

The Adjudicatory Audible: The Impact of Social Media on the Punishments of NFL Athletes

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Abstract

Under its Collective Bargaining Agreement, the National Football League (NFL) has the ability to punish players who have been charged with a crime or arrested. Individual teams have the ability to punish players for off-field conduct, most commonly by releasing them to free agency; however, their authority is extremely limited. Thus, the power to discipline players is bestowed overwhelmingly to the commissioner's office, which has assigned league discipline to 28.6% of arrests between 2000 and 2014. The severity of these punishments only increased slightly between 2000 and 2014; however, there exists a statistically significant, positive relationship between the number of Tweets about a crime and the severity of punishment of the resulting NFL punishment. Most disquieting, more-valuable players are punished less severely than less-valuable players, measured in terms of both better fantasy football rankings and in higher salaries. The results of this study clearly demonstrate that league punishment of NFL players is determined by the public response to the crime, and that the commissioner's office allows for better players to escape more-severe punishments—or punishments at all—more frequently than their worse-performing counterparts. An impartial, independent arbiter, as opposed to an all-powerful commissioner's office, would more effectively grant punishments that fit the crime as opposed to the degree of public outrage.

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“Neither Ray nor myself will try this case in the media” – Michael

Diamondstein, attorney, Ray Rice

On July 24th, 2014, Baltimore Ravens running back Ray Rice was suspended for two games by the NFL for assaulting his then-fiancée Janay Palmer in the elevator of the Revel Casino in Atlantic City, New Jersey. Forty-six days, 563,687 Tweets, and one infamous TMZ video later, Rice’s punishment took a 180-degree turn in its severity: on September 8th, he was released from his team and suspended from the NFL indefinitely.

Despite Diamondstein’s statement, it appears that Rice’s case was tried in, because of, and by the media.

Rice is not an isolated case—as social media has continued to grow since its emergence in 2002, athletes’ private lives have been magnified, becoming increasingly vulnerable to examination by the public. The ability to follow more than 8,400 athletes on Twitter has not only allowed the average fan to keep up with the musings of their favorite players, but has also created a forum that easily facilitates discussion and disseminates information about them. Twitter has developed into a microcosm of the masses, a place for public opinion to be communicated—and heard, by the decision-making bodies of professional sports leagues, including the NFL. It is impossible to deny the role Twitter, Facebook, and TMZ, the “new media,” had on the punishments granted by the NFL to Rice—but what about the 750 other NFL players who have been arrested from 2000-2014?

This research will address the following questions: How has the advent of social media affected the severity of players’ punishments? And, are certain offenses and certain players (namely, star NFL players) punished differently than others?

Section 1: Theoretical Framework

1.1 How the NFL Punishes Players

The NFL's Collective Bargaining Agreement (CBA), most recently renewed in 2011, establishes the ways in which players can be punished. The NFL and the NFL Players Association (NFLPA), the players' union, are co-authors of the CBA, which provides both individual teams and the league the authority to punish players. However, the league overwhelmingly deals with punishments given to players following an arrest.

The CBA describes 14 specific football-related offenses individual teams have the authority to punish, ranging from fining an overweight player \$575 per extra pound, to fining a player a maximum of \$9,440 if they lose a playbook (NFLPA 2011, 180). Teams can also fine a player a maximum of one week's salary or suspend a player for a maximum of four weeks for "Conduct detrimental to Club" (NFLPA 2011, 181). Although the definition of "detrimental conduct" is not specified, this term gives license to teams to punish players following an arrest. The most common team punishment in response to arrests is releasing the player from the team to free agency; although the CBA prohibits "deactivation of a player in response to player conduct" (i.e. the demotion of a player from a team's active roster to its practice squad as a form of punishment), it does not prohibit release.

The CBA gives the NFL commissioner exclusive authority to determine the punishments given to players by the league. Roger Goodell, the commissioner of the NFL since 2006, possesses the power to discipline both "conduct on the playing field"

and “conduct detrimental to the integrity of, or public confidence in, the game of professional football” (NFLPA 2011, 204). The CBA restrains Goodell’s authority when it comes to on-field, football-related conduct, mandating he meet with the Executive Director of the NFLPA “prior to issuing, for on-field conduct, any suspension or fine in excess of \$50,000” and outlining the maximum fines able to be imposed on players (NFLPA 2011, 205). However, the CBA does nothing to curtail Goodell’s power to punish off-field conduct. The only limit in place is the rule that a player cannot be punished by both his team and the league for the same crime, yet the commissioner’s authority still “will preclude or supersede disciplinary action by any Club” (NFLPA 2011, 206).

Players are punished when they violate either the NFL’s Policy and Program on Substances of Abuse or its Personal Conduct Policy. The Substance Abuse Policy governs crimes related to “the illegal use of drugs and the abuse of prescription drugs, over-the-counter drugs, and alcohol,” including the two most common crimes committed by NFL players, DUIs and marijuana possession (NFLPA 2015, 1). The 44-page Substance Abuse Policy is extremely detailed, identifying specific banned substances, the NFL’s three-stage intervention program, and the appeals process. Meanwhile, the much shorter, eight-page Personal Conduct Policy applies to all other crimes, requiring players to abide by “rules promoting lawful, ethical, and responsible conduct serve the interests of the League, its players, and fans” (NFLPA 2014, 1). The Personal Conduct Policy contains 14 umbrella categories of offenses that are punishable by the NFL, including “violent or threatening behavior,” “conduct that imposes inherent danger to the safety and well-being of another person,” and a broad range of “criminal

offenses” (NFLPA 2014, 1). It explicitly states that “persons who engage in criminal activity will be subject to discipline”; however the actual implementation of this policy is suspect, since only 28.6% of arrests have resulted in NFL punishments.

Both documents clearly grant Goodell full authority to punish however he sees fit. The Substance Abuse Policy states that “all discipline provided under the provisions of this Policy is imposed through the authority of the Commissioner... subject to the terms set forth in this Policy. The Commissioner maintains the ability to impose other discipline for conduct not covered by this Policy” (NFLPA 2015, 2). Similarly, the Personal Conduct Policy allows “the Commissioner [to] have full authority to impose discipline as warranted” (NFLPA 2014, 2). Both documents are also alike in their rationale for allowing the commissioner to impose punishments: to protect the NFL’s reputation. The Substance Abuse Policy warns against substance abuse “[leading]... to the alienation of the fans,” while the Personal Conduct policy is much more overt in its duty to prevent behavior that “undermines public respect and support for the NFL” (NFLPA 2014, 1). It also reiterates verbatim the words of the CBA—that “all persons associated with the NFL are required to avoid ‘conduct detrimental to the integrity of and public confidence in the National Football League’” (NFLPA 2014, 1).

This wording indicates that the NFL is less interested in acting as a justice system, and bestowing punishments to their players for the players’ benefit, as opposed to protecting the public image of the league. The advent of social media, however, has made the ability to tarnish the NFL’s image much easier, as explored in the following sections.

1.2 Sports, Twitter, and the News

Although monopolized for decades by “traditional” media such as newspapers, television, and radio, social media now dominates the dissemination and absorption of information. Social media is defined as the “online creating, participating in, or reading of some form of social content,” and is engaged in by more than 80% of Americans (Philip C. Rothschild 2012, 11). The current iteration of social media dates back to 2002, with the creation of LinkedIn as the first prominent, long-lasting social networking site. In each of the next four years, MySpace, Facebook, YouTube, and Twitter were introduced. The traditional media landscape was irrevocably changed by the advent of social media, with the Internet heightening the average person’s ability to distribute information (Hutchins and Rowe, 2009). Social media shrunk barriers to access and cost, which has enabled not only a greater number of people to reach content, but also for media companies, sports teams, organizations, and individual athletes to take advantage of the platforms to produce content that can be easily-consumed by their audiences (Hutchins and Rowe, 2009).

In sports, the ability to produce and distribute content is exemplified by Twitter. The micro-blogging website not only allows its users to express their thoughts in 140-character-or-less Tweets, but it also allows them to follow other people’s accounts. Twitter is especially attractive because of its extremely simplified posting model, with Tweets acting as miniature blog posts to facilitate breaking news; thus, athletes, teams, and sports organizations are more likely to use Twitter than any other social media

platform (Andrew C. Billings et al., 2015). Twitter has subsequently emerged as “the king of sports engagement,” where fans can find news updates and interact with fellow fans, journalists, media members, and the athletes themselves (Billings et al. 2015, 56).

Although this nearly-unrestrained interaction has distinguished Twitter from other social media platforms, studies confirm that the number-one motivation for engaging with sports figures on Twitter is not to see athletes’ Tweets, but instead to discover new and breaking information (Witkemper et al., 2012). Individuals need to exert minimal effort to find news and information on Twitter; all it takes is a quick scroll through their feeds, skimming easy-to-read, short Tweets. In sports specifically, it has become common for journalists—and, occasionally, the athletes themselves—to break news directly from their Twitter accounts (Witkemper et al., 2012). Another notable feature of Twitter all but ensures that this news will spread: the Retweet. With a push of a button, a user can display another person’s Tweet verbatim to all of his or her followers, who are then automatically exposed to its contents on their feeds. Any Tweet that has been Retweeted reaches an average of 1,000 users, and can then be Retweeted again, allowing for the nearly-instantaneous rapid dissemination of information around the Twitter-sphere (Kwak et al., 2010).

Therefore, Twitter acts as more than just an interactive social network: it acts as an effective motor to quickly spread news stories. Beyond sports, Twitter was the first to break many recent, significant news stories, from the British monarchy announcing Prince William and Princess Kate’s marriage on their account, to Boston citizens being the first to Tweet pictures of the Boston Marathon Bombings in 2013 (Elliot, 2013). However, Twitter’s role as a primary news source, coupled with its features that ensure

rapid, near-instant dissemination, has created a multitude of headaches for sports organizations, as previously-private information is now available and accessible to the masses (McCoy, 2010). In that sense, “there is a higher risk of exposure to bad publicity, especially for those organizations dependent on the public for revenue, like sports teams” (McCoy 2010, 204). Recently, much of this “bad publicity” has dealt with alleged crimes committed by professional athletes off the field, subsequently exposed by Twitter and social media.

1.3 The Impact of Media on Punishments

There is currently no literature detailing the direct impact of social media on the punishments granted by professional sports leagues to athletes; however, some sources have discussed *traditional* media’s effect on the frequency and severity of these punishments. The NFL has punished athlete crimes since the establishment of its commissioner’s office in 1941. Initially the focus was on crimes that resulted in minimal punishments, such as gambling and certain forms of substance abuse (Bethany P. Withers 2010, 146). However, the launching pad for the league punishment of violent crimes—and the more severe sentences accompanying them—was the media scrutiny of O.J. Simpson’s “Trial of the Century.” In 1994, the former MVP running back was accused of murdering his girlfriend, Nicole Brown. Simpson’s trial captivated America—from his car chase with the police after refusing to turn himself in that interrupted the regular programming of every news channel in the United States (including the broadcast of the 1995 NBA Finals), to his eventual not-guilty verdict that compelled 100

million people to tune in. The trial caused a media firestorm: while the Iran-Contra affair in 1989 commanded 277 news segments in total coverage, and the Menendez brothers' murder of their parents in 1993 commanded 344 news segments, Simpson's trial commanded 2,237 segments from 1994 until 1997 (Dershowitz, 2004).

The Simpson trial was so widely publicized and consumed that, as a result, the media increased its coverage of other instances of violence and aggression surrounding athletes (Rowe, 2008). In fact, Harvey Levin, the founder of online celebrity news tabloid TMZ—which would go on to release the video evidence accompanying Ray Rice's domestic violence accusation—began his career as a legal reporter for a news station in Los Angeles, where he covered the Simpson trial (Dershowitz, 2004). While Jonathan Hendel (2014) argues that this growing media attention resulted because the Simpson trial inspired *more* athletes to commit violent crime, Withers (2010) counters by claiming that instead the O.J. Simpson trial highlighted the *already existing* problem of violent crimes committed by professional athletes.

With little publicization of crimes, therefore, it is unlikely that the athletes who commit them would receive a severe punishment, or even a punishment at all. Professional sports leagues have previously ignored violent crime: only 1 out of 141 (0.007%) professional basketball players and 0 out of 56 (0%) professional football players received any league discipline for crimes involving violence against women between 1989 and 1994 (Withers, 2010). Yet, if crimes are publicized and reach the attention of fans, athletes would thus become accountable to the public. So, leagues do not respond to the *crime* at hand; instead, “[the likeliness] to constitute a response” is based on “a league's punitive response to fan outrage” (Kim and Parlow, 2009).

All of the literature available about the punishments of athletes construct a direct link between the public's response to an athlete's crime and if and how he is punished. Withers, Parlow and Young, and Rowe all mention somewhat similar reasons for the punishments commissioners give to their athletes: to ensure professional leagues' continued profitability; to ensure professional sports remains a source of entertainment; and to ensure that athletes act as role models to uphold the honorable, positive images of the leagues. Each of those reasons still connects back to the idea of the public's response to an athlete's offense: since the general public contains the consumers, fans, and followers that are responsible for the success of these professional sports leagues, their perception remains of the utmost importance—and has an extreme effect on punishments.

For example, the first recorded non-fine punishment granted by the NFL in the case of a violent crime occurred in 2000, when Arizona Cardinals running back Mario Bates was suspended for one game after pleading guilty to assaulting his girlfriend. Withers (2010) concluded that because a violent crime was especially widely publicized, the attention it received was the foundation for subsequent suspensions by the NFL in response to violent crime. It is important to note, however, that although she recognizes the notability in an actual non-fine punishment being bestowed on a perpetrator of a violent crime, neither Withers nor any other author challenges the severity of the punishment—in 2000, a mere one-game suspension was deemed acceptable retribution for the crime. As witnessed in Ray Rice's case, a one-game suspension for gender violence charges would not be accepted in today's media landscape.

And neither was Rice's two-game suspension, as noted earlier by the public

outrage surrounding his first punishment. Not only did the public's response to Rice's case change his punishment, but it also changed the NFL's Personal Conduct Policy itself. The NFL Personal Conduct Policy had been modified only once before, in 2007, ten years after its initial publication. However, Goodell called for its revision in 2014 due to "public questioning": "The public response [to Rice] reinforced my belief that the NFL is held to a higher standard, and properly so.... We will listen openly, engage our critics constructively, and seek continuous improvement in everything we do" (ESPN 2014). Thus, the subsequent increase of the minimum punishment for domestic violence, to a six game suspension, was a direct result of the negative public opinion surrounding Goodell's initial disciplinary decision in Rice's case—the majority of which was communicated via social media.

Parlow and Young (2009) were the only authors to directly connect media attention to the severity of punishment. They recognize that commissioners are in fact imposing harsher and more frequent penalties when athletes commit violent crimes, but not because of the relative seriousness of violent crimes compared to, for example, a DUI or public intoxication charge. Rather, commissioners are punishing "behavior off the court or field that may not be criminal in nature, but which may bring disrepute and embarrassment to the league" (Parlow and Young 2009, 573). Parlow and Young then emphasize the media's role in maintaining the leagues' images: that the hyperawareness that increased media attention has given to athletes' criminal activities has the potential to shed even more negative light on leagues. And, as a response a crime's media attention and publicization, "it is understandable that commissioners will impose more frequent and severe punishment to publicize their respective league's disapproval of

such behavior” (Parlow and Young, 584). Therefore, the relationship between the two is clear: if the media publicizes an athlete’s crime to the degree that it affects the image of the league in the eyes of the fans, the punishment should increase in severity.

1.4 Hypothesis

Despite evidence supporting the impact of traditional media on the severity of punishments, and Goodell explicitly stating the impact the “public” had on deciding to change Rice’s punishment, there is no literature either supporting or refuting the impact of *social* and new media on athlete punishments. Nonetheless, there exists substantial evidence confirming the role of social media, specifically Twitter, as both a news source and a rapid promulgator of information; in addition, current research establishes the influence of the publicization of crimes on the more-severe way in which professional sports leagues grant punishments to athletes. Based on the literature overwhelmingly supporting the relationship between these two claims, I hope to demonstrate the impact social media has on the severity of NFL athletes’ punishments.

After reading relevant academic literature, my hypotheses are as follows:

- Social media coverage of NFL athletes’ crimes will have an impact on the severity of their punishments, because social media shares many important characteristics with traditional media. Thus, punishment severity will increase between 2000 and 2014, the parameters of my

dataset. In addition, players will be punished more severely if there are more Tweets about their crimes.

- Certain crimes will be punished more severely than others. The more violent offense categories—gender/family violence, violence – non-gender/family—will be punished most severely on average. Gender/family violence will show the highest increase in severity from 2000 until 2014, partly due to recent media coverage surrounding Ray Rice’s case.
- Finally, higher-paid players will be punished less severely than lower-paid players; similarly, better-performing players (according to fantasy football ranking) will be punished less severely than worse-performing players. As a revenue-generating business, the NFL is incentivized to put its best product, i.e. its best players, on the field; therefore, the NFL will be more lenient when punishing its highest-paid and best-performing athletes.

Section 2: Methods

2.1 Research Design

The focus of my research will be quantitative data analysis of the relationship between social media and the severity of athletes' punishments.

For the quantitative analysis, in order to streamline the measurement of social media impact, Twitter will act as the proxy for all social media platforms. Twitter contains all of the characteristics that make social media platforms unique for news analysis: low barriers to entry, high accessibility, millions of users, users from within the professional sports world, and the ability to share and disseminate information easily and rapidly.

The quantitative analysis will be done on Tableau, a program that allows for the generation of both data analysis and data visualizations.

Quantitative analysis will occur in many different ways:

1. An analysis of the severity of athletes' punishments by date/year from 2000-2014. Laying out each crime chronologically and comparing it with severity will result in a general picture of how social media has grown and developed over the years, and how it is correlated with severity. The chronological ordering of the crimes will be on the x-axis, and the severity scale will be on the y-axis.
2. An analysis of the number of Tweets about an athlete's crime with the severity of punishments, by placing the number of Tweets on the x-axis in chronological

order of the date of when the athlete's crime took place, with severity on the y-axis

3. An analysis on the severity of athletes' punishments based on the athlete's value, which is measured in two ways: their salary for the season in which the crime is committed, and their fantasy football ranking from the previous season. The reason both of these values must be analyzed to determine the players' value is because of each of their shortcomings alone. Most notably, salaries for rookies or players without much league tenure are often still being paid by their entry-level contracts, despite their high performance, which fantasy ranking may capture. However, fantasy rankings heavily favor offensive players in skill positions (quarterbacks, running backs, wide receivers, and tight ends), which is why salaries can capture the value teams place on high-performing linemen and defensive players.

From these analyses, I will extract sub-graphs categorized by type of offense. Although a larger graph comparing severity of punishment by both date/year and number of Tweets will be helpful in viewing the general picture of changes in severity, these changes should also be further categorized by offense, to see how the punishment in specific categories of offenses has changed as social media has developed, and how players who are valued differently are punished differently. This will offer a clearer measurement of the impact of social media and value of a player on severity, since, for example, punishments for driving-related offenses differ significantly from those granted for violent crimes.

2.2 Data Sources

The database I will use to analyze the relationship between social media and the severity of athletes' punishments is U-T San Diego's NFL Arrest Database (<http://www.utsandiego.com/nfl/arrests-database/>). It charts every arrest of NFL athletes from January 2000 until present for incidences more serious than speeding tickets. The table provides the date of the arrest; the name, team, and position of the athlete; a brief description of their incident; and what punishment both law enforcement and the NFL gave to the athlete. NFL Arrest Database data up until December 31st, 2014 will be used, to ensure that a full year's worth of data is compared to the severity of punishment in my quantitative analysis, so as to ensure accurate year-by-year comparison. Players were removed from the database if they were arrested during an indefinite suspension, during free agency, or if they retired before the punishment was determined, since they were not ultimately susceptible to NFL punishment. In total, 23 players were removed from the database under these criteria.

Data that will be extracted from the NFL Arrest Database are as follows: The date of arrest to organize quantitative analyses chronologically; the offense to determine the category of offense for creating sub-graphs based on the crime the athlete committed; and punishment given by the NFL to determine measurements for "severity" on a 0-10 scale, to be placed on the y-axes of my graphs.

Below is the scale used to measure punishment severity:

Punishment severity	Description
0	No punishment granted by the league
1	Fined 1 game check
2	Fined 2 or 3 game checks
3	Fined more than 3 game checks
4	Suspended for 1 game
5	Suspended between 2-4 games
6	Suspended between 5-9 games
7	Suspended for 10-15 games
8	Suspended for one season (16 games)
9	Released by team to free agency
10	Indefinite suspension from the NFL

The offenses the players committed will also be categorized into general categories for sub-graph extraction. These nine categories are derived in part by the list of offenses in the Personal Conduct Policy, and also in part due to general patterns observed within the Arrest Database.

Categories are listed below, along with examples of common offenses:

Offense Category	Examples
Gender/family violence	Sexual assault, violence against a wife or girlfriend, child abuse
Violence – non-gender	Assault or battery against another man
Drugs – non-alcohol	Marijuana possession, “controlled drug” or “drug paraphernalia” possession, driving while high on marijuana (if marijuana explicitly mentioned in arrest description)
Driving – non-alcohol	Driving on a suspended license, reckless driving or speeding, failure to stop, hit-and-run with no injuries (only driving-related crimes with no mention of alcohol)
DUI/DWI	Driving Under the Influence or Driving While Impaired – alcohol-related incidents
Weapons	Unlawful firearm possession, brass knuckle possession, wanton endangerment
Murder charges	Murder, manslaughter, attempted murder
Disorderly	Minor crimes: Public intoxication, trespassing, disorderly conduct, resisting arrest, failure to follow orders, destruction of property, shoplifting, disturbing the peace
Other	Non-payment of child support,

	prostitution solicitation, stalking, outstanding warrants
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Crimson Hexagon will measure the number of Tweets following an incident (<http://www.crimsonhexagon.com/>). Crimson Hexagon is a computer program that has access to the Twitter firehose, all Tweets ever publicly published, since May 2008. It allows users to search for Tweets using keywords, and lets users input a set of dates between which to search. These keywords will include the following and will be uniform among all players searched and should be inputted as follows: “first AND last name of the player (i.e. “Aaron Hernandez”)” plus a set of keywords that corresponds to their offense, based on the description from the Arrest Database (i.e. “murder OR weapons OR shooting”). If player was arrested twice in a time span of three months within the same year, or their punishments result from the same sentencing, search terms are combined and Tweets are split in half due to overlap of Tweets about the player. These exact search terms can be found in the appendix.

In terms of dates, Tweet analysis will begin on the day the first news story from a top media outlet (NFL.com, CBS, NBC, CNN, Fox, ESPN, or a local newspaper) was reported about the incident, ending on the date the punishment was granted. These dates have been found using Google News’ search capabilities. If a punishment occurred the same day as an arrest, or if neither the NFL nor the United States legal system punished a player, the day after the day of the arrest was used to search for Tweets in Crimson Hexagon. Additionally, if player's punishment is changed at all (i.e. Le'Veon

Bell's 2014 suspension was reduced from 3 to 2 games), the dates used range from the day the punishment was announced until the day the *final* punishment was granted.

Fantasy football rankings from the season before the player was arrested and salaries of the players for the season they were arrested were used to measure player value. Fantasy football rankings were used from the season before the player was arrested in case a player was arrested in the middle of the season, distorting his ultimate fantasy score and thus value. Rankings were extracted from pro-football-reference.com, and salaries were extracted from Fox Sports. If players' salaries were unable to be found for the specific year they were arrested, and they did not retire or were not cut before being paid, their salaries were derived from the closest year a salary was found within two years prior to the arrest (a conservative estimate, since players tend to make more money as tenure in the NFL increases); if a salary was not found at all, it was marked as the minimum salary from that year. If players were not ranked by pro-football-reference.com, they receive a fantasy ranking of "700," to put them at the very bottom of the list and signify they are not ranked, yet still able to be quantified.

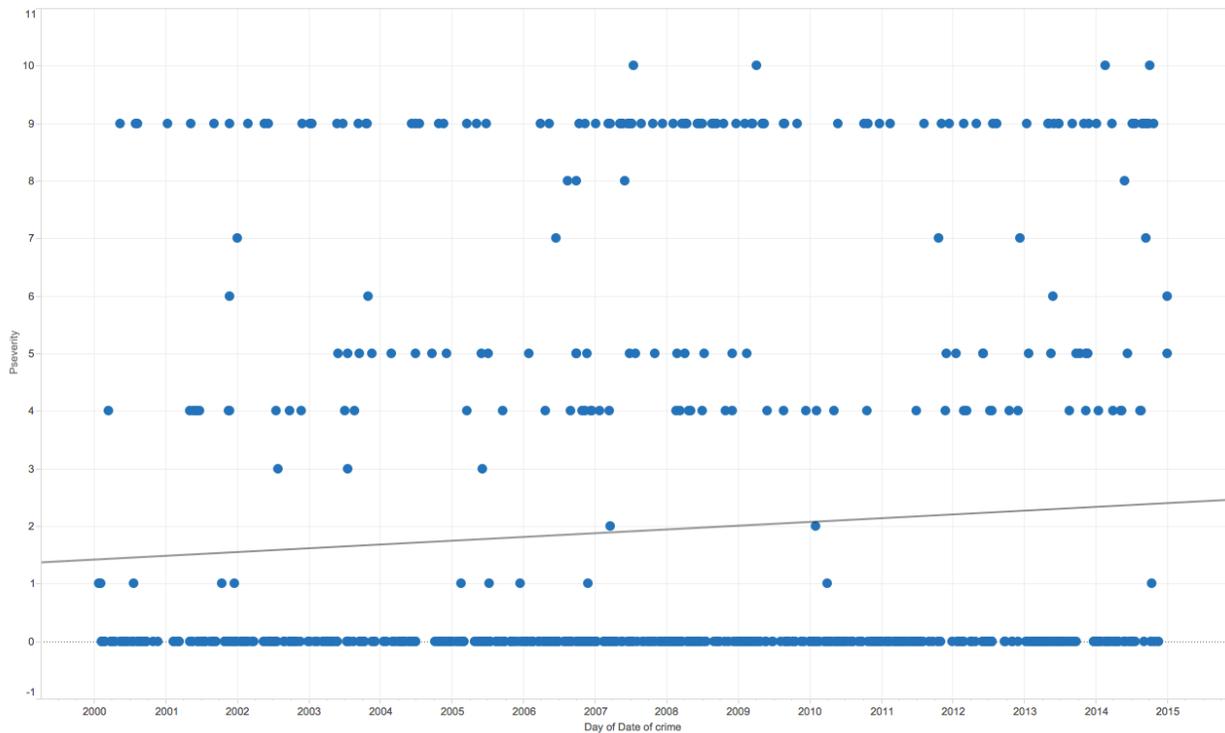
Correlation and regression tests using Tableau will be used to analyze the quantitative data.

Section 3: Results from Quantitative Data Analysis

For all regression analysis, “statistically significant” is considered to be statistically significant with a 95% confidence interval. Full regression data for graphs sorted by categories of offense are available in the appendix.

3.1 Severity by year and by Tweets

Graph 3a: Date and punishment severity



Graph 3a displays the date/year of the crime on the x-axis with the punishment severity (Pseverity) on the y-axis. This regression line displays a very small, positive correlation between the severity of punishments and time, with punishment severity slightly increasing between 2000 and 2014. Though statistically significant, the slope of

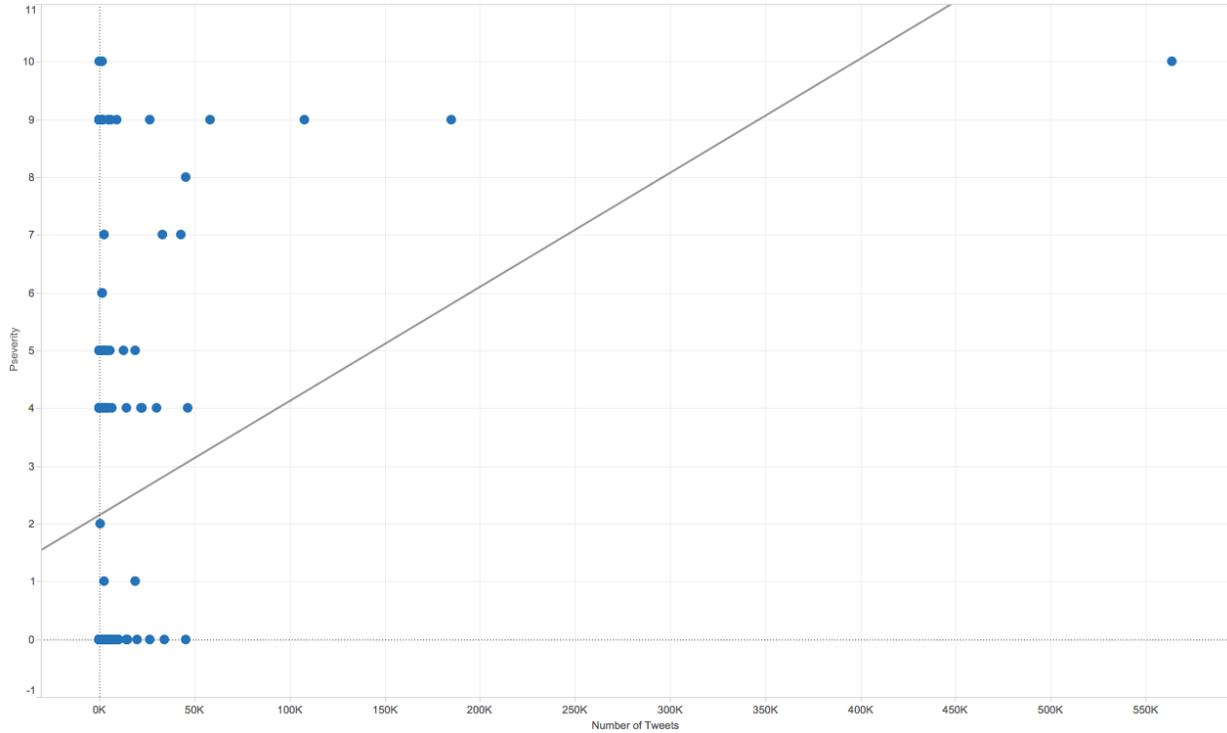
the regression line does not provide sufficient support for the hypothesis that punishment severity has increased over time. However, despite the only marginally positive relationship between severity and time, this result should not be completely ignored, considering the NFL did not punish that 71.4% of arrests since 2000.

P-value:	0.0284946
Equation:	Pseverity = 0.000178983*Day of Date of crime + -5.12088

Coefficients				
Term	Value	StdErr	t-value	p-value
Day of Date of crime	0.000179	8.155e-05	2.19486	0.0284946
intercept	-5.12088	3.21492	-1.59285	0.111636

SSE (sum squared error):	7728.44
MSE (mean squared error):	10.809
R-Squared:	0.0066925

Graph 3b: Number of Tweets and punishment severity



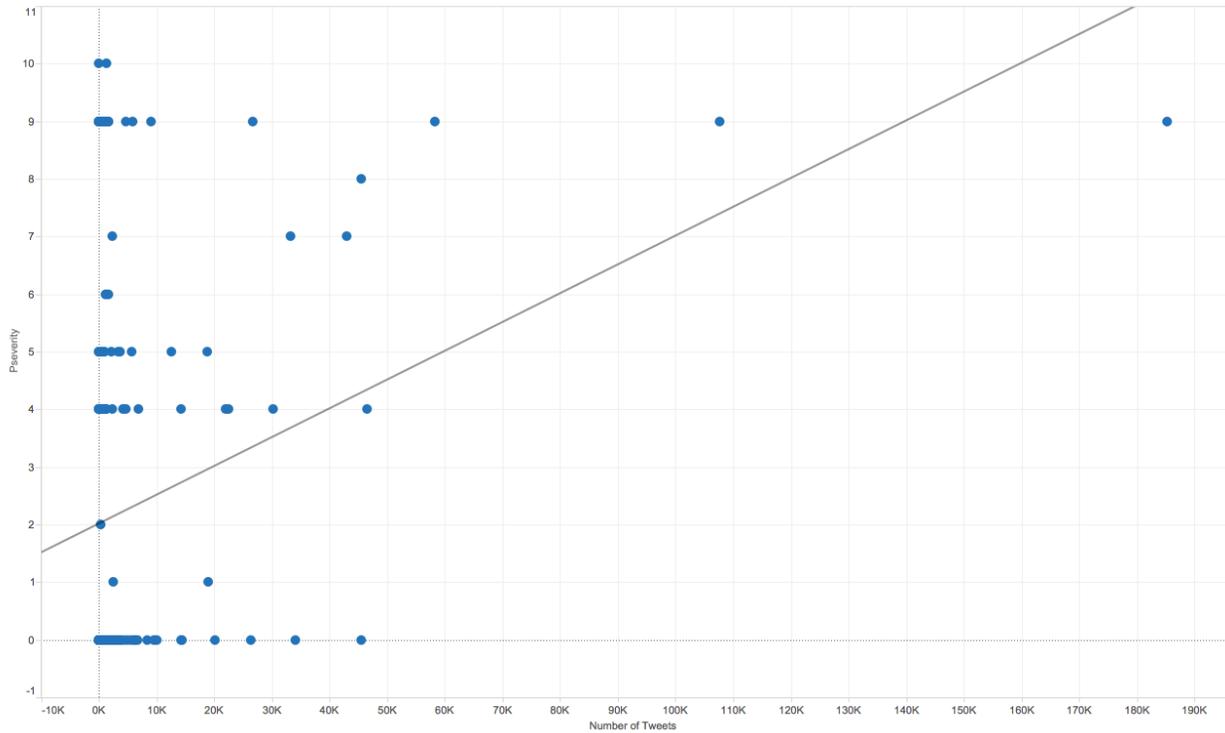
Graph 3b displays the number of Tweets about each crime on the x-axis with the punishment severity of each crime on the y-axis. There is a large, statistically significant, positive correlation between punishment severity and the amount of Tweets published about each player’s offense, confirming the hypothesis that a greater number of Tweets affects the severity of punishment.

P-value:	0.0004662
Equation:	Pseverity = 1.97568e-05*Number of Tweets + 2.14677

Coefficients				
Term	Value	StdErr	t-value	p-value
Number of Tweets	1.976e-05	5.566e-06	3.54939	0.0004662
intercept	2.14677	0.223985	9.5844	< 0.0001

SSE (sum squared error):	2707.35
MSE (mean squared error):	11.5206
R-Squared:	0.0508814

Graph 3c: Number of Tweets and punishment severity, excluding Ray Rice outlier



Graph 3c excludes the outlier from Graph 3b: the number of Tweets about Ray Rice’s offense. Rice accrued 563,687 Tweets about his February 15th, 2014 aggravated assault and domestic violence charge; the next highest amount of Tweets was Aaron Hernandez’s June 26th, 2013 murder and weapons charge, about which 185,221 Tweets were authored—still less than one-third the number about Rice’s crime. There is still a statistically significant, largely positive relationship between Tweets and punishment severity.

P-value:	0.0003049
Equation:	Pseverity = 4.99781e-05*Number of Tweets + 2.01757

Coefficients	
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Term	Value	StdErr	t-value	p-value
Number of Tweets	4.998e-05	1.363e-05	3.66599	0.0003049
intercept	2.01757	0.228018	8.84827	< 0.0001

SSE (sum squared error):	2641.06
MSE (mean squared error):	11.2866
R-Squared:	0.0543141

Table 3a: Punished arrests, punishment severity, and number of Tweets by year

Year	Arrests punished by NFL	Total arrests	Percent arrests punished by NFL	Average punishment severity	Average number of Tweets – all offenses	Average number of Tweets – offenses punished by NFL	Average number of Tweet – offenses not punished by NFL
2000	7	35	20.0%	0.97	N/A	N/A	N/A
2001	14	42	33.3%	1.79	N/A	N/A	N/A
2002	8	42	19.0%	1.21	N/A	N/A	N/A
2003	15	42	35.7%	2.38	N/A	N/A	N/A
2004	9	38	23.7%	1.71	N/A	N/A	N/A
2005	12	47	25.5%	1.11	N/A	N/A	N/A
2006	18	71	25.4%	1.46	N/A	N/A	N/A
2007	22	64	34.4%	2.64	N/A	N/A	N/A
2008	22	66	33.3%	2.36	N/A	N/A	N/A
2009	15	50	30.0%	2.34	169	29	229
2010	9	53	17.0%	0.96	708	579	722
2011	8	45	17.8%	1.24	1,226	1,785	1,105
2012	14	45	31.1%	1.82	6,816	13,332	3,874
2013	19	61	31.4%	2.20	5,043	13,605	1,155
2014	24	50	48.0%	3.22	19,859	36,678	4,334
Total	216	751	28.6%	1.83	5,636.83	11,001.33	1,903

Table 3a summarizes the percentage of arrests punished by the NFL each year, the average punishment severity per year, and the average number of Tweets about each crime each year from 2009-2014. The percent of arrests punished by NFL does not increase constantly between 2000 and 2004; instead, severity tends to increase over a period of years before a sharp fall, as seen between 2000 and 2003, 2003 and 2009, and then 2009 until reaching the greatest percentage of arrests punished in 2014. Interestingly, average punishment severity follows the same exact trend—increasing between 2000 and 2003, falling and then increasing again between 2003 and 2009, falling and then increasing again from 2009 until reaching the greatest average

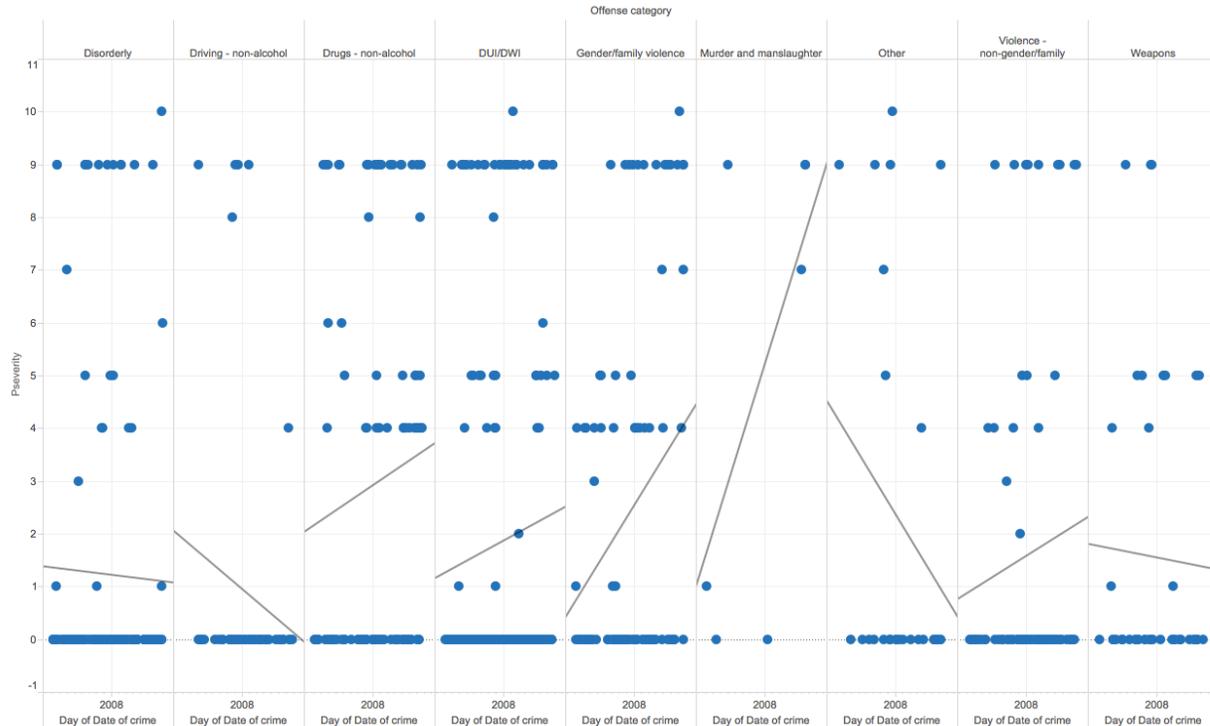
punishment severity in 2014. This relationship demonstrates that higher punishment severities are assigned in years in which the NFL punishes a higher number of arrests.

In addition, 2009-2014 represents the “social-media era,” beginning in 2009 because that was the first full year Crimson Hexagon has a Twitter data available. The increase in percentage of arrests punished and punishment severity to their highest levels yet in 2014 lends support to the hypothesis that they are both on the rise in the presence of social media.

The number of total Tweets increases each year between 2009 and 2014 (except between 2012-2013, when there is a slight decrease). Most notably, in each year, more Tweets are written about players’ crimes that are ultimately punished by the NFL than those that remain unpunished. This shows that the NFL is more likely to punish more Tweeted-about crimes—and that they do, in fact, take public opinion into account significantly when determining whether to assign a punishment or not.

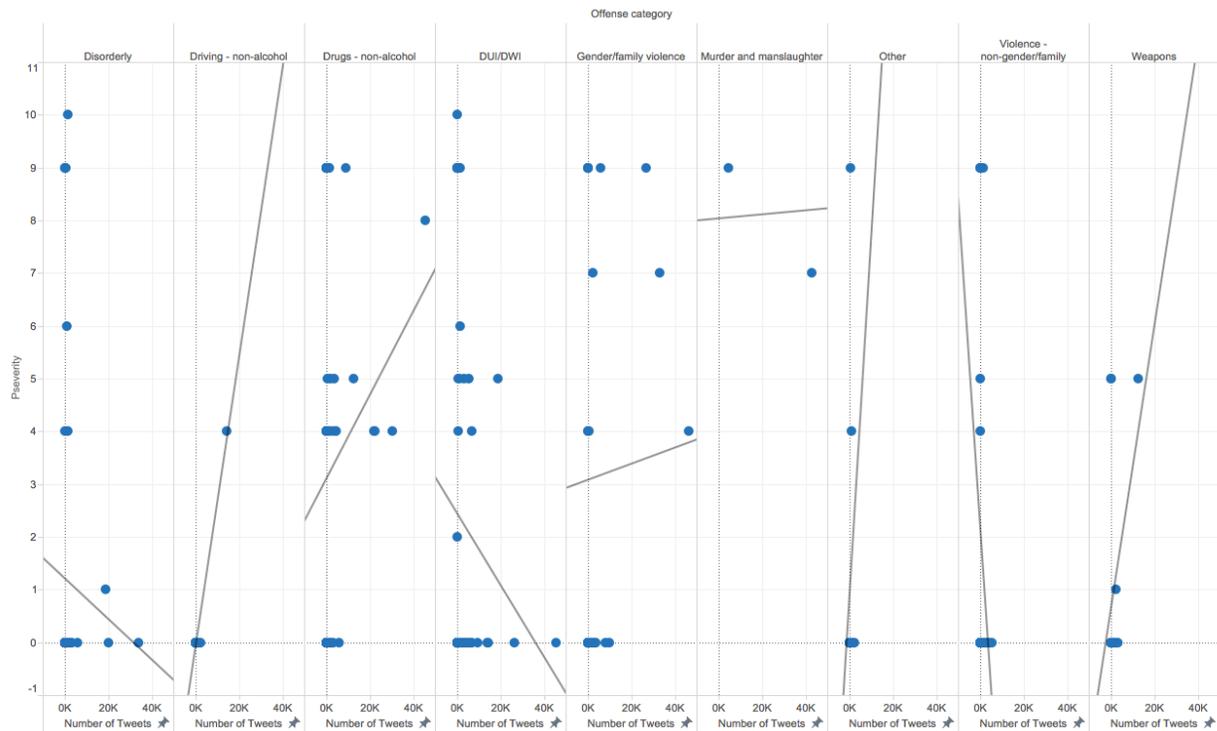
3.2 Categorization by offense

Graph 3d: Date and punishment severity, by category of offense



Graph 3.2 displays the date/year the offense occurred on the x-axis with the punishment severity on the y-axis, separated by different categories of offenses. The regression lines display a positive correlation between punishment severity and year in most of the categories, showing that punishment severity has increased over time except for punishments given to driving, weapons, and “other” charges. However, the only statistically significant regression line was for crimes pertaining to gender/family violence, with a 0.0033103 p-value.

Graph 3e: Number of Tweets and punishment severity, by category of offense



Graph 3.4 displays the number of Tweets about a crime on the x-axis and punishment severity on the y-axis, separated by categories of offense. The regression lines show that more Tweeted-about crimes are more severely punished within all categories, except for disorderly, DUI/DWI, and violence – non-gender/family. However, no category generates a significantly significant regression line except for gender/family violence, with a p-value of 0.0340254, and driving – non-alcohol with a p-value of <0.00001. However, only one non-alcoholic driving crime was punished in the social media era, a one game suspension for Chris Culliver’s March 28th, 2014 hit-and-run charge, generating 14,329 Tweets. The next-highest number of Tweets about a driving – non-alcohol crime is 2,281.

Table 3b:

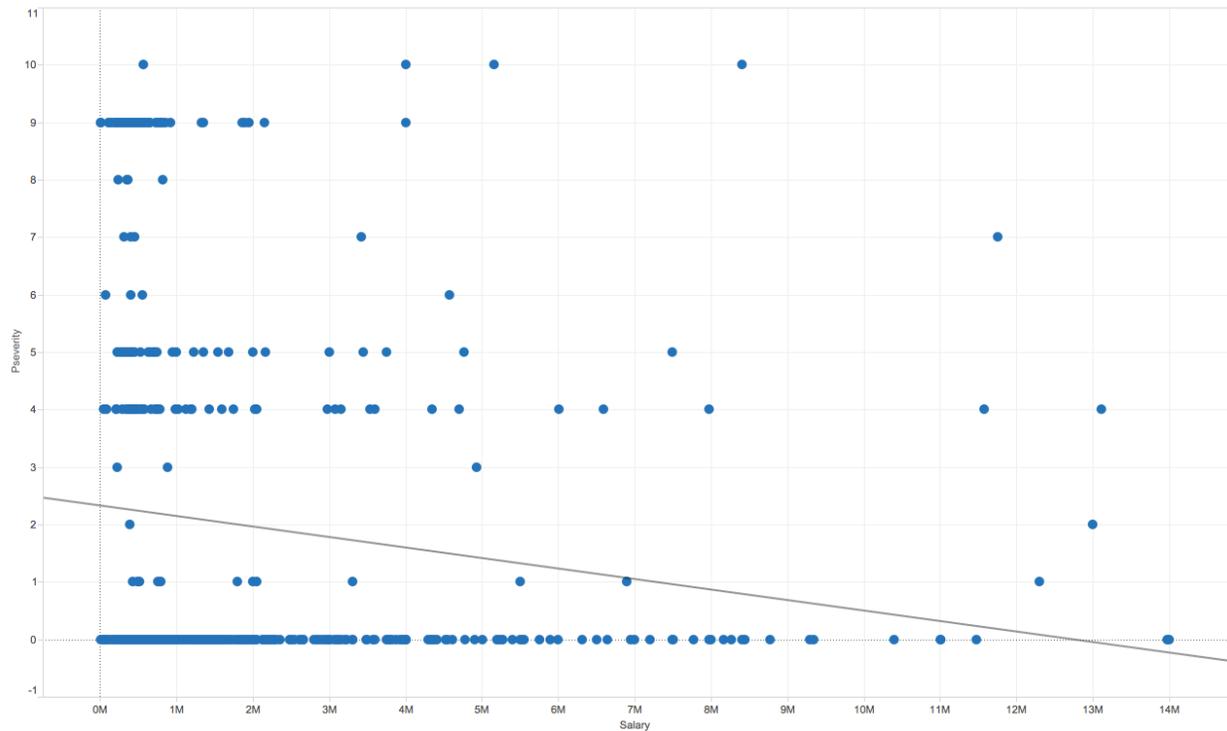
Offense category	Percent arrests punished by NFL	Percent arrests punished by NFL - 2000-2008	Percent arrests punished by NFL - 2009-2014	Average punishment severity - total	Average punishment severity - 2000-2008	Average punishment severity - 2009-2014	Average number of Tweets	Average number of Tweets - punished by NFL	Average number of Tweets - not punished by NFL
Weapons	30.2% (13/43)	33.3% (9/27)	25% (4/16)	1.56	1.89	1.00	1,643	3,788	928
Violence - non-gender/family	24.3% (18/74)	26.8% (11/41)	21.2% (7/33)	1.58	1.54	1.64	1,100	391	1,291
Other	28.6% (8/28)	35.3% (6/17)	18.2% (2/11)	2.21	2.89	1.18	637	965	564
Murder and manslaughter	71.4% (5/7)	50% (2/4)	100% (3/3)	5.00	2.50	8.33	77,617	77,617	N/A
Gender/family violence	40.6% (41/101)	38.8% (26/67)	44.1% (15/34)	2.33	1.84	3.29	25,940	56,405	1,888
DUI/DWI	26% (50/192)	21.1% (31/117)	26.7% (20/75)	1.82	1.79	1.88	2,742	2,210	2,935
Drugs - non-alcohol	45.7% (48/105)	36.8% (21/57)	56.3% (27/48)	3.00	2.61	3.46	3,908	6,123	1,060
Driving - non-alcohol	10.9% (6/55)	17.9% (5/28)	3.7% (1/27)	0.87	1.57	0.15	851	14,329	333
Disorderly	18.5% (27/146)	20.2% (18/89)	15.8% (9/57)	1.22	1.21	1.23	1,893	2,394	1,787
Total	28.8% (216/751)	28.9% (129/447)	28.9% (88/304)	1.87	1.98	2.46	12,926	18,247	1,198

Table 3b summarizes the percentage of arrests punished, the average punishment severities, and the average number of Tweets about each offense category. The “pre-social-media” era is defined as 2000-2008, when Twitter data was not available; “social-media” is defined as 2009-2014. Although the percentage of arrests punished by the NFL in the pre- and- social media eras are identical, at 29.8%, the average punishment severity between the two eras differs considerably, increasing from 1.98 to 2.46. The largest increases in punishment severity between the two eras occurred in murder/manslaughter (although there have been only seven murder/manslaughter charges cases since 2000, an extremely small sample size), gender/family violence, and drugs – non-alcohol.

Setting aside murder/manslaughter, drugs – non-alcohol has the largest average punishment severity of any offense category, at 3.00, followed by gender/family violence at 2.33. This reinforces the NFL’s heavy hammer when it comes to drugs charge—it is also the most frequently punished offense category, with 45.7% of incidences facing league punishment. However, the fact that the NFL tends to punish non-alcoholic drug-related charges more severely and more frequently than violent crimes, especially gender/family violence, speaks to the league’s distorted priorities. Drugs charges are seen as simple, automatic, zero-tolerance crimes, easy to justify punishing; meanwhile, violent crime is a much more cloudy, complex area, especially crimes pertaining to violence against women. The NFL’s reluctance to punish gender/family violence more severely is especially shocking considering gender/family violence crimes are the most-Tweeted about crimes, with an average of 25,940 Tweets (again, ignoring murder/manslaughter). The next highest category is drugs – non-alcohol, with 3,908 Tweets per crime on average—less than one-eighth of the amount Tweeted about gender/family violence. However, as proven by recent steps to modify the NFL’s domestic violence disciplinary policy, the NFL seems to finally be listening.

3.3 Punishments based on player value

Graph 3f: Salary and punishment severity



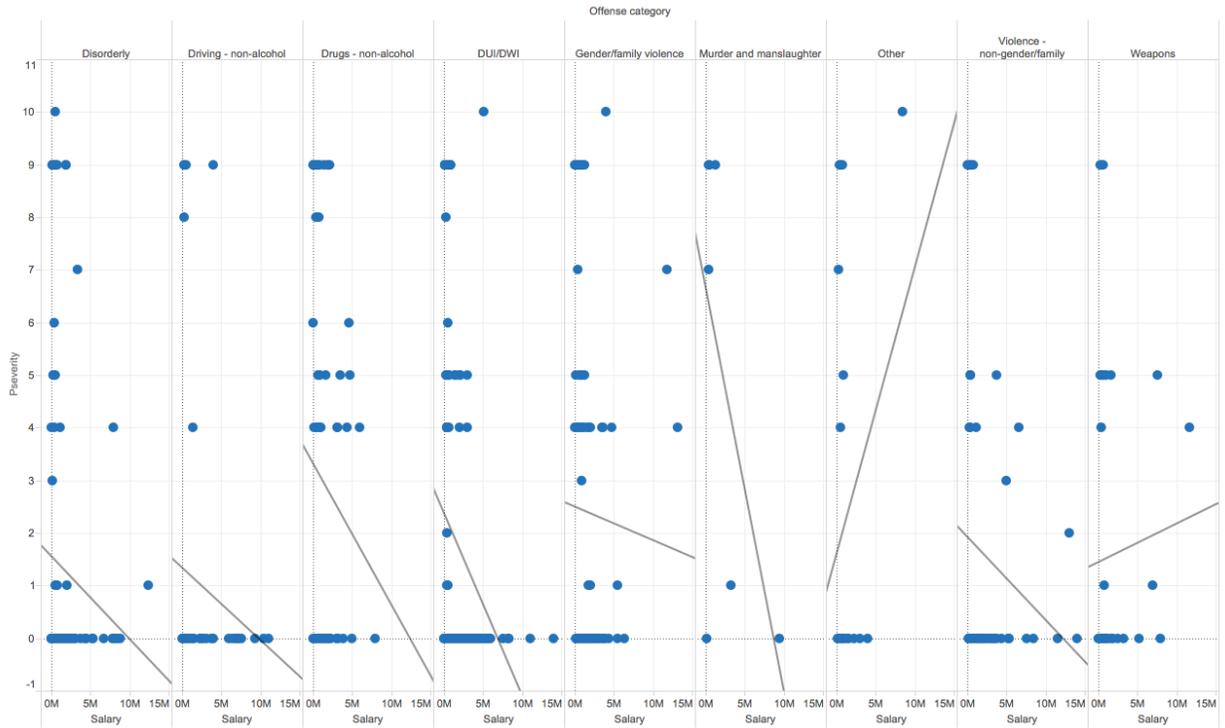
Graph 3f displays the salaries of players who committed a crime on the x-axis and the corresponding punishment severity on the y-axis. There is a negative correlation between the inputs, with players with higher salaries receiving smaller punishment severities than those with lower salaries. This correlation is statistically significant, with a p-value of 0.0018073. Therefore, it confirms the hypothesis that higher-paid players will be treated differently—i.e. more leniently—than their lower-paid peers when it comes to league punishment of their crimes.

P-value:	0.0018073
Equation:	$Pseverity = -1.82795e-07 * Salary + 2.32903$

Coefficients				
Term	Value	StdErr	t-value	p-value
Salary	-1.828e-07	5.831e-08	-3.13482	0.0018073
intercept	2.32903	0.168178	13.8486	< 0.0001

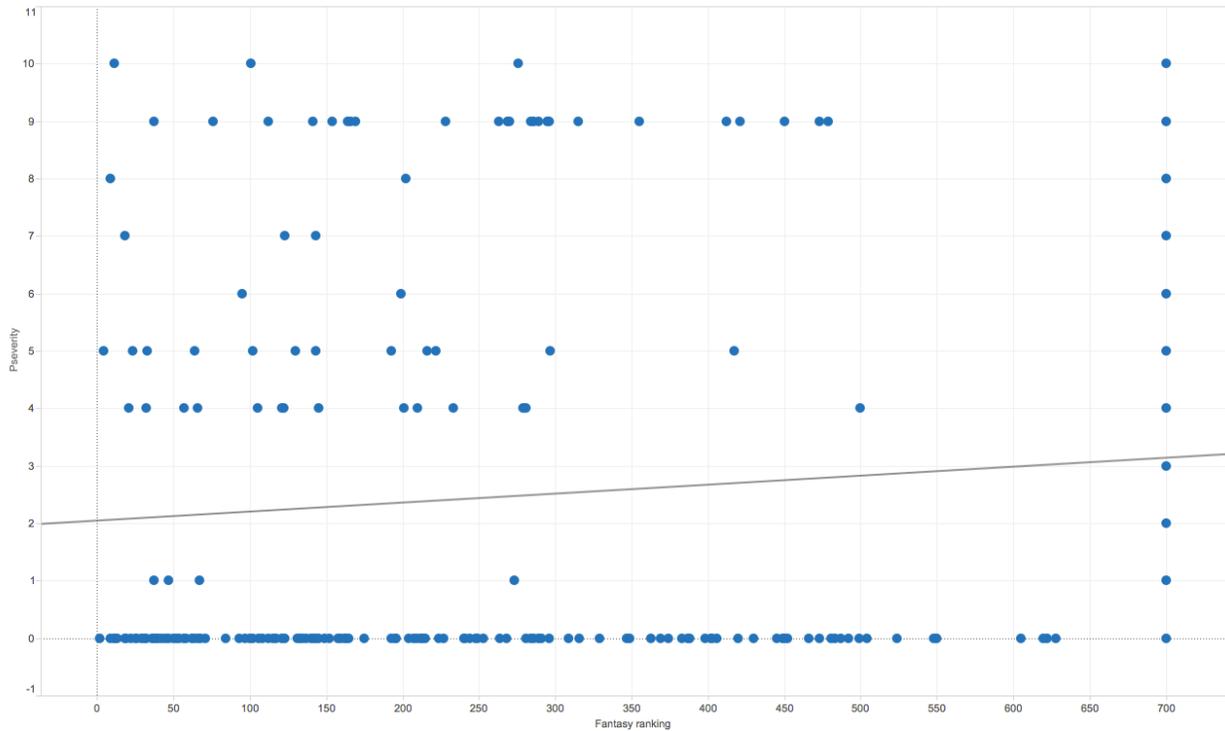
SSE (sum squared error):	6067.17
MSE (mean squared error):	10.5516
R-Squared:	0.0168034

Graph 3g: Salary and Punishment Severity by Offense Category



Graph 3g displays the salaries of players who committed a crime on the x-axis and the punishment severity on the y-axis, separated by offense category. In every single offense category except for “other” or weapons, higher-paid players were given less-severe punishments. However, the only category with a statistically significant relationship between salary and punishment severity is DUI/DWI, with a p-value of 0.043207.

Graph 3h: fantasy ranking and Punishment Severity



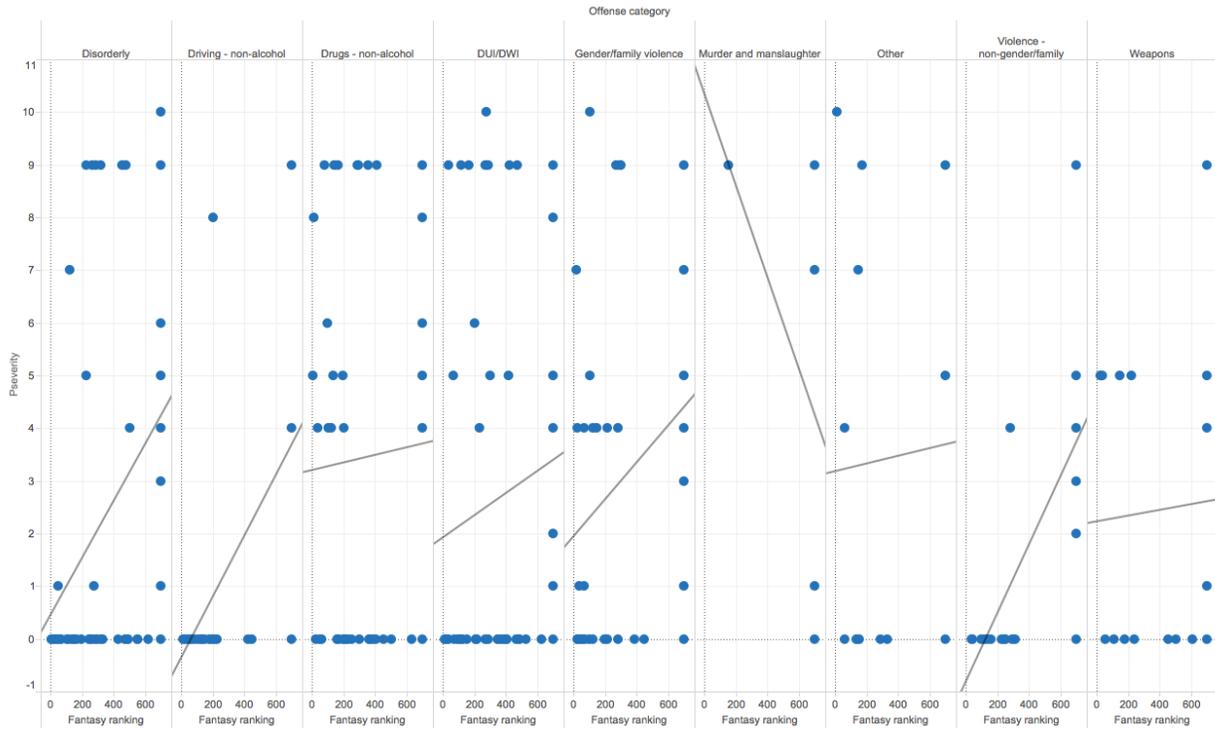
Graph 3h displays the fantasy football rankings of players who committed a crime on the x-axis and the punishment severity on the y-axis. Because a lower fantasy ranking indicates a better player, there is actually a slight positive correlation between these inputs, since players with lower fantasy rankings (i.e. higher-performing players) have slightly higher punishment severities than those with higher-numbered rankings. However, this relationship is not statistically significant.

P-value:	0.238345
Equation:	Pseverity = 0.00156176*Fantasy ranking + 2.04508

Coefficients				
Term	Value	StdErr	t-value	p-value
Fantasy ranking	0.0015618	0.0013204	1.18281	0.238345
intercept	2.04508	0.406148	5.03532	< 0.0001

SSE (sum squared error):	2348.23
MSE (mean squared error):	12.2304
R-Squared:	0.007234

Graph 3i: Fantasy ranking and punishment severity by offense category



Graph 3i displays the fantasy rankings of players who committed a crime on the x-axis and the punishment severity on the y-axis, separated by offense category. Better-performing fantasy players are more likely to get less-severe punishments than worse-performing players, except in murder and manslaughter (in which there are only seven inputs). Three categories display statistically significant relationships between fantasy ranking and severity: disorderly, driving – non-alcohol, and violence – non-gender/family.

Table 3c: Arrests punished, average punishment severity, and average number of Tweets by salary

Salary	Number of players	Percent arrests punished	Average punishment severity	Average number of Tweets
Less than \$1,000,000	480	33.4%	2.35	2,928
More than \$1,000,000	271	20.6%	1.04	10,796

Table 3d: Arrests punished, average punishment severity, and average number of Tweets by fantasy football ranking

Fantasy ranking	Number of players	Percent arrests punished	Average punishment severity	Average number of Tweets
Ranked (1-699)	212	31.3%	2.00	14,192
Unranked (700)	539	28.1%	1.82	2,071

Tables 3c and 3d summarize the differences in punishments given to players that are valued differently, sorted out by higher- and- lower- paid players (those with salaries above and below \$1,000,000) and better- and- worse- performing players (those with fantasy rankings and those without).

Beginning with Table 3d, the average punishment severity for ranked players is slightly higher than unranked players, as is the percent of arrests punished by the NFL. The average number of Tweets is significantly higher for ranked players. However, these results should be not necessarily reliable. Fantasy ranking is a less dependable measurement of player value than salary, since virtually zero defensive players have fantasy rankings, and defensive players compose half of the NFL. Instead, any offensive player, whether a starting, Pro-Bowl quarterback or a backup who accrues just enough yardage to earn only one fantasy point, is ranked before any defensive player, since fantasy rankings measure only offensive statistics.

Instead, focusing on Table 3c's results, it is clear that lower-paid players are punished more frequently (one-third of all arrests punished by the league vs. one-fifth) and more severely (2.35 average punishment severity vs. 1.04) on average than their higher-paid counterparts. This is an extremely troubling result, indicating the NFL's priority to protect their most valuable players over the rest of the league's athletes.

Section 4: Discussion and Conclusion

4.1 Discussion

A nearly identical case to Ray Rice's occurred in 2015, involving Dallas Cowboys star defensive end Greg Hardy. On May 13th, 2014, Hardy was arrested on assault charges after strangling and beating his ex-girlfriend Nicole Holder. He was initially suspended for 10 games; on appeal, his suspension was reduced to four games in July 2015. Hardy was reinstated on October 11th, 2015, starting for the Cowboys against the New England Patriots that week.

On November 6th, a popular sports blog called Deadspin released photos of the injuries sustained by Holder, which were soon picked up by major media outlets (Moskovitz 2015). The photos and accompanying police report played a similar role as the TMZ video did in Rice's case, prompting loud public response—in the five days following Deadspin's post, Hardy's incident was Tweeted about 122,925 times. These Tweets alone would move Hardy into third place in this study's most-Tweeted about crimes list.

Because Hardy had already underwent the NFL's appeals process, there were limited options for the league to take action—both because of the limitations for adjudicating punishments a third time given in the Personal Conduct Policy, and because of Goodell's desire to uphold the legitimacy of his punishment. However, Hardy's team had the option to take action, and many fans called for the Cowboys to release Hardy from their roster, the most severe punishment in a team's arsenal. Despite the public outcry, Cowboys owner Jerry Jones released the following statement:

“While we did not have access to the photos that became public today, we were and are aware of the serious nature of this incident. We as an organization take this very seriously. We do not condone domestic violence. We entered into the agreement with Greg fully understanding that there would be scrutiny and criticism. We have given Greg a second chance. He is a member of our team and someone who is grateful for the opportunity he has been given to move forward with his life and his career.” (Draper 2015)

Jones’ rationale for not punishing Hardy had underlying motives: a week earlier, Jones expressed his desire to resign his best defensive player to a long-term contract. His statement supports the fact the Cowboys, and the NFL as a whole, is first and foremost a business. The league’s teams and players are its products, and, to generate the most revenue and fan interest, it needs its best products on the field—not away from the game, serving punishments for a crime. In addition, the league prides itself on the “fundamental recognition that the NFL is a leader, that we do stand for important values,” according to Goodell in his letter addressing the changes to the 2014 Personal Conduct Policy. Employing criminals is certainly not in alignment with this sentiment.

Superficially, many of this thesis’ results can be viewed as progress. For example, it looks positive for the NFL that the average number of crimes punished and average punishment severity has increased recently, between 2009 and 2014—especially for gender/family violence, which was the cornerstone of the NFL’s Personal Conduct Policy reform. These results align well with the NFL’s overarching mission to protect their image—it looks good to see that the league is “doing something.” But has progress

really been made when a player like Hardy continues to suit up each week, and is lauded by his team's owner as a team "leader"?

The answer: no, because this thesis revealed that players like Hardy with \$13,116,000 salaries are not being punished by the same standards as, for example, a second-year player making the league minimum. The most disturbing finding is the statistically significant, negative relationship between salary and punishment severity—that higher-paid players are being punished less severely than their lower-paid counterparts. Arguably the most disturbing part about this is how *unsurprising* it is. Again, punishing higher-paid players is negative from a public relations standpoint for the NFL for two major reasons. First, these athletes are the NFL's most valuable products from a money standpoint; no business wants to see their best products relegated from the playing field after investing millions of dollars into them. Second, no business wants to see these products tarnished either. Higher-paid players are viewed as being emblematic of the NFL—along with their higher salary comes a responsibility to uphold the "important values" Goodell considers to be so instrumental to his league. Punishing their most valuable players could arguably embarrass the NFL *more* than letting them play unscathed by showing that their model players, heroes to the masses and beacons of athleticism, are far from perfect off the field.

These results demonstrate that the NFL's judicial system is not meant to teach players lessons. Instead, the league's mission remains centered around its business, of reprimanding behavior detrimental and embarrassing to the league. It's why Joseph Randle can be suspended one game for a high-profile yet petty theft of underwear and Gucci cologne, and why Leroy Hill is not punished at all for a domestic violence charge that was buried by the press.

That is, unless *we* step in—and by *we*, I mean the general public, the average Twitter and social media user. The analysis conducted in this thesis established the strong, statistically significant relationship between social media and punishment severity, that the more a crime is Tweeted about, the more likely it is to receive punishment from the NFL, and the greater severity the punishment will be. Historically, if enough people voice their displeasure with a crime, or with an initial punishment, the NFL has intervened, adjusting the punishment severity. The NFL's punishments may not fit their crimes, but they do fit the degree of public outrage.

4.2 Conclusion

It is clear that putting full authority to punish players in the hands of the commissioner has not resulted in significant progress for the NFL—the punishments given to its players still do not fit their crimes, especially when it comes to the highest-paid players. Therefore, a third-party arbiter, independent from both the NFL and the NFL Players Association, should determine punishments instead of the commissioner. To eliminate partiality when it comes to determining punishments, this arbiter should not receive the player’s name, salary or team; rather, it should only receive details necessary to make an unbiased decision, such as a description of the crime and if the player was a repeat offender.

This reformed judicial system would also eliminate the influence the public has on determining athletes’ punishments via social media. In an ideal world, the NFL would prefer to not to have news released about its players being arrested, and subsequently not have the responsibility of punishing its players as a result—leaving its business fully employed and completely untarnished, under the façade of moral “leadership.” However, it is clear the public has considerable influence on how severely athletes are punished, as shown in the statistically significant, positive relationship between Tweets and severity, and the significantly higher number of Tweets written about players who are ultimately punished by the NFL. These results confirm how behind the times the NFL is when it comes to granting fair punishments to players in accordance with their crimes, and when it comes to their governing policies—demonstrated by the public uproar to Ray Rice’s domestic violence charge prompting the first revision of the NFL’s Personal Conduct Policy in seven years, and only the second revision in history.

The NFL must take steps if it does not want to continue to be stuck in the past when it comes to punishing its players—considering the severity of its punishments have only marginally increased between 2000 and 2014. Simply put, it is not 2000 anymore—and it certainly isn't 1941, when the bylaw granting authority to the commissioner to exclusively bestow punishments was written. The first, and most significant step, the NFL can take is to remove the full power to punish from Goodell and any future commissioner. However, considering the amount of power vested in the commissioner's office, and the resistance of the NFLPA to push for a policy that will almost definitely result in more severe and frequent punishments for its players, it is unlikely this change will occur.

Section 5: Limitations and Further Research

5.1 Further Research

Further research about this topic could analyze additional ways certain players are punished differently than others beyond salary and fantasy football ranking; for example, categorizing players by race, by tenure in the league, or by popularity (i.e. jersey sales). In addition, beyond the NFL, similar research could study trends regarding punishment severity in the United States' three other major professional sports leagues: the National Basketball Association, the National Hockey League, and Major League Baseball.

Outside of sports, further research could measure the impact of social media on the punishments given to non-athletes in court. For example, research could determine if defendants in more-highly publicized criminal trials, such as the 2011 trial of Casey Anthony, are punished more severely than those in less-publicized trials.

5.2 Limitations

The limitations to this study are as follows:

- Searching errors: I personally coded all 751 players' data, creating the Twitter search terms inputted into Crimson Hexagon to find the number of Tweets about each player. Therefore, even small tweaks in the search terms could alter results. Beyond Twitter data, I also hand-coded every input in my dataset, which could lead to other general searching errors.
- Only 140 characters can be included in a Tweet, which restricts searchable information. Especially first and last names, since some could not fit in Tweets about the players. Although last names only could have been used to Tweet about a player on Twitter, this methodology required that first AND last names both be included in a Tweet for it to be included in the dataset.
- Correlation and causation: these regression analyses only measure correlation between the two values inputted into Tableau, and not causation.
- Inflation: Salaries used in this study have not been adjusted for inflation between 2000-2014.

References

- "2011 NFL Collective Bargaining Agreement." NFL Players Association, 4 Aug. 2011. Web. 2 Dec. 2015. <<https://nfllabor.files.wordpress.com/2010/01/collective-bargaining-agreement-2011-2020.pdf#page=195&zoom=auto,106,702>>.
- Billings, Andrew C., Michael L. Butterworth, Paul D. Turman (2015). Communication and Sports: Surveying the Field. Thousand Oaks, SAGE Publications.
- Bien, Louis. "A Complete Timeline of the Ray Rice Assault Case." *SBNation.com*. SB Nation, 28 Nov. 2014. 11 Feb. 2015.
- Dershowitz, Alan M. *America on Trial: Inside the Legal Battles That Transformed Our Nation*. New York: Warner, 2004. Print.
- Draper, Kevin. "Cowboys Owner Jerry Jones Releases Statement Supporting Greg Hardy." *Deadspin*. Gawker Media, 6 Nov. 2015. Web. 04 Dec. 2015. <<http://deadspin.com/cowboys-owner-jerry-jones-releases-statement-supporting-1741123627>>.
- Elliot, Amy-Mae. (2013). "9 Breaking Tweets That Changed Twitter Forever." from <http://mashable.com/2013/10/31/twitter-news/>.
- Haewoon Kwak, Changhyun Lee, Hosung Park, Sue Moon (2010). "What is Twitter, a Social Network or a News Media?" Proceedings of the 19th international conference on World wide web: 9.
- Hendel, Jonathan. (2014). "Crime and Punishment Through the Lens of Professional Sports: An Empirical Study of Racial Stereotyping." CMC Senior Theses Paper 900.
- Parlow, Matthew J. and Janine Young Kim. (2009). "Off-Court Misbehavior: Sports Leagues and Private Punishment." Journal of Criminal Law and Criminology 99(3): 24.
- McCoy, Lauren. (2010). "140 Characters or Less: Maintaining Privacy and Publicity in the Age of Social Networking." Marquette Sports Law Review 21(1): 15.
- Moskowitz, Diana. "This Is Why NFL Star Greg Hardy Was Arrested For Assaulting His Ex-Girlfriend." *Deadspin*. Gawker Media, 6 Nov. 2015. Web. 04 Dec. 2015. <<http://deadspin.com/this-is-why-nfl-star-greg-hardy-was-arrested-for-assaul-1739117634>>.
- "National Football League Policy and Program on Substances of Abuse." NFL Players Association and National Football League Management Council, 2015. Web. 2 Dec. 2015. <<https://nflpaweb.blob.core.windows.net/media/Default/PDFs/Player%20Development/2015%20Policy%20and%20Program%20on%20Substances%20of%20Abuse.pdf>>.

"National Football League Policy and Program on Substances of Abuse." NFL Players Association, 2014. Web. 2 Dec. 2015.
<<https://nflabor.files.wordpress.com/2013/06/personal-conduct-policy.pdf>>.

"Roger Goodell Letter to NFL Owners." *ESPN*. ESPN Internet Ventures, 8 Aug. 2014. Web. 07 Dec. 2015. <http://espn.go.com/nfl/story/_/id/11425532/roger-goodell-letter-nfl-teams-domestic-violence-policy>.

Rothschild, Philip C. (2011). "Social media use in sports and entertainment venues." *International Journal of Event and Festival Management* 2(2): 11.

Rowe, David and Brian Hutchins (2009). "From Broadcast Scarcity to Digital Plenitude: The Changing Dynamics of the Media Sport Content Economy." *Television and New Media* 10(4): 16.

Rowe, Clarence J. (1998). "Aggression and Violence in Sports." *Psychiatric Annals* 28(5): 4.

Withers, Bethany P. (2010). "The Integrity of the Game: Professional Athletes and Domestic Violence." *Journal of Sports and Entertainment Law* 1(1): 33.

Witkemper, Chad, Choong Hoon Lim, Adia Waldburger (2012). "Social Media and Sports Marketing: Examining the Motivations and Constraints of Twitter Users." *Sports Marketing Quarterly* 21: 13.