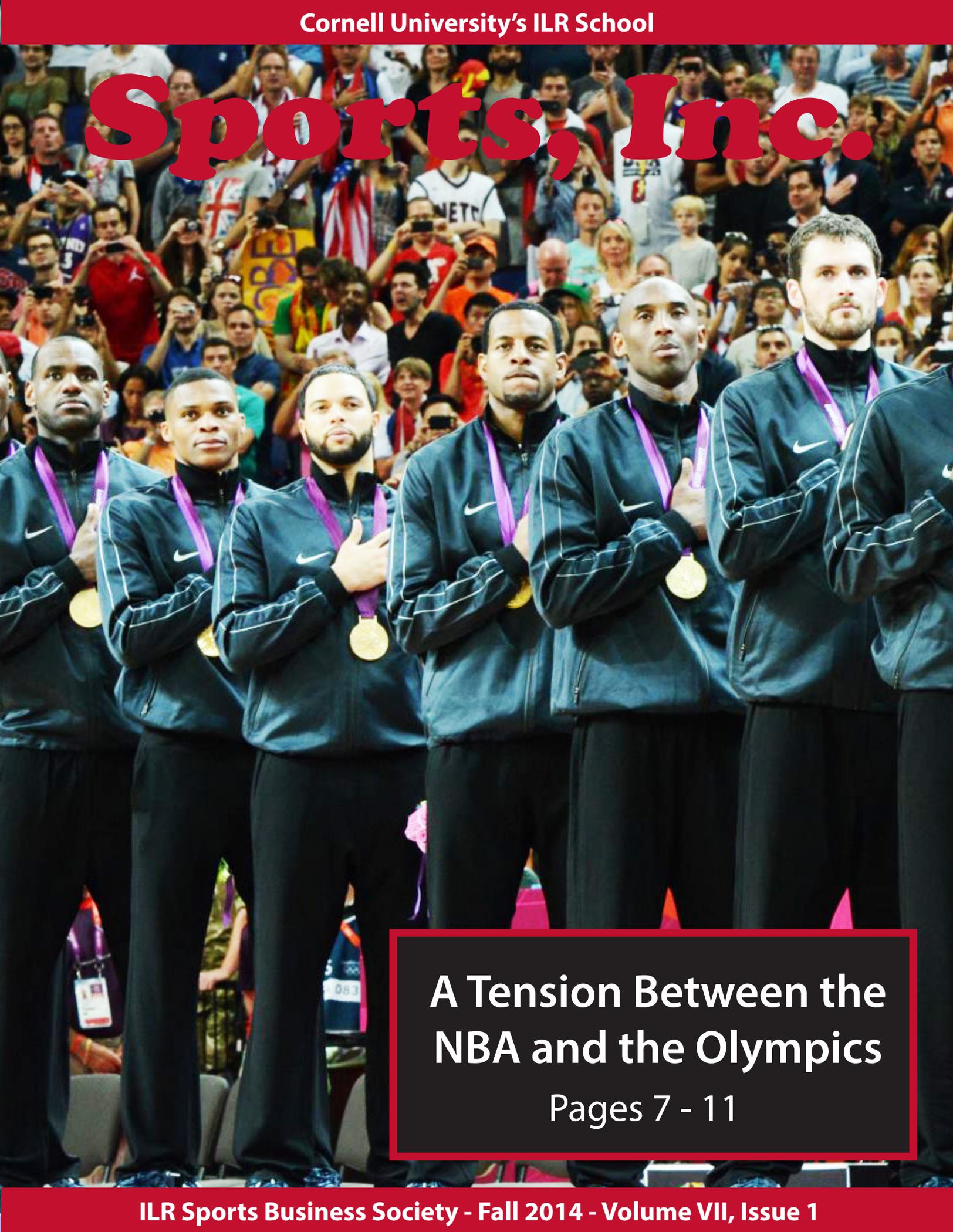


Sports, Inc.



A Tension Between the
NBA and the Olympics

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The Cornell ILR Sports Business Society

Advancing the world of sports.



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First, thank you for taking the time to read the ILR Cornell Sports Business Society Magazine. On behalf of our entire team of writers, editors, and E-Board, we thank you for your support. This magazine is a celebration of the outstanding research performed by our members throughout the Fall 2014 semester. Their work embodies the core values of our organization, the ILR School, and Cornell as a whole.

A primary objective of our organization is to offer students opportunities to apply the knowledge learned in their academic coursework to the sports business world. Through practical applications, such as this magazine, we hope that our members will be in a better position to succeed in the competitive landscape that is the sports industry. As you sift through the following pages, please keep this in mind, and enjoy the detailed and hard work of each of our contributors.

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Why They Call Him “Money”

Karthik Sekharan '17

Most superstar athletes have a nickname of some sort. LeBron James is “The King,” Derek Jeter is “The Captain,” and Marshawn Lynch has been dubbed “Beast Mode.” The birthplace of most of these names are easy to explain. James is arguably one of the best athletes to have ever played the game of basketball, Jeter’s leadership abilities are unmatched by even the most veteran of baseball players, and Lynch, a fierce running back, is known for an energetic and aggressive playing style.

While these athletes have nicknames that speak to their attributes on the playing field, Floyd Mayweather Jr. has a nickname that is a little different in nature. Floyd “Money” Mayweather did not simply happen into becoming the richest athlete on the planet by being good at boxing. His business model, though incredibly risky, is what has propelled him to the extreme wealth that he has.

Floyd Mayweather Jr.’s official boxing record is 47-0 after his most recent match against Marcos Maidana. He has been internationally recognized for his skill and has won numerous awards including the International Boxing Award Fighter of the Year in 1998 and 2007, the World Boxing



Photo courtesy of ESPN

FLOYD “MONEY” MAYWEATHER has redefined the boxing industry by combining his unparalleled performance in the ring with his ability to recognize new opportunities on the business side of the sport.

Hall of Fame Fighter of the Year in 2002, and the ESPY Award for Best Fighter in 2012. Throughout his career Mayweather has accumulated an extreme amount of wealth. Solely from fights, Mayweather has netted more than \$400 million in his career. Pay-Per-View revenue from his whole career has earned him an estimated total of \$1 billion.

In addition, endorsement deals provide him with a steady stream of revenue. All in all, estimates have him being worth around \$280 million. While being an accredited boxer like Mayweather is sure to have its perks, it is no explanation for

this extreme accumulation of wealth. This begs the question: why is he so rich? The answer to this question requires a bit of an explanation.

Boxing, while being a lucrative industry, is a sport that has been rapidly declining in popularity in America. In order to account for this, the biggest matches that any serious boxing fan needs to watch are on Pay-Per-View for upwards of \$80 per match. On top of that, tickets to watch a match at the MGM Grand or any other boxing venue range from \$500 to \$2,000. In other words, you need to have serious money to be a boxing fan. Of the revenue that is made from Pay-Per-View and ticket sales, a significant percentage of it goes to the promoter.

Most boxers hire a promoter before every big fight. The promoter’s job is, as the name implies, to promote the fight. In addition, they pay for every cost associated with the fight. These include venue costs, referee

costs, and other costs right down to the cups that the beer is served in. While the boxer pays the promoter a set fee, the promoter assumes all financial risk. That is, if the fight does not bring in the expected profit, then the promoter is the one losing a significant amount of money. However, with this risk comes a great reward if everything works out. If the fight brings in a significant profit, the promoter rakes in a huge chunk of it. So the boxer makes a small percentage of that profit while the promoter makes most of it.

What did Mayweather do to avoid losing all that potential profit? He bypassed the middleman. He founded Mayweather Promotions, his own promotions company. Since all of his fights net enormous profits, he makes most, if not all, of that money. He doesn’t have to give the majority of it to some outside promoter. However, up until July 2014, Mayweather

“What did Mayweather do to avoid losing all that potential profit? He bypassed the middleman.”

Promotions has had to partner and co-promote with Golden Boy Promotions since, up until that point, they did not have their promoter's license. Now that Mayweather Promotions has its license, Mayweather Jr. will be making large amounts of money even after he retires, since the company intends to continue representing other boxers.

One may ask, "Why don't all boxers just bypass the middleman and start their own promotions company?" The answer is that it is so incredibly risky. With the

**MAYWEATHER
PROMOTIONS**

costs that go into promoting and hosting one fight, if profits were less than expected it could send some fighters into bankruptcy. Showtime Vice President Stephen Espinosa has said that while other boxers have tried this business model, "relying on your own blood, sweat and tears to maximize your event doesn't work if you haven't built over time the kind of appeal that Floyd has."

Floyd "Money" Mayweather has taken control of the boxing industry. When he announces the date of his fight, he becomes

a general commanding a small army that works furiously for 12 weeks to create his vision of fight night. And every time he steps into the ring, he meets and maybe even exceeds expectations by proving time and time again that he is undoubtedly the best fighter on the face of the earth.

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Congratulations to Robert D. Manfred, ILR '80

The Cornell ILR Sports Business Society would like to congratulate Robert Manfred '80, on being unanimously elected as the 10th Commissioner in Major League Baseball history! Several ILR Sports Business Society members had the honor of attending a special event hosted by Cornell Alumni Affairs at MLB headquarters in December 2013. Rob Manfred and NHL Commissioner Gary Bettman were members of a panel that was moderated by Dean Harry Katz. The panel discussion was preceded by a networking opportunity for the students and many ILR alumni in attendance.



The Olympics As A Legal Steroid:

How Participation Enhances NBA Player Performance

Jason Lefkovitz '16

Introduction

On August 1, 2014, the USA men's basketball team held a televised, intra-team scrimmage in Las Vegas as part of the preparatory process for the 2014 FIBA World Cup. The game was intended to serve as an innocuous way to evaluate the pool of selected players and finalize the roster for the tournament. Unfortunately, in the third quarter of the scrimmage, everything went awry when Indiana Pacers All-Star forward Paul George snapped his lower right leg in half on a backboard stanchion. Suffering compound fractures of his right tibia and fibula bones, George would inevitably miss not only the tournament but also the 2014 NBA season.

The gruesomeness of such an injury can really haunt one's thoughts. I still remember where I was and what I was eating when I witnessed the horrific spectacle. I couldn't stop thinking about Paul George's injury for days afterward.

However, this was oddly not the first

time I saw a compound leg fracture on television. I was watching live when Kevin Ware of the Louisville Cardinals men's basketball team suffered a very similar injury during the 2013 NCAA Division I Men's Basketball Tournament. So why did Paul George's injury resonate with me to such a great degree? Unlike Kevin Ware, Paul George was a *professional* whose *livelihood* depended on his ability to play. If it weren't for Paul George's contract extension, he could have lost millions of dollars in the event that he couldn't fully recover from the injury.

In addition, the implications of the injury reach beyond the scope of the individual player. For instance, how would the Pacers fare in the absence of their most valuable and most expensive asset?

In the wake of that fateful August 1st night, such concerns echoed from media outlets across the country, prompting an age-old debate: should NBA players participate in international competitions and how much control should NBA teams have over these decisions? Currently, NBA players have full autonomy in the decision to play for their countries in international competitions.

NBA owners like the Dallas Mavericks' Mark Cuban have vehemently opposed the status quo. It is not difficult to sympathize with their perspective, for such owners invest millions of dollars in their players in order to generate success and, in turn, revenue for their teams. Seeking to minimize the risks of playing basketball in any setting, these owners want to prevent their players from playing for any cause unrelated to their own teams' success. Specifically, the exploits of their players in international competition do not directly generate any revenue for their teams.

In reality, however, it is impossible to completely prevent the incidence of injury off the NBA hard-court. Even if top NBA players chose to avoid international competitions during the offseason, they would still play in exhibition leagues and pickup games like many of their peers do. In addition, despite the risk of injury, many NBA players *have a desire* to represent their country in competitions like the Olympics. Players are not only patriotic but are also aware of the notoriety that comes with international success. Many of these players undoubtedly know



Photo courtesy of the New York Post

PAUL GEORGE'S horrific leg injury illustrated the dangers that players can face by participating in international competition.

1992 Dream Team	PER Before ('91-'92)	PER After ('92-'93)	Difference	Average Difference
Robinson, David	27.5	24.2	3.3	
Ewing, Patrick	22.8	20.8	2	
Pippen, Scottie	21.5	19.2	2.3	
Jordan, Michael	27.7	29.7	-2	
Drexler, Clyde	23.6	20.7	2.9	
Malone, Karl	25.4	26.2	-0.8	
Stockton, John	22.8	21.3	1.5	
Mullin, Chris	19.9	19	0.9	
Barkley, Charles	24.5	25.9	-1.4	
Johnson, Magic	NI			
Bird, Larry	NI			
Laettner, Christian	NI			
				0.97
1996 Olympic Team	PER Before ('95-'96)	PER After ('96-'97)	Difference	Average Difference
Charles Barkley	24.8	23	1.8	
Penny Hardaway	24.6	21.4	3.2	
Grant Hill	20.9	25.5	-4.6	
Karl Malone	26	28.9	-2.9	
Reggie Miller	20.1	20.2	-0.1	
Shaquille O'Neal	26.4	27.1	-0.7	
Hakeem Olajuwon	25.5	22.7	2.8	
Gary Payton	19.6	21.8	-2.2	
Scottie Pippen	21	21.3	-0.3	
Mitch Richmond	19.2	21.6	-2.4	
David Robinson	NI			
John Stockton	21.9	22.1	-0.2	
				-0.51
2000 Olympic Team	PER Before ('99-'00)	PER After ('00-'01)	Difference	Average Difference
Shareef Abdur-Rahim	20.2	19.1	1.1	
Ray Allen	20.6	22.9	-2.3	
Vin Baker	14	13	1	
Vince Carter	23.4	25	-1.6	
Kevin Garnett	23.6	23.9	-0.3	
Tim Hardaway	16.4	16.7	-0.3	
Allan Houston	16.5	16.1	0.4	
Jason Kidd	18.4	19.4	-1	
Antonio McDyess	19.6	22	-2.4	
Alonzo Mourning	NI			
Gary Payton	23.6	22.1	1.5	
Steve Smith	17.3	15.9	1.4	
				-0.23

2004 Olympic Team	PER Before ('03-'04)	PER After ('04-'05)	Difference	Average Difference
Carmelo Anthony	17.6	16.7	0.9	
Carlos Boozer	20.8	19.2	1.6	
Tim Duncan	27.1	27	0.1	
Allen Iverson	19.3	23.2	-3.9	
LeBron James	18.3	25.7	-7.4	
Richard Jefferson	NI			
Stephon Marbury	20.4	21.9	-1.5	
Shawn Marion	19.9	21.7	-1.8	
Lamar Odom	18.5	17.3	1.2	
Emeka Okafor	NI			
Amar'e Stoudemire	19.8	26.6	-6.8	
Dwyane Wade	17.6	23.1	-5.5	
				-2.31
2008 Olympic Team	PER Before ('07-'08)	PER After ('08-'09)	Difference	Average Difference
Carlos Boozer	NI			
Jason Kidd	16.7	16.9	-0.2	
LeBron James	29.1	31.7	-2.6	
Deron Williams	20.8	21.1	-0.3	
Michael Redd	NI			
Dwyane Wade	21.5	30.4	-8.9	
Kobe Bryant	24.2	24.4	-0.2	
Dwight Howard	22.9	25.4	-2.5	
Chris Bosh	23.8	22.1	1.7	
Chris Paul	28.3	30	-1.7	
Tayshaun Prince	15.6	15	0.6	
Carmelo Anthony	21.1	19	2.1	
				-1.2
2012 Olympic Team	PER Before ('11-'12)	PER After ('12-'13)	Difference	Average Difference
Anthony Davis	NI			
James Harden	21.1	23	-1.9	
Kevin Durant	26.2	28.3	-2.1	
Russell Westbrook	22.9	23.9	-1	
LeBron James	30.7	31.6	-0.9	
Carmelo Anthony	21.1	24.8	-3.7	
Chris Paul	27	26.4	0.6	
Tyson Chandler	18.7	18.9	-0.2	
Kevin Love	NI			
Deron Williams	20.3	20.3	0	
Andre Iguodala	17.6	15.2	2.4	
Kobe Bryant	21.9	23	-1.1	
				-0.79

Paired t: PER Before, PER After

Descriptive Statistics

Sample	N	Mean	StDev	SE Mean
PER Before	61	21.8049	3.6119	0.4625
PER After	61	22.5000	4.2395	0.5428

Estimation for Paired Differences

Mean	StDev	SE Mean	95% Upper Bound for μ_d
-0.6951	2.5261	0.3234	-0.1547

μ_d : mean of (PER Before - PER After)

Test

Null hypothesis $H_0: \mu_d = 0$
 Alternative hypothesis $H_1: \mu_d < 0$

T-Value	P-Value
-2.15	0.0178

Graphic by Jason Lefkovitz

about the aura of the famous 1992 Dream Team.

Thus, I do not believe that the possibility of injury is sufficient justification for giving NBA owners control over a player's decision to play in international competition. Instead, perhaps there should be concern over the effect of international play on player performance for their NBA teams. Specifically, in contrast to any friendly offseason pickup game, international play requires players to endure an extra month of physically taxing practices and competition akin to those during the actual NBA season. With this in mind, perhaps participation in international competition can yield fatigue that compromises player performance in the following NBA season. If there is a statistically significant effect, perhaps owners have a legitimate argument for more control over their players' offseason decisions. Therefore, I decided to conduct in depth research and analyze the possibility of such an effect.

Research/Analysis

Let me take a moment to outline the parameters of my data and research. To avoid complexity, I focused on the *Olympics*, which is by far the most prominent international basketball competition and which unquestionably attracts the best NBA players. Moreover, I decided to focus on Team USA because that Olympic team features the most prestigious NBA players.

Thus, I amalgamated into one data set all 6 USA Olympic men's basketball rosters since the 1992 Dream Team, which have prominently featured active NBA players. For each player, I investigated player performance in the season leading up to the summer in which he competed in the Olympics and then player performance in the season immediately following that summer. I omitted from the analysis any player that did not play a *sufficient* number of games in the season before or after his Olympic participation.

To establish objectivity, I concretely defined "sufficient" to mean playing 50% or more of the games during the season (in the lockout-shortened 2011-2012 season, any player who played 33 games or more was deemed eligible for analysis). This rule resulted in the elimination of 11 players from the analysis.

I utilized the statistic Player Efficiency Rating (PER) because it is a comprehensive statistic that evaluates player performance while controlling for differences in players' positions, team roles, and playing time. According to Basketball Reference.com, PER is "a measure of per-minute production standardized such that the league average is 15." To calculate the Olympics' effect on player performance, I computed for each player the difference between his PER in the season leading up to the Olympics and the PER in the season right after the Olympics. Then, for each Olympic team, I calculated the average difference in PER among that team's players.

My findings are displayed on Page 8 and Page 9. Note that 1) the average differences for each Olympic team (i.e. PER before - PER After) are highlighted in yellow and, 2) for the players that I omitted from the analysis, I put the acronym NI next to their names, which stands for "not included."

Interestingly, the data produce a trend that is *almost antithetical* to what I hypothesized: the data suggest that *NBA players (at least those on Team USA) generally improve performance* in the season after they participate in the Olympics. Specifically, 5 out of 6 teams exhibited a negative average difference in

PER from one season to the next (i.e. PER After > PER Before), and 37 out of the 61 PER differences (approximately 61%) included in the data set were negative.

To investigate this phenomenon even further, I decided to test if there was a *statistically significant improvement* in PER among the players in the season after they participated in the Olympics. I decided to employ a more advanced statistical analysis of the data: *hypothesis testing*. Let me spend a few moments providing a general overview of this statistical process.

Scientists and other researchers seek to learn about *population parameters*, which are real-world values (such as a mean or a standard deviation) that we can't possibly know without collecting every piece of relevant data in the world. Since obtaining every piece of data is impossible, scientists use statistics to *make inferences* about these population parameters. For example, if scientists wanted to compute the *actual* average height of Americans, they would have to measure the height of all

300+ million Americans. Since this is impossible, scientists would resort to taking a representative sample of the population and using the average height

from this sample to make inferences about the real average height.

Hypothesis testing is a type of statistical inference. To paraphrase my Introductory Statistics professor, the mechanics of hypothesis testing mirror those of an American courtroom. Specifically, in court, we assume a defendant is innocent until there is sufficient evidence to prove guilt (i.e. beyond a reasonable doubt).



Analogously, in hypothesis testing, we assume a certain status quo until there is sufficient, *statistically significant* evidence to prove otherwise. In statistics, the status quo is called the *null hypothesis*. Just like a ruling of guilty in a courtroom, when there is statistically significant evidence to disprove the null hypothesis, we reject it. The “guilty ruling” in statistics is called the *alternative hypothesis*.

A key way to measure “statistical significance” is with a *p-value*, which measures the probability that a sample will yield the data obtained given that the null hypothesis

is true. If the probability of seeing the data from our sample is *really low* assuming that the null is true, then statisticians assume that the null is not true and reject it. Similarly, in the courtroom, if there is enough incriminating evidence, the jury will deem the defendant’s innocence (i.e. the null hypothesis) to be very improbable and rule the defendant guilty.

Researchers use threshold p-values, called *significance levels*, to establish when data are statistically significant enough to reject the null hypothesis. If the p-value is lower than the established significance level, then the null hypothesis is rejected. Significance levels vary with the nature of the research, but perhaps the most common significance level is 5% (a p-value of 0.05).

I conducted my analysis with a *paired t-test*, which is the ideal kind of hypothesis testing for the PER differences. A paired t-test takes two groups of data for different individuals in a study (such as “before-and-after” data) and finds the difference in the two groups of data for each individual. Then, the paired t-test takes this group of differences and makes inferences about the mean of these differences. So, for the NBA data, the paired t-test would take the 61 PER differences computed in the analysis above and make inferences about the true average change in PER of NBA players from the season before they play in the Olympics to the season after they play.

In my analysis, the null hypothesis was

that the true mean difference in PER from one season to the next is equal to 0 (i.e. that there is no statistically significant difference in PER on average between the two seasons for NBA players), and the alternative hypothesis was that the mean difference was less than 0 (i.e. that the PER in the season *after* the Olympics *was greater* on average than the season before the Olympics). I utilized a significance level of 5%, for, as aforementioned, that is probably the most common level used in statistical analyses.

The results, as can be seen in the charts on Page 8 and 9, show

an *extremely low* p-value of 0.0178 or a mere 1.78% probability that our data would be obtained if the mean difference in PER was equal to zero. Since, this p-value is less than the 5% significance level, there is sufficient, statistically significant evidence to reject the null hypothesis and accept the alternative that the mean difference in PER is less than 0. In other words, there is statistically significant evidence to suggest that, on average, the PER’s of NBA players on Team USA *increase* in the season after competing in the Olympics.

Conclusion

These findings are not necessarily counter-intuitive, for there are various reasons why an NBA athlete playing for Team USA might improve during his Olympic experience. Team USA usually consists of the best players in the world, so the best are competing against the best in practices. Therefore, these players can improve from the sheer challenge of competing against the best, perhaps learning from their equally capable peers new skills that can complement their current basketball repertoires.

In addition, a player may develop a better work ethic during the experience. By their competitive nature and their egos, players may be motivated to work harder so they could outperform the elite players around them, or they may want to emulate all-time greats like Kobe or

LeBron, who are notorious gym rats.

Nevertheless, one may still have some concerns with these findings. First, some of the players that I omitted from the dataset missed significant time in the season following the Olympics due to significant injuries. For instance, David Robinson was omitted from the 1996 Team’s data because he missed 76 games with a back injury and a broken foot. Perhaps one might attribute these injuries to the extra wear and tear on his body during the Olympics the previous summer. In response to such concerns, it is impossible to isolate the effects of the Olympics from those of the 1995-1996 NBA season or those of the 1996-1997 Preseason. Let’s not forget that such injuries could have also been freak accidents in the same way that many people get injured on a daily basis. Since it is impossible to know whether competing in the Olympics actually increased the probability of injury, it is pointless to include such concerns in the conversation.

Second, one may point out that I only analyzed players from Team USA. Perhaps other countries’ basketball programs, which surely lack the quality coaches and players that make up Team USA, can’t offer the same kind of enriching Olympic experience for their players. Although I concede that this fact may pose limitations on the power of my findings, I still assert that these findings can provide very useful perspective for NBA owners. Since most NBA players (and, for the most part, the best ones) are American and would thus play for Team USA, the effects of a Team USA experience on NBA player performance are important for NBA owners to understand.

As articulated above, my findings illustrate that playing for Team USA in the Olympics yields, on average, a statistically significant improvement in player performance the following season. Therefore, I would strongly recommend to NBA owners to not only allow but also *actively encourage* their players to play for Team USA in the Olympics.

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“Socialism” Defeats “Capitalism” on the Pitch

Mingao (Magic) Magic ‘18

During the 2014 summer transfer window, Luis Suarez and James Rodriguez, two of the biggest names in the soccer world, landed in Spain as tons of rumors had predicted. To a certain extent, this situation epitomizes the soccer transfer market in 21st century, with the two Spanish giants, Real Madrid and Barcelona, signing almost all superstars at the peak of their careers, while other top European clubs struggle to accept negotiation defeats. According to the statistics of the Daily Telegraph, a newspaper in the United Kingdom, Real Madrid and Barcelona are responsible for seven of the ten most expensive transfer fees of all time.

As a result of great management, they have been the two most successful clubs around the globe in this century. Since the 1999-2000 season, these two formidable clubs jointly lifted 6 out of 15 titles in the UEFA Champions League, the most prestigious club competition in European football.

In contrast, it seems that Manchester United, another top club in Europe, also operates well and expands its influence in a global context. However, when it comes to the attractiveness to superstars and the number of winning cups, it still cannot compete against the two Spanish giants. Some people speculated that the English Premier League is not as rich as La Liga, but the data shows that the Premier League is the most lucrative soccer league.

More specifically, Wayne Rooney, the captain of Manchester United, is earning an £15.6m annual salary, which eclipses the reported salaries of Cristiano Ronaldo and Lionel Messi.

Other fans assume that the style of English matches is rougher and more physically challenging. Nevertheless, after the establishment of the English Premier League in 1990s, the style of the English games has become increasingly exquisite and focused on beautiful short passes, ball movement, and precise penetration.

“The team that has more money and more freedom to spend will probably reign supreme.”



Photo courtesy of Barca Blog

THE FANATICS pictured above actually own both of the Spanish giants.

So what factors result in the fact that Real Madrid and Barcelona are much more attractive to stars? The most three critical explanations can be boiled down to: 1) Spain is inherently attractive to Latino players, 2) full support of the Spanish government, 3) the vital reason, which is that in the Real Madrid and Barcelona fan-owned system, a “socialist” ownership equips them with superior spending power compared to small ownership groups that dominate “capitalistic” clubs.

First of all, historically speaking, Spanish clubs are innately appealing to players from Latin America, soccer’s biggest talent pool. During the hundreds of years of colonization, Spain left a number of its unique elements in Latin America: culture, foods, and most importantly, its language. Because of this bond between Latin America and Spain, most of the soccer players there target Spain as their dream destination, a familiar environment where people speak the same language and share many similar customs to them.

Moreover, because of the unmatched soccer atmosphere and advanced youth training system, Latin America has always

cultivated the best players of each decade. For example, arguably the four most distinguished soccer players in history, Pelé, Maradona, Di Stéfano, and Messi, all come from either Argentina or Brazil. As a result, Real Madrid and Barcelona are easily able to land the superstars of each generation. The two cases of Luis Suarez and James Rodriguez during the summer of 2014 illustrate this point, as they each dreamed of playing in Spain since childhood.

Under his mother’s influence, James Rodriguez has been a lifelong die-hard fan of Real Madrid. On April 28th, 2014, when the Spanish franchise went to challenge Bayern Munich, Rodriguez drove himself 584 kilometers all the way down to Germany from Monaco with the purpose of supporting his side and meeting his idol, Cristiano Ronaldo, in person. Similarly, while Suarez was still paying for Ajax soccer club in 2008, he revealed to the media that he would play in Spain in the future, without mincing his words at all. That was his dream. Thus, even if Liverpool fans were excessively lenient and tolerant towards him when he fell into controversies regarding racism and on-field biting, they were unable to keep him. It is because of these players’ passion to play for their dream teams that Real Madrid and Barcelona could almost effortlessly sign these desirable stars.

Furthermore, the fact that the governments spare no effort in supporting these two clubs provides them with a much

better environment to grow. After more than a hundred years development, as the Spanish duo has consistently scored brilliant achievements and gradually become the spotlight of the soccer world, they have reflected their respective governments. Real Madrid, to a great extent, represents the Spanish central government, as President Florentino Perez always emphasizes that the club brings glory to the whole country. For Barcelona, the club, stands for the government of Catalonia because of the geography. As an ethnic group with extremely strong Catalan nationalism, the local government stresses the development of the club as an embodiment of its ethnic group, especially in comparison to Real Madrid, which is believed to the symbol of central government.

For different reasons, the two governments pull out all the stops to support their franchises, particularly in terms of taxes and loans.

Even though Spain is in the midst of a severe financial crisis, with unemployment at 26% and youth unemployment at 50%, the spending power of Madrid and Barcelona was unaffected due to the policies of the government. According to a report published in *The Independent* in July of 2013, the government disclosed the amount of unpaid taxes owed by professional soccer clubs in the country's top two divisions. The sum was a staggering £575 million, and the two powerhouses account for most of this figure. The government also treats the two clubs generously in terms of loans. As shown by an official statement in 2014, Real Madrid's debt has grown to £ 471 million, with a large percentage coming from banks and creditors of the Spanish

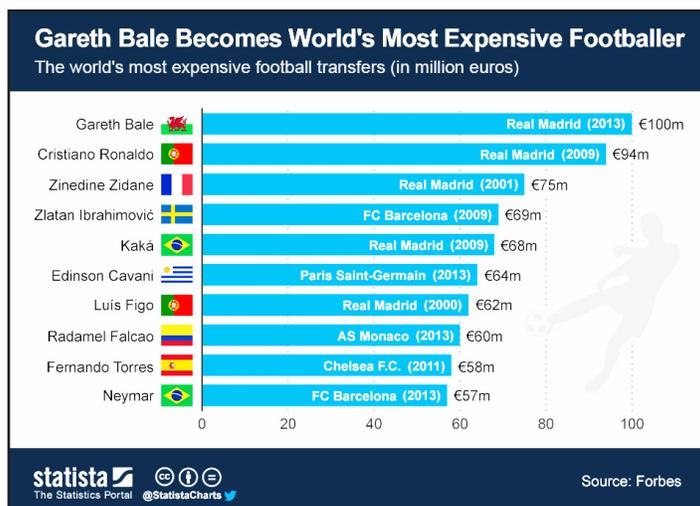


Photo courtesy of Global Economic Intersection

government.

More crucially, Real Madrid and Barcelona implement the membership model of ownership, affording them much stronger financial aid and spending freedom in comparison to other clubs. This type of ownership is similar to socialism in the sense that fans own the club. As a nonprofit social organization, the club is not supposed to make profits for its members; rather, its main goal is to pursue trophies and glory to please its members. Therefore, as long as there is no deficit, the club can spend all of its money on the enhancement of its squad without worrying about creating profits.

On the contrary, nearly all franchises in the United Kingdom and many in Europe, such as Manchester United, are registered as limited liability companies. This is similar to a "capitalistic" system. They have to put a huge emphasis on making money for its shareholders, and their financial ability is limited to a great extent.

In Europe, at the beginning, most soccer clubs adopted the ownership of its membership. In historical context, clubs were simply groups that organized soccer lovers to play games together after work.

But as the soccer industry professionalized, a large number of clubs could not bear the burden of skyrocketing expenditures. These teams had to pay professional players wages and went abroad to attend the games, a series of pressing problems that could not be solved by membership fees. For instance, around the 1990s, most Spanish clubs were operated with a huge amount of debt, and more than half of them were on the brink of bankruptcy. In order to reverse this deteriorating situation, the Spanish government required clubs to transform into limited liability companies by a June 30th 1992 deadline.

During the course of this reform, four clubs, Real Madrid, Barcelona, Athletic Bilbao, and CA Osasuna, were exempt from the transformation because their financial conditions were quite healthy, and they had a steady income and cash flow that enabled them to continuously operate and pay their debts. These four Spanish franchises have maintained this system to this day.

In 2013, as stated by the official statistics, Barcelona was number one in terms of members with 222,980, with each of them paying an annual

premium of £138. According to a report by Deloitte, in addition to the astronomical income generated by broadcasts and advertising, Real Madrid and Barcelona generate £444.7 million and £413.6 million respectively, remaining the two most lucrative soccer clubs in the world. More importantly, the regulations of the Spanish constitution enable them to completely spend their income based on their ownership feature. As the regulations stated, fan-owned clubs cannot make profits. In other words, they have to use up all of their incomes from membership fees and other revenues to maintain their day-to-day operations. These reasons explain the unparalleled financial strength of the two Spanish giants.

Even though there are still potential problems of the system of membership ownership, such as the severe corruption of the club's president who wields huge power, the "socialist" clubs have generally defeated the "capitalist" ones throughout the 21st century. In short, as spending power plays an increasingly crucial role in the modern sports industry, the team that has more money and more freedom to spend will probably reign supreme.



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How Tommy John Surgery Affects Baseball



Photo courtesy of the Washington Post

PITCHERS LIKE Stephen Strasburg have such a big impact on the performance of their teams, both on and off the field. Tommy John surgery could prove costly not just to a player's career, but to the direction of an entire organization.

Damian O'Sullivan '17

The increasingly prevalent decision by professional baseball players to undergo Tommy John surgery has given rise to the question of whether or not the frequency of these elbow injuries has reached epidemic proportions. Sports medicine professionals often cite the competitive nature of youth baseball, as the root cause of these injuries and thus, Major League Baseball is limited in the extent to which it can reverse this alarming trend.

With approximately one-third of MLB pitchers having undergone this surgery in lieu of prematurely ending, or never beginning, their professional careers, this surgery has had a pervasive effect on the game. Had this many talented pitchers been replaced by their long-relief or Triple-A counterparts, the balance between hitters and pitchers would have been altered, resulting in a very different Major League Baseball. Beyond affecting the

competitive balance in Major League Baseball, star pitchers are also sizeable financial assets to teams.

As a result, this surgery has a substantial economic impact on baseball that affects practices such as scouting, which demonstrates the broad impact that Tommy John surgery has on Major League Baseball.

Tommy John surgery is a relatively new medical procedure in which the ulnar collateral ligament (UCL) in the elbow is reconstructed. In order to do so, the damaged ligament is replaced with a tendon from another part of the body. Dr. Frank Jobe was the first to perform this surgery on a baseball player, and did so in 1974 on Dodgers' pitcher Tommy John, after whom the surgical procedure was informally named.

The initial prognosis for John's surgery was grim, but after a roughly one-year rehabilitation period, he returned to baseball. John won 288 games throughout

his career, and 164 of these came after this career-extending surgery that enabled him to assume the seventh slot on the all-time wins list for left-handed pitchers in the MLB.

This revolutionary surgery has vastly increased the likelihood of return for individuals with UCL damage, which became increasingly common after this era. According to modern studies, the success rate of Tommy John surgery hovers around 90%. Needing the surgery is still highly problematic for both players and franchises because it can translate to the end of a career at any level of baseball. For the majority of pitchers, however, the surgery results in approximately a 9 month to 1 year recovery period, down from a 12 to 16 month process when the surgery first became

available to players.

This high rate of full recovery from surgery was unprecedented prior to 1974, and UCL damage shortened the careers of an indeterminable number of great pitchers, speculatively including the 3-time Cy Young winner Sandy Koufax. Tommy John surgery could have benefited many past pitchers, but the increasing prevalence of UCL injuries in recent years has made its importance especially clear in

the today's MLB.

The greater frequency of Tommy John surgery can be attributed to numerous factors, many of which

stem from the competitive nature of youth baseball. This element also more specifically addresses the younger ages at which pitchers require the surgery. A study by the American Orthopedic Society



for Sports Medicine demonstrated a five-fold increase in serious elbow and shoulder injuries since 2000. Modern youth baseball players are throwing too frequently in order to keep pace with the intense competition necessary to reach the professional level.

One reason for this excessive throwing is that sport specialization is becoming far more common in reaction to the high level of competition at lower levels. Dr. Robert Malina, Professor of Kinesiology at the University of Texas at Austin, suggests that although the rise in sport specialization is difficult to quantify, an increasing number of coaches, parents, and athletes believe that in order to be competitive, one should focus on one sport from an early age. Instead of a young athlete with a strong arm playing baseball in the spring and football in the fall, a prospective pitcher is more likely to choose one sport, maintaining the same throwing motion and inducing unrelenting elbow stress. Young pitchers tend to play year-round, which leaves inadequate time for the ligament to recover. Annual periodization requires sufficient rest from full effort pitching in order to effectively reduce ligament strain and ultimately avoid UCL reconstructive surgeries.

Several other aspects of competitive youth baseball significantly contribute to the rise in the number of Tommy

John surgeries that are performed on professional baseball players.

According to the American Sports Medicine Institute, young players are more frequently joining multiple leagues simultaneously, which can obscure pitch counts and stress the athletes' arms. The ASMI also posits that pitchers throw curveballs very early on, which can prove detrimental in the event of poor pitching mechanics that predictably characterize much of youth baseball.

Finally, the emphasis on throwing with a high velocity in order to attract attention from scouts and competitive leagues leads to the straining of UCLs. Constantly clocking young pitchers results in their constant effort at maximum velocity, which is compounded by playing year-round. Dr. James Andrews, a renowned physician who has performed this surgery on many notable pitchers, supports these theories by indicating that in his experience, operating on younger people is becoming more common.

In 2000, players in high school

or younger accounted for 18% of the surgeries that he performed, whereas in 2010 that figure rose to 31%. Thus, higher competition at lower levels causes athletes to need the surgery at earlier ages or it develops issues that cause damage requiring surgery later on in careers.

Effective prevention of UCL damage, best achieved by decreasing the volume of pitching and spending less time throwing

at maximum velocity, is seldom contested by professionals in the sports medicine community. The ASMI and the MLB itself even maintain positions to this effect. However, because this phenomenon occurs among very young athletes who are encouraged by their coaches and parents to emphasize winning, these entities can't induce change. Thus, if parents and coaches continue to ignore the importance of mechanics and pitch count limits, and fail to denounce the

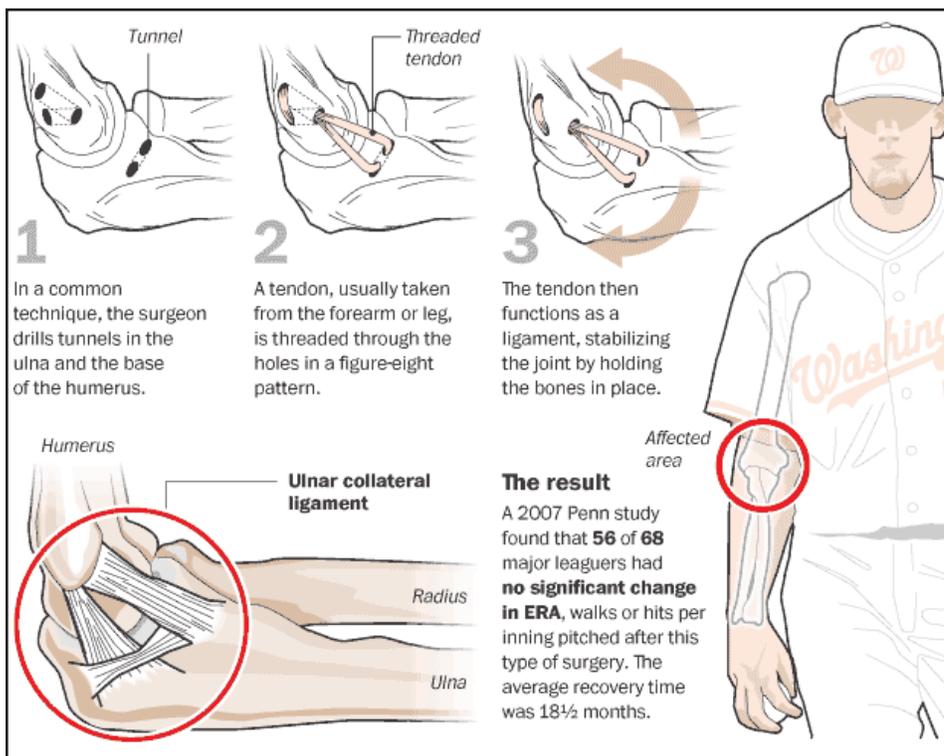
“Of the 360 pitchers that started the 2013 season, 124 had undergone at least one Tommy John surgery.”

use of performance enhancing substances, the damage done in these formative years will likely continue.

Tommy John surgery has reached proportions large enough to warrant the American Sports Medicine Institute to deem it an “epidemic.” The precipitous rise, especially in recent years, is captured well in the following graph constructed by Bill Petti based on MLB disabled list statistics.

In spite of this alarming trend, efforts at the professional level to combat the issue are seemingly ineffective. As teams tried to reduce pitch counts for starters in the mid 2000's to mitigate the Tommy John epidemic, the frequency of surgeries continued to rise. In 2000, there were 160 games in which an individual's pitch count was greater than 125. Throughout the next 10 years that number declined to an average of 39.9 games and never exceeded 70 in a given season.

Nevertheless, throughout this period, the number of surgeries rose markedly. Of the 360 pitchers that started the 2013 season, 124 had undergone at least one Tommy John surgery. These pitchers, who would have likely been forced to conclude their careers early prior to this 1974 revolution in sports medicine, have by and large returned to the game



Infographic courtesy of SweetSpot Network

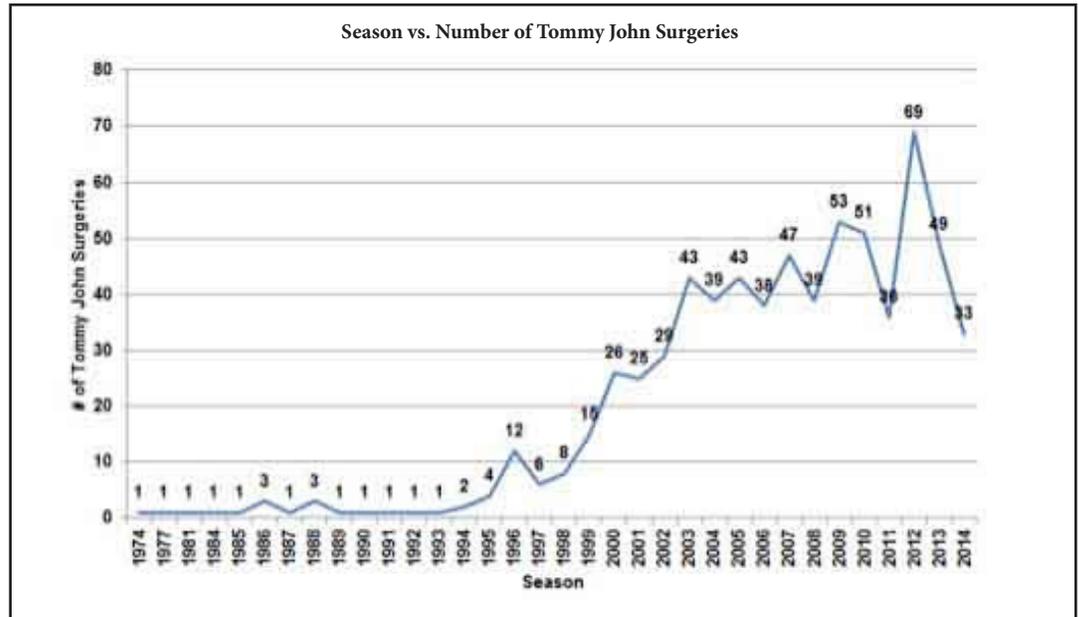
pitching at the professional level. While the solutions to the frequency with which damage to the UCL remain difficult to implement, Tommy John surgery serves as a reactive solution for a tremendous number of professionals each year.

The amount of money saved by teams due to the return of players after undergoing surgery is illustrated clearly by the economic impact of the Nationals' young pitcher Stephen Strasburg. From the very start of his professional career, he drew national attention to the franchise at a scale unprecedented in the team's history, as demonstrated by his quick rise to top the list in all-time best selling jerseys for the Nationals. His first start aired on the MLB Network and drew enough viewers to become the most watched program in the network's history. Strasburg's first two starts

were sellouts at Nationals Park, which can be contrasted to the 53% decline in attendance the day after his debut. Just this first start alone accounted for approximately \$1.5 million in additional revenue for the franchise.

Perhaps more importantly, Nationals' ratings for his starts remained substantially higher than other games, demonstrating his long-term impact. Financial experts valued his

contribution at approximately \$25 million per year based on higher television ratings,



Graph by Damian O'Sullivan

THE NUMBER of Tommy John surgeries in baseball has risen exponentially since the 1970s.

attendance rates, merchandise, and his role in helping the team reach the playoffs. Strasburg underwent Tommy John surgery and returned to pitch at a high level for the team, indicating the economic impact that Tommy John surgery has on the business of baseball.

The implications of this surgery extend far beyond teams simply saving money by offering a likely return for many talented pitchers after tearing their UCL's. The contemporary issue of the slotting system for amateur draft bonuses that consistently emerges during collective

bargaining would be a considerably greater issue without this surgery.

The league seeks to prevent exorbitant bonuses for young players on the basis of fear of injury, and that concern is exacerbated by hard-throwing pitchers. Strasburg is a prime example of why a hard-slotting system should be implemented; however, in the absence of this surgery, bonuses would be even further suppressed. This suppression would be necessitated by the constant expense of replacing pitchers that had their careers shortened by tearing their UCL's. Thus, the paradigm of scouting and investing in young talent would be significantly different without the efficacy of Tommy John surgery.

Other names such as Chris Carpenter, John Smoltz, Adam Wainwright, Ben Sheets, A.J. Burnett, and most notably Tommy John would have been absent from their prominent places in baseball history prior to Dr. Jobe's innovation in UCL surgery. Without these individuals as well as the approximate one-third of current pitchers who have been affected by the surgery, less effective pitchers would have filled their places, many of whom in turn would get injured after assuming more innings in starting roles.

By expanding this opportunity, the quality of pitching and thus the game itself would be considerably altered and likely diminished. Teams are also afforded financial benefits as a result of the return of prominent starting pitchers, some of whom bring in tens of millions of dollars annually to their respective franchises. The nature of scouting and investing in young talent would also be significantly altered in the absence of this procedure. Thus, Tommy John surgery, the most famous surgery in sports, has proved revolutionary in protecting pitchers, substantially shaping the game both in business and on the field today.

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“A study by the American Orthopedic Society for Sports Medicine demonstrated a five-fold increase in serious elbow and shoulder injuries since 2000.”

Bloomberg

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A Case Study of Apparel Sponsorship in Sports

Evan Lefkovitz '16

Earlier this year, Nike and Under Armour engaged in a heated bidding war for the sponsorship rights to Kevin Durant, with Nike winning his services by offering him a contract for 10 years and \$275 million. Given this ostensibly exorbitant cost, one has to ask whether the exposure and revenues earned from these types of ventures are sufficient enough to justify them in the long run.

We can attempt to provide an answer to this question by evaluating current and past sponsorship deals between apparel companies and colleges, leagues, and individual players. To narrow the scope of this study, we will focus on the most prominent apparel companies in the United States: Nike, Under Armour, and Adidas. By analyzing these partnerships with athletic entities through a cost-benefit paradigm, we can determine whether large-scale sponsorship deals are viable and justifiable for major firms.

College Sports

The prevalence of mega-deals between universities and apparel providers is only a recent trend. In fact, until the 1980's, college teams would simply purchase apparel from different vendors. That all changed in 1988, when the University of Miami asked Nike to be the official sneaker provider to its entire athletic program. No company had ever been granted this type of monopolistic platform, in which it could not only be the sole distributor of shoes to the players, but to fans, students,



UNDER ARMOUR



Photo courtesy of East Bay Blog

SPONSORSHIP has become such an important aspect of the sports industry. Fans no longer just support teams and players; they support brands.

and alumni as well.

This deal laid the foundation for modern-day relationships between universities and apparel providers. Instead of searching for uniform and sneaker vendors, a university is offered equipment, cash, and other perks from apparel companies, which in turn are given the sole sponsorship rights for the university.

Nike, Adidas, and Under Armour do not report revenues earned from university contracts, so I will evaluate their merit based on additional pieces of evidence. The Portland Business Journal estimated that Nike, Adidas, and Under Armour combined to pay over \$250 million to college athletic programs in 2013. On its face, this would seem inherently illogical from the perspective of an athletic apparel company. What does

a business gain by *paying* a university for the right to provide uniforms to its athletes?

First, signing contracts with universities enables them to secure exclusive merchandising rights. The Collegiate Licensing Company (CLC) reported that "the retail marketplace for college-licensed merchandise in 2013 was estimated at \$4.59 billion." These merchandising contracts permit large apparel companies to be the sole provider of gear to *all* of a university's sports teams.

The amount of capital and manufacturing capacity necessary for securing these exclusive contracts allows major firms like Nike to dominate this lucrative market. Thus, the profits earned from merchandise sales could potentially outweigh the cost of paying for the rights to supply the apparel.

Second, obtaining sponsorship rights means pervasive *exposure* that can be used as a marketing tool to drive consumer demand. Typical contracts give companies the

right to place their logos on the facilities, equipment, and apparel of both the players and staff. Stipulations are even drawn up that prevent players from covering logos with tape.

During broadcasts of college sports, the national platform serves as a showcase of their products to current and prospective customers. Portland Business Journal writer Matthew Kish made an astute observation by noting that the game itself is a cheaper alternative to traditional advertisements, which can cost as much as \$1 million for 30 seconds of air time. Rather, companies invest a few million dollars in these schools, and in return will have their logos broadcast on national television for two or three hours during games and on nightly shows like SportsCenter. In return, companies hope to win the hearts of loyal fans that could potentially purchase not only college-related products, but additional items that the businesses sell as well.

Professional Leagues

In 2006, Adidas signed an 11-year deal worth more than \$400 million to become the official supplier of NBA uniforms and apparel. The Business Journal estimates that Adidas brings in about \$300 million in revenue from NBA merchandising rights. Employing the same twofold reasoning used above for college sponsorships, one can see the significant benefits enjoyed by Adidas. The company has exclusive selling rights on the official online NBA Store, giving it a significant leg up on its competitors in jersey and other apparel sales. The Adidas logo is visible on warm-up gear, practice uniforms, and even on D-League jerseys.

However, Adidas still faces some disadvantages in the marketplace. While Adidas is the only brand allowed to sell official NBA merchandise, Nike and Under Armour have the right to use NBA jerseys to market their own stars and sneaker products. Furthermore, Adidas' exposure is limited by the fact that its logo is *not* placed on game-worn official NBA jerseys. Nevertheless, a provision in the most recent collective bargaining agreement has opened the door to sponsor logos being placed on NBA jerseys, potentially giving Adidas the opportunity to feature its logo on the jersey in the near future.

In October 2010, Nike signed a 5-year deal valued at approximately \$1.1 billion with the NFL. The deal is similar in structure to Adidas' deal with the NBA, in that Nike supplies all jerseys, pants, gloves, and other accessories to NFL teams and has merchandising rights to sell goods through the NFL Shop. However, Nike shares the rights to sell apparel to fans with other firms such as G-III Apparel and VF Corporation (Majestic Athletic), which limit their control over the NFL marketplace. Yet, Nike's deal could be deemed superior to Adidas in two ways.

First off, Nike is allowed to display its logo on game day jersey, an added level of exposure on national broadcasts that Adidas does not have. Furthermore, players are not allowed to display the Adidas' logo during games, forcing Adidas-sponsored stars like Robert Griffin III to put tape over their cleats each week. Second, as Portland Business

Journal writer Erik Siemers points out, Nike, the undoubted leader in the sports apparel business, has a partnership with the NFL that is strategically sound. To a company that pulls in roughly \$25 billion in sales, the estimated \$500 million it will earn in yearly revenue from the deal doesn't seem all that significant. But by securing the NFL rights, Nike prevents up-and-coming competitors like Under Armour from gaining the business that could significantly enhance its brand and turn it into a viable international competitor. Thus, Nike has utilized its deal with the NFL as an instrument to maintain its profound control over the sports apparel market.

Individual Athletes

Signing an individual athlete to a sponsorship deal is inherently the most risky investment for sports apparel companies. While teams and leagues will have a steady stream of loyal and new fans for years to come, athletes only play for a short window of time. Often, these athletes are signed right out of college, before they ever suit up for a professional game. During their careers, athletes are not guaranteed sustained success, a clean bill of health, or a sustained positive public image. As a result, the return on investment for some of these contracts could potentially be mitigated by external factors.

Companies thus must make calculated moves in their effort to find the "right star." These deals often turn into substantial sales generators, but, in some instances, companies may not earn enough revenue to cover the costs of contracts, or can even face public relations nightmares that can damage their reputations.

Individual sponsorship is different than leagues and teams. When signing a deal with a superstar, companies devote resources and entire product lines to a single individual, whose popularity and talent are looked upon to boost brand

identity and ultimately sales revenue. Nowhere is this more visible and prevalent than in the NBA, where companies vie for the rights to supply sneakers to the game's most marketable stars. This trend was set by Nike and Michael Jordan in the 1980's, who turned a \$500,000 a year sneaker deal into an entire subdivision of Nike that generated \$2.5 billion in sales revenue and held 54% of the U.S. basketball sneaker market in 2013.

Jordan's rise to prominence fostered the development of a sneaker-crazed market, one in which every NBA star needs a requisite sneaker deal and subsequent marketing campaigns. This strategy has paid significant dividends for Nike, which brought in \$525 million in combined sales revenue in 2013 from its 3 biggest stars: LeBron James, Kevin Durant, and Kobe Bryant. Adidas earned \$50 million from Derrick Rose, John Wall, and Dwight Howard, and recently signed a megadeal with young Portland Trail Blazers superstar Damian Lillard that calls for the release of a personalized shoe line in the spring of 2015.

For all the glitz and glamor of a brand new LeBron sneaker or a Kobe commercial, there are business forces at play that put the value of these individual contracts into question. The sneaker industry is in the midst of a significant boon, with sales reaching \$4.5 billion in 2013. But as of 2014, Nike and its Jordan brand occupy 92 percent of the U.S. basketball sneaker market.

In contrast, Adidas only owns 5.5% of the market, and Under Armour a measly 0.7%. In the long run, is it really worth it for Adidas and Under Armour to dole out millions of dollars to the likes of Rose and Lillard if Nike will continue to dominate and control the market? Nike has perfected the art of choosing the right "stars." They have the NBA's two most marketable players under contract in James

and Durant, with the latter recently signed to a huge deal in an effort to keep him away from Under Armour.

Forbes notes that the gap between these two players and everyone else is



“Obtaining sponsorship rights means pervasive exposure that can be used as a marketing tool to drive consumer demand.”

significant, as Durant's shoe sales are three times greater than the third highest earner, Kobe Bryant. On the flip side, Nike lets less marketable stars like Stephen Curry and Dwayne Wade, who's arguably well past his prime, sign with smaller competitors. Moreover, the revenue earned from many of these deals doesn't even cover the costs. According to estimates by Forbes sneaker expert Matt Powell, even Kevin Durant and pre-2012 LeBron did not generate enough shoe revenue to match the 12-13% of sales Nike spends on marketing each product.

Therefore, if the league's biggest superstars have trouble propelling Nike into the green, does it really make sense for these companies to pursue deals worth \$20-\$30 million per year? Apparently companies have caught on to this trend, as the incoming rookie class did not receive large contracts akin to the \$70 million deal that Kevin Durant got from Nike in 2007, or even the \$25 million John Wall received from Reebok in 2010. Rather, Andrew Wiggins and Adidas signed the largest contract for a reported guarantee of \$2 million per year, indicating that companies now understand that the benefits may not outweigh the costs for these types of deals.

Aside from the monetary risks, athletes are subject to other factors that make these sponsorship deals inherently precarious. The chance of athletes getting injured is always a concern outside of the company's control. As Paul George's injury showed in the summer of 2014, freak accidents can plague even the most durable of stars. In the case of Adidas, the company faces an unfair stigma that its shoes are the "cause" of injuries.

Its two most marketable stars, Robert Griffin III and Derrick Rose, have each suffered serious knee injuries while wearing Adidas products, perpetuating a bad reputation among both fans and consumers. Even worse, athletes may commit morally and legally reprehensible crimes while under contract that can damage the image of the company. In the case of Michael Vick, Ray Rice, and Oscar Pistorius, Nike had no choice but to sever ties with these clients after they were convicted of crimes.

Two of Nike's most reputable and important stars, Lance Armstrong and Adrian Peterson, were let go after their own scandals. These cases shed light upon the tenuous nature of athlete-company relationships, illustrating the fact that even the brightest stars do not represent a risk-free investment.

Conclusion

Although we can't make definitive determinations about athletic sponsorships as a whole, we can draw some meaningful conclusions. It would seem that the safest investment for athletic apparel companies is college apparel. The companies get exclusive rights to outfit a given university, meaning that it does not have to compete with the other big companies once it signs the contract.

These contracts virtually give big companies a monopoly at large institutions with loyal fan bases and thousands of students and alumni, representing a significant growth opportunity. League sponsorships for Nike and Adidas are also sound business moves. They give these companies the ability to crowd out their competitors in the sale of official NFL and NBA merchandise respectively, as well a national television



Photo courtesy of R & H Construction

APPAREL COMPANIES acquire the right to feature their gear prominently at official university stores, like Nike does at The Duck Store in Clackamas, Oregon.

forum for presenting their brands to the public.

The biggest wild card for big apparel companies is the athlete sponsorship deal. While fans like to emulate their favorite players by purchasing their customized sneakers and other gear, the suboptimal revenue streams, injury threat, and public relations disasters are ever-present possibilities that can cause contracts to become burdens rather than boosters. The recent decline in the value of rookie sneaker deals in the NBA is a reflection of the understanding that sponsoring individual athletes may not be worth the risk.

So what does this all mean? With the big 4 sports leagues locked into contracts with apparel providers through at least 2017, the evidence suggests that Nike, Adidas, and Under Armour should pursue universities with strong athletic departments, large and loyal fan bases, and championship pedigrees. Understanding the lucrative potential of university partnerships, Under Armour signed a deal with iconic Notre Dame for an undisclosed sum that is reported to be the most valuable contract in college sports history.

It would seem likely that the value of these contracts will continue to rise as prominent universities seek new sponsorship deals in the

future. On the other side of the spectrum, it will be interesting to see if the contracts with individual athletes will continue to decline in value. The best indicator for the future of individual contracts will come when a transcendent athlete in the mold of the LeBron rises through the ranks and dominates at the college level. If this hypothetical superstar fails to receive significant amounts of money, it could be a sign of a permanent downward trend in the value of contracts between individual athletes and apparel firms.

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A New Dead Ball Era?

The Effects of Declining Offense in Baseball

Andrew Distler '15

In its famous 1998 commercial, Nike claimed, "Chicks dig the long ball." This slogan was appropriate at the time, as Mark McGwire and Sammy Sosa were chasing Roger Maris's 37-year-old single season home run record. The two mashers headed a surge in offense in Major League Baseball that thrust the sport to the center of attention after the 1994 strike threatened the league's popularity. But that era of incredible offensive numbers is long gone, as baseball is witnessing some of the lowest offensive production in years.

In 2014, MLB teams averaged just 4.07 runs per game, the lowest total for a non-strike-shortened season since 1976 (and down more than a full run since 2000). Meanwhile, players are hitting just .251, the lowest average since 1972, the year before the American League instituted the designated hitter. Home run rates, slugging percentage, and on-base percentage are all at their lowest totals in over 20 years. Hitters are now striking out more than ever, whiffing 7.70 times per game during the 2014 season, the highest in MLB history. And 2014 is not an outlier, as the strikeout rate record has been broken in *seven consecutive seasons*, including the 2014 campaign.

This decline in offense has been attributed to a variety of factors, ranging from changes in how pitchers are developed



Photo courtesy of the LA Times

TEAMS MIGHT start to prioritize developing or signing the best bats available over signing the big-name pitchers to mega-deals.

and trained to advances in analytics that help pitchers much more than they do hitters. Declining offensive production has also been brought up as a potential reason for why baseball's popularity is declining, particularly among Millennials and succeeding generations.

However, one thing is for certain: this decline in scoring does not appear to be stopping any time soon, and it will take many changes and adjustments for hitters to gain ground on pitchers. This article will discuss how offensive levels became so low, and how this trend can potentially affect the future of baseball.

Will Hitters Ever Evolve?

In sports, there are rarely

rule changes that benefit defensive play. Teams in the NBA and NFL are now scoring at extremely high rates thanks in large part to rule changes that limit defenses; the NHL did not change any rules when scoring exploded in the 1980s; and Major League Baseball almost never institutes rules that greatly benefit pitchers. However, every time there have been rule changes to help *hitters*, pitchers have been able to adjust.

One of the first significant changes was in 1893, when the pitching mound was moved back from 50 feet to its current distance of 60 feet and 6 inches. Offensive production immediately went up, as, just two years after the change, teams were averaging over two runs more per game than they were beforehand. However, offense soon went back down again; by 1908, the "Dead Ball Era" had begun, and teams averaged just over three runs per game, more than

four runs fewer than what they scored in the early 1890s. A new baseball featuring a cork center, made standard in 1910, caused teams to score almost one whole run more per game, but once again the pitchers adjusted and run production returned to below four runs per game.

The next change was arguably one of the most significant rule changes in baseball history: in 1920, doctoring the baseball (such as throwing spitballs) was banned, which yielded a huge surge in offense. With Babe Ruth popularizing the home run, run production increased dramatically, culminating in 1930 when teams averaged 5.55 runs per game, still the highest total since 1900, and hit for an astonishing .296 average.

However, offensive production started declining right after that, as pitchers once again adjusted to the new landscape, which eventually led to the "Year of the Pitcher"



in 1968. That year, teams averaged an anemic 3.42 runs per game, which was the lowest since 1908, and offensive production was so low that Bob Gibson managed to lose nine games despite boasting a 1.12 ERA.

The next season, the mound was lowered five inches, the strike zone was made smaller, and offense slowly improved until the late 1980s, which was the start of the “steroid era.” Spurred on by a combination of performance-enhancing drugs, smaller ballparks, better bat technology, and juiced baseballs (according to some theories), offense and particularly home run production grew at incredible rates.

Several home run records were either broken or set in the 1990s and early 2000s, as it seemed that power hitting had taken over baseball. But once again, pitchers were able to adjust, and run production is now almost as low as it was during the “Dead Ball Era” (this recent decline is almost always credited to stronger drug testing, but many view this as a weak argument, as several pitchers were also taking performance-enhancing drugs).

Before we can delve into any one reason for the most recent decline in offense, it is very important to realize that there have been countless adjustments made by baseball to help increase offense. But even if they were initially successful, pitchers have always seemed to adjust through improved training, development, and strategy. In order to reverse the current trend of declining offense, hitters must

make adjustments themselves, rather than wait for rule changes to help them.

In order to do this, MLB teams are going to have to not only start developing their prospects differently, but also start scouting and drafting players differently. One of the reasons that pitchers have recently been able to gain the upper hand is that they are throwing the ball with more velocity than ever before, with more pitchers throwing in the upper 90s and sometimes even topping out at 100 mph (especially relievers). Because more and more pitchers are able to throw with so much velocity, hitters are going to have to start training specifically for those high speeds.

It is likely that teams will start emphasizing bat control and hitting the ball to all fields, and will start discouraging “dead pull” hitters, as it is much harder to pull a pitch at high velocities (this is a tactic that can also be used to beat shifts). There may even have to be a

complete overhaul of the way hitters are developed and trained. This could mean focusing on different fundamentals from a young age or looking at new analytics.

Developing Pitchers

The remarkable ability of pitchers to improve over time, especially in terms of velocity, is due in part to dramatic changes in the way they are developed and

trained. In an era of specialization, where kids are often encouraged to train in just one sport (and often only one position in that sport), players are now starting specialized pitching training at much younger ages. Kids are now pitching more often than ever before, as many elite younger pitchers will sometimes pitch for multiple teams

“One thing is for certain: this decline in scoring does not appear to be stopping any time soon, and it will take many changes and adjustments for hitters to gain ground on pitchers.”

at once and work with a private coach. Even though this kind of training is often blamed for the rise in arm injuries among MLB pitchers, it is a reason why pitchers have been able to gain such a significant advantage over hitters.

Another reason pitchers have been able improve their performance is that they are now doing more weight and aerobics training than ever before. Bo Jackson is often credited with popularizing weight training in baseball, but that trend took longer to affect pitchers. Now that it has, it has helped them not only to throw harder, but to throw off-speed and breaking pitches with more movement and consistency. The increased ability to better throw off-speed pitches is seen in the numbers.

According to FanGraphs, even though strikeout rates are the highest they have ever been (while walk rates have been relatively constant in recent years), fastballs as a percentage of total pitches thrown have dropped roughly 7% in the past decade. This decrease has been coupled with an increase in the use of the cutter and other secondary pitches. The data show that pitchers are now able to throw off-speed and secondary

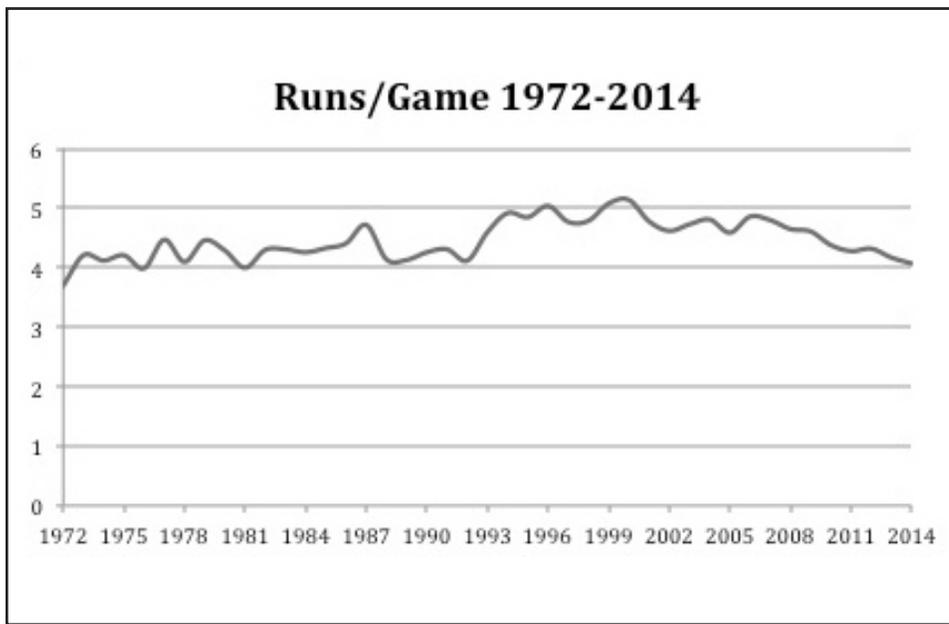


Chart by Andrew Distler

RUNS PER GAME in 2014 were at a historic low, a trend that has developed since the steroid-era in MLB.

pitches more frequently without compromising accuracy, which will of course make hitting even more difficult.

Unless there are more rule or equipment changes on the horizon, hitters must find new ways to train and develop as well. The offensive decline is happening so quickly that it may even take an entire overhaul of the youth baseball system to ensure that hitters are ready once they reach the big leagues. This could mean starting to emphasize more specialization among young hitters (similar to what has been done with pitchers) and even introducing new training regimens to improve bat speed and hand-eye coordination.

While improvements in pitching can be attributed largely to better training and development, another factor is the development of more pitchers. In response to the high-scoring 1990s, teams started to realize that pitching, particularly in the postseason, was the most important aspect of the game. Because offensive numbers were so high, good hitters were viewed as “a dime a dozen” type players that could be found anywhere, therefore making pitchers much more desirable.

An example is the Colorado Rockies, who signed pitcher Mike Hampton in 2001 to what at the time was the largest contract in sports history, after he was 15-10 with a 3.12 ERA the previous year for the Mets. Teams were so desperate for pitching that they were willing to give out large contracts to pitchers with somewhat pedestrian numbers. Stockpiling pitchers became such a priority that it can even be argued that teams have *over*-drafted pitchers and have not focused enough on developing hitters.

It is very possible that this trend will be reversed, and we could see more emphasis on hitters being drafted and developed. We are already seeing this kind of strategy

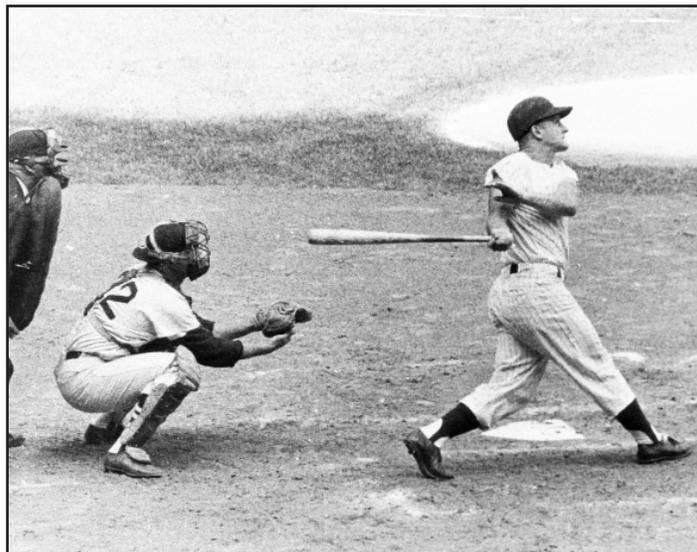


Photo courtesy of Not in Hall of Fame

THE DAYS of Roger Maris (pictured above) and 60 homerun seasons may very well be a thing of the past.

put into action in MLB farm systems. An example is the Chicago Cubs, who have focused much of their recent rebuilding on stockpiling and developing hitting prospects, as the market is seemingly oversaturated with pitchers who can either consistently give quality starts or can be shut-down relievers.

The Impact of Analytics

Another recent advancement that has curbed offense is the continued growth of analytics in baseball. This may seem like an odd reason, as analytics have affected every aspect of the game, but the most prominent analytical techniques favor pitching and defense. An example is defensive shifts. Once only done by a few, this is now a tactic used often by almost every team.

Now that advanced statistical tracking can accurately keep track of every batter’s hitting tendencies, it is easier than ever for a defense to align itself to take away a hitter’s strengths. In fact, shifts have been credited so much with the recent decline in offense that there have been discussions among baseball fans and writers about banning them. However, shifts are only

one of the many strategies that have recently contributed to decreased run production.

Because analytics have allowed us to measure fielding in new ways, teams are able to more easily identify good fielders, making it harder for the offense to get hits. Also, statistics such as defensive runs saved have shown how many runs are allowed due to poor defense, which has compelled teams to increase their emphasis on fielding. Statistics such as defensive WAR and Ultimate Zone Rating (UZR) have helped strengthen fielding all across Major League Baseball, making it tougher on hitters.

Pitching analytics have also become more prominent. Even though pitcher domination is related more to better and harder-throwing pitchers, recent developments have given pitchers extremely in-depth information about hitters. An example is PITCHF/x, a pitch tracking system installed in every MLB stadium. This system is able to track the velocity, movement, and location of every pitch and even provides pitchers with information about hitters’ weaknesses. This is yet another recent innovation that has given pitchers more of an advantage.

Implications for the Future

It is no secret to anyone who follows baseball closely that offense is declining to rates last seen in the “Dead Ball Era” of the early 1900s. Many articles have been written about it, and many theories have been hatched. But the major question that needs to be asked is: how will the offensive decline affect the future of baseball?

Since pitchers are not getting any weaker or throwing any slower, hitters must be able to adjust to the increase in pitch velocity and pitcher skill. This is much easier said than done, as hitters only have a fraction of a second to react to *any* pitch. Another key issue is how baseball’s decline in scoring will affect fan interest. The NFL and NBA are now very high scoring, and the TV ratings and interest in both of those leagues have never been higher. With baseball’s low scoring rates, one must wonder if our “national pastime” (which is already a slower, more drawn-out game) will become even less appealing to the next generation of fans.

An argument can be made that this is just cyclical, and in a few years we will start seeing higher offensive numbers, whether it be due to improved technology, new rules, or different development strategies. It is entirely possible that flame-throwing relievers and starters who can give a team quality starts will eventually become “dime a dozen” type players, and teams will start investing more money and more draft picks on hitters. But it is undeniable that the decline in run scoring in baseball is significant enough that major changes are needed to reverse the trend.

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Business Sponsors and the Public Press for Change

Taylor Kosakoff '16

In our society, professional athletes serve as important role models. They exhibit qualities such as teamwork, sportsmanship, and heroism that influence young children. Athletes also provide entertainment for a large portion of the country and even internationally. They even have the power to revive a city economically. Time Magazine reported that LeBron James is worth almost \$500 million to the city of Cleveland in his return to the Cavaliers. However, the entertainment and economic value of athletes should never put them above the law. Recent criminal and morally reprehensible behavior by star athletes has significantly affected how society perceives athletes and professional sports leagues.

Public outcry has caused sponsors to be more socially conscious and apply pressure to athletes, teams, and leagues in order to enact change and impose severe consequences

on prominent players who commit heinous crimes. Businesses are increasingly impacting professional sports by imposing their financial leverage to stimulate social change.

Star athletes are commodities for business

sponsors, who compete to have the best players represent their products in marketing campaigns. A player like Derek Jeter, who did everything the right way on and off the field, is an example of an athlete that business sponsors eagerly want to support and associate with their products. Jeter embarked on his farewell tour in 2014 and was hailed as the paragon of a role model. Jeter signed a 10 year, \$100 million contract with Nike, and, according to the New York Post, also has lucrative deals with Gatorade, Gillette, Ford, and other businesses. Jeter's character as a captain, philanthropist, and citizen of New York was valued as much as his exceptional talent on the baseball field.

Unfortunately, while many athletes exhibit extraordinary talent on the field to excite spectators, there are increasingly more players who exhibit the type of behavior that destroys the trust and respect of their followers. Recently, the reputations of players, teams, and even leagues have been tainted by the criminal actions of several 'star' athletes who committed criminal or morally reprehensible acts. In the past, domestic violence issues involving athletes were swept under the rug. Recently, however, the power of public



Photo courtesy of Better Body Expert

THE ACTIONS of athletes like Adrian Peterson (pictured above) have long-lasting consequences on the NFL, the team, and their sponsors.

opinion has intensified, and sponsors have reacted by putting pressure on professional sports teams and leagues to reevaluate their domestic violence policies.

Adrian Peterson and Ray Rice are 'star' players whose talents are exceptional at the running back position. Adrian Peterson has a career total of 10,190 rushing yards and 86 rushing touchdowns, while Ray Rice has 6,180 rushing yards and 37 rushing touchdowns during a six-year NFL career. Adrian Peterson was arrested for hitting his four-year-old son with a wooden switch, and Ray Rice was videotaped viciously punching his fiancée. Peterson and Rice's careers were effectively halted by their actions, which left their respective teams to cope without their contributions on the field.

Inappropriate behavior by professional athletes not only affects their teams, but also influences sponsors that back the athletes and their organizations. Such

transgressions negatively impact not only these athletes' reputations, but also the brands and companies that rely on these athletes to market their products. Major companies like Nike and Castrol canceled their sponsorship of Peterson right after his arrest. Nike released a statement in response to Adrian Peterson's actions saying, "Nike in no way condones child abuse or domestic violence of any kind." After Adrian Peterson's actions were revealed, the Minnesota Vikings deactivated him, but then reactivated him after just one game. Minnesota Vikings sponsors and even Minnesota Governor Mark Dayton came out saying they disagreed with the team's handling of the situation and pressured the team into suspending the running back for his actions. The Minnesota Vikings sponsor, Radisson Hotels, even withdrew its sponsorship of the team because it felt Peterson's situation was not handled the right way. Radisson came out with the statement,

“Radisson takes this matter very seriously particularly in the light of our long-standing commitment to the protection of children.” In response, the Vikings immediately suspended Peterson after pressure from sponsors and the public, acknowledging that they were wrong in how they handled the situation.

Sponsors were also displeased with how the National Football League handled Ray Rice’s situation. Originally, the league suspended Rice for two games. Many critics believed that if the NFL imposed a yearlong suspension on Cleveland Browns’ wide receiver Josh Gordon for smoking marijuana, then the punishment given to Ray Rice should have been far more severe. The release of the video depicting him striking his fiancée in an elevator resulted in increased sponsor and public pressure on the Baltimore Ravens and the NFL to increase the duration of Rice’s suspension

The problem here is that many athletes have received less severe punishments for criminal actions for many years in both college and professional sports. Walt Bogdanich of the New York Times shared his research and opinions on how Florida State University and Tallahassee Police reacted to the claims that star quarterback Jameis Winston raped another college student. Winston, who is arguably the best player in all of college football, was accused of sexual assault on December 7th,

2013. Bogdanich explained that Winston’s case was delayed while his team was pushing for a college football national championship and that the university even disregarded possible evidence connecting Winston to the sexual assault.

Even outside of football, there are many examples of star athletes who avoided the consequences of criminal actions. In 2003, future Hall of Famer Kobe Bryant of the Los Angeles Lakers was accused of sexual assault. According to Patrick O’Driscoll of USA Today, Bryant admitted to having sex with the accuser even though he was married and had a child and said the woman consented. Bryant was able to settle the case, which many critics believed was only because the woman could not refuse the amount of money Bryant was giving her. According

to O’Driscoll, Bryant lost 4 to 6 million dollars in endorsement contracts after his arrest.

Statistics show disparities in arrest rates between National Football League players and the rest of society. According to Reuben Fischer-Baum from Deadspin, professional football players had higher arrest rates for assault/battery/domestic charges, DUI charges, and weapons charges than the U.S. average. However, Fischer-Baum noted that these same players were “11 percent less likely to get a DUI, 23 percent

“Recent criminal and morally reprehensible behavior by star athletes has significantly affected how society perceives athletes and professional sports leagues.”

less likely to get an assault charge, and 59 percent less likely to get a drug charge.” If known, sponsors and the public would frown upon these statistics, as athletes in the past have been treated like untouchable superheroes who can avoid consequences because of their elevated status in society.

After the National Football League’s response to Adrian Peterson and Ray Rice, many sponsors spoke out and shared their opinions about how these players were handled and what such companies stand for. For example, according to Ben Popken, Anheuser-Busch InBev NV was notably critical of the NFL’s response. Other sponsors of the National Football League, such as Budweiser, PepsiCo, Nike, Castrol, Campbell Soup Co., and McDonald’s, came out saying they look to improve the NFL’s domestic violence policy.

Although both the Peterson and Rice cases were not originally handled with sensitivity, the National Football League and other leagues have been swayed by public outcry and are now working in the right direction to educate, punish, and reduce domestic violence and other crimes in sports. According to Adam Howard of MSNBC, after running back Jonathan Dwyer of the Arizona Cardinals was arrested for domestic assault, the CEO of PepsiCo, Indra Nooyi, said,

“I am a mother, a wife and a



Photo courtesy of Fansided

ROGER GOODELL has been entrenched in controversy concerning his evaluation and handling of off-field conduct of NFL players.



Photo courtesy of USA Today

RAY RICE (pictured above with his wife, Janay Palmer) tried to save face during a press conference, but only seemed to make things worse for his relationship with the Ravens and its sponsors.

passionate football fan. I am deeply disturbed that the new repugnant behavior of a few players and the NFL's acknowledged mishandling of these issues is casting a cloud over the integrity of the league and the reputations of the majority of the players who've dedicated their lives to a career they love...I know [NFL commissioner Roger Goodell] to be a man of integrity, and I am confident that he will do the right thing for the league in the light of the serious issues it is facing."

The essence of Nooyi's message is important because women are crucial to the success of the National Football League. According to Drew Harwell of the Washington Post, females comprise nearly 45 percent of the NFL fan base. If players continue to get away with serious crimes like child abuse and domestic violence,

professional sports leagues may experience a significant decline in female fans very quickly. However, Nooyi is right. Professional sports leagues, teams, and even law enforcement have mishandled important issues in the past, but times have changed. Athletes can no longer receive special privileges not afforded to others when it comes to breaking the law.

Current actions by professional sports leagues have led to optimism and a better policy system when it comes to athletes and the law. According to Tom Pelissero of USA TODAY Sports, the NFL appointed four women to handle the task of shaping the league's policies going forward: Anna Isaacson, who is now VP of Social Responsibility; Lisa Friel, who was the former leader of the Sex Crimes Prosecution Unit in the NY County District

Attorney's Office; NO MORE co-founder Jane Randel; and Rita Smith, the former director of the National Coalition Against Domestic Violence. According to USA TODAY, Major League Baseball Commissioner Bud Selig hired former federal prosecutor Bryan Seeley to take charge of the league's investigations department. Seeley now deals with the problems of performance-enhancing drugs, policy violations, and law enforcement. According to SB Nation's Mark Prada, the National Basketball Association's Commissioner Adam Silver vowed to take a fresh look at the NBA's domestic violence policies.

With considerable pressure from sponsors in all professional sports leagues and heightened sensitivity due to high profile cases of lawlessness, badly needed

changes in domestic violence and other policies are coming to fruition. Although there are now higher standards for player conduct, there is still much to improve. Even in recent years, athletes were able to get away with similar crimes without team or league suspensions. Continuing pressure from both the public and business sponsors for new league and team policies will hold athletes accountable for their actions. Given the revered status of high-profile sports stars, changes in professional sports could also impact behavior in our society.

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