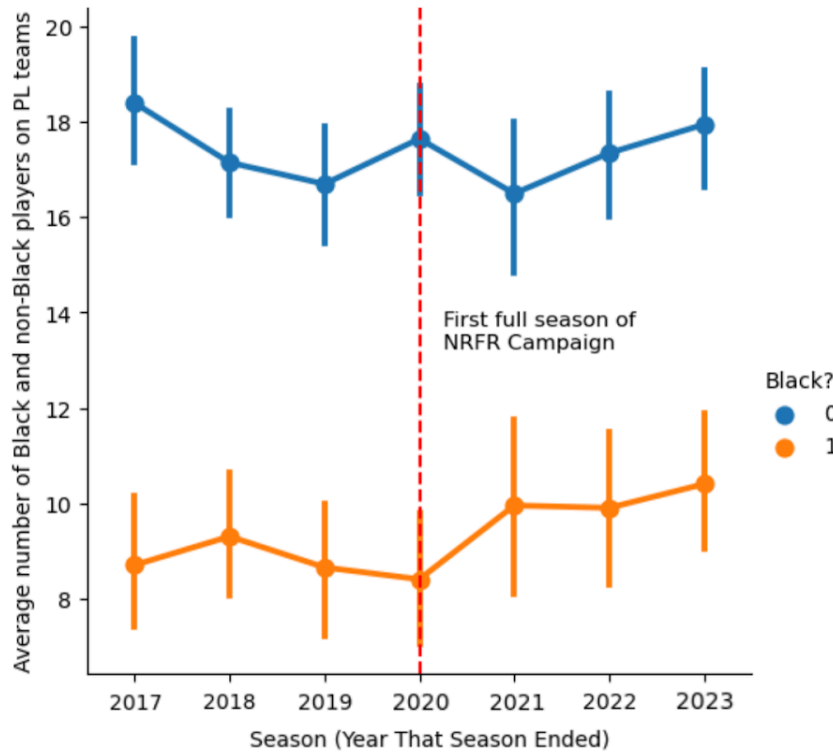


Fig. 3. Average number of Black and non-Black players per team in the Premier League by season. Lines about data points show confidence intervals for each statistic.

Despite not being statistically significant, there are noticeable trends in both visualizations that show the representation of Black players increasing in the Premier League after the implementation of the No Room For Racism Campaign. Interestingly, the average number of Black players per team does not seem to work inversely to the average number of non-Black players per team. This suggests that Premier League teams are growing in average size, and that the increase in Black players might not have to do with the promotion of Black athletes, but rather the number of all players per team on average over time. These initial findings open up a query of individual positions’ racist stacking to see if trends across the Premier League in general are reflected in positions with racially imbued stereotypes.

Racist Stacking by Position

Beginning with a ratio of Black players by position to non-Black players in those positions, I plotted all positions across a horizontal axis of each season since 2016-2017. I also incorporated the ratio trend of the whole league (the same as the one seen in Figure 2) into the plot so as to identify positions that are overrepresented or underrepresented as it compares to the demographics of the whole league.

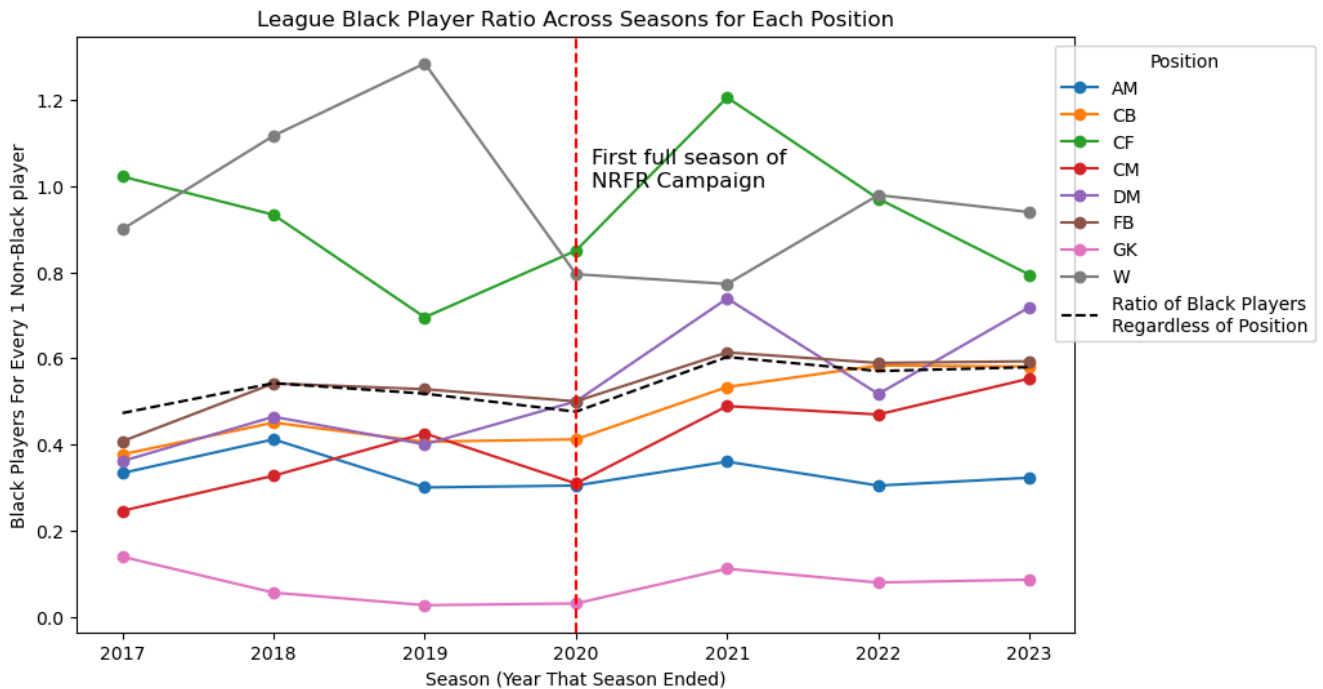


Fig. 4. Number of Black players for every 1 non-Black player by position over the course of seven seasons in the Premier League. The dotted black line shows the demographics of the league in total.

Drawing on Nobis and Lazaridou’s (2022) study of underrepresented and overrepresented positions by Black players, numerous positions in the Premier League show similar repeated representations. Black goalkeepers are starkly underrepresented throughout all seasons in the dataset as it compares to the demographics of the league, as are attacking midfielders. Conversely, Black wingers and center forwards are overrepresented in those positions throughout the seven seasons on record. There are only two positions that show significant difference in

their representation of Black players after the inaugural No Room For Racism season, namely center backs (p-value = 0.006) and central midfielders (p-value = 0.042). In both cases, Black players are underrepresented in those positions compared to the league average before the enactment of No Room For Racism, but afterwards see increases in representation to become represented at just about the mean demographic of the league. There were 0.581 Black center backs and 0.553 Black central midfielders for every non-Black player in those positions in the 2022-2023 season. The league as a whole that season saw 0.579 Black players for every non-Black player. For the positions of center back and central midfield, racist stacking has improved since the implementation of the No Room For Racism campaign.

Minutes Played

Although certain positions have seen progress in terms of racist stacking, the number of players of color in a certain position doesn't necessarily show what the public sees on the field. Filtering these ratios for minutes played by players helps to identify if Black players are getting opportunities to actually play in games, not just to be on the team sheet. To further understand how minutes played factors into racist stacking, I created a similar plot to Figure 4, but this time with a ratio of minutes played by Black players by position for every minute played by a non-Black player in that position. Again, I included a dotted black line to show the proportion of Black players in the league by season regardless of minutes played as a comparison to minutes played ratios by position.

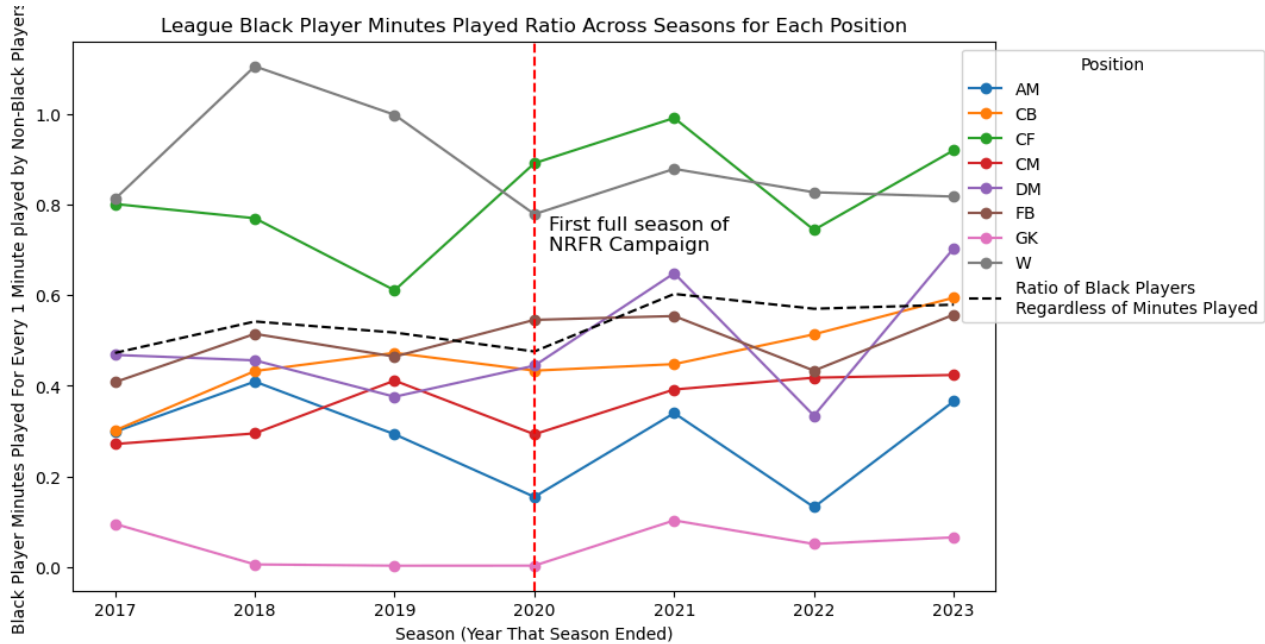


Fig. 5. Minutes played by Black players of different positions in the Premier League for every minute played by a non-Black player. The dotted black line shows the demographics of the league in total.

Similarly to the ratio of Black players on rosters, certain positions remain overrepresented and underrepresented throughout the course of the time frame of the dataset. Black goalkeepers and attacking midfielders play a much smaller portion of minutes in those positions than there are Black players in the league. Again, Black wingers and center forwards are far overrepresented in comparison to the league demographics, this time playing a much higher proportion of the minutes played by all players of those positions.

Reflecting on positions who saw significant increases in representation in terms of roster presence, Black center backs also show a significant difference in their representation in minutes played in that position after the 2019-2020 season. With a p-value of 0.026, Black center backs have become fairly represented in that position over the last few seasons. However, Black central midfielders do not have a statistically significant change in their ratio of minutes played after 2019-2020. This conflicts with the finding that Black central midfielders significantly increased their share of central midfielders after the start of the No Room For Racism campaign. As such,

while Black central midfielders have become more fairly represented on team rosters, they continue to be underrepresented in their minutes played. This suggests that Black central midfielders are becoming increasingly frequent as substitute or rotation players on teams, negatively impacting their visibility in the Premier League.

Ratio of Ratios

Having witnessed discrepancies between Black players’ share on squad rosters and their minutes played by position, I chose to add a third layer of ratios as mentioned in Chapter 2. Dividing the ratio of Black players on rosters by position by the ratio of Black player minutes played by position reveals what the differences between those two phenomena are. I plotted this ratio of ratios, with a dotted black line across the number 1 on the y-axis to signify instances where the two aforementioned ratios were aligned with one another. The final plot can be seen below.

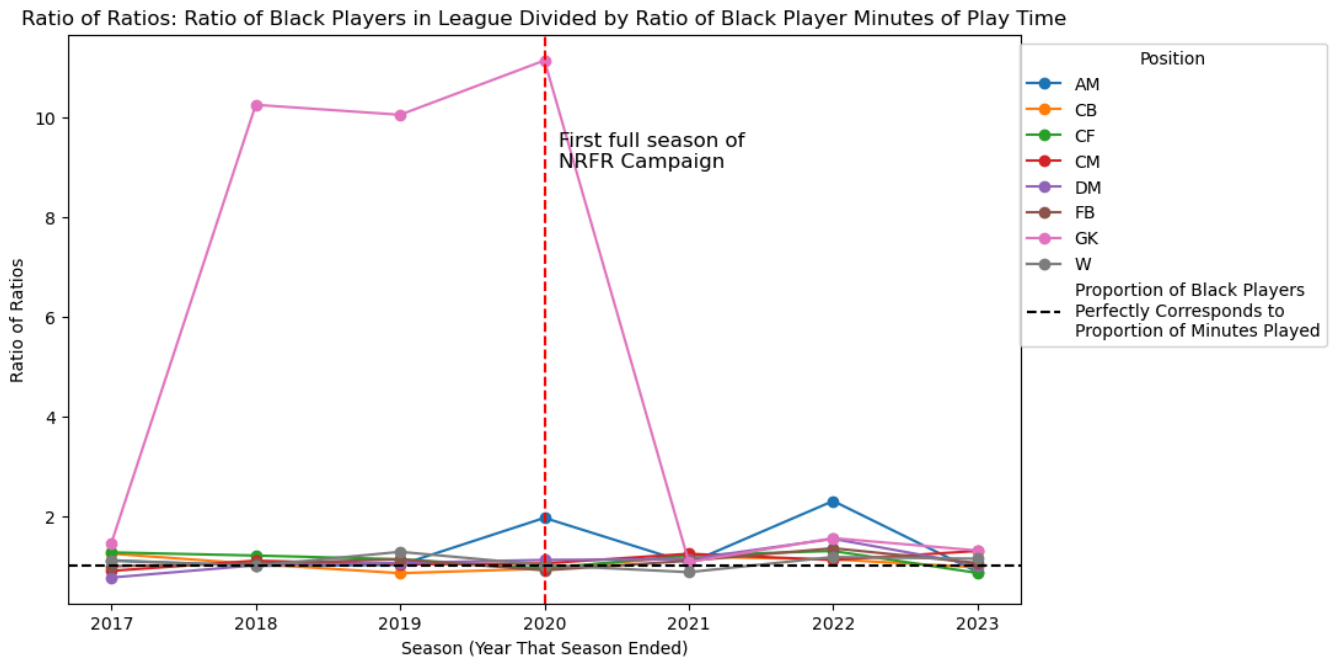


Fig. 6. Ratio of the two previously computed ratios. Values above 1 suggest a smaller share of minutes played by Black players of a certain position as it compares to the share of Black players in that position on squad rosters.

Goalkeepers are strong outliers in this plot, and tell an interesting story of how Black goalkeepers are utilized in the Premier League. In the 2019-2020 season, one Black goalkeeper featured out of a total of 34 goalkeepers. However, that sole Black goalkeeper played only 180 minutes of a total 66,335 minutes played by all goalkeepers that season. While Black goalkeepers made up 2.9% of goalkeepers that season, they only played 0.3% of minutes played by all goalkeepers. After the implementation of the No Room For Racism campaign, however, Black goalkeepers noticeably played minutes much more relative to their share of goalkeepers in the Premier League. This change was still not quite statistically significant, with a p-value of 0.166.

Black goalkeepers as outliers make discerning other positions' ratio of ratios difficult, so I replotted the same ratio of ratios without Black goalkeepers in the plot. This plot is shown below.

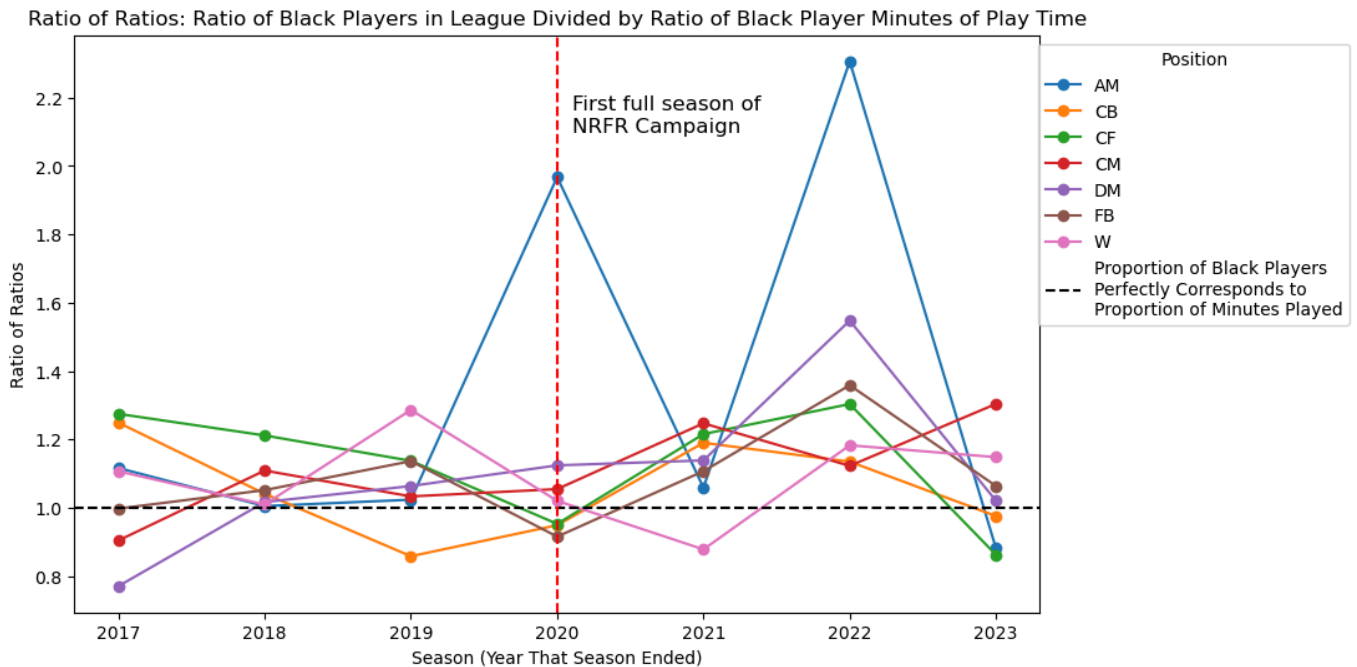


Fig. 7. Ratio of ratios as previously defined, this time excluding Black goalkeepers from the plot. Values above 1 suggest a smaller share of minutes played by Black players of a certain position as it compares to the share of Black players in that position on squad rosters.

Besides four cases in which Black players played a slightly higher share of minutes than their presence on rosters (wingers in 2020-2021; center backs, attacking midfielders, and center forwards in 2022-2023), Black players across all positions generally played a smaller share of minutes than the share of Black players by position after the implementation of the No Room For Racism campaign. This does not differ much from before the No Room For Racism campaign either – this is evidenced both through the visual representation of each position on the plot as well as no ratio of ratios returning statistical significance during t-tests of relativity. This phenomenon is demonstrated to exist in the Premier League over the last seven seasons regardless of the introduction of No Room For Racism.

Final T-Test Analysis

After plotting all the data, I returned to the relativity t-testing before and after the inaugural No Room For Racism campaign for all ratios and all positions. I organized the results of all tests into one table for ease of investigation, which is shown here.

	Position	Ratio	t-statistic	p-value		Position	Ratio	t-statistic	p-value
0	AM	Black Player Ratio	0.440733	0.702469	12	DM	Black Player Ratio	-2.501904	0.129451
1	AM	Black Min Ratio	0.486544	0.674676	13	DM	Black Min Ratio	-0.972089	0.433544
2	AM	Black Ratio of Ratios	-0.785087	0.514635	14	DM	Black Ratio of Ratios	-1.670051	0.236860
3	CB	Black Player Ratio	-12.783021	0.006064	15	FB	Black Player Ratio	-2.111284	0.169167
4	CB	Black Min Ratio	-6.118292	0.025689	16	FB	Black Min Ratio	-0.765122	0.524155
5	CB	Black Ratio of Ratios	-0.917963	0.455544	17	FB	Black Ratio of Ratios	-1.044736	0.405812
6	CF	Black Player Ratio	-2.508405	0.128905	18	GK	Black Player Ratio	-0.724988	0.543808
7	CF	Black Min Ratio	-1.609518	0.248786	19	GK	Black Min Ratio	-2.377860	0.140520
8	CF	Black Ratio of Ratios	0.758335	0.527430	20	GK	Black Ratio of Ratios	2.137048	0.166066
9	CM	Black Player Ratio	-4.699908	0.042412	21	W	Black Player Ratio	2.865606	0.103258
10	CM	Black Min Ratio	-2.339489	0.144209	22	W	Black Min Ratio	1.275008	0.330393
11	CM	Black Ratio of Ratios	-2.093322	0.171376	23	W	Black Ratio of Ratios	0.530272	0.648910

Fig. 8. T-tests for relativity of results before and after the inaugural No Room For Racism campaign. The type of ratio is seen in the column “Ratio.” P-values under a value of 0.05 are deemed statistically significant.

Across all ratios computed and all t-tests run, there are only three instances of statistical significance in terms of difference between the seasons before and after the 2019-2020 introductory No Room For Racism season. Those instances are: Black central midfielders as a share of central midfielders; Black center backs as a share of center backs; and Black center back minutes played as a share of minutes played by all center backs. There are numerous other ratios that see changes before and after 2019-2020, but none that demonstrate statistically significant difference, and as such cannot be considered as true changes brought about since the implementation of the No Room for Racism campaign.

Chapter 4: Discussion

Major Findings

After conducting all statistical tests and viewing plotted data, numerous trends and findings present themselves. To begin, there are numerous findings about positional overrepresentation and underrepresentation of Black players that confirm findings from Nobis and Lazaridou's 2022 study of the German Bundesliga. Black players are overrepresented in the positions of winger and center forward as it relates to the proportion of all Black players in the league. Black players are underrepresented in the positions of goalkeeper and attacking midfield. These findings align with the findings of Nobis and Lazaridou's research. Moreover, the winger and center forward positions were identified in Wiemeyer's 2003 research to be associated by professional football coaches with primarily physical qualities, which confirm traditional stereotypes of Black athletes. Wiemeyer's research also found goalkeepers and attacking midfielders to be identified with intellect and responsibility, so the underrepresentation of Black players in these positions in the Premier League furthers the stereotype that Black athletes are not capable of performing roles that require intelligence and decision-making.

Despite stereotypes that have traditionally excluded Black players from the central midfielder and center back positions, those positions have seen increased representation in terms of Black players on team rosters that matches the demographics of the whole league after the implementation of No Room For Racism. This is evidenced through the statistically significant results for these positions of testing of relativity before and after the inaugural No Room For Racism season. However, Black central midfielders have remained underrepresented in terms of their minutes played. Although Black central defenders saw their share of minutes played increase consistently with their rising presence in that position, Black central midfielders

returned no significant change in their share of minutes played after the 2019-2020 season. This finding suggests that while Black central midfielders have become more fairly represented in that position, they continue to play fewer minutes than their non-Black counterparts as it compares to the share of Black players in the Premier League.

The position of goalkeeper underrepresents Black players more than any other position on the pitch. Furthermore, Black goalkeepers are even further underrepresented in the share of minutes played compared to the share of Black goalkeepers in general. While there are already very few Black goalkeepers in the Premier League, those goalkeepers play even fewer minutes than their share of goalkeepers across the league. The implications of this finding are that Black goalkeepers are marginalized on multiple fronts, demonstrating the need for further investigation and reform of how this position is considered.

While different positions have seen different levels of Black player representation across time, Black players in general have played fewer proportional minutes in their positions than their proportional representation on team rosters. There may be an increase in the number of Black players in the Premier League, but the amount of minutes of play time given to Black players hasn't had the same upward trend. This could mean that Black players are featuring more as substitutes or rotation players, but still not given as many opportunities to play in games.

Implications for No Room For Racism

The No Room For Racism campaign seeks to present the Premier League as a platform for racial equality, where every voice is heard, and players and fans alike are championed regardless of their racial background. While the No Room For Racism campaign may continue to publicize commitments to end racism and adorn Premier League jerseys and stadiums with No Room For Racism paraphernalia, it is clear through an examination of racist stacking that Black

players in the Premier League are not treated equally to other players. There has been minimal progress made – only two historically underrepresented positions on the football pitch have improved in their representation – to suggest that the No Room For Racism campaign has radically changed the cultural components of the Premier League.

Additionally, some positions that have seen representation improve in Black players listed in those positions continue to see those players underrepresented in their minutes played. This is of particular concern for the No Room For Racism campaign. Where and how often players play depicts the Premier League a certain way to its global following. Although Black central midfielders are more common than they were before, fans still see those players less frequently than they do their non-Black counterparts.

The hypervisibility of Black athletes in some positions and the invisibility of Black athletes in others poses problems. The stereotypes of Black athletes in these positions are on full display to fans, who may view this as a confirmation of their biases and in turn persist in abusing players of color in stadiums online. This feedback loop is solved only when Black players are represented fairly across all positions on the pitch, forcing all to recognize the diverse strengths of Black athletes that are no different from the capabilities of athletes of any other race or ethnicity.

Limitations of Approach

The implementation of the No Room For Racism campaign did not occur in a vacuum. That is to say, there are a number of factors that influence racist stacking in the Premier League, and there is risk posed in connecting the treatment of the No Room For Racism campaign with something like racist stacking.

First, some players play more than others for no reason other than their footballing quality. Not every decision made about what players to sign on contracts, play, or move to a certain position has to do with the player's race, nationality, or ethnicity. Vast differences in representation still emerge in racist stacking research, but the determination of why a singular player plays as much as they do cannot be attributed solely to the player's background. Similarly, minutes played is not a controlled variable that can be attributed directly to a player's racial and ethnic identity. Injuries, player personal leave, joining or leaving a team mid-season, or a bevy of other factors can influence how many minutes a player plays in a season.

There are certain teams in the Premier League that may employ more or fewer players of color than others. This may skew the mean number of players of color by position, and make racist stacking in the league as a whole unreflective of the situations of specific teams who may be engaging with the cultural shifts directed by the No Room For Racism campaign in different ways. I was curious about team by team discrepancies, so I created another plot to observe these differences.

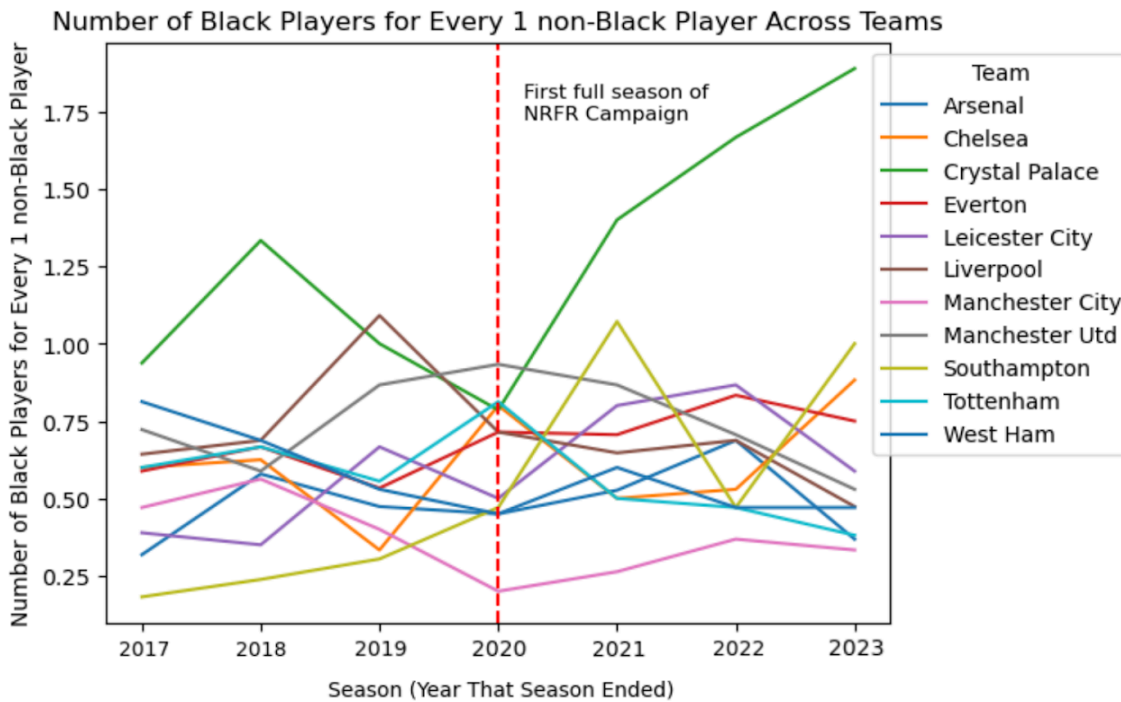


Fig. 9. Number of Black players for every non-Black player for each Premier League team. The plot only includes 11 teams – this is due to the relegation system of English football that sends three teams down to the second division at the end of every season. For clarity, this figure only includes the 11 teams to feature in all seven seasons in the dataset.

For the most part, team demographics are similar to one another, however there are a couple outlying teams. Namely, Crystal Palace features far more Black players on average than any other Premier League team. Manchester City features fewer Black players than other teams in the league. It is important to note that racist stacking trends by position do not depict the dimensions of racist stacking in all teams in the Premier League. As such, this research is an investigation of the league as a whole, not of any specific teams' application of the No Room For Racism principles.

It must also be noted that the No Room For Racism Campaign is suggestive of association with phenomena observed in this study, but cannot be proven as a causal influence on racist stacking through the research methods used. Although trends are visible, there are many

exogenous factors that contribute to racist stacking, and effective statistical tools for making a case for the campaign's true impact on racist stacking have yet to be developed.

Last, there is an understanding that policy interventions like the No Room For Racism campaign take time to take effect. It has only been five years since the inception of this initiative, and the full effects of it on the Premier League have yet to be seen. Minimal progress has been seen in the early stages of the campaign, but that does not suggest that the campaign will be ineffective for the foreseeable future. In five years, trends in racist stacking in the Premier League may look completely different, and commentary on the No Room For Racism campaign will be different. As such, this research study merely observes the preliminary impacts of the No Room For Racism campaign on the Premier League and does not draw conclusions of any long-standing trends.

Opportunities for Future Research

Unlike many undergraduate honors thesis researchers, I am in a unique position as a simultaneous master's student at the University of Colorado Boulder. During the 2024/2025 academic year, I will prepare a master's thesis, for which I plan to draw on some of my research from this thesis to be expanded upon. As I plan to pivot into a master's thesis soon, I have multiple ideas for future research that can dig deeper into phenomena identified in this research study.

There is ample research done across multiple industries on the discrepancies of pay for White men in comparison with minorities and women. With the understanding that people of color may be paid less than White people of the same status or position, I would be curious to look into pay differences between positions that are underrepresented and overrepresented on the football pitch. If Black players are overrepresented in positions that are paid less than the league

average, this would tell an interesting story of how Black players are systematically marginalized and then discriminated against with their contracts.

During this research, I looked into racial demographics on the field in the Premier League, but did not spend time investigating the racial and ethnic demographics of Premier League team ownership, management, and staff. Considering the differences in how many Black players different teams employ, the differences in how different teams make efforts to change the demographics of the whole club structure would allow for the identification of teams that are putting more effort into completing the commitments of the No Room For Racism campaign than others.

An Information Science concept that intrigues me but that I have no experience with is natural language processing (NLP). NLP is used to conduct analysis on language used in a variety of contexts, such as interviews, speeches, and more. Throughout my literature review for this research, I identified a variety of contexts in which Black football players are considered differently to other players. Leveraging NLP as a tool, an investigation of how football commentators and pundits discuss White players versus players of color would reveal biases that are shared to the world through broadcasts. This is of significant importance to the No Room For Racism campaign, as broadcast commentary has the power to communicate certain biases and stereotypes of Black players and players of color to the world through broadcast reach.

Much of the research conducted during this thesis revolves around player position, and what that position communicates through stereotypes about how players in that place on the pitch are considered. I would like to look further into how and when players of color are channeled into certain positions. Does it happen during players' youth, early in their senior career, or later? Finding this position determination at its root is helpful for identifying circumstances in which

racist stacking can be combatted most effectively, so that overrepresentation and underrepresentation are not pervasive at the pinnacle of football in the Premier League.

Last, I wished to conduct an analysis of both Black and non-White Premier League players during this study. Black players and players of other minority groups are unlikely to experience the same challenges, and I wished to investigate the differences between minority experiences on top of my work. Time did not permit this exploration, however, I did include components of my data collection that allow for this investigation to take place in the future. In the appendix section of this thesis, I include visualizations for ratios of non-White players by position, ratios of non-White players' minutes played by position, and a ratio of the two ratios. Although I did not analyze these plots, they are viewable below.

Conclusion

It is obvious through this research that there is a need for policy interventions in the Premier League to change the experience of professional players of color. Systemic racism is a present issue in the Premier League that necessitates an address. It is still unclear if No Room For Racism will be effective in combating racism in the Premier League. Until racism in the Premier League is properly approached, Black players and players of color will continue to be marginalized and abused.

Football is a platform for culture. The presentations of inequality in film and television have been well documented to have strong impacts on societies' acceptance and practice of these inequalities (Russell, 1991). The Premier League has a massive platform with a global reach, and has the power to communicate inequalities that pose their own implications in the real world. It is imperative that the Premier League platform spread presentations of racial interaction that positively impact racial equality in other spheres.

Sports analytics including those in football are incredibly data-rich and offer a multitude of purposes. This paper seeks to use the power of sports analytics to explain social and cultural phenomena that extend beyond the football pitch. If successful, this paper will open up further opportunities for using sports analytics with a computational social science lens.

As a researcher, I appreciated the opportunity to do this research, and the lessons I learned both from the act of doing this work and the findings that this work generated. I am grateful for my unique positionality that will allow me to keep researching in this field in the near future.

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Appendix

Race Operationalization Protocol

During the data collection process for this research, the use of a committee to make skin-tone determinations of players involved a drafted protocol to ensure the validity of data collection. Here I include the full protocol, originally drafted in February 2024:

Hi guys, thank you for your help with this project. I've drafted some explanations to how I plan to go about operationalizing race for the purposes of this project, which I've learned can be exceptionally tricky. What I'm planning to do to categorize players along boundaries of background will be mostly objective. However, there are a couple components that will require our careful consideration and subjectivity at times. This protocol should serve to mitigate any issues that arise with regard to said subjectivity, so that we may protect the interests of this project and look to seek out answers to the problems identified rather than create more problems ourselves.

Nationality

Already included in the created data frame will be each individual player's country where they are from. This data comes from Fbref.com. Using this data, we will create a few binary columns that distinguish a player's nationality. Those columns will be:

- Is the player from England or not? We will be using this data to get a better understanding of how players are treated differently if they are foreign born or from England. If the player's nationality reads ENG, they are English; if the nation column reads anything else, they are not.

- Is the player from Europe or not? We will be using this data to get a better understanding of how players are treated differently if they are from Europe or not. This will take slightly more work, as we will use the nation column to see if the player's identified nationality is of any European country. If the player's nationality is European, this column will read yes; if they are from outside Europe, the label will be a no.

Skin Tone and Race

This is where things start to get a little cloudy, and where we will need to work together as a committee to make unanimous decisions. There are two features I'd like to add here: Non-White (would you categorize the player as a non-White person), and if the player is Black (does the player have a Black skin-tone which falls in line with their researched heritage).

- Is the player non-White? I recognize that there is no defined boundary between being White or non-White, and that subjectivity is intrinsically associated with any distinction of the sort. However, for the purposes of this study, we will do our best to make these distinctions. If the player is not from Europe, North America (USA and Canada), South Africa (although I'm fairly sure there are no South Africans in this dataset), or Oceania (Australia, New Zealand), we are going to determine that player as non-White. There will be players whose skin tone may appear very light while they are from, say, South America, however this categorization is more in the interest of understanding historically White backgrounds (from the aforementioned world regions) than simply isolating skin color from any other factors. For all players from the aforementioned world regions, each will be examined for their personal heritages (which Elijah will research) and physical appearance. If a unanimous decision cannot be made by the committee, the player will be

excluded from the dataset (this follows the same protocols as Nobis and Lazaridou's 2022 study).

- Is the player Black or not? Every single player will be evaluated by their personal heritage (which Elijah will research) and physical appearance. Again, if a unanimous decision cannot be made by the committee, the player will be excluded from the dataset.

It should be reiterated that the sole effort of this study is to shine a light on underlying biases and marginalization, NOT to replicate, amplify, and strengthen those phenomena. Operationalizing race is really tough, and certainly the most important lesson I've been taught thus far during this thesis process. If this study is to successfully identify racial issues in the Premier League, it cannot misrepresent players of color and their stories. We will do our very best to keep this in mind and preserve the ethical validity of this study through our established protocols. Thank you, Jack and Jordan, for taking on this extra work. It really means a lot to me, and I've loved getting to work with you guys on several projects now as undergrads and grad students. Let's get to work!

Non-White Player Analysis

During the process of developing this study, I recognized that the experience of Black athletes differs from the experience of all athletes of color. Although I did not have enough time to fully analyze racist stacking of all minority players, I drafted similar plots to the ones I created for racist stacking of Black players in Chapter 3. I've attached those plots below.

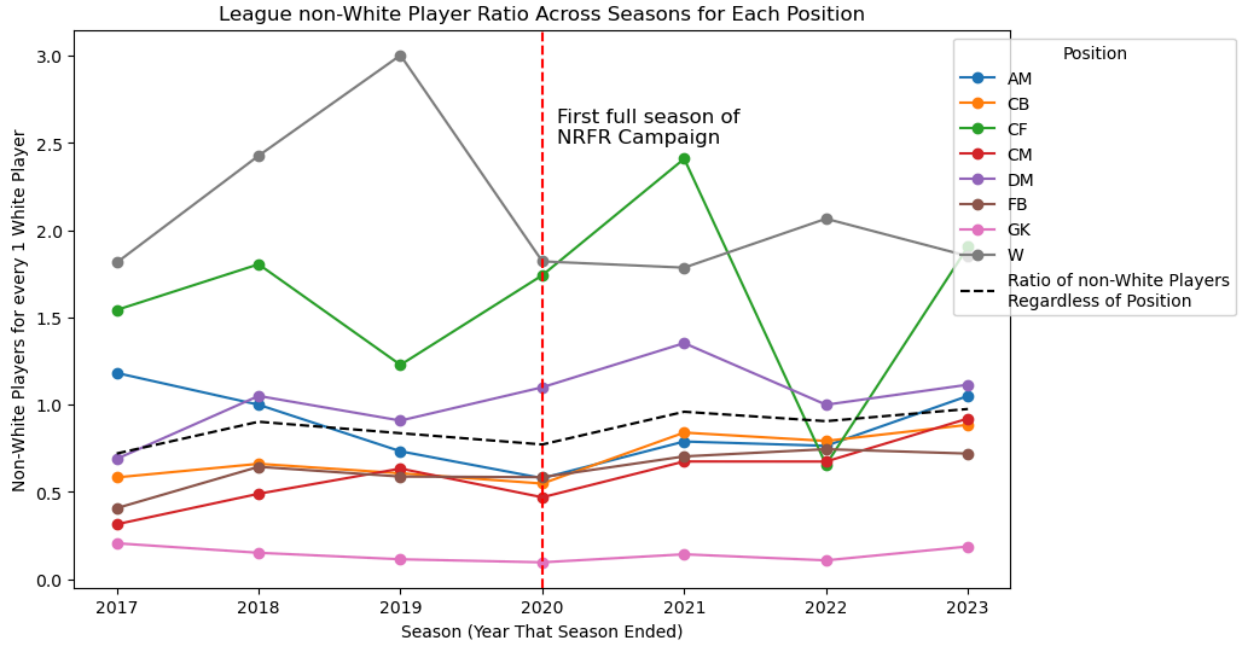


Fig. 10. Ratio of non-White players for every White player in the Premier League, broken out by position. The black dotted line shows the proportion of non-White players in the league regardless of position.

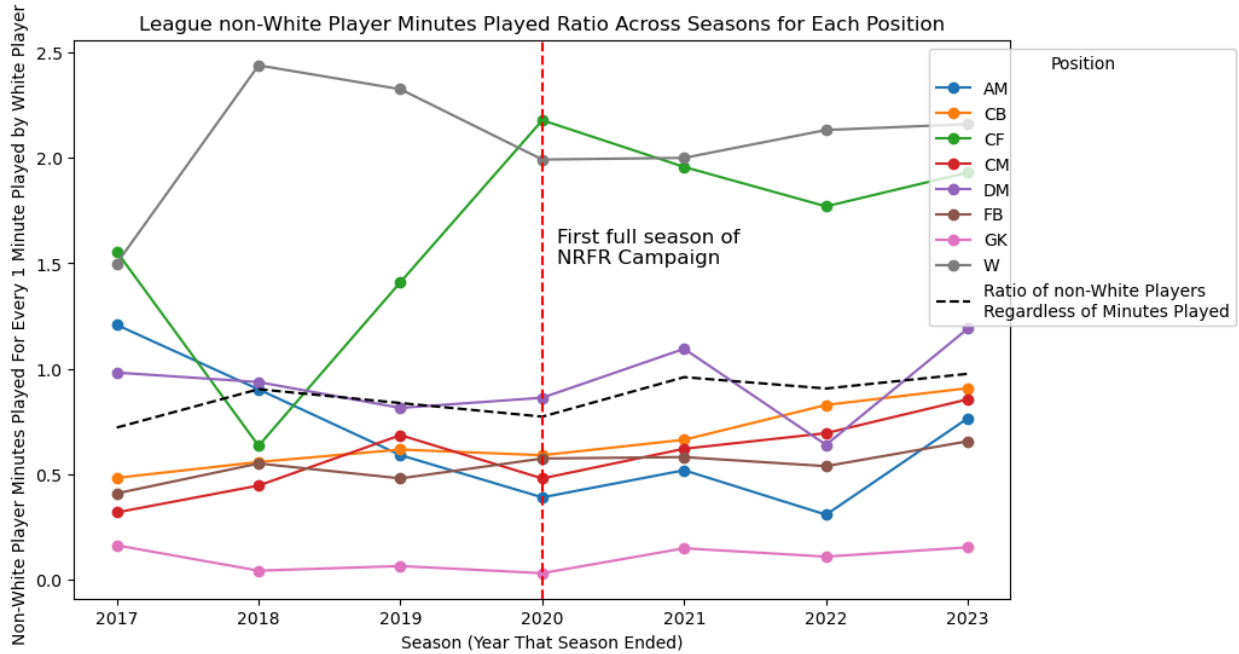


Fig. 11. Ratio of non-White player minutes played for every minute played by a White player in the Premier League, broken out by position. The black dotted line shows the proportion of non-White players in the league regardless of position.

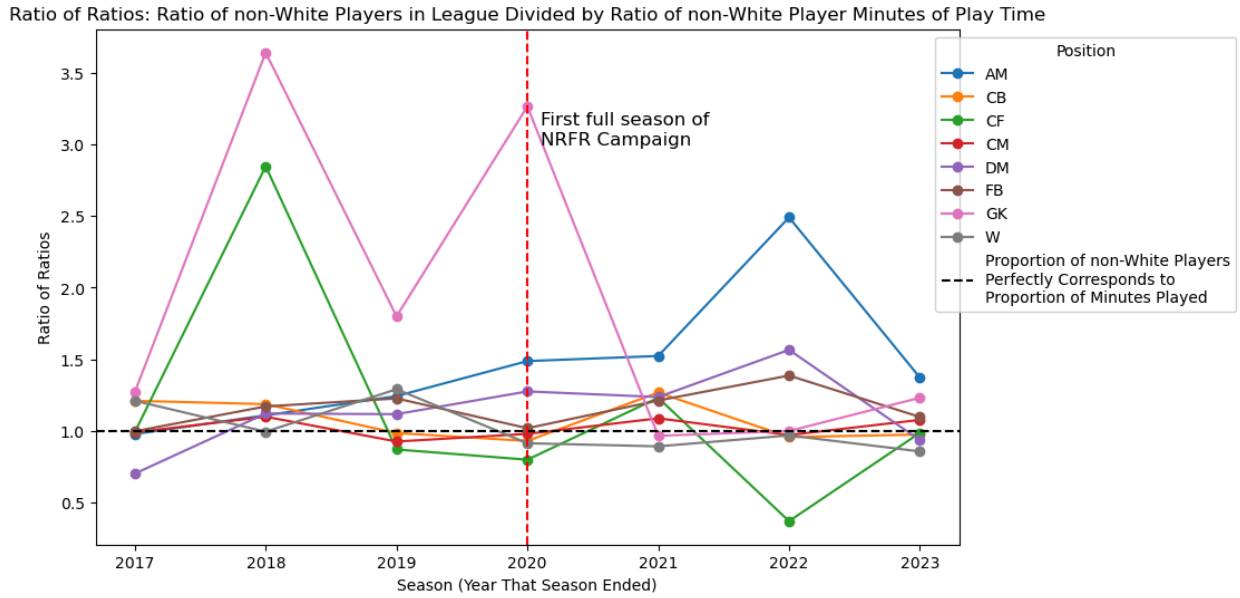


Fig. 12. Ratio of share of non-White players in the Premier League and share of non-White player minutes in the Premier League. Values above 1 suggest a smaller share of minutes played by non-White players of a certain position as it compares to the share of non-White players in that position on squad rosters.