
ESSAY

BASEBALL'S MORAL HAZARD:

LAW, ECONOMICS, AND THE DESIGNATED HITTER RULE

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No subject prompts greater disagreement among baseball fans than the designated hitter rule, which allows teams to designate a player to hit for the pitcher. The rule increases the number of hit batsmen, and some have suggested this effect is a result of “moral hazard,” which recognizes that persons insured against risk are more likely to engage in dangerous behavior. Because American League pitchers do not bat, they allegedly are not deterred by the full cost of making risky, inside pitches – namely, retribution during their next at bat. Using a law-and-economics approach, this Article concludes that the designated hitter rule creates some moral hazard, but finds that recent structural changes to the game have largely overshadowed this effect. Moreover, the benefits of the rule – including increased offense and attendance – likely outweigh its costs in the American League. This is not necessarily true in the National League, however, due to differences in fan preferences. Thus, the current hybrid system (in which the American League allows designated hitters while the National League does not) best effectuates these fan preferences, maximizing social welfare.

INTRODUCTION

For decades, Americans have vigorously debated baseball's designated hitter rule, which allows teams to designate a player to hit in place of the pitcher.¹ The American League's adoption of the rule in 1973 represents a watershed moment for baseball, one of the most controversial rule changes in the history of the game. Indeed, “[p]robably not since the Roman Catholic

¹ Major League Baseball Rule 6.10(b) (2010) (“A hitter may be designated to bat for the starting pitcher and all subsequent pitchers in any game without otherwise affecting the status of the pitcher(s) in the game.”).

Church switched from Latin to English Masses has any break with tradition caused more vigorous argument in this country.”²

Strong opinions exist on both sides of the debate. Proponents argue the rule brings much-needed offense to baseball, eliminating tedious managerial decisions that resemble “a chess game for the terminally bored.”³ They contend fans “don’t enjoy watching pitchers at the plate, flailing away like kids trying to bust a *pinata*, making a mockery of the delicate art and precise science of striking a baseball.”⁴ Opponents counter that the rule eliminates managerial strategy, turning baseball “into something as predictable and monotonous as a violin recital at Carnegie Hall.”⁵ Particularly among fans in the National League, which has refused to adopt the rule, designated hitters “have earned approximately the same nationwide affection as acid rain, toxic waste and George Steinbrenner.”⁶ Summarizing these divergent opinions, columnist George Vecsey simply notes, “[s]ome fans love the rule; some hate it.”⁷

But is there something more sinister going on? The *New York Times* recently suggested that the designated hitter rule increases the number of batters hit by pitches in the American League.⁸ The article attributed this effect to “moral hazard,” the economic theory that persons insured against risk are more likely to engage in dangerous behavior.⁹ Because American League

² William Leggett, *The Lights Go On Again*, SPORTS ILLUSTRATED, Apr. 9, 1973, at 24, 26; see also Jim Murray, *It’s About Time That Baseball Plays Its Wild Card*, L.A. TIMES, Oct. 20, 1983, Part III, at 1 (“The designated-hitter rule has caused a schism in baseball’s religion, as serious a breach in the dogma as an argument over the soul. I mean, can a designated hitter go to heaven?”).

³ Scott Ostler, *Going to Bat for the Designated Hitter*, L.A. TIMES, Dec. 4, 1984, Part III, at 3; see also Todd E. Fandell, *Baseball’s Blues: The ‘National Pastime’ Fights Lagging Interest With Array of Changes*, WALL ST. J., Apr. 7, 1969, at 1.

⁴ Ostler, *supra* note 3.

⁵ Jim Murray, *New Thoughts on the Grand Old Game*, L.A. TIMES, Feb. 20, 1983, Part III, at 1; see also Red Smith, *Loathsome Ploy: D.H.*, N.Y. TIMES, Aug. 18, 1980, at C6 (“With the corruption called designated hitter, the balance is destroyed, the challenge to the manager eliminated. He pinch hits for the pitcher every time around, and it costs him nothing. National League managers have to think; American Leaguers don’t . . .”).

⁶ Ostler, *supra* note 3; see also Stephen Cannella & Jeff Pearlman, *Inside Baseball: DH Dilemma*, SPORTS ILLUSTRATED, July 19, 1999, at 68, 68 (quoting former Cardinals and Pirates outfielder Andy Van Slyke as saying, “It seems like Satan has thrown the DH into our game.”).

⁷ George Vecsey, *The Designated Hitter Rule is Unfair to Don Baylor*, N.Y. TIMES, Oct. 19, 1986, § 5, at 3.

⁸ Daniel H. Pink, *The Designated Hitter as Moral Hazard*, N.Y. TIMES, Dec. 12, 2004, § 6 (Magazine), at 63 (summarizing a January 2004 study by economist John Charles Bradbury and mathematician Douglas Drinen).

⁹ *Id.*; see generally John M. Marshall, *Moral Hazard*, 66 AM. ECON. REV. 880 (1976) (reviewing the traditional view of moral hazard and critiquing aspects of that view); Mark

pitchers do not bat, they allegedly are not deterred by the full cost of making risky, inside pitches – namely, the possibility of retribution during their next at bat.¹⁰ In other words, “[j]ust as a homeowner who has fire insurance is more likely to risk smoking in bed, . . . so, too, a pitcher who has a designated hitter batting in his stead is more likely to risk plunking an opposing player.”¹¹ Several economists have tested this theory in recent years, but a definitive answer has proved elusive.¹²

This Article uses a law-and-economics approach to analyze whether the designated hitter rule actually produces a moral hazard effect. Economic analysis of the law relies on empirical results and economic theory to determine whether existing rules provide proper incentives for private actors to engage in socially optimal behavior.¹³ In this sense, baseball and law and economics are an ideal pairing because “[b]aseball supplies a natural experimental laboratory for testing bedrock economic theories about how changes in the rules of the game affect human behavior.”¹⁴

V. Pauly, *The Economics of Moral Hazard: Comment*, 58 AM. ECON. REV. 531 (1968) (suggesting traditional economic tools can analyze moral hazard issues); Steven Shavell, *On Moral Hazard and Insurance*, 93 Q.J. ECON. 541 (1979) (discussing how insurers can adjust for moral hazard if they have more information about how people react to it).

¹⁰ See Pink, *supra* note 8 (“A.L. pitchers who hit a batter with a pitch never have to face retaliation in the form of a 95-mile-an-hour fastball to the ribs.”).

¹¹ *Id.*

¹² Compare Brian L. Goff, William F. Shughart II & Robert D. Tollison, *Moral Hazard and the Effects of the Designated Hitter Rule Revisited*, 36 ECON. INQUIRY 688, 688-89 (1998) (concluding that moral hazard is the most plausible explanation for the hit-by-pitch disparity between the American and National Leagues), with Gregory A. Trandel, *Hit By Pitches: Moral Hazard, Cost-Benefit, Retaliation, or Lack of Evidence?*, 5 J. SPORTS ECON. 87, 91 (2004) (finding “no significant correlation between the extent to which a team’s pitchers hit opposing batters during a given year and the extent to which that team’s batters are themselves hit”).

¹³ See, e.g., Charles K. Rowley, *Public Choice and the Economic Analysis of Law*, in LAW AND ECONOMICS 123, 125 (Nicholas Mercuro ed., 1989) (explaining that economic analysis of the law generally involves “the application of economics theory and econometric methods to examine the formation, structure, processes and impact of law and legal institutions”).

¹⁴ Goff, Shughart & Tollison, *supra* note 12, at 691; see also Trandel, *supra* note 12, at 87. Given that rules in baseball tend to mirror other laws in society, it is not surprising that legal scholarship frequently turns to baseball to illustrate the effect of legal rules. See, e.g., Craig F. Arcella, Note, *Major League Baseball’s Disempowered Commissioner: Judicial Ramifications of the 1994 Restructuring*, 97 COLUM. L. REV. 2420, 2422-23 (1997) (observing that baseball has received unusual treatment by the judiciary, but suggesting that changes towards “a corporate-style governance system” will lead to increased judicial scrutiny of league action); Jason Micah Ross, Note, “Baseball Litigation”: A New Calculus for Awarding Damages in Tort Trials, 78 TEX. L. REV. 439, 439 (1999) (suggesting that a form of negotiation used for professional baseball salary disputes could be used as a model to reform tort litigation); Aside, *The Common Law Origins of the Infield Fly Rule*, 123 U.

In addition to examining whether the designated hitter rule creates moral hazard, we ask a second, normative question: on balance, does the designated hitter rule promote conduct that is socially optimal for baseball and its fans? Part I of this Article examines the history of the designated hitter rule since the American League implemented it in 1973. This history shows the rule dramatically increased offense, and fulfilled the goal of bringing more fans to American League ballparks. The National League has refused to adopt a similar rule, however, causing an asymmetry between the two leagues that has persisted for nearly four decades.

Part II of this Article examines the designated hitter rule through the lens of moral hazard theory. Moral hazard exists when individuals are inadequately deterred from engaging in risky behavior because they do not bear the full cost of their actions. Empirical research demonstrates that the higher number of hit batsmen in the American League is partially (but not exclusively) the result of moral hazard. Interestingly, our research also demonstrates that recent structural changes to the game – including league expansion and adoption of the “double warning” rule in both leagues – have overshadowed the designated hitter rule’s moral hazard effect to some extent.

Finally, Part III of this Article examines other costs and benefits of the designated hitter rule. Our analysis shows the benefits of the American League’s designated hitter rule likely outweigh its costs, including any moral hazard effect. We note, however, that the cost-benefit analysis varies between the two leagues, due to differences in fan preferences. The current hybrid system (in which the American League allows designated hitters while the National League does not) best reflects these differences in fan preferences. Thus, we ultimately conclude that American and National League fans should agree to disagree on the designated hitter rule, and should celebrate and enjoy the unique rules, history, and culture of each league.

I. HISTORY OF THE DESIGNATED HITTER RULE

The American League implemented the designated hitter rule in 1973, with the goal of increasing offense and attendance. Pitchers had dominated baseball during the late 1960s and early 1970s, leading to low-scoring ball games and decreased attendance.¹⁵ To address these problems, Major League Baseball experimented with various rule changes, including adoption of the designated hitter rule in the American League.¹⁶ Despite increased offense and attendance in the American League, however, the National League refused to adopt a similar rule.¹⁷

PA. L. REV. 1474, 1480-81 (1975) (“The dynamics of the common law and the development of one of the most important technical rules of baseball, although on the surface completely different in outlook and philosophy, share significant elements.”).

¹⁵ See *infra* Part I.A.

¹⁶ See *infra* Part I.B.

¹⁷ See *infra* Part I.C.

A. *Dominant Pitching and Decreased Attendance Create a Favorable Climate for Changing the Rules*

The designated hitter rule is rooted in pitching prowess and empty stadiums. In the early 1960s, the hitter was at the center of the game, and fans packed the seats to see home runs, not pitching duels.¹⁸ However, over the next decade, pitching and defense dominated,¹⁹ and offenses fell flat.²⁰ Several factors contributed to the strong pitching witnessed through the 1960s and into the 1970s. Perhaps most importantly, some of the all-time greatest pitchers were in their prime during this era, including Sandy Koufax, Bob Gibson, Jim Bunning, Juan Marichal, and Don Drysdale.²¹ During the 1968 season alone (dubbed the “year of the pitcher”), hurlers threw five no-hitters, Denny McLain won thirty-one games, and Bob Gibson threw thirteen shutouts and set a modern-day record with a 1.12 earned run average.²²

Various structural changes gave pitchers an even greater advantage. Major League Baseball enlarged the strike zone after the 1962 season, allowing pitchers ample room to vary the placement of pitches, making them harder to hit.²³ Managers also made greater use of relief pitchers during the 1960s, forcing batters to contend with the different styles and repertoires of multiple pitchers during a single game.²⁴ New, harder to hit pitches were invented, such

¹⁸ G. RICHARD MCKELVEY, *ALL BAT, NO GLOVE: A HISTORY OF THE DESIGNATED HITTER* 6 (2004).

¹⁹ See, e.g., Rex Lardner, *The Pitchers Are Ruining the Game*, N.Y. TIMES, June 16, 1968 (Magazine), at 12 (observing that “[a]ll kinds of records were set” by pitchers during the 1967 baseball season – including 153 shutouts in the American League, 82 games in the National League in which pitchers gave up no more than three hits, and 1189 batters struck out by Cleveland pitchers).

²⁰ See, e.g., Leonard Koppett, *Inertia Still at the Bat: Altering Rules to Aid Offense Resisted Despite Ever-Changing Face of Game*, N.Y. TIMES, Apr. 14, 1968, at S4 (reporting that there were 11.1 runs scored in an average game in 1930, 9.6 runs in 1940, 9.7 runs in 1950, and only 7.5 runs scored during the 1967 season); Lardner, *supra* note 19 (reporting that in 1967, “[o]nly four batters in the American League hit over .300,” and “[t]he league batting average was .236 – the lowest since 1908, when the ball resembled a large marshmallow”).

²¹ MCKELVEY, *supra* note 18, at 10.

²² Joseph Durso, *Gibson is Named Unanimously Cy Young Award Winner in National League*, N.Y. TIMES, Oct. 29, 1968, at 58; Lardner, *supra* note 19; William Leggett, *From Mountain to Molehill*, SPORTS ILLUSTRATED, Mar. 24, 1969, at 22, 23; *New Rules Tough on the Pitchers*, L.A. TIMES, Dec. 5, 1968, at C3.

²³ MCKELVEY, *supra* note 18, at 9 (describing expansion from the old strike zone, “which had been delineated as being from the batter’s armpits to the top of his knees,” to the 1963 strike zone, which encompassed “the top of the batter’s shoulders and the bottom of his knees”).

²⁴ *Id.* at 11; see also Lardner, *supra* note 19.

as the “forkball” and the “slider.”²⁵ Finally, new ballparks were being built around the country on a far larger scale, making home runs significantly more difficult to hit.²⁶

This pitching-friendly atmosphere stifled offense in baseball, directly causing a significant decrease in attendance. In both leagues, the composite batting averages plummeted from .246 in 1963 to .237 by 1968.²⁷ The average number of hits per game also dropped from 7.89 to 6.84 over the same time period.²⁸ In 1968, Carl Yastrzemski of the Boston Red Sox barely eked out a .301 batting average – “the lowest figure to win a batting championship in the history of the game.”²⁹ Not coincidentally, attendance at major league baseball games slumped as well.³⁰ Disgruntled players, fans, and commentators clamored for rule changes to save the nation’s pastime.³¹

B. *Baseball Adopts Various Rule Changes to Increase Offense, Including the Designated Hitter Rule in the American League*

On December 3, 1968, the Major League Baseball Rules Committee met during the annual Winter Baseball Meetings, and considered proposals to

²⁵ MCKELVEY, *supra* note 18, at 12. As Cal Hubbard, the head umpire in the American League, said in 1968, “Facing two pitches, you could guess right half the time. With five, you don’t stand a chance.” Lardner, *supra* note 19.

²⁶ See, e.g., MCKELVEY, *supra* note 18, at 12 (“Older parks, with both their idiosyncrasies and their charm, were being replaced by modern facilities that were similar in design and had been constructed for both baseball and football games.”); William Leggett, *Baseball 1965: Immutable But Changing*, SPORTS ILLUSTRATED, Apr. 19, 1965, at 42, 44; but see Jack Mann, *A Farewell to .300 Hitters*, SPORTS ILLUSTRATED, Sept. 26, 1966, at 42, 52, 55 (arguing that although larger outfields will decrease home runs, they also increase the opportunity for hits).

²⁷ MCKELVEY, *supra* note 18, at 10.

²⁸ *Id.*

²⁹ Leggett, *supra* note 22, at 23. Yastrzemski was the last player to win baseball’s coveted Triple Crown (awarded when a player leads his league in home runs, runs batted in, and batting average, all in the same season), winning that honor in 1967 with 44 home runs, 121 runs batted in, and a .326 batting average. *Baseball at the Break: A Look Back and a Peek Ahead*, N.Y. TIMES, July 15, 2004, at D3.

³⁰ See, e.g., Fandell, *supra* note 3 (“[B]aseball attendance [during 1968] totaled 23.1 million persons, down from 24.3 million in 1967 and 25.2 million in 1966, the peak year. Meantime, pro football, basketball and hockey all have had sizable attendance gains.”). The attendance problem was especially noticeable in the American League. See Joe Gergen, *New AL Image: It Aims to Please*, L.A. TIMES, July 26, 1973, Part III, at 1 (“Only once in the last 18 years has the AL topped the NL attendance, and that was in 1961 when the Americans operated with 10 teams to the Nationals’ eight and Roger Maris chased the ghost of Babe Ruth across the nation’s playing fields.”).

³¹ See, e.g., Arthur Daley, *Sports of the Times: Groping for a Solution*, N.Y. TIMES, July 12, 1968, at 21; Jack Smith, *Out at the Old Dull Ball Game*, L.A. TIMES, Aug. 12, 1968, at C1.

“counteract the dominance of the pitchers” and reinvigorate the offensive side of the game.³² The committee considered several radical ideas, including shortening the distance between the bases, increasing the size of the ball, and alleviating teams’ hectic travel schedules to allow batters more time to rest.³³ It ultimately adopted three rules changes. First, the committee lowered the pitcher’s mound from fifteen inches to ten inches, decreasing the pitcher’s advantage over hitters.³⁴ Second, the committee reduced the strike zone back to its 1950s dimensions.³⁵ Third, umpires would begin enforcing existing rules governing illegal pitches.³⁶

These solutions worked relatively well in the National League, but brought only temporary relief to the American League, where offense began to falter once again in the early 1970s.³⁷ At that time, the National League led the junior circuit significantly in league batting average, home runs, and total

³² George Vecsey, *Baseball Rules Committee Makes 3 Decisions to Produce More Hits and Runs*, N.Y. TIMES, Dec. 4, 1968, at 57; see also *New Rules Tough on Pitchers*, *supra* note 22.

³³ See DAVID QUENTIN VOIGT, *BASEBALL: AN ILLUSTRATED HISTORY* 280 (1987). At the time, there was no shortage of ideas for increasing offense in baseball, from eliminating the force-out, to using one nine-man platoon for offense and a different platoon for defense. Koppett, *supra* note 20. The great Cubs slugger Ernie Banks even suggested that the leagues “[m]ake the pitchers throw the ball underhand, like in softball.” *Banks Has Plan to Help Hitters – Make Pitchers Throw Underhand*, L.A. TIMES, Dec. 15, 1968, at C13.

³⁴ Vecsey, *supra* note 32, at 57 (“Also, all mounds must be sloped gradually so that pitchers will not look as if they are firing from a steep cliff to the batters down below.”); see also *New Rules Tough on the Pitchers*, *supra* note 22. The lower mound provides hitters with a tremendous advantage, “taking away some of the effect gravity has on the fast ball and curve and lessening the pitcher’s psychological domination over the batter.” Lardner, *supra* note 19; but see *Murphy Says Changes Won’t Affect Baseball*, L.A. TIMES, Jan. 2, 1969, at E13 (suggesting that lowering the mound will not affect pitchers). Interestingly, the height of the pitcher’s mound was not standardized until 1949; prior to that year, the rule set a maximum height of 15 inches, but did not set a minimum height. See Daley, *supra* note 31. Before standardization, groundskeepers would change the mound height each day, depending on the pitcher. *Id.* (quoting Kubek as stating, “Bobby Feller came overhand with that blazing fast ball and wicked curve. He liked a high mound and got it.”).

³⁵ MCKELVEY, *supra* note 18, at 14. Previously, the strike zone had “been considered anything between the shoulders and the knees.” Vecsey, *supra* note 32, at 57. The committee reduced the strike zone so that it was “from the tops of the knees to the armpits.” *Id.*; see also *New Rules Tough on the Pitchers*, *supra* note 22 (suggesting that, in addition to shrinking the strike zone, “some pretty broad hints were tossed out [by the committee] that the umpires were a bit too generous in giving pitchers credit for strikes that may have been just a teeny bit wide of the plate, and there’s going to be a crackdown on that”).

³⁶ MCKELVEY, *supra* note 18, at 14. Specifically, under the existing rules, it was “illegal to put spit, Vaseline, emery or most any foreign substance on a baseball,” and “[i]f a pitcher throws a ball with a foreign substance on it, the umpire may eject him from the game.” Vecsey, *supra* note 32.

³⁷ MCKELVEY, *supra* note 18, at 16.

runs.³⁸ As attendance dropped, winds of change once again started blowing in the American League.

American League President Joe Cronin believed that offense brought fans to the stands,³⁹ so he lobbied American League owners to experiment with a designated hitter.⁴⁰ On January 11, 1973, Cronin's lobbying was finally successful, as American League owners voted eight-to-four to try the designated hitter rule on a three-year experimental basis.⁴¹ The National League chose not to join the experiment, voting down the proposed rule change.⁴²

³⁸ See, e.g., Leonard Koppett, *Designated-Hitter Rule Restores Homer Parity*, N.Y. TIMES, Oct. 12, 1975, at 243; William Leggett, *Now Half the Nines Are Tens*, SPORTS ILLUSTRATED, Jan. 22, 1973, at 26, 28.

³⁹ MCKELVEY, *supra* note 18, at 18.

⁴⁰ *Id.* at 44. The idea of replacing the pitcher with a designated hitter had been around for some time. Indeed, an issue of *Sporting Life* in 1906 outlined well-established arguments for and against the concept:

The suggestion, often made, that the pitcher be denied a chance to bat, and a substitute player sent up to him every time, has been brought to life again, and will come up for consideration when the American and National League Committees on rules get together.

This time Connie Mack is credited with having made the suggestion. He argues that a pitcher is usually such a poor hitter that his time at the bat is a farce, and the game would be helped by eliminating him in favor of a better hitter.

Against the change there are many strong points to be made. It is wrong theoretically. It is a cardinal principle of base ball that every member of the team should both field and bat. Instead of taking the pitcher away from the plate, the better remedy would be to teach him how to hit the ball.

Why the Pitcher Ought to Bat, SPORTING LIFE, Feb. 3, 1906, at 4; see also Steve Wulf, *Distinguished History*, SPORTS ILLUSTRATED, Apr. 5, 1993, at 47-48 (chronicling history of proposals to implement a designated hitter rule).

⁴¹ MCKELVEY, *supra* note 18, at 24; see also *AL Votes Trial of Designated Pinch Hit Rule*, L.A. TIMES, Jan. 12, 1973, at D1; Leggett, *supra* note 38, at 27. The minor leagues had successfully experimented with the designated hitter rule. For example, the International League implemented a designated hitter rule during the 1969 season. Leonard Koppett, *New Rules for Pinch-Hitters Will Be Tried in Minor Leagues in 1969 Season*, N.Y. TIMES, Feb. 1, 1969, at 34. The rule change had an immediate effect. “[C]ompared with the previous year, the number of shutouts dropped from 103 to 67, complete games rose from 311 to 362, home runs increased by 16, sacrifice hits decreased by 50 and intentional walks by 51. Run production was up 7%.” William Leggett, *The 10th Man Cometh*, SPORTS ILLUSTRATED, Feb. 5, 1973, at 12, 15. The experiment was a hit with fans as well – according to a survey conducted by the Rochester Red Wings, 59% of fans favored the designated hitter rule, and only 31% opposed it. *Id.*

⁴² Wulf, *supra* note 40, at 48; see also *NL Objections to New Pinch-Hit Rule Cited*, L.A. TIMES, Feb. 3, 1973, at E4 (quoting National League President Chub Feeney's reaction after the American League's adoption of the designated hitter rule: “[W]e do not believe in change for its own sake. . . . We don't think this is a good rule.”); *On Deck in A.L. – dh*, N.Y. TIMES, Apr. 1, 1973, at 248 (“The National League refrained from adopting the rule

C. *The Designated Hitter Rule Increases Offense and Attendance, but the National League Refuses to Go Along*

The American League's bold move created a storm of controversy among loyal baseball fans.⁴³ Despite predictions that the new designated hitter rule would increase offense,⁴⁴ fans and commentators lamented that "the era of the complete athlete" was "on the way out."⁴⁵ The great Ted Williams predicted the designated hitter rule was "the forerunner of other things. More specialists. More substitutions."⁴⁶ National League President Chub Feeney predicted the rule would irreparably harm baseball strategy and deprive fans of dramatic moments in the game.⁴⁷ Players were skeptical for more personal reasons. Orioles pitcher Jim Palmer worried that "[s]itting in the dugout, not going to bat, will make me feel like I'm not part of the game."⁴⁸ Likewise, sluggers were skeptical about remaining in the dugout while their teammates took the field. As Hank Aaron said, "[i]f I strike out with the bases loaded and two out, I want to be able to pick up my glove and try to redeem myself with a big play in the outfield."⁴⁹

because it drew about 4-million more fans than the American last season and prefers the game as is.").

⁴³ This was not necessarily a bad thing for the American League. As Cronin would later point out, "[t]he designated hitter gave us great publicity prior to the season that didn't hurt any." Gergen, *supra* note 30.

⁴⁴ In particular, one computer scientist "ran 50 seasons of baseball through a computer, first in the old-fashioned (or National League) way, then with a designated pinch hitter in place of the pitcher," and predicted that "team batting averages will rise nine points Team on-base average will go up even more, about 12 points, and slugging averages about 22 points." Robert W. Creamer, *Scorecard*, SPORTS ILLUSTRATED, Jan. 22, 1973, at 11, 11.

⁴⁵ Robert W. Creamer, *Scorecard*, SPORTS ILLUSTRATED, Apr. 9, 1973, at 19, 19. *But see* Charles Maher, *Commentary: Baseball Should Adopt Platoons, Use Specialists*, L.A. TIMES, Mar. 19, 1973, Part III, at 1 (arguing that the demand for "the complete player" is "unreasonable" because "[t]here aren't that many complete players around").

⁴⁶ Creamer, *supra* note 45, at 19; *see also* Frederick C. Klein, *On Sports: The Lash of a Dying Breed*, WALL ST. J., June 22, 1983, at 30 ("The rule alters baseball's basic strategy and introduces a type of specialization better left to football.").

⁴⁷ *NL Objections to New Pinch-Hit Rule Cited*, *supra* note 42.

⁴⁸ Leggett, *supra* note 41, at 14. Jim Palmer was not alone. "Rollie Fingers, the spectacular reliever who also hit .316 for Oakland, agrees that 'half the fun of pitching is being able to hit.' Catfish Hunter of the A's is annoyed, too. 'It means I'll have to face another good hitter, and what's good about that?'" *Id.* at 15.

⁴⁹ *Quotebook*, L.A. TIMES, Apr. 10, 1973, at E2; *see also* Cannella & Pearlman, *supra* note 6, at 68 (quoting Chicago White Sox hitter Paul Konerko as saying, "If it's between not playing and DHing, I love DHing. If it's between DHing and first base, they're not even in the same ballpark."); Scott Ostler, *The DH: In Most Cases It Means Disgruntled Hitter*, L.A. TIMES, July 13, 1978, at G1 (quoting Toronto Blue Jays designated hitter Rico Carty as saying, "[Y]oung or old, players don't want to DH. I haven't heard one yet say he likes it. . . . Even if it keeps you in the game, nobody wants to do it."); *id.* (suggesting, tongue-in-cheek, that "[n]ot all DHs despise the job. Some accept it as a temporary affliction that will

Cronin's gamble paid off, however. On April 6, 1973, Ron Blomberg of the New York Yankees became the first designated hitter when he came to the plate and drew a first-inning walk with the bases loaded.⁵⁰ Although the National League derided its American League colleagues for "making a mockery of the game,"⁵¹ the American League experienced a dramatic jump in batting average, runs, and home runs during the first four seasons of play under the designated hitter rule.⁵² The rule had other effects as well. Pitchers threw 33% more complete games, stolen bases increased by 29%, and intentional walks decreased twenty percent.⁵³ The rule clearly restored offensive parity between the American and National Leagues.⁵⁴

This dramatic increase in offense brought fans to American League ballparks.⁵⁵ While only four teams in the American League had drawn more than one million fans in 1971, eight teams bested that same mark in 1973.⁵⁶ Excited by the bolstered offense and attendance, the American League voted to make the designated hitter rule permanent, starting with the 1976 season.⁵⁷

In light of the American League's successful experiment, fans wondered whether the National League would follow suit. The leagues compromised on some issues involving the designated hitter rule. For example, shortly after the American League adopted the rule, the National League allowed its teams to use a designated hitter in spring training during road games against American

go away as soon as the manager comes to his senses and makes someone else the DH, or as soon as a regular fielder breaks a leg.").

⁵⁰ Wulf, *supra* note 40, at 46-47.

⁵¹ VOIGT, *supra* note 33, at 298.

⁵² This increase in American League offense was both sudden and dramatic. *See, e.g.*, Martin Kane, *Scorecard*, SPORTS ILLUSTRATED, June 4, 1973, at 19, 19 ("Some eyebrows have been lifted in recent weeks over the number of homers that are being hit in the American League."); William Leggett, *Off the Bike and Into the Box*, SPORTS ILLUSTRATED, May 7, 1973, at 30, 30-31 ("In three short weeks the DH *has* put more punch and excitement and scoring into the game . . .").

⁵³ Ostler, *supra* note 49.

⁵⁴ *See, e.g.*, Leonard Koppett, *DH Rule Adds Slightly To Average in League*, N.Y. TIMES, July 6, 1975, at 140.

⁵⁵ *E.g.*, Gergen, *supra* note 30; Red Smith, *The 18-Inch World Series*, N.Y. TIMES, Oct. 20, 1974, at 229 ("In 1973, American League attendance increased substantially over 1972. This was hailed in some quarters as proof that the public approved the designated hitter, then in his first year of life."); Wulf, *supra* note 40, at 49.

⁵⁶ MCKELVEY, *supra* note 18, at 42. However, it is worth noting that the National League's attendance did not suffer from its refusal to adopt the designated hitter rule. *See, e.g.*, Editorial, *Strike Three!*, L.A. TIMES, Nov. 27, 1984, at C4 ("National League teams consistently outdraw American League teams at the gate. Fans may say that they would rather see home runs than a pitchers' duel, but they vote differently with their money than with their mouths.").

⁵⁷ BASEBALL ENCYCLOPEDIA: THE COMPLETE AND OFFICIAL RECORD OF MAJOR LEAGUE BASEBALL 2780 (8th ed. 1990).

League teams.⁵⁸ The leagues eventually settled on the “rule of the park” for interleague games (including the World Series), under which the designated hitter is used when games are played in American League ballparks, but not when games are played in National League ballparks.⁵⁹

In 1984, Baseball Commissioner Peter Ueberroth attempted to settle the designated hitter dispute by polling fans, but backed down after polling showed American League fans favored the rule, and National League fans opposed it.⁶⁰ The National League continued to fiercely resist the designated hitter rule.⁶¹ “If anybody thinks ultimately the National League will go to the D.H., they’re living in a fairy land,”⁶² concluded current Commissioner Bud Selig. “That’s not going to happen.”⁶³

⁵⁸ *N.L. to Give DH Rule a Try in Exhibitions*, L.A. TIMES, Feb. 26, 1974, at B4.

⁵⁹ See VOIGT, *supra* note 33, at 380-81 (“The decision naturally evoked critical gibes, including one that likened it to King Solomon’s decision to cut the baby in half.”); see also MCKELVEY, *supra* note 18, at 92, 143-44. The National League initially resisted any use of designated hitters in the World Series. See, e.g., Jim Kaplan, *Some Extra ABs for DHs?*, SPORTS ILLUSTRATED, Aug. 9, 1976, at 48, 48. However, in 1976, Baseball Commissioner Bowie Kuhn used his executive powers to allow the designated hitter rule in the World Series every other year “until the two major leagues reach agreement.” *World Series Gets a Designated Hitter*, L.A. TIMES, Aug. 13, 1976, at C1; see also Leonard Koppett, *World Series Adds dh Rule*, N.Y. TIMES, Aug. 13, 1976, at A15 (calling Kuhn’s decision “the first major playing-rule change to affect the World Series since the competition began in 1903”). Finally, the leagues adopted the rule of the park in 1986, and “the designated hitter was permitted every year in American League parks.” George Vecsey, *Stupid Rule Still Mars World Series*, N.Y. TIMES, Oct. 17, 1993, at S1.

⁶⁰ Dave Anderson, *Memo to Giamatti: Make It One Game, Not Two*, N.Y. TIMES, Apr. 2, 1989, at S13; *Ueberroth to Poll Fans on DH Rule*, L.A. TIMES, Nov. 8, 1984, Part III, at 6. Other polls at the time showed inconsistent support for the designated hitter rule. Compare *D.H. Opposed In N.B.C. Poll*, N.Y. TIMES, July 17, 1985, at B6 (“Fifty-nine percent of the callers disapproved of the designated-hitter rule in a three-hour nationwide telephone poll conducted by NBC during last night’s All-Star Game.”), with Adam Clymer, *Poll: Baseball Fans Side With Owners*, N.Y. TIMES, July 28, 1985, at S1 (“Other key findings from the poll were: Support for the designated-hitter rule by 43 percent of fans, and opposition by 30 percent.”). If anything, these disparate results validate the opinion of those who thought Ueberroth erred by turning to popular opinion to resolve the dispute. After observing that Ueberroth’s “reign as baseball commissioner is already six months old and the wicked designated-hitter rule has not been repealed,” commentator George Will pithily concluded that “[s]ome judgments should be beyond the reach of majorities.” George F. Will, *An April Sunrise Full of Delicious Surprises*, L.A. TIMES, Apr. 11, 1985, at C5.

⁶¹ See, e.g., *Designated Hitter Strikes Out*, L.A. TIMES, Aug. 14, 1980, Part III, at 13; *National League Says No to Designated Hitter*, L.A. TIMES, July 17, 1975, Part III, at 4.

⁶² Murray Chass, *The D.H. is 25 Years Old, But Now the Question is Whether It Will Get to 30*, N.Y. TIMES, Apr. 5, 1998, at SP2.

⁶³ *Id.*

II. EMPIRICAL RESULTS SHOW THE DESIGNATED HITTER RULE CREATES MORAL HAZARD

Two leagues with different rules raises the question: which league is better off? For nearly four decades, Americans have engaged in a spirited debate on the advantages and disadvantages of the designated hitter rule.⁶⁴ This Article primarily focuses on a particular facet of that debate – whether the designated hitter rule creates “moral hazard” by removing pitchers from American League lineups. Moral hazard exists within America’s tort system when individuals are inadequately deterred from engaging in risky behavior because they do not bear the full cost of their actions.⁶⁵ In baseball, the designated hitter rule realigns the cost-benefit analysis of pitching inside, increasing the number of hit batsmen in the American League.⁶⁶ Indeed, several studies demonstrate this increase in hit batsmen is partially – but not exclusively – the result of a moral hazard effect caused by the designated hitter rule.⁶⁷ In recent years, however, the effects of league expansion and the “double warning” rule largely have overshadowed the designated hitter rule’s moral hazard effect, reducing the hit-by-pitch disparity between the American and National Leagues.⁶⁸

A. *The Tort System’s Goal of Deterrence and the Problem of Moral Hazard*

Three policy goals have traditionally justified the tort system in America: deterrence of undesirable conduct, fairness or corrective justice, and compensation of victims.⁶⁹ In comparison, economic analysis focuses primarily on the deterrence goal, which also can be thought of as incentives-

⁶⁴ Compare, e.g., Mike Bonofiglio, *Letters*, SPORTS ILLUSTRATED, Feb. 19, 1996, at 8, 8 (arguing against the designated hitter rule; “[r]ather than using gimmicks to bring in new fans, baseball must concentrate on fans who truly understand the complexities of the game and hope that they will spread baseball’s seed”), and J.D. Nelson, *Letters*, SPORTS ILLUSTRATED, Feb. 19, 1996, at 8, 8 (arguing against the designated hitter rule; “[o]ne of the basic ideas of baseball is that of the complete athlete – one who must play both offense and defense.”), with Ostler, *supra* note 3 (“Pitchers never took their hitting seriously, why should we?”).

⁶⁵ See *infra* Part II.A.

⁶⁶ See *infra* Part II.B.

⁶⁷ See *infra* Part II.C.

⁶⁸ See *infra* Part II.D.

⁶⁹ F. Patrick Hubbard, *The Nature and Impact of the “Tort Reform” Movement*, 35 HOFSTRA L. REV. 437, 445-47 (2006) (outlining the three traditional policy goals of tort law, but remarking that each has “been the subject of extensive debate and disagreement”); Nancy L. Manzer, Note, *1986 Tort Reform Legislation: A Systematic Evaluation of Caps on Damages and Limitations on Joint and Several Liability*, 73 CORNELL L. REV. 628, 638-39 (1988) (“Tort scholars suggest that three of the tort system’s primary objectives are promoting justice, deterring potentially injurious activities, and compensating accident victims.”); see also Donald P. Judges, *Of Rocks and Hard Places: The Value of Risk Choice*, 42 EMORY L.J. 1, 4-7 (1993) (discussing the debate over tort reform in the context of deterrence, fairness, and compensation).

toward-safety.⁷⁰ Tort law pursues the deterrence rationale in two ways. First, requiring an injurer to pay for harm caused by his or her wrongful conduct provides a strong incentive to avoid undertaking that wrongful conduct in the first place.⁷¹ Second, “even where no wrongdoing is involved, imposing liability for accident costs provides an incentive to reduce injuries not currently preventable by due care by lowering the level of activity, or by seeking innovations that result in new, more cost-effective safety measures.”⁷²

As an initial matter, it is important to note that not all injuries can or even should be deterred. Rather, economists and lawmakers should attempt to maximize social welfare, which involves making tradeoffs between benefits and costs.⁷³ Thus, behavior that is beneficial may be enjoyed even if there is some social cost or possibility of injury as long as the benefit outweighs that cost.⁷⁴ Deterrence of risky or dangerous activity is achieved by ensuring that the cost of an action – i.e., the liability that will be imposed if the actor causes injury – is high enough to ensure that only those who obtain more utility from the action than the harm created will engage in the action.⁷⁵

⁷⁰ See STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW 268 (2004) (explaining that economic analysis views the role of tort law as serving the goal of deterrence, because the compensation function of law can be achieved in other manners, namely through insurance); see also W. KIP VISCUSI, REFORMING PRODUCTS LIABILITY 89-94 (1991) (arguing that “tort liability ideally should address situations in which there is believed to be some shortcoming of the market” for insurance, “either because of a lack of voluntary trade or a failure to fully appreciate the risks that are present”).

⁷¹ Hubbard, *supra* note 69, at 445.

⁷² *Id.* at 445-46.

⁷³ See, e.g., Matthew D. Adler & Eric A. Posner, *Introduction to Symposium, Cost-Benefit Analysis: Legal, Economic, and Philosophical Perspectives*, 29 J. LEGAL STUD. 837, 837 (2000); Carl J. Circo, *Does Sustainability Require a New Theory of Property Rights?*, 58 U. KAN. L. REV. 91, 113-14 (2009). See generally Steve P. Calandrillo, *Responsible Regulation: A Sensible Cost-Benefit, Risk Versus Risk Approach to Federal Health and Safety Regulation*, 81 B.U. L. REV. 957 (2001) (discussing how best to efficiently design safety regulations).

⁷⁴ See, e.g., Mark A. Geistfeld, *Social Value as a Policy-Based Limitation of the Ordinary Duty to Exercise Reasonable Care*, 44 WAKE FOREST L. REV. 899, 904 (2009); Richard H. Seeburger, Book Review, 50 U. PITT. L. REV. 1091, 1091 (1989) (reviewing WILLIAM M. LANDES & RICHARD A. POSNER, ECONOMIC STRUCTURE OF TORT LAW (1987)).

⁷⁵ Professor Shavell provides an illustrative example, in which he examines three different levels of care (no care, moderate care, or high care) that an injurer could take to prevent accident losses valued at 100. SHAVELL, *supra* note 70, at 179. First, if the injurer exercises no care, the cost of care is 0, the probability of accident is 15%, and thus the expected accident losses are 15 (because there is a 15% probability that a harm of 100 will occur). In this scenario, the total social cost of the injurer exercising no care is 15 (cost of care of 0 plus expected accident losses of 15). Second, if the injurer exercises a moderate level of care, the cost of care is 3, the probability of accident is 10%, and the expected accident losses are 10. The total social cost of moderate care is 13 (cost of care of 3 plus expected accident losses of 10). Third, if the injurer exercises a high level of care, the cost

However, individuals are often risk averse and do not wish to bear the full costs of their conduct.⁷⁶ Loosely defined, a risk-averse individual is “one who, starting from a position of certainty, is unwilling to take a bet which is actuarially fair.”⁷⁷ In other words, “[a] risk-averse person would pay to avoid a risk, such as one involving a 50 percent chance of losing \$1,000 and a 50 percent chance of winning \$1,000.”⁷⁸ Injurers who are risk averse will purchase liability insurance to protect themselves from the potential costs of liability.⁷⁹

At first blush, allowing the purchase of insurance appears to create the ideal situation – the victim receives compensation for her injuries, while the injurer is protected from paying the full cost of the liability by virtue of having purchased the insurance. But the existence of insurance may itself influence the incentives of injurers to avoid accidents, and may increase the probability that harm will occur.⁸⁰ Once an injurer has insured against a particular risk, she may become less careful about avoiding the risk because she has already paid all that she will have to pay by purchasing the insurance up front.

This problem is commonly known in the field of law and economics as “moral hazard,” defined as “the tendency for an insured party to take less care to avoid an insured loss than the party would have taken if the loss had not been insured, or even to act intentionally to bring about that loss.”⁸¹ A moral

of care is 6, the probability of accident is 8%, and the expected accident losses are 8. The total social cost of high care is 14 (cost of care of 6 plus expected accident losses of 8). Thus, the socially optimal level of care is moderate, not high, because the total cost of moderate care is 13 and the cost of high care is 14. As this hypothetical shows, “the optimal level of care may well not result in the lowest possible level of expected accident losses.”
Id.

⁷⁶ See, e.g., James W. Henderson & J. Allen Seward, *Risk Aversion and Overcompensation From the Risk Free Discount Rate*, 8 J. LEGAL ECON. 25, 28 (1998); Diane Klein, *Distorted Reasoning: Gender, Risk-Aversion and Negligence Law*, 30 SUFFOLK U. L. REV. 629, 655 (1997).

⁷⁷ KENNETH J. ARROW, *ESSAYS IN THE THEORY OF RISK-BEARING* 90 (1974).

⁷⁸ SHAVELL, *supra* note 70, at 258.

⁷⁹ See, e.g., Stephen G. Gilles, *The Judgment-Proof Society*, 63 WASH. & LEE L. REV. 603, 669 (2006); Peter Siegelman, *Adverse Selection in Insurance Markets: An Exaggerated Threat*, 113 YALE L.J. 1223, 1265 (2004).

⁸⁰ SHAVELL, *supra* note 70, at 261; see also Tom Baker, *On the Genealogy of Moral Hazard*, 75 TEX. L. REV. 237, 239 (1996).

⁸¹ Jacob Loshin, *Insurance Law's Hapless Busybody: A Case Against the Insurable Interest Requirement*, 117 YALE L.J. 474, 506 (2007) (citing KENNETH S. ABRAHAM, *INSURANCE LAW AND REGULATION* 201 (4th ed. 2005)). Notable scholarship on the concept of moral hazard is voluminous. See generally Kenneth J. Arrow, *The Economics of Moral Hazard: Further Comment*, 58 AM. ECON. REV. 537 (1968) (proposing that “an insurance company can improve the allocation of resources to all concerned by a policy which rations the amount of medical services it will support under the insurance policy”); Kenneth J. Arrow, *Uncertainty and the Welfare Economics of Medical Care*, 53 AM. ECON. REV. 941 (1963) (discussing how moral hazard affects the medical insurance market); Baker, *supra*

hazard is more than a mere psychological or ethical risk; it is a significant hazard that would influence the conduct of a reasonable person, causing them to “suffer less by a destruction of the property than would ordinarily be the case.”⁸²

When a moral hazard exists, an insured party is less likely to avoid a risk because she knows that she will not bear the full cost of it materializing.⁸³ This decrease in risk-averse behavior causes a corresponding increase in total costs to society, working against the deterrence goal of tort law.⁸⁴ An insured

note 80 (“[I]nvestigating the genealogy of moral hazard.”); Eric D. Beal, *Posner and Moral Hazard*, 7 CONN. INS. L.J. 81 (2000) (theorizing that “insurance organizations are also subject to the effects of moral hazard”); Marshall, *supra* note 9 (defining moral hazard as “any misallocation of resources which results when risks are insured with normal insurance contracts and only with such contracts”); Mark V. Pauly, *Overinsurance and Public Provision of Insurance: The Roles of Moral Hazard and Adverse Selection*, 88 Q.J. ECON. 44 (1974) (analyzing the effects of the unequal distribution of information in insurance markets); Pauly, *supra* note 9 (finding that “the problem of ‘moral hazard’ in insurance has, in fact, little to do with morality, but can be analyzed with orthodox economic tools”); Shavell, *supra* note 9, at 541 (exploring “partial solutions to the problem of moral hazard[,]” including “incomplete coverage against loss and . . . ‘observation’ by the insurer of the care taken to prevent loss”); Richard Zeckhauser, *Medical Insurance: A Case Study of the Tradeoff Between Risk Spreading and Appropriate Incentives*, 2 J. ECON. THEORY 10 (1970) (offering a “medical insurance model” that “illustrates the importance in any insurance plan of the tradeoff between risk spreading and incentives”).

⁸² Dayna Bowen Matthew, *The Moral Hazard Problem with Privatization of Public Enforcement: The Case of Pharmaceutical Fraud*, 40 U. MICH. J.L. REFORM 281, 299 n.63 (2007) (quoting LEE R. RUSS & THOMAS F. SEGALLA, COUCH ON INSURANCE § 81:98 (3d ed. 2005)). It is worth noting that not all insurance leads to moral hazard. In instances where an insurance company can observe the level of care taken by a purchaser of insurance, the company can reduce the premiums to reflect the risk reduction that appropriate care creates. SHAVELL, *supra* note 70, at 262; *see also* Muhammad Masum Billah, *Economic Analysis of Limitation of Shipowners’ Liability*, 19 U.S.F. MAR. L.J. 297, 312 (2007) (“[I]nsurers are able, by and large, to check the problem of moral hazard or under-deterrence through various strategies such as partial coverage, deductibles, and differentiating premium rates based on past loss experience.”).

⁸³ Matthew, *supra* note 82, at 298-99. As an illustrative example, some scholars have noted that Federal Deposit Insurance Corporation (“FDIC”) insurance, which protects depositors against up to \$250,000 in losses, creates a moral hazard effect by allowing banks to shift losses to innocent third parties. *See, e.g.*, José Gabilondo, *Financial Moral Panic! Sarbanes-Oxley, Financier Folk Devils, and Off-Balance-Sheet Arrangements*, 36 SETON HALL L. REV. 781, 828 n.185 (2006); Jonathan R. Macey & Maureen O’Hara, *Solving the Corporate Governance Problems of Banks: A Proposal*, 120 BANKING L.J. 326, 328-30 (2003) (identifying the moral hazard inherent in the FDIC model); Charles K. Whitehead, *Reframing Financial Regulation*, 90 B.U. L. REV. 1, 14-15 (2010) (illustrating the FDIC hypothesis).

⁸⁴ *See* Paul Halpern et al., *An Economic Analysis of Limited Liability in Corporation Law*, 30 U. TORONTO L.J. 117, 145 (1980). Moral hazard likely undermines the other traditional goals of tort law as well. *See, e.g.*, Timothy P. Glynn, *Beyond “Unlimiting”*

property owner who exercises reduced care over her covered property illustrates a common example of the moral hazard problem.⁸⁵ For instance, when a car owner has theft insurance she may be more likely to leave her car unlocked or to park it in a high crime area.⁸⁶ This same car owner would likely exercise greater care to prevent the theft of her car if she had to pay for the full loss of the car personally.⁸⁷ The moral hazard created by the existence of her automobile insurance causes the car owner to exercise suboptimal caution in the use and protection of her car.⁸⁸

In sum, economic analysis attempts to align legal rules so that individuals have proper incentives to exercise an optimal level of care. However, the likelihood that risk-averse individuals will insure themselves against risk creates the potential for moral hazard.

B. *The Designated Hitter Rule Realigns the Cost-Benefit Analysis of Pitching Inside, Increasing Hit Batsmen*

Since the adoption of the designated hitter rule, players, fans, and commentators have suggested that the rule may create a moral hazard effect.⁸⁹ Some have argued that the rule creates moral hazard because American League pitchers are not deterred by the full cost of making risky, inside pitches – namely, the possibility of retribution during their next at bat.⁹⁰ Others have

Shareholder Liability: Vicarious Tort Liability for Corporate Officers, 57 VAND. L. REV. 329, 375 (2004).

⁸⁵ Matthew, *supra* note 82, at 299.

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ See, e.g., *A.L. Pitchers to Toss More Beanballs?*, L.A. TIMES, Jan. 28, 1973, Part III, at 10 (“There is a feeling that under the provisions of the designated pinch-hitter rule, [pitchers] will now be more dangerous.”); Leggett, *supra* note 38, at 35 (“A man can show a ton of courage if he is able to knock hitters down without fear of finding something stuck in his own ear.”); Ross Newhan, *Beanball War? Designated Hitter Rule Could Bring More Brushback Pitches*, L.A. TIMES, Mar. 7, 1973, Part III, at 1 (“Since American League pitchers no longer have to expose their own heads to retaliation, it is suspected they will not think twice about decking an opposing batter.”); William C. Rhoden, *To Discourage Scrapping on the Field, Scrap the Designated Hitter Rule*, N.Y. TIMES, Oct. 13, 2003, at D2 (calling the designated hitter rule “a coward’s rule that allows American League pitchers to intimidate batters, brush them back and hit them without fear of retaliation”); Neil A. Rube, Letter to the Editor, *Cutting at the Core*, N.Y. TIMES, Nov. 8, 1987, at S11 (“[T]he rule eliminates the deterrent effect of a pitcher’s fear of retaliation for brushing back or striking opposing batters with a pitch.”).

⁹⁰ As Hank Aaron said a month before the rule went into effect: “What does a pitcher have to worry about? That league is going to wind up with a bunch of headhunters.” Newhan, *supra* note 89. Cubs third baseman Ron Santo agreed, noting that, under the designated hitter rule, the pitcher “doesn’t have to come to the plate and take his medicine.” *Id.*

argued that the moral hazard effect of the designated hitter rule is greatly overstated, because retribution can (and does) occur against the offending team's best hitter.⁹¹

In order to analyze whether the designated hitter rule creates a moral hazard effect in the American League, we first must understand the costs and benefits involved. A pitcher accidentally hitting a batter is properly conceptualized as a "bilateral" accident situation, because "the expected accident loss is a function of both the injurer's and the victim's care."⁹² Both the injurer (the pitcher) and the victim (the batter) may take steps to prevent the accident from occurring. To avoid hitting the batter, the pitcher can throw more slowly,⁹³ aim for the center or outside of the plate,⁹⁴ and avoid throwing curve balls or split-finger fastballs that might get away from him.⁹⁵ On the other hand, the batter can stand further from the plate and "dig in" less to avoid being hit by an inside pitch.⁹⁶ But in the end it is primarily the pitcher's ability and responsibility to avoid hitting the batter.⁹⁷

⁹¹ As Mets' pitcher Jerry Koosman noted in 1973, "90 per cent of retaliation is aimed not at the offending pitcher but at the most dangerous hitter. If I lay one on their best hitter, you can bet they'll come back at our best hitter. That stops it right there." *Id.* Hall of Fame pitcher Jim Palmer agreed, stating that if American League pitchers get too aggressive, "[b]oth sides will get hurt" and "[n]o manager is going to stand for it," even if there is not direct retaliation against the pitcher. *Id.*

⁹² Giuseppe Dari-Mattiacci & Nuno Garoupa, *Least-Cost Avoidance: The Tragedy of Common Safety*, 25 J.L. ECON. & ORG. 235, 236 (2009); see generally Dhammika Dharmapala & Sandra A. Hoffmann, *Bilateral Accidents with Intrinsically Interdependent Costs of Precaution*, 34 J. LEGAL STUD. 239 (2005) (discussing a bilateral harm model). In contrast, under a "unilateral" accident model, "[o]nly injurers' exercise of care or precautions affects accident risks; victims' behavior does not." SHAVELL, *supra* note 70, at 178.

⁹³ For many pitchers, there is an inverse relationship between velocity and control. See, e.g., Henry Schulman, *Less Velocity Means More Control for Cain*, S.F. CHRON., May 8, 2008, at D5 (stating that San Francisco pitcher Matt Cain "appears to be learning how to subtract a few miles an hour off his fastball to gain control"); Jeremy Greenhouse, *Crowding the Plate*, BASEBALL ANALYSTS (Dec. 10, 2009), http://baseballanalysts.com/archives/2009/12/crowdingthe_pl.php (observing that "[b]reaking balls and 100 MPH heaters are not located as well as 90 MPH fastballs").

⁹⁴ This admittedly is not always a desirable option, especially considering the conventional wisdom that "[i]f you don't pitch inside on elite hitters, you might as well put the ball on a tee for them." Tom Haudricourt, *Location Issues on Beanballs*, MILWAUKEE J. SENTINEL, Aug. 8, 2009, available at <http://www.jsonline.com/sports/52694377.html>.

⁹⁵ Curve balls deceive batters because "[t]he curve is smooth, but batters see the ball as if it is going straight and then suddenly changes direction . . ." *Behind the Curve*, NEW SCIENTIST, June 6, 2009, at 7, 7. Split-finger fastballs deceive hitters because pitchers use the same arm action as a fastball, but the pitch drops. Peter Gammons, *By Any Name, It's Hard to Hit*, SPORTS ILLUSTRATED, Oct. 23, 1989, at 38, 38.

⁹⁶ See Brian L. Goff, William F. Shughart II & Robert D. Tollison, *Batter Up! Moral Hazard and the Effects of the Designated Hitter Rule on Hit Batsmen*, 35 ECON. INQUIRY

When deciding whether to throw a pitch that is high and inside (and thus more likely to hit the batter), the pitcher faces a cost-benefit analysis.⁹⁸ The primary benefit of throwing inside or even hitting a batter is that it lowers the probability that the opposing team will score runs.⁹⁹ Intentionally hitting a batter makes him more reluctant to lean close to the plate, reducing his effectiveness against pitches that are low and outside and curve balls that appear to be inside the plate.¹⁰⁰ It also discourages batters from digging in, reducing their batting power.¹⁰¹ A second type of benefit is retaliation. Pitchers might choose to intentionally hit a batter in order to retaliate against beanballs thrown by the opposing pitcher in a previous inning, or to exact revenge for prior home runs by the other team.¹⁰²

Pitchers weigh these benefits against several costs associated with hitting a batter. First, hitting a batter automatically puts him on base and advances any runner already on first base.¹⁰³ Second, the opposing pitcher may retaliate for the hit batter by throwing at the offending pitcher's teammates.¹⁰⁴ Third, the

555, 556 (1997). Hitters "dig in" by scuffing the dirt for better footing. New York Yankee shortstop Derek Jeter is a classic example of a batter who "digs in" and leans very close over the plate. See, e.g., Editorial, *Jeter Does It*, DAILY NEWS (N.Y.), Sept. 12, 2009, at 20.

⁹⁷ See Major League Baseball Rule 8.02(d) (2010) (stating that if the umpire believes the pitcher has intentionally hit the batter with a pitched ball the umpire may eject the pitcher from the game).

⁹⁸ Of course, this cost-benefit analysis is highly situational. Pitchers are less likely to hit batters in close games, when runners are on base, and when there are fewer outs. See John Charles Bradbury & Douglas J. Drinen, *Crime and Punishment in Major League Baseball: The Case of the Designated Hitter and Hit Batters*, 45 ECON. INQUIRY 131, 136 (2007); Goff, Shughart & Tollison, *supra* note 96, at 556.

⁹⁹ See Goff, Shughart & Tollison, *supra* note 96, at 556. In addition to sending a message to the hitter and his teammates, pitchers may choose to intentionally hit batters in order to prevent extra-base hits. See Bradbury & Drinen, *supra* note 98, at 134 (stating that hitting a batter prevents that batter "from hitting the ball, which might generate more runs than simple base advancement").

¹⁰⁰ Goff, Shughart & Tollison, *supra* note 96, at 556; see also Bradbury & Drinen, *supra* note 98, at 134.

¹⁰¹ Goff, Shughart & Tollison, *supra* note 96, at 556. Indeed, "pitchers who gloat about their control of the inside part of home plate usually explain that this is necessary for success." *Id.* at 556 n.3.

¹⁰² See *id.* at 556 (identifying retaliation as it occurs in baseball); Bradbury & Drinen, *supra* note 98, at 134 (stating that "inflicting injury on a competitor" is the benefit of retaliation).

¹⁰³ Bradbury & Drinen, *supra* note 98, at 134; Goff, Shughart & Tollison, *supra* note 96, at 556. One should note that the cost of putting a runner on first is not uniform for all batters in the opposing team's lineup. In particular, "[t]his cost is greater when a weak batter (one who is relatively unlikely to reach base on his own) is hit." Trandel, *supra* note 12, at 89.

¹⁰⁴ Bradbury & Drinen, *supra* note 98, at 134; Goff, Shughart & Tollison, *supra* note 96, at 556.

offending pitcher and his manager may be ejected from the game and fined if the umpire believes the pitcher intentionally hit the batter.¹⁰⁵ Finally, the offending pitcher may subject himself to direct retaliation (and possible injury) during his next at bat.¹⁰⁶

A pitcher's assessment of this last cost is crucial to the moral hazard theory addressed in this Article. Having been replaced in the lineup by designated hitters, American League pitchers theoretically would be more likely to engage in risky behavior – i.e., throwing high and inside without fear of direct, physical retaliation (unless the batter charges the mound).¹⁰⁷ If the designated hitter rule has indeed created a moral hazard effect, there should be a corresponding shift in the cost-benefit analysis on the mound, which would presumably lead to a significant increase in hit batsmen in the American League, relative to the National League.

Interestingly, that is exactly what happened. After the American League adopted the designated hitter rule in 1973, the number of hit batsmen increased dramatically. On average, American League pitchers are approximately 10-15% more likely to hit batters than their National League counterparts, representing an additional forty-four to fifty hit batsmen per season.¹⁰⁸ By

¹⁰⁵ John Charles Bradbury & Douglas Drinen, *The Designated Hitter, Moral Hazard, and Hit Batters: New Evidence From Game-Level Data*, 7 J. SPORTS ECON. 319, 322 (2006) (stating that this rule is relatively new, established in 1994). Under the rules, when an umpire believes the pitcher has intentionally hit a batter, he may elect to expel the pitcher, or the pitcher and the manager, from the game or “may warn the pitcher and the manager of both teams that another such pitch will result in the immediate expulsion of that pitcher (or a replacement) and the manager.” Major League Baseball Rule 8.02(d) (2010). Additionally, the comment to this rule states that “pitch[ing] at a batter’s head is unsportsmanlike and highly dangerous. It should be – and is – condemned by everybody. Umpires should act without hesitation in enforcement of this rule.” *Id.*

¹⁰⁶ Bradbury & Drinen, *supra* note 98, at 134; Goff, Shughart & Tollison, *supra* note 96, at 556.

¹⁰⁷ Statistics on charging the mound are not available, but such altercations are often a result of hits (or near hits) by pitches. See, e.g., *Brawling Breaks Out in Beantown*, HOUSTON CHRON., Aug. 12, 2009, Sports, at 4 (“Boston third baseman Kevin Youkilis charged the mound Tuesday after he was hit by a pitch, tackling Detroit pitcher Rick Porcello as both benches and bullpens cleared.”); *Fracas Mars White Sox-Royals Game*, WASH. POST, Aug. 4, 2008, at E6 (“Miguel Olivo charged the mound after being hit by a pitch from D.J. Carrasco in the fifth inning yesterday in Kansas City, Mo., touching off a benches-clearing brawl between the White Sox and Royals.”); see also Bradbury & Drinen, *supra* note 98, at 134 (noting that the costs of hitting a batter include “physical retaliation via assault”).

¹⁰⁸ Goff, Shughart & Tollison, *supra* note 96, at 558 (studying statistics between the rule’s introduction in 1973 and 1990); see also Bradbury & Drinen, *supra* note 105, at 319 (stating that the NL “has averaged a hit batter rate 15% lower than the AL since the introduction of the DH”); Gregory A. Trandel, Lawrence H. White & Peter G. Klein, *The Effect of the Designated Hitter Rule On Hit Batsmen: Pitcher’s Moral Hazard or the Team’s Cost-Benefit Calculation? A Comment*, 36 ECON. INQUIRY 679, 683 (1998) (“[T]he AL hit

2004, the National League hit-batter rate had exceeded the American League only four times out of thirty-one seasons.¹⁰⁹

C. *Moral Hazard Likely Explains Some (but Not All) of the American League's Increase in Hit Batsmen*

The noticeable increase in hit batsmen in the American League prompted several economists to study and debate the designated hitter rule.¹¹⁰ In 1997, economists Brian Goff, William Shughart and Robert Tollison released a groundbreaking study, examining whether the American League's increase in hit batsmen reflected a moral hazard effect.¹¹¹ They controlled for several alternative variables that might account for some of the difference in hit-by-pitch statistics between the two leagues, including pitcher control and ability, hitter ability, degree of competitiveness of games, the amount of reliance on relief pitching, and the financial rewards of winning.¹¹² The results showed "American League pitchers became much more willing to throw at batters after the DH rule went into effect," creating "a classic moral hazard problem."¹¹³

This theory did not go unchallenged, however, and economists have offered several alternative explanations for the increase in hit batsmen in the American League. First, a "batter composition" theory suggests that there are simply more batters worth hitting in an American League game because talented

batsman rate exceeds the NL rate by 7.5 per 10,000 at bats. Given the average . . . of about 60 plunks per 10,000 at bats, this indicates that the DH rule led the AL hit batsmen rate to exceed the NL rate by about 12% . . .").

¹⁰⁹ Bradbury & Drinen, *supra* note 105, at 319. A study of the 1975 adoption of the designated hitter rule in Japan's Pacific League shows a similar effect. See Akihiko Kawaura & Sumner J. La Croix, *Baseball in Japan and North America: Same Game, Same Rules, Same Results?*, in INTERNATIONAL SPORTS ECONOMICS COMPARISONS 265, 268-70 (Rodney Fort & John Fizek eds., 2004).

¹¹⁰ See generally Bradbury & Drinen, *supra* note 98; Bradbury & Drinen, *supra* note 105; Goff, Shughart & Tollison, *supra* note 96; Goff, Shughart & Tollison, *supra* note 12; Steven D. Levitt, *The Hazards of Moral Hazard: Comment on Goff, Shughart, and Tollison*, 36 ECON. INQUIRY 685 (1998); E. Frank Stephenson, *A New Test for Moral Hazard and Hit Batsmen*, 32 ATLANTIC ECON. J. 360 (2004); Trandel, *supra* note 12; Trandel, White & Klein, *supra* note 108.

¹¹¹ Goff, Shughart & Tollison, *supra* note 96, at 555-61. The study analyzed data on the number of American and National League batters hit by pitches each year from 1901 through 1990, normalized by the number of at bats in each league during a given year. *Id.* at 557-58.

¹¹² *Id.* at 559 (listing the variables they controlled for).

¹¹³ *Id.* at 555, 561. The study also examined the sub-periods 1920-1990 and 1947-1990 to take account of changes to the game, particularly the outlawing of "spitball" pitches in 1920, and changes following World War II, including racial integration. *Id.* at 558. Goff, Shughart and Tollison ultimately concluded that the effect of the designated hitter rule was statistically significant in each time frame. *Id.*

sluggers have replaced weak-hitting pitchers in the lineup.¹¹⁴ Economists Gregory Trandel, Lawrence White, and Peter Klein argue that the net benefits of hitting a designated hitter are far greater than those of hitting the pitcher he replaced.¹¹⁵ Teams have little incentive to hit a weak-hitting pitcher,¹¹⁶ which puts the pitcher on base and sacrifices a likely out.¹¹⁷ As economist Steven Levitt notes, “[w]ith the adoption of the designated hitter rule, pitchers are replaced at the plate by designated hitters who are far more effective batters and therefore more likely to be hit batsmen.”¹¹⁸ As a result, “the aggregate increase in hit batsmen in the AL over the NL may be attributed to increased rewards rather than the lowered punishment for hitting batters.”¹¹⁹

Statistics support this theory. Designated hitters are hit at about 110% of the rate of other batters, while pitchers are hit only about 40% as often as other batters.¹²⁰ This difference alone likely causes a 4-5% increase in hit batters in the American League,¹²¹ and may account for more than 80% of the hit-by-pitch disparity between the two leagues.¹²²

¹¹⁴ Levitt, *supra* note 110, at 685; Trandel, White & Klein, *supra* note 108, at 683.

¹¹⁵ See Trandel, White & Klein, *supra* note 108, at 679 (“A less costly form of retaliation is to plunk the opponent’s best hitter, a batter far more likely to create runs for his team if pitched to normally.”).

¹¹⁶ The futility of pitchers at the plate is legendary. See, e.g., Steve Dolan, *To Pitchers, Batting is Hit-or-Miss Endeavor – Mostly Miss*, L.A. TIMES, Apr. 23, 1982, at SD B1 (noting that “everybody knows that pitchers can’t hit”); Leggett, *supra* note 38, at 15 (quoting Detroit Tigers scout Jack Tighe as saying, “[w]hen a pitcher comes to bat nowadays, the fans go out to the hot-dog stands”); Ostler, *supra* note 3 (“Personally, I would rather watch Reggie Jackson hit than Tommy John. Pitchers never took their hitting seriously, why should we?”); see also Bradbury & Drinen, *supra* note 105, at 320 (“Almost always, pitchers are poor hitters who represent easy outs.”); Levitt, *supra* note 110, at 686 (noting that “[p]itchers’ slugging percentages are less than half as great as other batters”).

¹¹⁷ See, e.g., Bradbury & Drinen, *supra* note 105, at 320 (“The punishment for hitting a batter is to advance the hit batter to first base, making the opposing team extra careful not to hit pitchers.”); Trandel, White & Klein, *supra* note 108, at 679 (“A National League team that plunked the opposing pitcher (in retaliation for his throwing at one of its players) would be putting the opposing team’s weakest hitter on base, sacrificing a very likely out.”).

¹¹⁸ Levitt, *supra* note 110, at 685; see also Bradbury & Drinen, *supra* note 105, at 320 (“[T]he hit batsmen differential between the leagues could also be the consequence of changing the composition of the batting orders in the AL by adding a batter whom pitchers are more willing to risk hitting.”). Levitt has since come to enjoy enormous popular acclaim as the author of *Freakonomics*, one of the most widely read books of this decade, in which he and his co-author, Stephen Dubner, deftly use economic theory to explain a myriad of everyday puzzles. See generally STEVEN D. LEVITT & STEPHEN J. DUBNER, *FREAKONOMICS* (2005).

¹¹⁹ Bradbury & Drinen, *supra* note 98, at 133.

¹²⁰ Trandel, White & Klein, *supra* note 108, at 680; see also Levitt, *supra* note 110, at 685.

¹²¹ Trandel, White & Klein, *supra* note 108, at 680. Because designated hitters receive approximately 1/9 of American League at bats, their increased hit rate (over the average

Second, economists have argued that a turn at the plate for pitchers has very little (if any) deterrent effect, because pitchers are rarely the victims of direct retaliation. As Professor Levitt points out, “[f]or the moral hazard story to be empirically relevant, one would expect that pitchers who hit opposing batters must actually be punished.”¹²³ And yet pitchers are approximately “55% less likely to be hit than other batters.”¹²⁴ For example, from 1993 to 1996, less than thirteen pitchers were hit per year, representing only 2% of the total number of hit batters.¹²⁵ Perhaps most telling, “even if every pitcher hit by a pitch was hit in retaliation, punishment would be administered only one in every fifty times a pitcher hits an opposing player.”¹²⁶

Third, there appears to be no correlation between the number of batters an individual pitcher hits and the number of times that pitcher is himself hit by a pitch.¹²⁷ “If retaliation is the motivation for hitting pitchers when at bat, as predicted by the moral hazard model, then there should be a positive correlation between those two variables.”¹²⁸ Instead, the opposite appears to be true. For whatever reason, pitchers who hit opposing batters the most are hit less frequently than pitchers who hit batters the least, leading Professor Levitt to conclude there “is little evidence to support a retaliation motive to pitchers being struck by pitches, undermining the moral hazard argument.”¹²⁹

batter) likely accounts for 1% of the difference in hit batsmen between the leagues. *Id.* Because pitchers receive 6-7% fewer at bats than the average hitter (almost certainly the result of pinch hitters substituting for pitchers in National League lineups), their decreased hit rate (compared with the average batter) likely accounts for 3-4% of the disparity in hit-by-pitch numbers. *Id.* “Combining these two factors implies that having a DH bat rather than a pitcher (independent of any moral hazard effect) should cause the AL hit batsmen rate to exceed the NL rate by 4%-5%.” *Id.*

¹²² Levitt, *supra* note 110, at 685. Examining data from 1993-1996, Professor Levitt found that, “[e]xcluding pitchers, National League batters are hit by a pitch once every 115.4 at bats and American League batters are hit every 114.5 at bats, suggesting little if any moral hazard once compositional differences are eliminated.” *Id.*

¹²³ Levitt, *supra* note 110, at 687.

¹²⁴ Bradbury & Drinen, *supra* note 98, at 136.

¹²⁵ Levitt, *supra* note 110, at 687; *see also* Trandel, White & Klein, *supra* note 108, at 680 (examining hit-by-pitch injuries between 1950 and 1984, and finding that “only three of 48 cases (from regular-season games in which a pitcher batted) involved injury to a pitcher” (citing BILL JAMES, THE BILL JAMES BASEBALL ABSTRACT 131-40 (1987))).

¹²⁶ Levitt, *supra* note 110, at 687.

¹²⁷ *Id.*; *see also* Trandel, *supra* note 12, at 91.

¹²⁸ Levitt, *supra* note 110, at 686.

¹²⁹ *Id.* at 687. To investigate this relationship, Professor Levitt divided pitchers into four groups based on the number of times the pitcher hit a batter. He discovered that pitchers who hit opposing batsmen the least were themselves hit 0.00078 times per inning pitched. *Id.* Interestingly, pitchers who hit opposing batters the most (six times as frequently as the group that hit batters the least) were hit only 0.00057 times per inning pitched. *Id.*

These alternative explanations show that moral hazard theory does not explain all of the hit-by-pitch disparity between the two leagues. However, two recent studies by economist John Charles Bradbury and mathematician Douglas Drinen confirm that some moral hazard effect does indeed exist.¹³⁰ Unlike prior studies, which used yearly aggregate statistics for the two leagues, Bradbury and Drinen used game-level data, which allowed them to “examine the costs and benefits of hitting any particular batter at the time the pitcher chooses a pitch.”¹³¹ The results support both the moral hazard and batter composition theories.¹³² Noting that the American League has experienced 15% more hit batsmen than the National League,¹³³ Bradbury and Drinen controlled for several variables – including batter quality.¹³⁴ Even after controlling for these variables, the designated hitter rule still increases the likelihood of a batter being hit by nearly 8%.¹³⁵ In other words, moral hazard

¹³⁰ Bradbury & Drinen, *supra* note 98, at 131 (finding “that pitchers hit batters strategically” and there was a “deterrent impact” from requiring pitchers to bat); Bradbury & Drinen, *supra* note 105, at 319 (concluding that moral hazard accounts for about half of the differences between hit batsmen in the two leagues).

¹³¹ Bradbury & Drinen, *supra* note 98, at 133. The previous reliance on aggregate data is problematic because it merely reveals “a quantity hit without regard to different situations where strategic incentives vary.” *Id.* As Bradbury and Drinen note, “[a] retaliatory flurry of beanball pitches in a single game may be lost in a 162-game season [and] . . . yearly statistics can mask the costs and benefits involved in hitting batters at any point in time.” Bradbury & Drinen, *supra* note 105, at 321-22. By looking at game-level data, Bradbury and Drinen were able to “control for in-game strategic incentives for hitting batters.” Bradbury & Drinen, *supra* note 98, at 132.

¹³² Bradbury & Drinen, *supra* note 105, at 324.

¹³³ *Id.* at 325 (analyzing over the entire history of the DH). This number is based on statistics from the 1973-2003 seasons. *See id.* at 323, 325; *see also* Bradbury & Drinen, *supra* note 98, at 136 (concluding that game-level data from the 1989-1992 seasons showed that “[w]hen the DH is in effect pitchers are 15%-17% more likely to hit batters than when the DH is not in effect”).

¹³⁴ Bradbury & Drinen, *supra* note 105, at 323-24. Bradbury and Drinen controlled for batter quality using seasonal runs scored per game for each team. *Id.* at 323 (“Because we use game data, not individual players, we only need the seasonal runs scored per game for the team to measure team-hitting ability.”). Additionally, because pitchers often hit batters accidentally, the study controlled for pitcher quality with two variables: seasonal average runs allowed per game (to control for poor overall pitching), and seasonal average walks per game (to control for wild pitches). *Id.* at 323-24. To discern a retaliatory motive on the part of pitchers, Bradbury and Drinen included two variables that might provoke pitchers to hit batters in retaliation: the number of batters hit by the opposing team’s pitchers in that game, and the number of home runs hit in the game by the opposing team. *Id.* at 324. Finally, they controlled for the difference in the game’s score. *Id.*

¹³⁵ *Id.* at 325.

likely explains about half of the difference in the number of hit batsmen between the leagues.¹³⁶

Recent studies also have found evidence of retaliation. First, statistics show teammate retaliation is a common response to hit batsmen. When a batter is hit, the odds that the offending team's batters will be hit during the game increase by 10-15%.¹³⁷ Batters are 32% more likely to be hit if they come to the plate following a home run.¹³⁸ Second, although pitchers are less likely to be hit than other batters, that fact alone does not disprove the existence of direct retaliation against pitchers. As Bradbury and Drinen point out, "it is possible that pitchers may be hit more than they ought to be, given their hitting abilities."¹³⁹ The evidence supports this notion. In particular, "a pitcher is four times more likely to be hit when an opposing player was hit in the previous half-inning."¹⁴⁰ Thus, recent studies using game-level data show that moral hazard likely explains some (but not all) of the hit-by-pitch disparity between the American and National Leagues.

D. *League Expansion and the Double Warning Rule Mask the Designated Hitter Rule's Moral Hazard Effect*

Although the designated hitter rule likely causes moral hazard, this effect has been masked in recent years by a dramatic change in hit-by-pitch rates. Starting in 1993, "the number of batters hit by pitches soared in both leagues."¹⁴¹

Additionally, the disparity in hit batsmen between the leagues began to narrow, and in 1994 the National League had more hit batsmen than the American League for the first time in the history of the designated hitter rule.¹⁴² From 1994 through 2000, the National League had more hit batsmen

¹³⁶ *Id.* at 325-26. Although Bradbury and Drinen identify moral hazard as the "most plausible explanation for this difference," they also provide a caveat to this conclusion, noting that "it is possible that some yet unidentified factors unique to the AL may explain the sign and significance of the [difference in hit-by-pitch numbers] For example, differences in strike zones, stadium configurations, league traditions, etc. between leagues are competing but less satisfying explanations." Bradbury & Drinen, *supra* note 98, at 137.

¹³⁷ Bradbury & Drinen, *supra* note 105, at 326.

¹³⁸ Bradbury & Drinen, *supra* note 98, at 136.

¹³⁹ *Id.* at 134 (emphasis added).

¹⁴⁰ *Id.* at 137. Bradbury and Drinen note that "[t]his is a phenomenon previously unidentified in the aggregate data" used in prior studies. *Id.*

¹⁴¹ Goff, Shughart & Tollison, *supra* note 12, at 689.

¹⁴² See, e.g., Bradbury & Drinen, *supra* note 98, at 141; Bradbury & Drinen, *supra* note 105, at 320; Goff, Shughart & Tollison, *supra* note 12, at 689 (noting that the National League had more hit batsmen than the American League in 1994, 1995, and 1997, representing "a watershed in the time series of inter-league differences"); Levitt, *supra* note 110, at 686; Trandel, White & Klein, *supra* note 108, at 682.

than the American League four times, casting doubt on the theory that the designated hitter rule creates moral hazard.¹⁴³

Two structural changes may have (inadvertently) caused this realignment in hit-by-pitch rates. First, National League expansion in the 1990s led to an asymmetrical dilution of league talent.¹⁴⁴ In 1993, the National League added two new teams.¹⁴⁵ In 1998, each league added one new team, and the Milwaukee Brewers moved from the American League to the National League.¹⁴⁶ As a result, expansion led to four additional National League teams, while having no net effect on the number of American League teams. The 1993 expansion draft rules also allowed American League teams to protect more players, “causing the NL to take on more of the burden of new fringe players who are more apt to hit batters and be hit by pitches.”¹⁴⁷ Thus, the effects of expansion (namely, an unusually high number of batsmen hit by inexperienced National League pitchers) likely masked the designated hitter rule’s moral hazard effect to some extent for much of the 1990s.

Second, Major League Baseball’s 1994 adoption of the “double-warning rule” in both leagues appears to have had an unintended effect on hit-by-pitch rates.¹⁴⁸ Under this rule, the umpire warns both teams if he believes a pitcher has hit a batter intentionally.¹⁴⁹ If a retaliatory hit follows this warning, the offending pitcher and his manager are immediately ejected.¹⁵⁰ Ironically, implementation of the double warning rule probably led to a significant increase in hit batsmen in the National League, because pitchers in both

¹⁴³ Bradbury & Drinen, *supra* note 105, at 320-21 (commenting that with the new parity in hit-by-pitch numbers between the leagues, “it appeared the moral hazard hypothesis might not be correct,” which “call[ed] into question whether the sustained difference of the preceding 20 years was real or simply a statistical run regressing to the mean”).

¹⁴⁴ *See id.* at 322; Bradbury & Drinen, *supra* note 98, at 141-42; Goff, Shughart & Tollison, *supra* note 12, at 690-91.

¹⁴⁵ The two new teams were the Colorado Rockies and the Florida Marlins. *See* Bruce Weber, *Warmup Pitches*, N.Y. TIMES, Oct. 11, 1992, at V10 (discussing efforts to draw attention to teams, and sell merchandise, before the teams’ first games).

¹⁴⁶ The National League added the Arizona Diamondbacks, the American League added the Tampa Bay Devil Rays. *See, e.g.*, Murray Chass, *Brewers Cleared to Shift to N.L. Central in ‘98*, N.Y. TIMES, Nov. 6, 1997, at C8; Murray Chass, *A Higher Level: Expansion Teams Are Seeking a Rapid Rise to the Top*, N.Y. TIMES, Oct. 26, 1997, at SP8.

¹⁴⁷ Bradbury and Drinen, *supra* note 105, at 322; *see also* Bradbury & Drinen, *supra* note 98, at 142 (observing that “the expansion diluted the talent pool of both leagues but affected NL rosters to a greater degree than AL rosters”); Goff, Shughart & Tollison, *supra* note 12, at 690-91.

¹⁴⁸ *See, e.g.*, Bradbury & Drinen, *supra* note 105, at 322.

¹⁴⁹ Major League Baseball Rule 8.02(d) (2010) (“If, in the umpire’s judgment, [a pitcher intentionally pitches at the batter], the umpire . . . may warn the pitcher and the manager of both teams that another such pitch will result in the immediate expulsion of that pitcher (or a replacement) and the manager.”).

¹⁵⁰ *Id.*; *see also* Bradbury & Drinen, *supra* note 105, at 322.

leagues now have “one free hit” before both sides are warned.¹⁵¹ As a result, in recent years National League pitchers have acted like American League pitchers, and a moral hazard effect now exists in both leagues.¹⁵²

The convergence in hit-by-pitch statistics in recent years does not disprove the designated hitter rule’s moral hazard effect. Instead, the dramatic increase in hit batters in both leagues, caused by league expansion and the double warning rule, appears to have largely overshadowed the moral hazard effect of the designated hitter rule.¹⁵³ However, moral hazard remains a very real consequence of the designated hitter rule, even though it does not explain the entire hit-by-pitch disparity between the leagues and has been masked by structural changes to the game.

III. BENEFITS OF THE DESIGNATED HITTER RULE OUTWEIGH ITS COSTS, INCLUDING MORAL HAZARD

Although studies show the designated hitter rule is partly to blame for the increase in hit batsmen in the American League,¹⁵⁴ this is not the end of our economic analysis. Like almost every rule or law, the designated hitter rule has both costs and benefits. Even if moral hazard is a disadvantage of the rule, an additional question remains: do the benefits of the designated hitter rule outweigh its costs, including any moral hazard effect?

We conclude that the benefits of the designated hitter rule likely outweigh its costs (at least for American League fans), for several reasons.¹⁵⁵ First, the designated hitter rule has significantly increased offense and attendance in the American League.¹⁵⁶ Second, the rule prolongs the careers of popular players and allows gradual recovery from injury.¹⁵⁷ Third, although the designated

¹⁵¹ See Bradbury & Drinen, *supra* note 98, at 142; Bradbury & Drinen, *supra* note 105, at 322. *But see* Leland S. MacPhail, Jr., *Lee MacPhail on Brush-Back Wars: Some Attitudes Will Have to Change*, N.Y. TIMES, Aug. 31, 1980, at S2 (disputing the notion that warning both teams allows “a free shot,” and opining that “[t]he alternative would be to also give the second team ‘a free shot’ and run the risk of a player’s being hurt”).

¹⁵² See Bradbury & Drinen, *supra* note 105, at 322. Interestingly, Japan’s two professional baseball leagues experienced a similar effect after increasing the penalties for hitting batters. Bradbury & Drinen, *supra* note 98, at 142-43 (citing Kawaura & La Croix, *supra* note 109).

¹⁵³ Goff, Shughart & Tollison, *supra* note 12, at 690.

¹⁵⁴ See *supra* Part II.C-D.

¹⁵⁵ This sentence is particularly difficult to write for one of the authors, who fancies himself a National League fan and has been openly hostile to the designated hitter rule for years. For the other author, who has been a life-long American League fan, this represents the type of “I told you so” moment that is normally reserved for a late-inning rally. That said, both authors view the designated hitter rule debate as far from over. In the years to come, we encourage others to contribute meaningfully to the debate by weighing additional advantages and disadvantages of the designated hitter rule.

¹⁵⁶ See *infra* Part III.A.

¹⁵⁷ See *infra* Part III.B.

hitter rule alters managerial strategy, it does not eliminate it.¹⁵⁸ Fourth, the costs associated with hit batsmen and bench-clearing brawls do not appear to outweigh the rule's benefits.¹⁵⁹

Our research shows, however, that this cost-benefit analysis will vary somewhat between the American League and National League, due to differences in fan preferences.¹⁶⁰ Although a vigorous debate on the designated hitter rule is good for the game, we strongly believe that baseball fans ultimately should celebrate the different characteristics of each league. Thus, our conclusion that the benefits of the designated hitter rule outweigh its costs in the American League does not necessarily support the adoption of the rule in the National League. Rather, pitchers should continue to hit in the National League as long as the cost-benefit analysis in that league weighs against adoption of the rule.¹⁶¹

A. *The Designated Hitter Rule Has Increased Offense and Attendance in the American League*

The primary benefit of the designated hitter rule is that it has significantly increased offense and attendance in the American League. Prior to the implementation of the rule, the American League's offense was anemic compared to the National League.¹⁶² For example, in 1972 the American League hit 184 fewer home runs and scored 824 fewer runs than the National League.¹⁶³ The American League's batting average was also nine points lower.¹⁶⁴ This lack of offense translated into fewer sales at the box office.¹⁶⁵ During the 1971 season alone, the National League outdrew the American League by nearly 5,500,000 fans, and between 1955 and 1972, the American League had higher attendance than the National League only once.¹⁶⁶

¹⁵⁸ See *infra* Part III.C.

¹⁵⁹ See *infra* Part III.D.

¹⁶⁰ See *infra* Part III.E.

¹⁶¹ See *id.*

¹⁶² See, e.g., Leggett, *supra* note 38, at 28.

¹⁶³ Koppett, *supra* note 38 (comparing the leagues prior to the introduction of the designated hitter in the American League).

¹⁶⁴ Leggett, *supra* note 38, at 28.

¹⁶⁵ See, e.g., Leggett, *supra* note 38, at 28 ("Since 1963 the National has outdrawn the American by more than 30 million paying customers . . ."); Wulf, *supra* note 40, at 48 (observing that in the early 1970s "[t]he NL, riding the wave of its new artificial-turf stadiums, had only three teams with less than one million in attendance, while the AL had only three teams with more than one million").

¹⁶⁶ Gergen, *supra* note 30. The only season during this time period in which the American League outdrew the National League at the turnstiles was 1961, "when the Americans operated with 10 teams to the Nationals' eight and Roger Maris chased the ghost of Babe Ruth across the nation's playing fields." *Id.*

This disparity between the two leagues changed dramatically after the American League adopted the designated hitter rule. During the first four seasons after implementation of the rule, the American League averaged 1640 more runs, 202 more home runs, and nineteen more points in batting average, compared with the 1972 season.¹⁶⁷ Indeed, the American League has led the National League in overall batting average every year since adoption of the rule.¹⁶⁸ At the box office, the designated hitter rule allowed the American League to close “the attendance gap” with the National League.¹⁶⁹ As previously noted, only four American League teams drew more than one million fans in 1971,¹⁷⁰ but in 1973 eight teams managed to draw that many fans.¹⁷¹

More recent studies have confirmed that the increased offense generated by the designated hitter rule has likely drawn thousands of fans to the ballpark.¹⁷² Economists Bruce Domazlicky and Peter Kerr found that American League fans respond positively to increased offense, and that an estimated 2211 additional fans per opening¹⁷³ can be attributed to the designated hitter rule.¹⁷⁴

¹⁶⁷ In 1972 (the season immediately preceding the adoption of the designated hitter rule), American League batters scored 6441 runs, hit 1175 home runs, and had a .239 batting average. Ostler, *supra* note 49. In comparison, in the first four seasons after adoption of the designated hitter rule, AL batters maintained a .258 batting average, scored an average of 8081 runs per season, and slugged 1377 home runs each year. *Id.* But see Koppett, *supra* note 38 (“[A]ll the available measures indicate that the drastically different rules do not have a very great effect.”); Tony Kornheiser, *Sports World Specials*, N.Y. TIMES, Feb. 13, 1978, at C2 (arguing that the designated hitter rule makes only a slight difference in offensive statistics).

¹⁶⁸ League by League Batting Average, BASEBALL ALMANAC, <http://www.baseball-almanac.com/hitting/hibavg4.shtml> (last visited Jul. 16, 2010); see also Ray Corio, *Question Box*, N.Y. TIMES, Apr. 24, 1989, at C11 (commenting that the designated hitter rule has “been worth roughly 6 to 40 percentage points [in batting average], according to American League statistics”); Wulf, *supra* note 40, at 49.

¹⁶⁹ Gergen, *supra* note 30 (observing that through July 1973, “the Americans had drawn 7,714,805 fans, an average of 15,247 a game and an increase of almost 700,000 over the previous season”); see also Wulf, *supra* note 40, at 49 (“The American League has also closed the attendance gap, thanks to improved offense and the prolonged careers of such superstars as Hank Aaron, Reggie Jackson, Dave Parker, Dave Winfield and George Brett.”).

¹⁷⁰ See *supra* text accompanying note 56.

¹⁷¹ MCKELVEY, *supra* note 18, at 42 (listing “Boston, California, Chicago, Detroit, Kansas City, Milwaukee, New York, and Oakland” as going above the million fan mark).

¹⁷² Bruce R. Domazlicky & Peter M. Kerr, *Baseball Attendance and the Designated Hitter*, 34 AM. ECONOMIST 62, 67-68 (1990) (modeling baseball attendance and finding that the DH rule resulted in an average \$772,921 per team, without counting increased revenues from concessions and parking).

¹⁷³ “Opening” refers to all games played on the same date. *Id.* at 64. Domazlicky and Kerr observe that some teams play more doubleheaders (two games played on the say day) than other teams, and argue that doubleheaders draw fewer fans than two games played on

And professional baseball consultant David Gassko estimates that each home run puts approximately 2,000 extra fans in the seats – yes, chicks do dig the long ball.¹⁷⁵

B. *The Designated Hitter Rule Prolongs the Careers of Popular Players and Allows Gradual Recovery From Injury*

In addition to putting fans in the stands, the designated hitter rule allows popular players to extend the twilight of their careers, much to the delight of American League fans.¹⁷⁶ For example, the rule allowed Hank Aaron to prolong his career by signing a two-year contract in the American League.¹⁷⁷ Al Kaline of the Detroit Tigers admitted that he would not have achieved 3000 career hits without the designated hitter rule.¹⁷⁸ And Willie Mays, a twenty-

different dates. *Id.* Thus, “[w]ith openings varying from 68 to 81, adjusting attendance for the number of openings seems appropriate.” *Id.*

¹⁷⁴ *Id.* at 67. Domazlicky and Kerr controlled for several non-baseball related variables, including the population of the metropolitan area in which the team played, average ticket prices, per capita income in the team’s home city, the existence of another Major League Baseball club in the same town, and the existence of non-baseball professional sports teams in the same town. *Id.* at 64. They also controlled for several baseball related variables, including team winning percentage, games back (from the league leader), runs scored per year, the number of All-Star players on the team, the age of the stadium, and recent performance in a division championship. *Id.* at 65.

¹⁷⁵ David Gassko, *Do Chicks Dig the Long Ball?*, *HARDBALL TIMES*, Jan. 31, 2008, <http://www.hardballtimes.com/main/article/do-chicks-dig-the-longball>. The title of Gassko’s article refers to a popular Nike commercial from the late 1990s, in which National League pitchers Tom Glavine and Greg Maddux work on their batting skills in order to curry favor with Heather Locklear. *Id.* When Locklear takes notice of their batting prowess, Maddux remarks to Glavine, “chicks dig the long ball.” *Id.*

¹⁷⁶ MCKELVEY, *supra* note 18, at 52-53; *see also* Leggett, *supra* note 41, at 12. *But see* Ostler, *supra* note 49 (quoting Kansas City designated hitter Hal McRae as saying, “[a] lot of people say DHing will prolong your career, but I think you get old faster when you’re not playing. Your career is your legs, and when you don’t use them, they go faster”).

¹⁷⁷ *Aaron Signs 2-Year Pact*, *N.Y. TIMES*, Nov. 15, 1974, at 43 (“Aaron said one of his reasons for asking to leave the Braves and the National League was to take advantage of the designated-hitter rule in the American League. He said his arm was no longer strong enough for full-time outfield duty.”); *see also* John Hall, *Around Town*, *L.A. TIMES*, Apr. 16, 1975, §3 at 3 (relating how Pete Rose defended the designated hitter rule in part by pointing to “all the American League fans who will get to see Henry Aaron this season”).

¹⁷⁸ George Minot, Jr., *Tigers’ Kaline Closes In On 3,000-Hit Mark*, *L.A. TIMES*, June 29, 1974, at A7. The downside is that a stigma often attaches to players that achieve milestones while serving as designated hitters. *See, e.g., id.* (“There is no word whether an asterisk will be added to Kaline’s name in the record books; he will be the first 3,000 hit man to benefit from the American League’s designated hitter rule.”); Raymond I. Dingle, Letter to the Editor, *Designating an Asterisk*, *N.Y. TIMES*, Sept. 13, 1987, at 281 (arguing an asterisk should be added to Paul Molitor’s thirty-nine game hitting streak, due to Molitor’s status as a designated hitter). Indeed, much controversy recently swirled around voters’ decision to

two year National League veteran, insisted he could have extended his career a few more years if his league had adopted the rule.¹⁷⁹ More recently, Giants slugger Barry Bonds was forced into retirement after suffering from a variety of physical ailments and failing to find an American League team interested in giving him a contract,¹⁸⁰ while Ken Griffey, Jr. was able to arrange a curtain-call return as the Seattle Mariners' designated hitter.¹⁸¹

The designated hitter rule also provides an ideal role for hitters returning from injuries.¹⁸² After Mariners slugger Edgar Martinez suffered hamstring and knee injuries in 1993 and 1994, he came back almost exclusively as a designated hitter in 1995 and made the All-Star roster with an impressive .356 batting average.¹⁸³ Similarly, when legendary slugger Reggie Jackson pulled a tendon in his left knee in 1973, the Oakland Athletics were able to bring him back slowly, by allowing him to serve as the team's designated hitter.¹⁸⁴ Thus, the designated hitter rule allows big-name hitters (and batters in general) to prolong their careers and ease their way back into the lineup after injuries.

pass on Edgar Martinez – considered by many to be the greatest designated hitter in the history of the game – during his first year of Hall of Fame eligibility. See Tim Booth, *DH Denied: Martinez Falls Short in First Hall Vote*, SEATTLE TIMES, Jan. 6, 2010, available at http://seattletimes.nwsourc.com/html/localnews/2010718586_apbbohallofffamemartinez.html.

¹⁷⁹ MCKELVEY, *supra* note 18, at 44.

¹⁸⁰ See, e.g., Associated Press, *Bonds Mum on Playing DH in 2007 – or Playing at All*, May 10, 2006, available at <http://sports.espn.go.com/mlb/news/story?id=2438887>.

¹⁸¹ See, e.g., Amy Martinez, *What Does Griffey's Return Mean for Local Businesses?*, SEATTLE TIMES, Mar. 13, 2009, available at http://seattletimes.nwsourc.com/html/businesstechnology/2008851456_griffey13.html; Larry Stone, *Agent: Ken Griffey Jr. Would Consider Returning to Mariners*, SEATTLE TIMES, Nov. 1, 2008, available at <http://seattletimes.nwsourc.com/html/mariners/2008337291mari01.html>.

¹⁸² See, e.g., Dave Distel, *Designated Hitter Rule Good News For Oliva*, L.A. TIMES, Apr. 11, 1973, at G1 (noting that the designated hitter rule kept Twins slugger Tony Oliva in the game, despite knee problems); Leggett, *supra* note 52, at 31 (contending that the designated hitter rule had “saved” Red Sox hitter Orlando Cepeda, whose “knees are in such bad shape he goes to the trainer’s room at Fenway Park between innings, works out on an Exercycle and lifts weights with his feet”). But see Ostler, *supra* note 49 (stating that “[m]ost DHs say the toughest part of the job, physically, is keeping the muscles loose,” and reporting that Angels’ designated hitter Don Baylor “said that a series of minor muscle pulls this season and last are attributable to coming off the bench cold and sprinting around the bases”).

¹⁸³ MCKELVEY, *supra* note 18, at 132-33; see also Edgar Martinez, MAJOR LEAGUE BASEBALL, http://mlb.com/team/player.jsp?player_id=118365 (last visited May 20, 2010) (career statistics for Edgar Martinez by season).

¹⁸⁴ See Leggett, *supra* note 41, at 14; Ron Rapoport, *The DH: a Hit – Maybe*, L.A. TIMES, Apr. 27, 1973, Part III at 1 (quoting Jackson as saying that the designated hitter rule is “good for me” because it “keeps me in the lineup” despite injury).

C. *The Designated Hitter Rule Alters Managerial Strategy but Does Not Eliminate It*

Perhaps the most frequent complaint about the designated hitter rule is that it eliminates one of the key managerial decisions of the game.¹⁸⁵ When the pitcher's spot comes up to bat during the late innings of a close game, National League managers are often faced with a tough choice: whether to pinch-hit for the pitcher.¹⁸⁶ On the one hand, the managers hate to remove a pitcher who is throwing well.¹⁸⁷ On the other hand, the odds of scoring a run are almost always better with the pinch hitter at the plate.¹⁸⁸ Because pitchers do not hit in the American League, however, managers in that league "may leave their starters in until the poor fellows either lose their effectiveness or drop from exhaustion."¹⁸⁹ As a result, opponents of the designated hitter rule argue that the rule "relieves the manager of all responsibility except to post the lineup card on the dugout wall and make sure everybody gets to the airport on time."¹⁹⁰

This criticism is somewhat off-base. Although the designated hitter rule eliminates the need to pinch-hit for pitchers (and the strategy behind that decision), the rule does not affect other components of managerial strategy.¹⁹¹ Making a pitching change in the American League still requires a great deal of skill, experience, and judgment.¹⁹² It may be even more difficult in some respects than the same decision in the National League. As former Angels manager Bobby Winkles once said,

[i]t was a great help when the pitcher used to bat because, even if you weren't sure if he was tired, if he was up and you had a man on and were

¹⁸⁵ See, e.g., James W. Davis, Letter to the Editor, *Brickbats for Desis*, SPORTS ILLUSTRATED, May 21, 1973, at 122, 122 (stating that "[p]art of the charm of baseball is in seeing the manager exploit the strengths and weaknesses of his players," and arguing that "[t]he DH rule has taken much of this finesse out of the game, profoundly changing it for the worse"); Vecsey, *supra* note 59.

¹⁸⁶ See *NL Objections to New Pinch-Hit Rule Cited*, *supra* note 42.

¹⁸⁷ See, e.g., Ron Fimrite, *He's Hired to Be Fired*, SPORTS ILLUSTRATED, Apr. 13, 1981, at 52, 62.

¹⁸⁸ See *id.* ("In the National League, a pitcher going well in a close game may get the hook if, in the manager's view, a pinch hitter might perk up the offense.").

¹⁸⁹ *Id.*

¹⁹⁰ Smith, *supra* note 5; see also Fimrite, *supra* note 187, at 62 (suggesting that the strategic decision of pinch-hitting for the pitcher "makes managing in the National League more attractive"); *Strike Three!*, *supra* note 56.

¹⁹¹ See, e.g., Leggett, *supra* note 41, at 15.

¹⁹² See Michael Martinez, *Lifting Pitchers: Baseball's Second-Guessing Game*, N.Y. TIMES, June 23, 1985, at S1; Ostler, *supra* note 3 (arguing that American League pitching changes "require skill, judgment, insight and communication with the pitcher and catcher").

down by a run, you'd take him out. Now you try to make sure he's tired and you might go just one man too long.¹⁹³

For this reason, the manager's decision to remove a pitcher late in the game has arguably become more subtle and nuanced than it was before the American League's adoption of the designated hitter rule.¹⁹⁴ And the designated hitter rule does not change what is perhaps the most essential part of the game – “[t]he fan, it would seem, has not lost his right to second-guess.”¹⁹⁵

D. *Costs Associated with Hit Batsmen and Bench-Clearing Brawls Do Not Appear to Outweigh the Rule's Benefits*

Other benefits and costs aside, a serious question remains: by increasing the number of hit batsmen, does the designated hitter rule unnecessarily increase the risk of injury? Major League Baseball condemns throwing at batters¹⁹⁶ for good reason – “[t]here can be tragic results when a man is hit by a round, hard missile, thrown from 60 feet 6 inches at more than 90 m.p.h.”¹⁹⁷ In August 1920, Cleveland Indians shortstop Ray Chapman died after being hit in the head by a fastball.¹⁹⁸ Other players have seen their careers largely destroyed after being hit by a pitch, including Tony Conigliaro of the Boston Red Sox in 1967.¹⁹⁹ Additionally, intentionally hitting a batter can spark bench-clearing brawls as players engage in direct retribution against the pitcher on the mound.²⁰⁰

¹⁹³ Rapoport, *supra* note 184; *see also* Leggett, *supra* note 41, at 14 (quoting former Minnesota Twins manager Frank Quilici as saying, “[n]o question, the rule is going to keep a manager on his toes. It is going to be a more stimulating job, because investigation of other teams will have to be done in greater detail.”).

¹⁹⁴ *See, e.g.*, Rapoport, *supra* note 184.

¹⁹⁵ *Id.*; *see also* Ostler, *supra* note 3 (pointing out that American League pitching changes still “can be second-guessed like crazy by any mentally agile fan wishing to match wits with the fat guy in the dugout”).

¹⁹⁶ *See, e.g.*, *supra* note 149 and accompanying text (“To pitch at a batter’s head is unsportsmanlike and highly dangerous. It should be – and is – condemned by everybody. Umpires should act without hesitation in enforcement of this rule.”).

¹⁹⁷ Newhan, *supra* note 89.

¹⁹⁸ VOIGT, *supra* note 33, at 155; *Chapman Services to Be Held Today*, N.Y. TIMES, Aug. 20, 1920, at 13.

¹⁹⁹ *See* VOIGT, *supra* note 33, at 268. Baseball history includes a long list of tragic injuries at the plate. *See, e.g.*, Arthur Daley, *Sports of the Times: “Stick It In His Ear!”*, N.Y. TIMES, May 13, 1951, at S2 (observing that “a baseball can be a lethal weapon,” and that “there have been more fractured skulls than anyone can tabulate”); Newhan, *supra* note 89 (“Don Zimmer, the former Dodger, was given last rites when he was beamed for a second time during the 1954 season.”); *Pitched Ball Hits Cochrane at Stadium; Detroit Leader’s Skull is Fractured*, N.Y. TIMES, May 26, 1937, at 1 (reporting that a high, inside pitch fractured Tigers player-manager Mickey Cochrane’s skull).

²⁰⁰ *See, e.g.*, Dave Anderson, *Sports of the Times: Why So Many Beanball Melees?*, N.Y. TIMES, June 1, 1980, at S5 (stating that “brushback” pitches had caused “nine bench-

These are serious concerns. On closer examination, however, hit batsmen sustain a low level of actual injury, and thus these concerns do not outweigh the benefits of the designated hitter rule. First, the modern helmet requirement²⁰¹ and the requirement that balls be replaced early and often if they become smudged²⁰² have substantially reduced the risk of serious injury.²⁰³ Second, as noted above, the designated hitter rule's moral hazard effect has been largely overshadowed in recent years by the double warning rule.²⁰⁴ Thus, if safety is the primary concern, repealing the double warning rule likely would have a greater effect in reducing hit batsmen in both leagues.

Moreover, perverse as it may seem, many fans likely gain some utility from witnessing bench-clearing brawls, and perhaps hit batters as well.²⁰⁵ Though perhaps politically incorrect to admit, many people enjoy watching aggression and pain in sports – after all, how else would professional hockey survive?²⁰⁶ In the moments after a batter is hit by a pitch, the crowd holds its collective

clearing melees already this season”); Ron Dicker, *Rodriguez and Varitek Lead List of Eight Suspended for Fight*, N.Y. TIMES, July 30, 2004, at D1 (discussing suspensions resulting from bench-clearing brawl after Red Sox pitcher Bronson Arroyo hit Yankees slugger Alex Rodriguez); *The White Sox Win One, But Lose 7 to Suspensions*, N.Y. TIMES, Apr. 28, 2000, at D6 (reporting that “[s]even members of the White Sox and nine members of the Tigers were suspended a total of 82 games, and nine others were fined for Saturday’s bench-clearing brawls, which resulted in 11 ejections”); *The Fight Between Juan Marichal and John Roseboro*, MISC. BASEBALL, (July 21, 2009, 10:08 PM), <http://miscbaseball.wordpress.com/2009/07/21/the-fight-between-juan-marichal-and-john-roseboro/> (quoting news accounts of Giants batter Juan Marichal hitting Dodgers catcher John Roseboro with his bat).

²⁰¹ Major League Baseball Rule 1.16(a) (2010) (“All players shall use some type of protective helmet while at bat.”); see also Major League Baseball Rule 1.16 cmt. (2010) (“If the umpire observes any violation of these rules, he shall direct the violation to be corrected.”).

²⁰² See VOIGT, *supra* note 33, at 165. It is a violation of the rules to “intentionally discolor or damage the ball,” and offenders receive an automatic ten game suspension. Major League Baseball Rule 3.02 (2010).

²⁰³ Players are still injured, of course, but generally not as severely. For example, Mets slugger Mike Piazza was hit in the head by a pitch in a 2005 game and suffered a concussion, but no apparent long-term injury. See Ben Shpigel, *Piazza is Beated in His First Game Back in Lineup*, N.Y. TIMES, Sept. 11, 2005, at G2.

²⁰⁴ See *supra* Part II.D.

²⁰⁵ Of course, Major League Baseball would never admit to this, given that it strictly condemns violence in the sport. See, e.g., MacPhail, *supra* note 151 (providing American League President Lee MacPhail’s emphatic argument that “‘throwing incidents’ are not part of our game. Baseball is not a game of violence, and we cannot permit anything that may cause needless injury and shorten a career.”).

²⁰⁶ See, e.g., *Hockey Fans Like Fighting: Poll*, TORONTO STAR, Apr. 5, 2007, available at <http://www.thestar.com/Sports/article/199905> (reporting the results of a hockey fan poll, which showed that “[a] huge majority of people who describe themselves as avid fans – 76 percent – oppose a fight ban”).

breath to see whether he will shake it off and take his base, or charge the mound to deal out immediate justice. There is little doubt that this lends a sense of drama and anticipation to the game.²⁰⁷ Of course, we are not suggesting that fan enjoyment automatically transforms hitting a batter into a “positive” action. Nevertheless, most hit-by-pitch incidents (including bench-clearing brawls) involve minimal or no injury,²⁰⁸ and thus it is likely that on most occasions the enjoyment of thousands of fans exceeds the minimal costs associated with a hit batter or an altercation.

E. *The Rule’s Costs May Outweigh Its Benefits in the National League, Due to Differences in Fan Preferences*

Although the designated hitter rule’s benefits likely outweigh its costs in the American League, this does not necessarily mean the rule would have a net-beneficial effect in the National League as well. Instead, it appears the costs of the designated hitter rule may outweigh its benefits if it were adopted in the National League.

Attendance provides an illustrative example of how different the cost-benefit analysis is among fans in each league. Although Domazlicky and Kerr’s study concludes that the designated hitter rule brings thousands of additional fans to each American League opening, the study discovered that an increase in offense would not have the same effect on National League attendance.²⁰⁹ As a result, “it seems unlikely that the use of the DH would have much effect on attendance at NL baseball games.”²¹⁰

As these empirical results demonstrate, the cost-benefit analysis will be different in each league because National League fans have different preferences than American League fans. Many of the “benefits” of the

²⁰⁷ See Bill Simmons, *Basebrawl Fever: Catch It!*, ESPN PAGE 2 (Aug. 15, 2001), <http://espn.go.com/espn/page2/story?id=1239718> (enthusiastically describing facets of baseball fights, including batters who reluctantly charge the mound because the situation and culture of baseball requires it).

²⁰⁸ “Most baseball fights are harmless,” although there have been a few notable exceptions. Newhan, *supra* note 89. For example, “Joe Adcock, the former Milwaukee first baseman, chased Ruben Gomez from the mound to the clubhouse, where Gomez found a butcher knife and advanced on Adcock before being overpowered.” *Id.* Fortunately, such incidents are the exception to the norm.

²⁰⁹ Domazlicky & Kerr, *supra* note 172, at 67. The 1990 study from Domazlicky and Kerr is dated, however, and there has been a great deal of change in the game since 1990, including the introduction of interleague play, more trades between leagues, and increased accessibility of out-of-market games over the internet. It is possible that Domazlicky and Kerr’s findings on fan preference do not hold true today, twenty years later. However, the authors believe many fans do retain a preference for a particular style of play, associated with either the National or American League. Indeed, the continued vitality of the designated hitter debate – more than thirty-five years after the American League’s adoption of the rule – supports this premise to some extent.

²¹⁰ *Id.*

designated hitter rule are not seen as such by National League fans. For example, in the American League the designated hitter rule has made sacrifice bunts and stolen bases less important.²¹¹ Although this may not offend the sensibilities of most American League fans, National League fans would likely view this change as a cost, not a benefit.²¹²

We encourage a vigorous debate on the designated hitter rule. But that should not blind us to the fact that baseball is different in each league, and fans like it that way.²¹³ The benefits of the designated hitter rule likely outweigh its costs in the American League. That does not mean, however, that National League fans should be forced to adopt a rule they do not like. Instead, all baseball fans should celebrate the unique rules, history, and culture of each league.

CONCLUSION

In sum then, it is crucial to consider all the benefits and costs in any responsible economic analysis of the designated hitter rule. Although statistical data indicate that the rule likely creates some moral hazard, structural changes to the game appear to have overshadowed the designated hitter rule's moral hazard effect in recent years. Ironically, the double warning rule in particular appears to have created a moral hazard effect in both the American and National Leagues. As a result, elimination of the designated hitter rule likely would not cure the moral hazard effect but merely change its source.

In the American League, teams and fans clearly benefit from increase in offense, but of course that must be weighed against the loss of some baseball strategy and the potential danger to batters. As we weigh costs and benefits,

²¹¹ See *Strike Three!*, *supra* note 56 (“American League teams [during the 1984 season] had an average of 45 sacrifice hits each. National League teams made 67 sacrifice hits each. Pinch hitting is more important in the National League. So is base stealing.”).

²¹² See Glenn Dickey, *Park Size Affects League Differences*, S.F. CHRON., May 15, 1993, at D3 (“It’s an article of faith with National League fans that N.L. games emphasize speed and baserunning, while the American League, because of the designated hitter, plays games in which players simply wait on the bases until someone hits a home run.”).

²¹³ E.g., Thomas Rogers, *Scouting*, N.Y. TIMES, Aug. 5, 1983, at A14 (quoting Detroit Tigers Manager Sparky Anderson as saying that American League and National League baseball are “two different games . . . [l]ike soccer and rugby”); see also Anderson, *supra* note 60, at S13 (referencing polling that showed American League fans favored the designated hitter rule, while National League fans did not); Tony Fabrizio, *Realignment Idea Best for Football, Just Not Baseball*, AUGUSTA CHRON. (Georgia), Aug. 25, 1997, at C1 (“The AL has the designated hitter; NL fans prefer their baseball in a purer form.”); Paul Hoynes, *Ex-Indians Help to Load Garner’s Slingshot*, PLAIN DEALER (Cleveland), Aug. 31, 1997, at 10C (quoting Cubs President Andy MacPhail as stating that “Cubs fans do not like the designated hitter”); *All-Star Voter Fraud Early and Awful to the Ballot Box*, SPORTING NEWS, July 7, 2003, at 8 (observing that “[t]he American League uses designated hitters, and National League fans consider that a heinous act of heresy upon a sacred shrine”).

there is room for disagreement and experimentation. Just as American states provide experimental laboratories for a wide variety of laws,²¹⁴ so too do the two major leagues provide an ideal place to try out new and different rules. There is no reason why both leagues should have to play by uniform rules.

American League fans enjoy the increased offense that the designated hitter rule provides. National League fans enjoy pitching duels and the chance to see the manager struggle with the decision whether to pinch-hit for the pitcher in close games. Thus, this may be an instance in which fans should agree to disagree. As long as fans in each league are satisfied with the game under the existing rules, let's play ball (and pass the Cracker Jack).

²¹⁴ See *New State Ice Co. v. Liebmann*, 285 U.S. 262, 310-11 (1932) (Brandeis, J., dissenting) ("It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.").