

Baseball's Short Summer and Coming Strike

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“Baseball is too much of a sport to be a business, and too much of a business to be a sport.”
—P.K. Wrigley

As of this writing, the Major League Baseball (MLB) owners and the MLB Players Association (MLBPA) were preparing for a shortened, 60-game season set to begin in late July. Since the beginning of the pandemic, the two sides fought over what the 2020 season would look like – the number of games, the percentage of salary that the players would receive, even whether to expand the playoff system. Much can be read into the fact that MLB's response to COVID-19 initially lagged well behind all the other major sports leagues: NHL, NBA, NASCAR, Premier League (soccer) and even the PGA Tour all announced plans and in some cases, restarted their seasons, before baseball did.¹ The difficulties in negotiating baseball's return underscored the traditional animosity that has existed from almost the first days of professionalism.

The crisis created by the COVID-19 pandemic – and the bitterness that surrounded the negotiations over the 2020 season² -- could not have come at a worse time for MLB and its players. While the baseball industry reached a record \$10.7B³ in revenues in 2019 (with further revenue growth expected thanks to expanded sports betting), player salaries have fallen the last three years.⁴ Further, the advent of technology has dramatically disrupted the way that baseball is scouted, developed, and coached, also adversely impacting the players. Relatedly, few free agents are receiving large multi-year contracts. In short, technology has broken the economic system for the players. The owners and players have never reached a revenue-sharing agreement, which has made all negotiations zero-sum.⁵ And with a collective bargaining agreement (CBA) that will expire at the end of the 2021 season, the two sides appear to be preparing for yet another work stoppage – which would be baseball's 9th in the five decades since 1972.⁶

A BRIEF HISTORY OF BASEBALL LABOR RELATIONS

Baseball's history is beset with owner-player animosity, built in large part on a single phrase, the 'reserve clause.' From the very dawn of the game, the idea of players jumping teams in pursuit of higher salaries has existed; in Cincinnati, Harry Wright (who himself had jumped from a cross-town cricket-playing rival two years earlier) assembled the first professional team by offering high salaries, and the Red Stockings went undefeated for the entire 1869 season.⁷ Other clubs quickly caught on. With few exceptions, players were free to jump from club-to-club every year (the practice was called “revolving”⁸); some players would jump after virtually every season⁹ and sometimes even during the middle of a campaign.¹⁰

Revolving was not the only problem: there was gambling, game-fixing, and drunkenness, as well.¹¹ Meanwhile, baseball's organizers were also trying to eke out a profit. On September 29, 1879, the National League clubs agreed to recognize a “reserve clause,”¹² essentially a permanent club option in players' contracts, which allowed a club to retain a player's services “for the ensuing season.”¹³

The reserve clause was perhaps baseball's original sin.¹⁴ Ostensibly, the reason was to give fans of a local club some confidence of “continuity rather than a game of musical chairs” with each new year.¹⁵ Other rationales included preventing the wealthiest clubs from monopolizing the best players, keeping competitive balance, and protecting the clubs' “investment in the players.”¹⁶ The reality was that in a time of rapidly escalating salaries, restricting the ability of a player to revolve “kept salaries within money-making bounds,” in the later analysis of the founder of *The Sporting News*.¹⁷ Within two decades, the National and American Leagues had been organized, and starting in 1903, the two champions played in the World Series. The business of baseball was off-and-running.

While the owners were seeing financial success, the players chafed against the reserve clause. They formed a nascent union¹⁸ in 1885, a rival player's league¹⁹ in 1889-90, even cheered on a holdout by star Ty Cobb in the spring of 1913.²⁰ That same year, a third league was organized. In order to obtain talent, the Federal League needed to raid the American and National Leagues; the older leagues attempted to enforce the reserve clause.²¹ The Feds responded by claiming baseball was an unlawful monopoly, but most teams²² settled soon thereafter.²³

The stockholders of the Baltimore Feds did not settle, and brought suit. At the trial court, the Baltimoreans won a verdict (after trebling under the Sherman Act) of \$240,000.²⁴ In 1920, the Court of Appeals reversed, setting up another appeal to the U.S. Supreme Court.²⁵ There, in 1922, the Court ruled that baseball's interstate travel was incidental to the activity; Justice Oliver Wendell Holmes, Jr. wrote, “[t]he business is giving exhibitions of baseball, which are purely state affairs,” and therefore do not involve interstate commerce.²⁶ Technically, baseball did not receive an “exemption” from antitrust law, although that became the common perception; rather, the Sherman Act was determined not to apply to the nature of baseball exhibitions (i.e., games).

POST-WAR, MARVIN MILLER, AND THE RESERVE CLAUSE (REDUX)

Regardless of the details, the reserve clause remained in MLB contracts for the next fifty years.²⁷ There were, to be sure, attempts to overturn it. In 1946, Harvard grad Robert Murphy attempted to form a union, the American Baseball Guild²⁸. He was undoubtedly inspired by his service on

FDR's National Labor Relations Board during WWII, where he observed union membership grow by 63%.²⁹ While the owners pushed back and the guild fizzled, Murphy was successful in three areas: the owners agreed to a minimum salary (\$5,500), a pension fund, and a spring-training *per diem*. The latter was known as "Murphy Money" for many decades thereafter.³⁰

During this time, a star player's recourse was an attempted holdout: Joe DiMaggio in 1938³¹, Mickey Mantle in 1959³², or Sandy Koufax and Don Drysdale (jointly) in 1966.³³ None were really effective. MLB's salary scale still reflected Babe Ruth's \$80,000 in 1931; the upper limit in the 1960s was about \$100,000.³⁴

The arrival of Marvin Miller in 1966 as head of the MLB Players' Association (MLBPA) changed the calculus.³⁵ Miller's background with the Steelworkers led to a multi-pronged strategy. After initially squeezing victories in pension-expansion and trading-card-license revenue, Miller advanced to taking on the reserve clause.

The first case was Curt Flood's direct challenge to its enforcement. Flood's personal experience was a throwback to the Negro-League-era; as a minor-leaguer in the late 1950s, he and a Hispanic teammate (by law) "could not even dress with teammates."³⁶ Before he filed his lawsuit, he wrote MLB Commissioner Bowie Kuhn: "I do not feel I am a piece of property to be bought and sold."³⁷ (Kuhn made no substantive response.)

Flood's case went all the way to the Supreme Court, but a 5-3 majority affirmed the Federal League decision.³⁸ Afterwards Miller re-read the reserve clause; while conventional wisdom said that the clause obligated a player for life, Miller considered that the option was for just a single year – the one following the expiration of the contract. If the player did not re-sign, the club could reserve the player for the subsequent year only. Andy Messersmith played out his option year in 1975 and prepared for free agency. When an arbitrator read the clause Miller's way, the market was open. Messersmith played for \$90,000 in 1975; in early 1976, he signed a 3-year deal worth \$1.75 million.³⁹

That same winter, the MLBPA was negotiating a renewal of the CBA. The reserve clause was now on life support. But Miller was concerned that if every player could quickly become a free agent (the original contract year plus the reserve year), the glut of talent would depress salaries. (His thoughts were echoed by parsimonious Oakland A's owner Charlie Finley, who said, "Make 'em all free agents."⁴⁰) Messersmith, after all, was the sole free agent in 1975-76.⁴¹

Miller's instinct was for free agency after a five-year threshold that would have included both time in the minors and majors.⁴² But the MLPBA calculated that free agency after six years in the bigs would likely maximize MLB players' salaries⁴³; the calculus importantly assumed that players' prime would be in their late 20s or early 30s.⁴⁴ The reality, Miller conceded later, was that "No one knew what the magic figure was."⁴⁵ The owners agreed to the six-year proposal. The reserve clause – tempered by higher minimum salaries during the first three MLB years and a chance at arbitration during MLB years four through six⁴⁶ – still survived.

In the short term, the MLBPA calculation was correct, although the release of a century of pent-up salary pressure undoubtedly played a role as well.⁴⁷ In the twenty years after World War II, the minimum MLB salary inched up to \$6,000⁴⁸; in the first four years of free agency, the average MLB salary almost tripled.⁴⁹ It tripled again during the 1980s.⁵⁰ The salaries were tracking TV revenues: from 1971 to 1990, the "average player salary grew 1,741 percent. In the same span, the revenue from national TV contracts grew 1,742 percent."⁵¹ But the owners continued to try to roll back free agency.

The owners attempted to limit 'unrestricted' free agency. The effort failed. The owners attempted to force compensation to offset the loss of a free agent. The players struck, resulting in the 1981 split season.⁵² Five years later, the owners colluded in an effort to control salaries; dozens of free agents waited by phones that did not ring.⁵³ In September 1987, an arbitrator ruled in favor of the players' grievance; the owners paid \$280 million in collusion compensation.⁵⁴

The disfunction between about 750⁵⁵ MLB players and 30 owners over cutting up the economic pie of baseball reached its nadir in 1994, when a strike ended the season prematurely, cancelling the World Series for the first time in close to a century. Since then, baseball has avoided a work stoppage, but the storm clouds now building are ominous.

In (large) part because of the historic animosity, the MLBPA has taken the position that it would not accept a revenue-sharing arrangement⁵⁶, nor a salary cap/floor.⁵⁷ (Although each professional league's definitions are different, in general, revenue-sharing means that the players are guaranteed a certain percentage of revenue (usually in the form of a salary floor), but contracts in aggregate are subject to an overall salary-cap.) Yet, two provisions added to the Collective Bargaining Agreement (CBA) since the 1994-95 strike – revenue-sharing between large- and small-market teams, and a luxury tax for teams exceeding certain salary thresholds – have created a *de facto* cap, but without player/owner revenue-sharing. And the six-year reserve clause lives.

As an observer noted,

[b]eginning in the late 1960s, the players have adopted an adversarial stance, and the owners have responded in kind. Distrust, disrespect, lack of accommodation, name-calling, and inattention to face-saving have characterized negotiations, poisoning chances for uninterrupted play.⁵⁸

CONTRAST WITH OTHER LEAGUES

Over the years, MLB players have adamantly resisted revenue sharing and/or a salary cap. The contrast to the other sports leagues is clear. The NFL, NBA, and NHL all use some sort of revenue-sharing combined with a salary cap. And while each has had work stoppages⁵⁹ at times, they have not had the repeated problems that exist with MLB and its players.⁶⁰

Further, the other three leagues have operated under such an arrangement for decades. Indeed, even as the initial COVID-19-stay-at-home-orders were happening in the US,

the National Football League Players Association (NFLPA) approved a new ten-year agreement that will guarantee union/management peace until 2030.⁶¹ The players received increases in minimum salaries, and perhaps most importantly, an uptick in their designated share of revenue in any season with 17 games, up from 16 currently.⁶² The last point is important to understand: by guaranteeing a percentage of overall revenues, football owners and players are essentially business partners, subject to the salary cap. The same concept exists in the National Basketball Association (NBA), where the players are currently guaranteed between 49-51% of “basketball-related revenue.”⁶³ Likewise, the National Hockey League’s (NHL) collective bargaining agreement guarantees its players a 50%⁶⁴ split of hockey-related revenue.⁶⁵

The MLBPA’s near-religious opposition to a revenue-share/salary-cap system could be justified if as a result, player salaries in baseball were significantly higher (taken as a whole) than the other sports. But studies found that average MLB total compensation for baseball (51%) to be trailing football, but about the same as the NBA and NHL; arguably, baseball players should be earning more than the latter two.⁶⁶ Baseball has significantly higher revenues than either the NBA or NHL, and considering that the fixed costs (front office, team travel, ticketing, etc.) are roughly the same for all sports, with the balance available for player salaries and owner profits; the study concluded, “given the higher revenue in MLB, one would expect its [salary] share to be above the NBA’s and NHL’s.”⁶⁷ Further, technology advances are putting more pressure on salary expansion in MLB.

TECHNOLOGY AND BASEBALL DEVELOPMENT

Modern technology and sports science have been rapidly adopted by baseball in the last few years. The revolution began when Billy Beane brought the sabermetric concepts popularized by Bill James⁶⁸ throughout the 1980s and 1990s into the Oakland A’s front office, a story told in print and on the big screen via “*Moneyball*.”⁶⁹ As with Wright’s Red Stockings, the other teams followed suit; every front office is now filled with young minds⁷⁰ -- often recruited from Wall Street -- who are using statistical regressions on the latest computers⁷¹ to discern the future, and therefore worth, of every single player.⁷²

The consensus analysis across baseball is that the average player’s most productive years are usually from ages 26-29, with the natural peak for most players at 27-28,⁷³ earlier than the 1976 MLBPA estimates. Given that players rarely hit a major league roster before age 22 or 23, this means that a player’s most productive years occur while under the six-year reserve clause – and unable to test the market via free agency.⁷⁴ If teams want to sign free agents, they are paying for (in the absence of steroids), statistical decline. As one observer wrote:

as more and more teams have not only embraced high-end analytics, but also made them the backbone of their operations, player valuations now exist on a narrow and almost identical band...Armed with

mountains of data, nearly every team has come the same conclusion: Free agency is for suckers.⁷⁵

But technology has not been limited to the front office. Player development (improvement of skills) has also benefited, although not evenly – in the last decade, technology advances have skewed towards pitching performance.

To be sure, batters have incorporated different elements of modern tech.⁷⁶ For instance, former-Red Sox Manny Ramirez incorporated advanced training of his eyes in to his off-field “strength training” regimen.⁷⁷ When his MLB career was in trouble in 2014, JD Martinez began using three different iPads⁷⁸ to record video of every swing he took in batting practice to try to develop “launch angle.”⁷⁹ In 2017, less than four years after almost washing out of baseball, he hit 45 homeruns and subsequently signed a contract worth \$68 million over four years. Finally, there are devices like Trackman, which measures the ball flight of a batted ball.⁸⁰ Originally developed for use with golfers, it helps hitters understand the relationship between launch angle, exit velocity, and spin rate. A Trackman is now a part of almost every high-end batting facility.⁸¹

But while hitting has taken some steps, technology advances have grown fastest in the art of pitching.⁸² Traditionally, scouts used a radar gun to rate young prospects, or to determine whether older pitchers had ‘lost a foot on their fastball.’ One of the early significant breakthroughs in applying technology to pitching was by training with weighted balls, which increased velocity with marked effects.⁸³ Over the last eight years, the average MLB fastball has increased a full 1 mile per hour, an “enormous boost,”⁸⁴ and the number of times a pitcher has thrown a 100+ MPH fastball in the MLB has increased five times in the last decade.⁸⁵

But speed is only a single variable in the flight of a ball, and no matter how fast a pitcher can throw, sooner or later Major League hitters will catch up to a fastball that does not move. A radar gun, in short, is a blunt instrument for measuring true pitching effectiveness.

Baseball has known since (at least) 1959 that a curveball does, in fact, curve. That year, the former director of the National Institute of Standards and Technology wrote a paper confirming that a curveball’s ‘break’ depends on the high rate of spin put on the ball.⁸⁶ The seams on the baseball create a ‘whirlpool’ of air currents on different sides of the baseball; this so-called “Magnus effect” causes the curvature of the ball in the air.

Starting around 2006, MLB began installing “PITCHF/x” systems in every big league park to be able to track not just speed, but also break (movement) and location of pitches in real time.⁸⁷ The resulting data was revolutionary; however, the high cost of the system, plus its fixed nature (fixed cameras pointed at homeplate, and calibrated accordingly) made its use for development (i.e., in practices) limited.

It was the creation of the Rapsodo – an optical device not much larger than a shoebox, set on the ground in the bullpen – that created a new way of instructing pitchers. The Rapsodo could not only measure pitch velocity, but also spin rate, which translates into movement. Spin rate has a

direct correlation to ball movement on almost all pitches, not just curveballs – a 92-MPH fastball with 2,400 rotations per minute (RPM) of perfect backspin will drop less on its way to the plate than a 92-MPH fastball with only 1,800 RPM – all thanks to the Magnus effect.⁸⁸

But there is another recently-developed technology that has helped pitchers. A high-speed camera, like the Edgertronic, allows a pitcher to focus on the release point – the last moment the fingers are in contact with the baseball. And the Edgertronic can record in hundreds- or even thousands-of-frames-per-second.⁸⁹ By reviewing the film, frame-by-frame, a pitcher can determine how the fingers are releasing the ball. With minute adjustments to grip, the player can then check the data from the Rapsodo to see how the spin rate, velocity, and movement on the ball is changing. This is called “pitch design.”

Pitch design has clear ramifications. First, the flexibility of the technology means the democratization of development; players at all levels – not just the major leagues – can find a facility with this equipment.⁹⁰ Further, traditionally, training for pitchers was primarily a master-apprentice arrangement. A former elite pitcher who was experienced, would work one-on-one with a young player to improve a particular pitch; but movement was judged with the naked eye. But with these new tools, anyone with a technology-background and interest in baseball can essentially coach. Sure, a high-level baseball background helps, but it is no longer a requirement.

But it is the speed of skill-development that truly changes the environment. In the 1990s, future Hall-of-Famer Greg Maddux “perfected the comeback, two-seam fastball, which would start inside off the plate to a left-handed batter, then move into the zone.”⁹¹ But while it took Maddux a decade, Trevor Bauer (then of the Cleveland Indians⁹²) was able to learn a “reasonable facsimile”⁹³ of the pitch in one off-season. While Bauer’s pitch may not have had all the nuance that Maddux’s had, the fact that he could develop it within the course of a single winter had – and continues to have – massive implications for baseball economics.

MLB AND SERVICE TIME

In short, pitchers can be developed faster and at a younger age than ever before. Going back to the control (the post-1976 reserve clause) that baseball clubs have during the first six years of a player’s major league career, combined with the analytics that show players physically peaking before age 30, it that means that clubs can get even *more* out of a player’s most effective years. When that quickly-developed pitcher reaches full free-agency, there will be another younger prospect ready in the farm system.

Further, MLB clubs are essentially manipulating their rosters to effectively gain a seventh year of control for the best players. While this article has used the short-hand of “six years” to describe the post-1976 reserve system, the reality

is more complex: players accumulate MLB service time for each day they spend on a big-league roster. To qualify for a full year of service, a player must spend 172 days on the roster. With 162 regular season games, plus off-days, there are about 185 potential “MLB days”; but with high-profile minor league players – who are projected, thanks to advanced analytics, to be big-league stars – teams have been manipulating the service time by not promoting the player until there are fewer than 172 days left in the season.

Kris Bryant was the second player drafted overall 2013. After tearing through the Chicago Cubs’ system in 2013-14, the team delayed his promotion in the spring of 2015. Accordingly, he made his major league debut on April 17, 2015 (the Cubs’ ninth game of the season.)⁹⁴ Even though Bryant won the 2015 NL Rookie-of-the-Year, he accumulated just 171 days on the roster; he did not ‘complete’ his first year of service until the first “MLB day” of 2016. Bryant filed a grievance, but the arbitrator determined that the Cubs were within their rights to delay Bryant’s promotion.⁹⁵

The Cubs effectively bought themselves a seventh year of control over Bryant’s services. Instead of becoming a free agent after the 2020 season, when he would be 28, Bryant will not hit the open market until a year later. Delaying the promotion of young stars is now common-place: last year, Toronto delayed calling up Vladimir Guerrero Jr. until April 26th to accomplish the same thing.⁹⁶ And it is clear that teams are becoming wary – in the post-steroid era – of giving long-term contracts to players approaching 30 years of age.

CONCLUSION

The MLBPA made a judgment in 1976 that a six-year reserve clause, no salary cap and no revenue sharing would serve the players well. For fifty years, that has been the case. But in 2020, we see a baseball world where player’s average salaries have decreased year-over-year, and the prospects for all-but-the-most-elite players to never really cash-in on free agency is very much a factor. Unlike their brethren in the NFL, NBA, and NHL, baseball players are not partnered with the team owners. Analytics in the front office, and technology in the bullpen are making long MLB careers much harder to foresee. It is a long time since 1879, but the reserve clause speaks just as loudly now as it did then. And baseball is looking at upcoming labor strife—when the current CBA expires over the winter of 2021-22—as a result. ■

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ENDNOTES

1 In fairness, the NBA and NHL had both played the vast majority of the 2019-20 regular season, and hence the players had received the vast majority of their salaries. The NFL conducted its draft in late April, and was still planning on a fall start.

2 There are of course no guarantees that the 2020 season will not be further affected by COVID.

3 Maury Brown, “MLB Sees Record \$10.7 Billion In Revenues For 2019,” Dec 21, 2019, located at <https://www.forbes.com/sites/maurybrown/2019/12/21/mlb-sees-record-107-billion-in-revenues-for-2019/#6794fc6c5d78>. (Figure for 2019 season.)

4 <https://www.statista.com/statistics/236213/mean-salaray-of-players-in-majpr-league-baseball/>

5 Both sides retained the right to file “bad faith negotiation” grievance against the other for conduct in the spring of 2020.

6 Paul D. Staudohar, “The Baseball Strike of 1994-95,” in Diamond Mines: Baseball & Labor, Paul D. Staudohar, ed., Syracuse University Press (2000), at 48. Work stoppages occurred in 1972, 1973, 1976, 1980, 1981, 1985, 1990, and 1994-95.

7 Robert F. Burk, Never Just a Game: Players, Owners, & American Baseball to 1920, (Univ. of North Carolina (1994)), at 36-39. (The Red Stockings did suffer one tie, “which resulted when the men of Troy [NY] walked off the field in the sixth inning, as they had been instructed to do, in order to protect local gamblers’ bets on them.” (at 39))

8 Peter Morris, A Game of Inches: The Stories Behind the Innovations that Shaped Baseball: The Game Behind the Scenes, Ivan R. Dee (2006), at 180-81.

9 John Thorn, Baseball in the Garden of Eden: The Secret History of the Early Game, Simon & Schuster (2011), at 155.

10 Stuart Banner, The Baseball Trust: A History of Baseball’s Antitrust Exemption, Oxford (2013), at 8.

11 William J. Ryczek, When Johnny Came Sliding Home: The Post-Civil War Baseball Boom, 1865-1870, McFarland (1998) at 233. (Usually among the fans, but occasionally involving the players; certainly, as soon as the last out was recorded, the players were imbibing.)

12 Morris, Game of Inches, at 183.

13 Banner, Baseball Trust, at 5.

14 Baseball’s “other” original sin, the exclusion of African-Americans, was occurring gradually over the late 1800s, but Blacks continued to play in organized baseball through 1899. Morris, The Game Behind the Scenes, at 244-45.

15 Thorn, Garden of Eden, at 172.

16 Banner, Baseball Trust, at 9.

17 Banner, Baseball Trust, at 5.

18 The Brotherhood Professional Base Ball Players, organized by player John Montgomery Ward, who was also a Columbia Law grad. Burk, Never Just a Game, at 94-97.

19 Again led by Ward. Banner, Baseball Trust, at 13.

20 Banner, Baseball Trust, at 43-44. There was even a one-hour strike before Game 5 of the 1918 World Series. Alex Speier, “Fight over revenues has stopped baseball before,” Boston Globe (May 24, 2020), at C5.

21 No other attempt to organize a major league occurred until Branch Rickey’s efforts with the Continental League in the late 1950s. It never got off the ground, although some of the proposed cities and financial backers became MLB expansion teams in the 1960s. Charles Fountain, The Betrayal: The 1919 World Series and the Birth of Modern Baseball, Oxford (2016), at 183.

22 For instance, Chicago owner Charles Weeghman settled for the contracts to his Federal League players and the deed to his brand-new

Weeghman Park. It’s currently used by the Cubs and known as Wrigley Field. Fountain, The Betrayal, at 186.

23 Banner, Baseball Trust, at 53.

24 Banner, Baseball Trust, at 69.

25 The Supreme Court at the time was obligated to hear every case that was properly appealed to it. Three years later, Congress passed the Judiciary Act, which gave the Supreme Court discretion as to which cases were of sufficient national import. Banner, Baseball Trust, at 81-82.

26 Federal Baseball Club of Baltimore, Inc. v. National League of Professional Baseball Clubs et al., 259 U.S. 200 at 209 (1922).

27 Somewhat ironically, the Negro Leagues during this time had no contracts; “[t]he contracts came in only after Jackie Robinson went to the majors and the owners tried to protect their players from being taken... with no compensation.” Buck O’Neil, with Steve Wulf & David Conrads, I Was Right on Time, Simon & Schuster (1996), at 71.

28 Robert F. Burk, Much More Than a Game: Players, Owners, and & American Baseball Since 1921, Univ. of North Carolina (2001), at 88.

29 Steven Greenhouse, Beaten Down, Worked Up: The Past, Present, and Future of American Labor, Alfred A. Knopf (2019), at 94.

30 Robert Weintraub, “Failed Baseball Union Helped Pave Way for Success,” *N.Y. Times* (Dec. 1, 2012), accessed at <https://www.nytimes.com/2012/12/02/sports/baseball/failed-baseball-union-helped-pave-way-for-success.html>

31 Richard Ben Cramer, Joe DiMaggio: The Hero’s Life, Simon & Schuster (2000), at 114-18.

32 <https://thisdayinbaseball.com/1959-mickey-mantle-of-the-new-york-yankees-ends-his-holdout-after-one-day-mantle-agrees-to-a-salary-of-72000-and-a-bonus-of-2000-he-had-been-asking-the-yankees-for-85/>

33 Jane Leavy, Sandy Koufax: A Lefty’s Legacy, HarperCollins (2002), at 206-09.

34 *Id.*

35 Robert F. Burk, Marvin Miller: Baseball Revolutionary, Univ. of Illinois Press (2015), at 103-9.

36 David Halberstam, October 1964, Villard (1994), at 114.

37 Roger I. Abrams, Legal Bases: Baseball and the Law, Temple (1998), at 43.

38 Flood v. Kuhn, 407 U.S. 258 (1972)

39 George Vescey, Baseball: A History of America’s Favorite Game, Modern Library/Random House (2006), at 144-47.

40 Burk, Marvin Miller, at 183.

41 Technically, the all-but-retired Dave McNally was also a free agent, but neither he nor any club thought he had a future in MLB.

42 Burk, Marvin Miller, at 183-5. Most players would have hit free agency at age 24.

43 Burk, Much More Than a Game, at 201.

44 Burk, Marvin Miller, at 183-84.

45 *Id.*, at 184.

46 Salaries for the first three years of a players’ career are effectively set with minimums rising each year; during years four through six, a player can go to arbitration for a one-year contract. In such case, the arbitrator is limited to selecting either the player’s suggested one-year salary, or that suggested by the club. The arbitrator cannot ‘split the difference,’ and hence the term “baseball arbitration.”

47 The sudden emergence of the business side of the game had its costs: “we have begun to understand at last that baseball is most of all an enormous and cold-blooded corporate enterprise, and as such is probably a much revelatory and disturbing part of our national psyche than we had supposed.” Roger Angell, Five Seasons: A Baseball Companion, Simon & Schuster (1977), at 8.

48 Vescey, Baseball, at 143.

49 John Helyar, Lords of the Realm: The Real History of Baseball, Villard (1994), at 221. Salaries went from \$52,300 in 1976 to \$143,756 in 1980.

50 Vescey, Baseball, at 147. By 1989, the average salary was \$489,000.

51 Helyar, Lords of the Realm, at 364.

52 Jeff Katz, Split Season 1981: Fernandomania, The Bronx Zoo, and the Strike that Saved Baseball, St. Martin's (2015), at 105.

53 Helyar, Lords of the Realm, at 343-355.

54 Jon Pessah, The Game: Inside the Secret World of Major League Baseball's Power Brokers, Little Brown (2015), at 128.

55 Technically, each team has a 40-man "major league" roster, although only 24-25 are active at any one time.

56 The owners have from time-to-time offered to move to a revenue-sharing/salary cap system, perhaps most famously in 1990. They renewed the concept in the run-up to the 1994 work stoppage. Staudohar, Diamond Mines, at 51-55.

57 Alex Speier, "MLB wants to cut more pay; players balk," Boston Globe (May 27, 2020), at C5-6.

58 Staudohar, Diamond Mines, at 49.

59 The NFL in 1982 and 1987; the NHL in 1992 and 1994; the NBA in 1998. James Quick and Rodney Fort, Hard Ball: The Abuse of Power in Pro Team Sports, Princeton Univ. (1999), at 71.

60 In fairness, any sort of revenue-sharing arrangement requires full and fair disclosure from the league to the players, including accounting for related party transactions (e.g., revenues from local television deal when the team owner also owns the cable station.) There may be too much distrust between MLB owners and players. Likewise, in the NBA, the highest-paid players (LeBron James, Steph Curry, et al.) are actually paid *below* market, because of the "maximum contract" provision (currently about \$40MM per year.) When teams attempt to attract these high-level players in free agency, they do not compete on contract dollars, but rather amenities of a particular city, the coaching staff, or existing and future teammates.

61 Dan Graziano, "NFL players approve new CBA, runs through 2030," March 15, 2020, located at https://www.espn.com/nfl/story/_/id/28906786/nfl-players-approve-new-cba-2030.

62 *Id.*

63 David Aldridge, "NBA, NBPA reach tentative seven-year CBA agreement," Dec. 14, 2016, located at <https://www.nba.com/article/2016/12/14/nba-and-nbpa-reach-tentative-labor-deal>. The details of how the percentage can change from 49 to 51% is not relevant for our purposes.

64 Greg Wyshynski, "NHL players will be paid final 3 checks through end of season," March 13, 2020, located at <https://abcnews.go.com/Sports/nhl-players-paid-final-checks-end-season/story?id=69591265>. The NHL currently does have a unique system that escrows a percentage (currently 14%) of players' salaries against projected revenues, with the possibility that some of the money be 'returned' to the respective owner to get both sides to 50/50, although that resolution in Spring 2020 may be different in the wake of COVID-19.

65 To be sure, the definition of "sports-related revenue" is different for each of the three sports, and open to (at times bare-knuckled) negotiation in each one. But the principle of enhanced revenues helps both groups is common to all three.

66 Discrepancies between the nominal amounts in the various league CBAs and the amount calculated here reflect payments to injured players.

67 Andrew Zimbalist, "Reflections on Salary Shares and Salary Caps" in Circling the Bases: Essays on the Challenges and Prospects of the Sports

Industry, Temple Univ. Press (2011), at 96. The 57% number includes minor league salaries, which total about 6%.

68 Benjamin Baumer and Andrew Zimbalist, The Sabermetric Revolution: Assessing the Growth of Analytics in Baseball, UPenn (2014) at 1-22. James was not the first 'sabermetrician'; he built directly on the work of (among others) Pete Palmer and Craig Wright. But it goes back even further: Henry Chadwick essentially invented the box score; Brooklyn GM Branch Rickey (at the same time he was (re)-integrating the game with Jackie Robinson) hired Allan Roth to glean new statistics; Harold Richman invented the "Strat-o-Matic" baseball game; and Earl Weaver used index cards filled with stats on individual hitter-on-pitcher matchups. See generally, Alan Schwarz, The Numbers Game: Baseball's Long Fascination with Statistics, Thomas Dunne (2004).

69 Mark L. Amour & Daniel R. Levitt, In Pursuit of Pennants: Baseball Operations from Deadball to Moneyball, Univ. of Nebraska (2015), at 352-53.

70 Shifting has been one of the most visible indications of the application of sabermetrics. "Between 2010 and 2017, the number of infield shifts by [MLB] teams increased by a factor of 10." Russell A. Carleton, The Shift: The Next Evolution in Baseball Thinking, Triumph (2018), at 144.

71 It seems a long way from baseball in the 1930s and 1940s: then, superstitions were the 'analytics' of elite baseball. "Satch [Paige] avoided black cats and broken mirrors. He never once in his life walked under a ladder." Joe Posnanski, The Soul of Baseball: A Road Trip Through Buck O'Neil's America, Morrow (2007), at 145. Today's analytics is more like a high-frequency trading program, shaving pennies off the price of a stock.

72 See, e.g., Vincent Gennaro, Diamond Dollars: The Economics of Winning in Baseball, Maple Street (2007), at 69-91.

73 <https://baseballwithr.wordpress.com/2017/05/08/what-age-do-baseball-players-peak/>

74 In the 2018-19 winter, two top-line pitchers—former Cy Young Award winner Dallas Keuchel (31 years old) and seven-time All-Star Craig Kimbrel (30 years old)—were free agents, but neither was signed until the 2019 season had commenced, and at salaries that were lower than many pundits expected.

75 Jon Tayler, "Baseball's Power Surge," in Baseball America 2020 Almanac, at 8.

76 Hitting a baseball is often said to be the hardest thing to do in all of sports. As Hall of Famer Willie Stargell once said, "They give you a round bat and they throw you a round ball and they tell you to hit it square."

77 Michael Rand, "Vision can give players competitive advantage," Minn. Star-Tribune (Jun 22, 2017), accessed at <https://www.startribune.com/vision-can-give-players-competitive-edge/430250083/>. The average MLB hitter's vision is 20/12, two lines better than 20/20 on a standard eye chart.

78 Ken Powtak, "J.D. Martinez and his BP iPad No Longer a Laughing Matter," Associated Press (July 14, 2018), accessed at <https://www.boston.com/sports/boston-red-sox/2018/07/14/j-d-martinez-and-his-bp-ipad-no-longer-a-laughing-matter>

79 Andy McCullough, "Dodgers Hitting Coach Revitalized J.D. Martinez's Swing Despite Lack of MLB Credentials," L.A. Times (Mar. 22, 2019), accessed at <https://www.latimes.com/sports/dodgers/la-sp-jd-martinez-robert-van-scoyoc-20190322-story.html> "Launch angle" describes the angle of the ball as it leaves the bat; with pitchers having the advantage of getting hitters out, hitters have responded by trying to lift the ball out of the ballpark, which is an uncatchable result. Ben Lindbergh & Travis Sawchik, The MVP Machine: How Baseball's New Nonconformists are using Data to Build Better Players, Basic (2019), at 213.

80 Mike Fast, "What the Heck is PITCHf/x?," in The Hardball Times Annual 2010, p. 5, accessed at <http://baseball.physics.illinois.edu/>

FastPFXGuide.pdf.

81 Lindbergh & Sawchik, MVP Machine, at 60. A lower-cost solution (for amateurs) attaches a sensor to the knob of the bat, providing much of the same information on a smart phone. See <https://blastmotion.com/> or <https://diamondkinectics.com/>

82 It should be noted that there is some evidence that MLB is trying to help hitters via a ball that flies further. Throughout its history, baseball has contended with theories of a “juiced ball.” For instance, it is widely considered that around 1920, in response to Babe Ruth’s popularity (and his then-MLB record of 29 homeruns in 1919); “[r]easoning that if one Babe Ruth could fill a park, 16 would fill all the parks, the owners instructed the manufacturers to produce a livelier ball ... [but n]one of these devices produced another Ruth, of course, because Ruth was one of a kind.” Red Smith, “One of a Kind,” in Strawberries in the Wintertime (Quadrangle/New York Times Books (1974)), at 9. The current evidence is that the ball since 2017, the ball has had a slightly higher coefficient of restitution (i.e., bounciness), slightly lower seam height, and slightly smaller circumference, which result in about 7 feet further flight. Ben Lindbergh and Mitchel Litchman, “The Juiced Ball is Back,” The Ringer (Jun 14, 2017), accessed at <https://www.theringer.com/2017/6/14/16044264/2017-mlb-home-run-spike-juiced-ball-testing-reveal-155cd21108bc>. MLB has denied any intentional change, but the two AAA leagues (International and Pacific Coast), who began using the MLB ball in 2019, saw their respective homeruns jump by 57.5% (from 3,652 to 5,752.) Josh Norris, “Home Runs, Looming PBA Pockmark Minor Leagues,” Baseball America 2020 Almanac, at 369.

83 Jeff Passan, The Arm: Inside the Billion-Dollar Mystery of the Most Valuable Commodity in Sports, HarperCollins (2016), at 295-97.

84 Michael Clair, “Are pitchers really throwing harder than ever?” Aug. 29, 2018, accessed at <https://www.mlb.com/cut4/are-pitchers-really-throwing-harder-than-ever-c292153594>

85 Id.

86 Press Release, U.S. Dep’t of Commerce Sci. & Tech., Eminent Scientist Reports How Far a Baseball Curves (Mar. 29, 1959), <https://www.nist.gov/news-events/news/1959/03/eminient-scientist-reports-how-far-baseballcurves>.

87 Mike Fast, “What the Heck is PITCHf/x?”, in The Hardball Times Annual 2010, p. 1, accessed at <http://baseball.physics.illinois.edu/FastP-FXGuide.pdf>

88 Spin Rate: What We Know Now, Driveline Baseball (Nov. 17, 2016), <https://www.drivelinebaseball.com/2016/11/spin-rate-what-we-know-now>. Curveballs move thanks to a ratio of both backspin and transverse spin (i.e., side spin).

89 <https://www.edgertronic.com/our-cameras/sc1>

90 Which is not to say the tools are cheap. The Rapsodo ranges from \$4-5,000. <https://rapsodo.com/product-category/diamond-sports/?category=diamond-sports>. The entry-level Edgertronic retails for \$6,500. <https://www.edgertronic.com/our-cameras/sc1>. But a \$10-12,000 investment is well within the range of a major college Division I program, or other similar high-end baseball training facility.

91 Lindbergh & Sawchik, MVP Machine, at 109.

92 He was subsequently traded to the Cincinnati Reds.

93 Lindbergh & Sawchik, MVP Machine, at 109-110.

94 <https://www.baseball-reference.com/register/player.fcgi?id=bryant001kri>

95 Evan Drellich, “After Kris Bryant loses landmark grievance, players may push to change service-time system,” The Athletic (Feb. 3, 2020), located at <https://theathletic.com/1579879/2020/02/03/after-kris-bryant-loses-landmark-grievance-players-may-push-to-change-service-time-system/>

96 <https://www.baseball-reference.com/players/g/guerrv102.shtml>. In fairness, Bryant and Guerrero are both position players; teams are less likely to holdback pitchers because their futures – in light of statistics that show 50% of pitchers on the injured list in a given year – are far less predictable. Passan, The Arm, at 3. It should be noted that the MLB owners have at least shown some awareness of the playing time issue; in the initial agreement between the owners and players relating to COVID-19, signed in March, 2020, granted a full year of service for MLB players during the 2020 season, regardless of how many games ultimately get played. Ken Rosenthal, “MLB and players’ union making progress toward service-time resolution,” The Athletic, Mar. 24, 2020, accessed at <https://theathletic.com/1699559/2020/03/25/rosenthal-mlb-and-players-union-making-progress-toward-service-time-resolution/>