

INSTANT REPLAY: A CONTEMPORARY LEGAL ANALYSIS

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Introduction	156
I. History of Instant Replay: Beginnings & Evolution...	162
A. Before Instant Replay	162
1. Fred Merkle: Cubs vs. Giants 1908	162
2. Fifth Down and 6: Cornell vs. Dartmouth 1940 .	164
3. Don Chandler’s Field Goal: Western Conference Championship 1965.....	166
4. Duane Sutter’s “Off-Side” Goal: Game 6 Stanley Cup Finals 1980	168
5. Jorge Orta “Safe” at First: Game 6 World Series 1985.....	170
6. Howard Eisley’s 3-Pointer: Game 6 NBA Finals 1998.....	171

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B. Technology	173
C. Tony Verna – The Pioneer	178
D. Adoption of Instant Replay By the Leagues	182
1. General	182
2. NFL.....	183
3. NHL	188
4. NBA	189
5. MLB	190
II. Current Instant Replay Rules & Analysis	192
A. Overview.....	192
B. NFL.....	193
1. Reviewable Situations.....	193
2. Triggering Review	197
3. Review Procedure.....	198
4. Review Personnel	198
5. Review Standard	200
6. Time Limit	201
7. Decision Communication	201
8. Appeal Post-Instant Replay Review	202
C. NHL	202
1. Reviewable Situations.....	202
2. Triggering Review	206
3. Review Procedure.....	207
4. Review Personnel	208

2015]	<i>Instant Replay</i>	155
	5. Review Standard	211
	6. Time Limit	211
	7. Decision Communication	212
	8. Appeal Post-Instant Replay Review	212
D. NBA		213
	1. Reviewable Situations.....	213
	2. Triggering Review	215
	3. Review Procedure.....	215
	4. Review Personnel	216
	5. Review Standard	217
	6. Time Limit.....	218
	7. Decision Communication	218
	8. Appeal Post-Instant Replay Review	219
E. MLB		219
	1. Reviewable Situations.....	219
	2. Triggering Review	225
	3. Review Procedure.....	227
	4. Review Personnel	228
	5. Review Standard	231
	6. Time Limit.....	231
	7. Decision Communication	233
	8. Appeal Post-Instant Replay Review	234
III. Analysis & Recommendations		235
	A. Pros & Cons of Using Instant Replay.....	235

1. General	235
2. Honest Mistakes, Temporal Variance, & Impact Aversion	240
3. Normative Effect	245
B. High Stakes: Winners, Losers, Records, & Milestones	247
C. Instant Replay Reviews Facts Not Law: Re- Examining Standards of Review	251
D. Additional Appeal Post-Instant Replay?	258
Additional Recommendations & Conclusions	266

“Truth and Technology Will Triumph Over Bullshit and Bureaucracy.”¹

INTRODUCTION

Legal scholars and others have long acknowledged the microcosmic-legalistic nature of athletic competition.² In many

¹ Tony Verna attributes this quote to Rene Anselmo, “the founder of the communications satellite company Panstat.” TONY VERNA, *INSTANT REPLAY: THE DAY THAT CHANGED SPORTS FOREVER* 96 (2008). Unfortunately, Tony Verna, the inventor of Instant Replay, died January 18, 2015 of acute lymphoblastic leukemia. *See e.g., Tony Verna, Inventor of Instant Replay for TV Sports, Dies at 81*, CBS NEWS (Jan. 19, 2015, 8:27 AM), <http://www.cbsnews.com/news/tony-verna-inventor-of-instant-replay-for-tv-sports-dies-at-81/>; Matt Schudel, *Tony Verna, TV Sports Producer and Director Who Invented Instant Replay, Dies at 81*, THE WASHINGTON POST (Jan. 20, 2015), http://www.washingtonpost.com/entertainment/tony-verna-tv-sports-producer-and-director-who-invented-instant-replay-dies-at-81/2015/01/20/f4b36b7a-a0bd-11e4-903f-9f2faf7cd9fe_story.html.

² *See* Charles Yablon, *On the Contribution of Baseball to American Legal Theory*, 104 YALE L.J., 227, 233-36 (1994); Jeffrey Standen, *Foot Faults in Crunch Time: Temporal Variance in Sports Law and Antitrust Regulation*, 41 PEPP. L. REV. 349, 350 (2014) (“The study of sports law is interesting because sports contests provide a microcosm for the observation of rules in action and a laboratory for experiments in legality.”); Mitchell N. Berman, *“Let `Em Play” A Study in the Jurisprudence of Sport*, 99 GEO. L.J. 1325, 1329 (2011) (“The lack of sustained jurisprudential attention to games and, especially, sports should surprise, for sports leagues plainly constitute distinct legal systems.”); *Id.* (“But the law-ness of sports systems is not merely

respects, every sports official is similar to a judge in a courtroom. At his confirmation hearing, United States Supreme Court Chief Justice John Roberts invoked the metaphor, remarking, “Judges are like umpires. Umpires don’t make the rules; they apply them. The role of an umpire and a judge is critical. They make sure everybody plays by the rules.” And before he was done, Justice Roberts added, “I will remember that it’s my job to call balls and strikes and not to pitch or bat.”³ Sports officials, like judges, make decisions about rules violations, penalties, and compensation. Professional sports games, such as those played in the National Football League (hereinafter “NFL”), the National Hockey League (hereinafter “NHL”), the National Basketball Association (hereinafter “NBA”), and Major League Baseball (hereinafter “MLB”) are, in one sense, legal microcosms.⁴ Professional sports referees and umpires determine rules violations (e.g., fouls), penalties (e.g., fouls assessed against individuals and loss of possession of the ball or puck), and compensation (e.g., points scored, free throws, penalty shots, possession).

Think of a sports official as a judge and the field as a court of law. Justice is blind, and judgments are based on an official’s, or judge’s interpretation of the rules, or law. As a condition of the event, both sides have agreed to abide by the rulings.

superficial, for they exhibit such essential institutional features as legislatures, adjudicators . . . and the union of primary and secondary rules.”) (footnote omitted); *id.* at 1330 (“[E]ach domain must decide: to what extent to guide conduct by ‘formal’ written norms as opposed to ‘informal’ social norms, and, if the former, by rules or by standards; when to delegate discretion to the adjudicators (judges, juries, referees), and how best to constrain that discretion; how to respond to the problem of epistemic uncertainty; whether to provide a right of appeal from unfavorable decisions and, if so, how to structure appellate review; how to conceptualize, deter, and sanction ‘cheating’; how to identify and rectify the gaps that inevitably arise between ‘the law in the books’ and ‘the law in action’; when to tolerate ties and how to resolve them when they should not be tolerated; how to analyze and craft optimal sanctions; and so on and so forth.”). See also ROGER I. ABRAMS, *LEGAL BASES: BASEBALL AND THE LAW* 3 (1995) (Abrams notes that lawyers “revel in the complexities” of baseball rules).

³ *Roberts: ‘My Job Is to Call Balls and Strikes and Not to Pitch or Bat,’* CNN.COM (Sept. 12, 2005, 4:58 PM), <http://www.cnn.com/2005/POLITICS/09/12/roberts.statement/index.html>.

⁴ See e.g., JEROME HALL, *FOUND. OF JURISPRUDENCE* 116 (1973) (“[Lon Fuller] finds no differences among the rules of the state and those of ‘clubs, churches, schools, labor unions, trade associations, agricultural fairs, and a hundred and one other forms of human association.’”).

Appeals or written protests are permitted, but in sports, outcomes are rarely altered There is one major difference between the courtroom and ball field. Decisions of law can take weeks. Decisions on the field must be made immediately and forcefully.⁵

In a recent article, Jeffrey Standen draws an analogy between how sports rules govern athletic competition (and competitors) with how criminal laws operate: “Much like legal sanctions, sports penalties serve several purposes. They discourage or deter rule violations by imposing a sufficient cost. They exact retribution against the guilty. Through player disqualification, they even incapacitate the recidivist. Sports penalties serve all the standard functions and purposes of criminal sanctions.”⁶ Standen also notes characteristics of sports rules that are similar to legal doctrines found in civil law subjects.

Yet sports penalties also have to perform all the necessary remedial functions of civil remedies as well. Like tort remedies, sports penalties sometimes compensate the innocent team by restoring the status quo ante – for instance, by awarding the offensive basketball team the ball at the point to which it advanced before the foul. Sports penalties also mirror contract remedies by awarding the victim who has suffered a broken promise with an “expectancy” that replaces the fulfilled promise – for instance, where defensive pass interference in football awards the offensive team with possession of the ball where it would have been spotted had the interference not occurred.⁷

The rules of every sport dictate the “laws” that govern the sport. Rules of sports typically serve at least six functions, some of which overlap: 1) Sports rules establish the structure of contests (i.e., how the game is played); 2) Sports rules promote safety; 3) Sports rules prohibit unfair advantage; 4) Sports rules promote

⁵ BLAIR KERKHOFF, UPON FURTHER REVIEW: CONTROVERSY IN SPORTS OFFICIATING 150 (2000) (quoting Barry Mano, Founder of the National Association of Sports Officials).

⁶ Standen, *supra* note 2, at 375 (footnote omitted).

⁷ *Id.* at 375 (footnotes omitted).

administrative efficiency; 5) Sports rules foster good sportsmanship; 6) Sports rules promote fairness.⁸

Instant Replay technology has changed sports dramatically. Before officials began using Instant Replay as a tool to assist officiating, those involved in athletic competition simply “lived with” more errors than they do today.⁹ Before the invention of photography and film, there was no means legitimately to second-guess the accuracy of decisions made by officials.¹⁰ It is not surprising that “[L]awyers, judges, and commentators have noticed and drawn upon the similarities between appellate review and instant replay review”¹¹ In their recent article, focusing on Instant Replay in the NFL, Chad Oldfather and Matthew Fernholz make this comparison:

The analogy is, to a point, a good one. The NFL’s replay review process does resemble appellate review in the courts. The underlying goal – correcting mistakes by the initial decision maker – overlaps with one of the core functions of appellate review. The NFL’s “indisputable visual evidence” standard is nothing less than a standard of review. One can tease out other similarities between the two mechanisms at varying levels of generality and abstraction. The suggestion

⁸ See Russ VerSteeg, *A Statutory Analysis of the “Laws” of Little League Baseball (An Essay Urging Changes to the Little League Rules)*, 9 MARQ. SPORTS L. REV. 103, 104-05 (1998); Russ VerSteeg, *Arresting Vaulting Pole Technology*, 8 VAND. J. ENT. & TECH. L. 93, 98 (2005). Curiously, in his article, Jeffrey Standen claims, “All sports rules are ultimately arbitrary. They have no meaning or purpose apart from the game itself.” Standen, *supra* note 2, at 379. This is actually a rather untenable position. And, in fact, Standen contradicts (or corrects?) himself later in the very same article when he discusses rules that relate to safety, which, by definition, do necessarily have significant meaning apart from the game. And again in the same article, Standen posits that legal rules are very different from sports rules. According to Standen: “The rules of law are obviously different. They capture moral intuitions and societal norms.” Standen, *supra* note 2, at 379. This statement also seems suspect, since, arguably sports rules also “capture moral institutions and societal norms” as well, albeit within the microcosm of the sport itself.

⁹ See *infra* Part I.A. for examples.

¹⁰ See *infra* Part I.B. for a discussion of the technological developments.

¹¹ Chad M. Oldfather & Matthew M. Fernholz, *Comparative Procedure on a Sunday Afternoon: Instant Replay in the NFL as a Process of Appellate Review*, 43 IND. L. REV. 45, 45-46 (2009) (footnotes omitted) (Specifically, Oldfather and Fernholz were addressing the use of Instant Replay in the NFL.). See also *id.* at 52 (“A brief review of the typical appellate process in American courts reveals why the analogy to replay review seems fitting.”).

that replay review provides a good illustration of some of the basic features of appellate review makes sense.¹²

In commenting on the remedial goals of Instant Replay, Standen notes, “it is the restitution interest on which replay focuses.”¹³

Once Instant Replay technology became consistent, predictable, and reliable, the potential to implement it to aid officiating became realistic.¹⁴ The NFL, the NHL, the NBA, and MLB all currently use some version of Instant Replay technology to assist their officiating.¹⁵ In fact, the use of Instant Replay is an important way that sports officials employ technology. Nevertheless, as is true with most technological innovations, determining the specifics of *how* to use it intelligently and wisely have presented an array of difficult choices. Each sports organization that has implemented Instant Replay review as part of its officiating process has created new rules and has balanced a number of pros and cons. Principally, rule makers have balanced the desire for accuracy against the administrative burdens of using Instant Replay technology. Rule makers wish to maximize accuracy so that officials get their calls “right.” For example, Instant Replay offers an opportunity to determine specific facts such as: whether a basketball player’s shot left his hand before or after a light attached to the backboard illuminated (i.e., before or

¹² *Id.* at 47 (footnotes omitted). *See also id.* at 78 (“Just as the suggestion that the judicial role is analogous to that of a baseball umpire has persisted, the comparison of appellate review to the review of an NFL official’s call seems likely to have lasting allure, particularly given the increasing use of video evidence in the legal setting.”) (footnote omitted); *id.* at 54 (“There is a reason that judges and commentators have drawn the connection between replay review and the appellate process—in a basic sense, the analogy works. Both processes involve review of a ruling made by an initial decisionmaker, and both place constraints on the ability of the second decisionmaker to reverse the decision of the first. Many of the features of the replay review process have direct counterparts in the processes of appellate courts.”).

¹³ Standen, *supra* note 2, at 376 (footnote omitted).

¹⁴ *See infra* Part I.D. for a discussion of the gradual adoption of Instant Replay in professional sports.

¹⁵ S. Christopher Szerban, *Tackling Instant Replay: A Proposal To Protect The Competitive Judgments Of Sports Officials*, 6 VA. SPORTS & ENT. L.J. 277, 281 (2007) (“Virtually every major professional sports league in America has adopted some form of instant replay, and many amateur athletic associations have done so as well.”). *See infra* Part II for the details of the current Instant Replay rules for the NFL, the NHL, the NBA, and MLB.

after time expired)¹⁶; whether a football player's foot was in or out of bounds at a particular instant; whether a hockey puck completely crossed the goal line; and whether a baseball player's foot or hand touched first base before the first baseman caught the throw from a fellow defensive player, such as the third baseman.¹⁷ Even casual sports fans are aware of how difficult it is for the human eye (or ear) to discern such facts in real time because of the speed of the action.¹⁸ And because these facts are critical to the progress and outcomes of games, on-field officials and league administrators know how vital it is to maximize the accuracy of these and other calls during games.¹⁹ However, rule makers must balance the financial costs of using Instant Replay review to increase accuracy as well as the "costs" in terms of delays and the negative psychological effects on the players, coaches, and fans of time lost while waiting for the Instant Replay review.²⁰

This Article begins in Part I by taking a look back at the advent of Instant Replay technology and its implementation by the four major professional sports leagues in North America – the NFL, the NHL, the NBA, and MLB (hereinafter referred to collectively as "the Leagues"). Part II examines the current status of Instant Replay review in these four professional sports leagues. In particular, this Part considers: A) What types of plays or situations are reviewable by Instant Replay; B) What triggers Instant Replay review (e.g., coach's challenge, replay booth official, etc.); and, C) The procedures employed (e.g., who is the replay decision-maker, what standard of review governs, how much time is allowed for the Instant Replay review, and whether any further appeal is available after Instant Replay review). In Part III, the Article analyzes the pros and cons of the current use

¹⁶ See *infra* Part I.A.6.

¹⁷ See *infra* Part I.A.5.

¹⁸ See Chris Broussard, *N.B.A. Will Use Replay To Review Buzzer Shots*, N.Y. TIMES (July 30, 2002), <http://www.nytimes.com/2002/07/30/sports/pro-basketball-nba-will-use-replay-to-review-buzzer-shots.html> (Broussard quotes Stu Jackson, the NBA's Senior Vice President of Basketball Operations: "As we saw last season, last-second plays sometimes occur in which it is impossible for a human being to determine whether the play took place before time expired.").

¹⁹ For additional discussion regarding the high stakes involved, see *infra* Part III.B.

²⁰ For additional discussion regarding the pace of games and interruptions, see *infra* Part III.A.

of Instant Replay review in the Leagues. This part considers, for example, the stakes involved, such as winners and losers. It also explores the ramifications relating to records and other milestones. In addition, it asks what, if anything, can be expanded and improved and whether additional review post-Instant Replay ought to be implemented. The Article's Conclusion reflects on how Instant Replay technology, like so many other scientific and technological advances (e.g., fingerprints, DNA, etc.) which have improved our ability to reach accurate decisions in law, also has improved the ability of sports officials to reach accurate decisions in the world of sports. Lastly, the Conclusion also attempts to forecast future directions for the use of Instant Replay in sports officiating.

I. HISTORY OF INSTANT REPLAY: BEGINNINGS & EVOLUTION

A. Before Instant Replay

Before Instant Replay, we all “lived with” mistakes made by officials. As a rule, everyone involved accepted mistakes as “part of the game.” Mistakes made by umpires and referees were considered a “human element” with no viable alternative. Some incidents fueled impassioned debates. Dozens of examples from the history of sport could easily illustrate officiating errors that might have been corrected with video replay had it been available.²¹ The half dozen examples that follow (in chronological order) serve as salient examples: 1) Fred Merkle: Cubs vs. Giants 1908; 2) Fifth Down and 6: Cornell vs. Dartmouth 1940; 3) Don Chandler's Field Goal: Western Conference Championship 1965; 4) Duane Sutter's “Off-Side” Goal: Game 6 Stanley Cup Finals 1980; 5) Jorge Orta “Safe” at First: Game 6 World Series 1985; and 6) Howard Eisley's 3-Pointer: Game 6 NBA Finals 1998.

1. Fred Merkle: Cubs vs. Giants 1908

The baseball incident that has come to be known as the “Merkle Boner” may very well have involved a mistake (or

²¹ Blair Kerkhoff's excellent book provides numerous examples. See KERKHOFF, *supra* note 5 *passim*.

mistakes) by the umpires.²² The Giants were involved in a close pennant race and were playing the Cubs on September 23, 1908 at the Polo Grounds in New York. In the bottom of the ninth, with two outs, a runner on third, and 19-year-old rookie Fred Merkle of the Giants on first, “Al Bridwell lined what appeared to be a game-winning single up the middle.”²³

In the pandemonium that ensued, fans rushed the field. And the ball itself was apparently tossed about by a number of people, including one of the Giants’ coaches and random fans. Joe Tinker, the Cubs’ shortstop, finally retrieved the ball and threw it to Johnny Evers, standing on second base. Frank Chance, the Cubs’ first baseman (this incident involved all three members of the famed double play combination Tinker-to-Evers-to-Chance) accosted one umpire, Hank O’Day, and argued that Merkle had failed to touch second base. If that were true, then once Evers possessed the ball and touched second, Merkle would have been declared forced-out, and, as a consequence, the run (putatively scored by Moose McCormick, who had been the runner on third base) would not have counted.²⁴ The fact that fans and the Giants’ coach, Joe McGinnity, had handled the ball before Tinker threw it to Evers would have also affected the validity of the “out.”²⁵

²² KERKHOFF, *supra* note 5, at 53-56. For two first-hand accounts of the Merkle incident, see also LAWRENCE S. RITTER, *THE GLORY OF THEIR TIMES: THE STORY OF THE EARLY DAYS OF BASEBALL TOLD BY THE MEN WHO PLAYED IT* 105-109 (1984) (Fred Snodgrass’s account); *id.* at 132-137 (Al Bridwell’s account). Both Snodgrass and Bridwell were Merkle’s teammates. Bridwell was the batter who hit the ball up the middle when Merkle was on first. Bridwell, who felt extremely sorry for the subsequent punishment that Merkle received in the press, said: “I wish I’d never gotten that hit that set off the whole Merkle incident. I wish I’d struck out instead. If I’d done that, then it would have spared Fred a lot of humiliation. Yes, I wish I’d struck out. It would have been better all around.” *Id.*

²³ KERKHOFF, *supra* note 5, at 53. See also GEOFFREY C. WARD AND KEN BURNS, *BASEBALL: AN ILLUSTRATED HISTORY* 92-93 (1994) (Recounting the Merkle incident); ALEX CHADWICK, *ILLUSTRATED HISTORY OF BASEBALL* 32 (1995) (Recounting the Merkle incident).

²⁴ See MLB, *OFFICIAL BASEBALL RULES*, Rule 2.00 (2011), available at http://mlb.mlb.com/mlb/downloads/y2011/Official_Baseball_Rules.pdf [hereinafter *MLB OFFICIAL RULES*] “A Force Play” (“a play in which a runner legally loses his right to occupy a base by reason of the batter becoming a runner.”); *id.* at Rule 4.09 (a) (2) (providing that a run is disallowed in such circumstances “by any runner being forced out”).

²⁵ *Id.* at Rule 3.15 (Providing that, in the case of intentional interference by persons who are authorized to be on the field – such as a base coach – “the ball shall be

“O’Day didn’t render his decision immediately. However, while the ump was in the dressing room, O’Day told a reporter Merkle didn’t touch second, the run didn’t count and he would speak with the National League President Harry Pulliam about the decision.”²⁶ Merkle claimed that he did touch second, and “Giants pitcher Christy Matthewson, one of the most respected players in the game’s history, said he saw Merkle touch the bag.”²⁷ There are no pictures or films of the action, so there is no photographic or video evidence to confirm or contradict whether Merkle failed to touch second base.

The rest of the story has become legendary. The Cubs were declared winners of the game “by forfeit because they showed up . . . the next day to finish the game but the Giants did not.”²⁸ The two teams finished the regular season with identical 98-55 records, and the Cubs won the one-game playoff 4-2. The Cubs subsequently beat the Tigers in the 1908 World Series (the Cubs’ last World Series victory to date). Commissioner Harry Pulliam suffered from depression as a result of the debacle and committed suicide less than a year later.²⁹

2. Fifth Down and 6: Cornell vs. Dartmouth 1940³⁰

On November 16, 1940, as their football game drew to a close, Dartmouth held a slim 3-0 lead over rival Cornell. Cornell’s offensive unit faced fourth down on the Dartmouth six-yard line with a minute to go. Cornell’s quarterback, Walt Scholl, threw an incomplete pass intended for Bill Murphy, and it appeared that Dartmouth had secured the victory.³¹ However, the referee, Red Friesell, made a mistake. Friesell, possibly distracted by an inaccurate scoreboard or misinformation from linesman, Joe

dead at the moment of the interference and the umpire shall impose such penalties as in his opinion will nullify the act of interference.”); *id.* at Rule 5.08 (providing that if a base “coach interferes with a thrown ball, the runner is out.”).

²⁶ KERKHOFF, *supra* note 5, at 54.

²⁷ *Id.*

²⁸ *Id.* at 55.

²⁹ *Id.* at 56. (“Pulliam lost his battle with depression over the controversy and July 19, 1909, committed suicide.”).

³⁰ Admittedly, this example is collegiate football, not the NFL, but, for the purposes of the present discussion, the differences between the two are immaterial.

³¹ RICHARD GOLDSTEIN, *IVY LEAGUE AUTUMNS* 106 (1996).

McKenney, marked the ball at the six and signaled fourth down for Cornell's offense.³² "At first, it seemed there might have been a double offside called on that first Cornell pass, negating the play. But that was not the case – the referee had simply blundered."³³ With three seconds remaining in the clock, Cornell capitalized on its fifth down, with Scholl completing a touchdown pass to Murphy.³⁴ When the gun sounded, although the scoreboard read Cornell 7 – Dartmouth 3, the press and nearly everyone knew that Cornell had scored its final TD on an errant fifth down play.³⁵

Cornell Athletic Director Jim Lynah said if the officials told him there were five downs, he would surrender the victory. School President Dr. Ezra [Day] concurred. On Monday, Cornell officials studied the game film that showed the fifth down and telephoned Asa Bushnell, executive director of the Eastern Intercollegiate Athletic Association, to yield the victory.³⁶

To be sure, this incident serves a remarkable example of honorable sportsmanship.³⁷ But it also serves as an example of the possibility of using video evidence to correct an official's error *post*

³² See *Cornell Players Say Double Offside Caused Fifth Down Dispute*, BOSTON GLOBE (Nov. 18, 1940), <http://search.proquest.com/docview/839334575?accountid=9675>.

³³ GOLDSTEIN, *supra* note 31, at 106. See also Phil Sherman, *Dartmouth Awaits Movies to Settle 'Fifth Down' Row*, BOS. GLOBE (Nov. 17, 1940), <http://search.proquest.com/docview/839333696?accountid=9675> ("Both Pres. Edmund Day of Cornell and director of athletics James Lynah were quoted to the effect that Dartmouth should deserve the victory if the motion pictures and the referee's report show that an extra down was given to the Ithacans in the dying moments of the game.").

³⁴ GOLDSTEIN, *supra* note 31, at 106.

³⁵ See *Cornell Wins 7-3 on Its Last Play*, BOS. GLOBE (Nov. 17, 1940), <http://search.proquest.com/docview/839333423?accountid=9675>.

³⁶ KERKHOFF, *supra* note 5, at 97. See also *Dartmouth 3, Cornell 0, Official Score as Ithacans Refuse Victory: Error by Referee Reverses Decision*, N.Y. TIMES, Nov. 19, 1940, <http://search.proquest.com/docview/105272720?accountid=9675> ("This action is unprecedented in intercollegiate football. Friesell had the courage to admit he had been wrong and Cornell had the sportsmanship to yield a success it felt it had not rightly earned. Only by this extraordinary combination of circumstances could the score be reversed, because the referee's jurisdiction ends with the game and there is no other authority beyond the colleges themselves to make amends for the error.").

³⁷ It is worthwhile to note that Cornell's President, Edmund Ezra Day (who served in that capacity from 1937-1949), was a Dartmouth graduate. See GOLDSTEIN, *supra* note 31, at 106.

hoc.³⁸ The *New York Times* article published after the game, but before the game film was available, put into perspective the opportunity for video evidence to resolve the debate:

The answer, if indeed there is to be any answer, will probably be found in a strip of celluloid known as film, which, at the moment this is being written, is being developed feverishly in a dark room somewhere.

When it is finished and projected, it will provide a photographic reproduction of what actually happened during those frenzied closing moments in the Cornell-Dartmouth football game at Hanover last Saturday. Then, and then only, will it be established whether the Big Red won the game legitimately or whether the winning touchdown was scored on an illegal fifth down, as many are now claiming.³⁹

3. Don Chandler's Field Goal: Western Conference Championship 1965

On December 26, 1965, the Green Bay Packers hosted the Baltimore Colts in the Western Conference Championship game at Lambeau Field in Green Bay, Wisconsin. The two teams had both finished the regular season with identical 10-3-1 records, necessitating a playoff game. With quarterback Johnny Unitas out because of a season-ending knee injury, halfback Tom Matte filled in and led the Colts to a 10-0 halftime advantage. The Packers lost their starting quarterback Bart Starr – due to bruised ribs – on the very first play of the game, when he tried to tackle linebacker Don Shinnick, who scored the Colts' sole touchdown on a fumble recovery. Led by backup quarterback Zeke Bratkowski, the Packers scored a touchdown in the third quarter to cut the Colts' lead to three, when Paul Hornung ran into the end zone from the one-yard-line. With 1:58 remaining in regulation, the Packers'

³⁸ Interestingly, a nearly identical situation occurred on October 6, 1990 in another college football game – Missouri vs. Colorado. Colorado scored a touchdown on an errant 5th down to win the game 33-31. See KERKHOFF, *supra* note 5, at 98-99. “Unlike the Cornell-Dartmouth game three decades earlier, Colorado wouldn’t refuse the victory, although coach Bill McCartney felt public pressure to do so.” *Id.* at 98.

³⁹ William D. Richardson, *Legitimacy of Play Against Dartmouth Rests On Whether Friesell Signaled Double Offside*, N.Y. TIMES (Nov. 18, 1940), <http://search.proquest.com/docview/105407242?accountid=9675>.

place kicker Don Chandler kicked a 22-yard field goal to tie the game at 10-10. In overtime, Chandler kicked a 25-yard game-winner. A week later, the Packers defeated the Cleveland Browns 23-12 to win the 1965 NFL Championship game.

The problem was Chandler's fourth quarter, game-tying 22-yard field goal. The game film clearly showed that the kick sailed wide to the right of the upright and should not have counted.⁴⁰ Observers saw Chandler's dismayed reaction immediately after the kick. "Chandler, as he followed through, saw the ball carry wide of the target. Instantly, he twisted his head in obvious disappointment, much the way a golfer looks when he misses a short putt. The reaction conveyed the impression the kicker knew he had failed. But the official, standing under the middle of the crossbar, ruled it was good."⁴¹ Over thirty years later, Chandler admitted in an interview that he missed the kick.⁴² "When I looked up," said Chandler, "the ball was definitely outside the post."⁴³

⁴⁰ VERNA, *supra* note 1, at 89 (Tony Verna directed the game, and explains: "After the game, Don Shula, who was the Baltimore Colts coach at the time, asked me what it looked like on TV. I told him the kick sailed wide-right, but it was so high above the upright it was hard to tell. But when game film confirmed that the ball had sliced right, the league added ten feet to the goal posts' verticals, and they put a second official under the goal post which now would be painted bright yellow."). See NFL, OFFICIAL PLAYING RULES OF THE NATIONAL FOOTBALL LEAGUE, Rule 11 §3, art. 4 (c) (2013), *available at* <https://www.nfl.info/download/2012mediaguides/2013%20nfl%20rule%20book.pdf> [hereinafter NFL OFFICIAL RULES] (explaining that for a successful field goal, "The entire ball must pass through the vertical plane of the goal, which is the area above the crossbar and between the uprights or, if above the uprights, between their outside edges."). *But see id.* at Rule 15 §9, art. 5 (identifying as a "Non-Reviewable [by Instant Replay review] Play," "Field-goal or Try attempts that cross above either upright without touching anything").

⁴¹ John Steadman, *Chandler's Admission Helps Take Sting out of 31-Year-Old Bad Call*, BALT. SUN, November 3, 1996, http://articles.baltimoresun.com/1996-11-03/sports/1996308165_1_colts-packers-gary-cuozzo.

⁴² *Id.*

⁴³ *Id.* See also Billy Witz, *Ins and Outs (He Was In, No?) of Contested Calls*, N.Y. TIMES (Dec. 25, 2008), http://www.nytimes.com/2008/12/26/sports/football/26refs.html?_r=0. The referee who called Chandler's field goal "good" was Gene Tunney. "I think I got it right," Tunney said. "But every time I'd run into Don Shula [the Colts head coach], Tom Matte and John Unitas, even years later, they'd always tell me I was wrong." *Id.* "Jim Tunney was an NFL official for 31 years and is widely regarded as one of the greatest. When he

4. Duane Sutter's "Off-Side" Goal: Game 6 Stanley Cup Finals 1980

On May 24, 1980, the New York Islanders hosted the Philadelphia Flyers in Game 6 of the Stanley Cup Finals at the Nassau Coliseum in Uniondale, New York.⁴⁴ The Islanders led the series 3-2, and, with a Game 6 win, the Islanders would win the Cup.⁴⁵ With the score tied 1-1 in the first period, the Islanders' Duane Sutter scored a controversial goal, and the Islanders went on to win 5-4 in overtime. What stirred controversy on the Sutter goal was that linesman Leon Stickle failed to call an obvious offside penalty.⁴⁶

Gillies skated the puck into the Flyers' end and dropped a pass that drifted about two feet beyond the blue line and into neutral ice, where Butch Goring grabbed it and skated over the blue line into the Flyers' end. Gillies had never left the zone, so when Goring crossed the blue line, the whistle should have blown for offside. Dupont pointed at the line, assuming play was about to be stopped. Propp, who was backchecking Duane Sutter slowed down, assuming play was about to be stopped.

"I definitely know the offside one was way offside," Propp said. "It was so obvious that I slowed down for a second."

retired in 1991, Tunney had worked in a record 29 post-season games including three Super Bowls." KERKHOFF, *supra* note 5, at 99.

⁴⁴ For a detailed account of the 1980 Stanley Cup Finals, see ALAN HAHN, BIRTH OF A DYNASTY: THE 1980 NEW YORK ISLANDERS, 87-143 (2004) (covering Chapters 6 through 9).

⁴⁵ For an overview of the Flyer's 1980 post-season Stanley Cup playoffs, and this incident in particular, see ADAM KIMELMAN, THE GOOD, THE BAD, & THE UGLY: HEART-POUNDING, JAW-DROPPING, AND GUT-WRENCHING MOMENTS FROM PHILADELPHIA FLYERS HISTORY 119-124 (2008).

⁴⁶ The NHL is currently considering adding this type of situation – i.e., a goal scored directly as a consequence of an offside – to the list of plays reviewable by Instant Replay. Interview with Rod Pasma, Senior Director, NHL Hockey Operations (Dec. 30, 2014). But it should be noted that, even under the 2014-15 Rules, "Off-Side" is not a penalty that is reviewable by Instant Replay. See generally NHL, National Hockey League Official Rules, Rule 83, (2014-15), available at <http://www.nhl.com/nhl/en/v3/ext/rules/2014-2015-rulebook.pdf> [hereinafter NHL OFFICIAL RULES] ("Other than in situations involving a delayed off-side and the puck entering the goal, no goal can be disallowed after the fact for an off-side violation, except for the human factor involved in blowing the whistle.").

Linesman Leon Stickle, though, never blew his whistle. Play never stopped.

Goring sent a pass past Dupont and Propp to Sutter, who beat a stunned Peeters under the crossbar.⁴⁷

Other accounts tell much the same story, in his book, *Birth of a Dynasty: The 1980 New York Islanders*, Alan Hahn writes:

Goring head-manned the puck to Gillies through the neutral zone along the left wall and Gillies crossed the Flyers' blue line against a retreating Lynch. He then dropped the puck to Goring, now a trailer, but Goring had only reached the neutral zone faceoff dot outside the blue line. With a head of steam, Goring carried the puck back into the zone and right by Stickle, who was pressed up against the boards right on the blue line.

Rose looked down at his notes and awaited a whistle for the obvious offsides. Instead, he heard the Coliseum crowd roar.⁴⁸

Stickle waved the puck onsidés and Goring continued in against Dupont up the left side. He sent the puck cross-ice toward the net and hit Sutter crashing from the weak side by two Flyer defenders. Sutter caught the pass and roofed a shot over a helpless Peeters.

Myers [the referee] was...surrounded by angry Flyers and this time they had a beef. [Lou] Nanne [general manager of the Minnesota North Stars, who was providing color commentary for the CBS broadcast of the game] watched the replay on CBS – which clearly showed the puck crossing back over the line – and said “That’s offsides!”⁴⁹

Interestingly, a few moments later when CBS again showed the replay of the no-call on the offside, fellow CBS broadcaster, Dan Kelly, suggested “that perhaps the NHL should use replay as a fail-safe for officials.”⁵⁰ And although Nanne said that he didn’t think so, he did, nevertheless, admit, “What can you say? The

⁴⁷ KIMELMAN, *supra* note 45, at 122-23.

⁴⁸ HAHN, *supra* note 44, at 102 (Howie Rose was “a 26-year-old sports director for WHN” who “had been assigned by Mutual Radio, an affiliated national network, to call the game for national distribution.”).

⁴⁹ *Id.* at 106-107.

⁵⁰ *Id.* at 107.

linesman was there . . . , he just missed it.” On the following day, the *Washington Post* reported the incident:

[T]here was no doubt that Butch Goring was offside before he set up Duane Sutter for the Islanders’ second goal. Clark Gillies crossed the Flyer blueline and dropped the puck to Goring, who was at least a foot behind the line. The crowd reaction indicated that even the partisan fans recognized the offside, but linesman Leon Stickle gave the palms-down signal. “I was in the right position,” Stickle said later. “I guess I blew it. Maybe there was tape on the stick and it confused me. Maybe I was too close to the play. Apparently, the replay showed I missed it.”⁵¹

The *Toronto Globe & Mail*, on May 26, 1980, concurred: “The second New York goal, scored by rookie Duane Sutter, was definitely offside and linesman Leon Stickle admitted it later after reviewing a replay. He was watching Clark Gillies of the Islanders drop a pass back to center Butch Goring at the blueline and followed Gillies instead of the puck.”⁵²

5. Jorge Orta “Safe” at First: Game 6 World Series 1985

The 1985 World Series was an all-Missouri-affair – the “I-70 Series” it was called. The St. Louis Cardinals were ahead of the Kansas City Royals in the Series, three games to two in Game 6, which was played in Kansas City. The Cardinals led 1-0, going into the bottom of the 9th inning – three outs away from claiming the World Series victory. Pinch hitter Jorge Orta led off for Kansas City and Todd Worrell came on to pitch for the Cardinals.

⁵¹ Robert Facht, *Islanders Win, 5-4, Claim Stanley Cup; Islanders Win Stanley Cup in Overtime*, WASH. POST, May 25, 1980.

⁵² James Christie, *Islanders Get Rid of ‘Choke’ Tag, Taking Stanley Cup in Overtime*, TORONTO GLOBE & MAIL, May 26, 1980. The Globe & Mail also quoted Stickle: “I was in the right position. The puck came back across the blueline (several inches). I guess I blew it,” said Stickle, who may have been confused by the black tape on a hockey stick. “Apparently, the replay showed I missed it.” See also TSN, *Sports Center Top 10 – Blown Calls*, BING, <http://www.bing.com/videos/search?q=nba+blown+call+history&FORM=VIRE3#view=detail&mid=06B23B1F943728C6FD8A06B23B1F943728C6FD8A> (The Islanders’ offside no-call makes #7 on this list); Tom VanRiper, *In Pictures: The Worst Calls in Sports*, FORBES (June 3, 2010), http://www.forbes.com/2010/06/03/tigers-galarragayankees-patriots-business-sports-worst-calls_slide_5.html.

Orta grounded to the first baseman, Jack Clark, and Worrell sprinted from the mound to cover first. Clark's throw to Worrell beat Orta by a half step, and Orta appeared to be out. First base umpire Don Denkinger mistakenly called him "safe." Cardinals' skipper, Whitey Herzog, came out to argue in vain. The television slow motion replays quickly confirmed that Denkinger missed the call and that Orta should have been out, and the on-air commentators also were unanimous in their assessment that Orta was out.⁵³ Subsequent events in the remainder of the inning unfolded in such a way that the Royals scored two runs and won the game 2-1. They then won Game 7 in lopsided fashion 11-0 to take the Series. Blair Kerkhoff refers to Denkinger's blown call as "arguably the most controversial call in World Series history."⁵⁴

6. Howard Easley's 3-Pointer: Game 6 NBA Finals 1998

The Bulls led the Jazz in the series 3-2 when Game 6 of the NBA Finals got underway, June 14, 1998, at the Delta Center in Salt Lake City, Utah. Scottie Pippen exacerbated a back injury when he dunked on the first scoring play of the game. As a result, Pippen went to the dressing room and could not play. Michael Jordan had a legendary game, scoring forty-five points, including his "signature" game-winning shot with 5.6 seconds remaining in the fourth quarter to seal the Bulls' victory 87-86.⁵⁵

With approximately 9:45 remaining in the second quarter, the Jazz led the Bulls 28-24. As the 24-second shot clock was winding down, Howard Easley grabbed an errant pass and launched a 30-footer that swished, apparently putting Utah ahead 31-24. However, referee Dick Bavetta ruled that the shot clock

⁵³ See Patrick Pearsey, *1985 World Series Game 6 – 9th Inning Kansas City v. St. Louis*, YOUTUBE (Sept. 21, 2013), http://www.youtube.com/watch?v=5iL_W9MucEk (This video is of the live telecast of the 9th inning. Commentator Al Michaels, upon watching the instant replay, immediately says: "I don't think there's any doubt about it!"); TSN, *supra* note 52 (The Orta "safe" call makes #6 on this list); BRUCE CHADWICK & DAVID M. SPINDEL, *THE ST. LOUIS CARDINALS: OVER 100 YEARS OF BASEBALL MEMORIES AND MEMORABILIA* 129 (1995) (The authors mistakenly report that Tommy Herr, the second baseman, fielded the grounder and threw to Worrell. First baseman Jack Clark fielded the grounder and threw to Worrell).

⁵⁴ KERKHOFF, *supra* note 5, at 58.

⁵⁵ See, e.g., Harvey Araton, *At the End, Jordan Lifts Bulls To Their Sixth N.B.A. Title*, N.Y. TIMES, June 15, 1998.

expired before Eisley released the ball and that the basket did not count.⁵⁶ Bob Costas and Isiah Thomas were the on-air commentators. During the next minute, while there was a brief pause in the action, Costas and Thomas reacted spontaneously as NBC showed slow-motion replays of Eisley's shot from two different angles. "See if the ball isn't out of his hand. One second – it's on the way and they missed the call," said Costas. As Thomas looked at the replay of Eisley's shot from a different angle, with the shot clock in view on the television screen, he said, "Right there you see it. The ball is in the air at one [second]. That should have counted. That's a big turnaround, and the Bulls get a big break there. Instead of up-seven-Utah, now it's only a four-point game."⁵⁷ The slow-motion replay is conclusive. Eisley's 3-pointer should have counted. This was four years before the NBA adopted Instant Replay review, and there were no backboard lights at the time that were synchronized to illuminate when the 24-second shot clock expired.⁵⁸

⁵⁶ See NBA, OFFICIAL RULES OF THE NATIONAL BASKETBALL ASSOCIATION, Rule 7 §II (2014-15), available at <https://turnernbahangtime.files.wordpress.com/2014/12/2014-15-nba-rule-book.pdf> [hereinafter NBA OFFICIAL RULES] (providing that, in order for a field goal attempt to be counted, "[t]he ball must leave the player's hand prior to the expiration of 24 seconds.").

⁵⁷ For a full-game replay, see Herdinai Ádám, *Game 6 Utah Jazz Chicago Bulls 45 Points 14 06 1998 (BEST QUALITY)!!!!*, YOUTUBE (Sept. 12, 2014), <https://www.youtube.com/watch?v=H5MpKqCYvJQ> (This incident occurs approximately forty minutes into this YouTube video version).

⁵⁸ See NBA OFFICIAL RULES, *supra* note 56, at Rule 1 §II ("NBA arena backboards must contain four strips of red LED lights, synchronized with the game clock, outlining the inside of the four sides of the backboard to indicate the expiration of time and one strip of amber LED light to indicate the expiration of the 24-second clock."). See also *id.* at Rule. 13 §II (specifically identifying as a "reviewable matter" "[w]hether the 24-second clock expired before the ball left the shooter's hand."). According to Wikipedia:

In the first half of the game, while the Jazz led 28-24 with just under 10 minutes left in the second quarter, Jazz guard Howard Eisley saved a pass that almost sent the ball out of bounds. As the shot clock was running down, Jazz forward/center Antoine Carr passed the ball a long distance to Shandon Anderson, but the ball flew over Anderson's hands. Eisley caught the ball and hit a 3, but referee Dick Bavetta ruled that Eisley released the ball after the shot clock expired. Replays showed that the ball had left Eisley's hands with a second left on the shot clock. (This game took place 4 years before the NBA instituted instant replay to review calls.) Calling the game for NBC, Bob Costas narrated a replay of Eisley's shot: "See if the ball isn't out of his hand. One second...it's on the way, and they missed the call."

B. Technology

The invention of still photography and motion pictures provided the first realistic possibilities for securing visual evidence to double-check the accuracy of decisions rendered by sports officials.⁵⁹ Early cameras, however, were anything but instant. Given the state of photographic technology in its infancy, the processes of film development consumed hours from the moment that a photographer clicked the shutter to the time that the image could be seen on paper. Similarly, nascent moving pictures took hours to develop before they could be viewed on a screen with a projector.⁶⁰ As such, it would have been entirely impractical to use either still photography or film to assist in-game calls for sports officiating. But photography did offer a means to help determine the winners of races, and in such cases,

Game 6 of the 1998 NBA Finals, WIKIPEDIA, http://en.wikipedia.org/wiki/Game_6_of_the_1998_NBA_Finals (footnotes omitted).

⁵⁹ For a discussion of the invention of still photography, see, e.g., PAUL CLEE, *BEFORE HOLLYWOOD: FROM SHADOW PLAY TO THE SILVER SCREEN* (2005). In particular, Chapter 6, “The Magic Lantern Meets the Photographer” discusses the development and evolution of still photography, beginning with Daguerre’s daguerreotypes “made public in 1839.” *Id.* at 81-95. See also *id.* at 81 (“At a joint meeting, the French Academy of Sciences and the Academy of Fine Arts voted to buy Daguerre’s process and make it available to everyone. They thought that photography was too important an invention to be tied up by an individual patent.”). For an entertaining account of the history and development of motion picture technology, see, e.g., SOC’Y OF MOTION PICTURE AND TELEVISION ENG’RS, *A TECHNOLOGICAL HISTORY OF MOTION PICTURES AND TELEVISION*, (Raymond Fielding ed., 1967) [hereinafter *A TECHNOLOGICAL HISTORY*]. Of particular interest in this volume are the following: C. Francis Jenkins, *History of the Motion Picture*, *TRANSACTIONS OF THE SMPE* (1920), reprinted in *A TECHNOLOGICAL HISTORY* 1-6; C.H. Bothamley, *Early Stages of Kinematography*, 20 *J. OF THE SMPE* (1933), reprinted in *A TECHNOLOGICAL HISTORY* 7-8; W.K. Laurie Dickson, *A Brief History of the Kinetograph, the Kinetoscope and the Kinetophone*, 21 *J. OF THE SMPE*, reprinted in *A TECHNOLOGICAL HISTORY* 9-16; and, Merritt Crawford, *Pioneer Experiments of Eugene Lauste in Recording Sound*, 17 *J. OF THE SMPE* (1931), reprinted in *A TECHNOLOGICAL HISTORY* 71-75. See generally W.K.L. DICKSON & ANTONIA DICKSON, *HISTORY OF THE KINETOGRAPH, KINETOSCOPE & KINETOPHONOGRAPH* (1970).

⁶⁰ See Thomas Armat, *My Part in the Development of the Motion Picture Projector*, 24 *J. OF THE SMPE* (1935), reprinted in *A TECHNOLOGICAL HISTORY*, *supra* note 59, at 17-22; Don G. Malkames, *Early Projector Mechanisms*, 66 *J. OF THE SMPE* (1957), reprinted in *A TECHNOLOGICAL HISTORY*, *supra* note 59, at 97-104.

the lapse of time involved in photographic developing was not necessarily a drawback.⁶¹

Historically, in the United States motion picture cameras had been used since the 20s for recording race-meets but were unsuitable for photo-finish photography as the frame-rate was too infrequent to catch the critical instant horses or dogs reached the finish line. This record was achieved by using a special slit camera. Lorenzo Del Riccio, a Paramount Pictures motion picture engineer[,] improved the circular flow camera, a device which had been invented in the 1930s especially for the purpose of photographing moving objects. The first racing club to make use of Del Riccio's 'Photo-Chart' camera for photo finishes was the Del Mar Turf Club in California at its inaugural meeting in 1937.⁶²

Thus, organizers of dog races, horse races, car races, and human races began experimenting with what came to be known as the photo finish. "The photo finish has been used in the Olympics since as early as 1912, when the Stockholm Olympics used a camera system in the men's 1500 meters race."⁶³ Before anyone could realistically dream of using Instant Replay as a diagnostic tool for assisting with sports officiating, the technological capability had to be in place first.

⁶¹ For an entertaining fictional account of a corrupt photo-finish official, see DICK FRANCIS, *Blind Chance*, in *FIELD OF THIRTEEN* 181-197 (1998). Francis's story illustrates a potential negative aspect to the time differential that once existed between the end of a race and the publication of the photo-finish results. In this short story, Francis weaves a tale of a horse race track official, Arnold Roper, who is responsible for developing the prints of photo finishes. Roper, who was always the first to learn which horse had won in a photo finish because it was he who developed the negatives and prints, established a scheme whereby he verbally transmitted the number of the winning horse via walkie-talkie to place a bet just moments before he communicated that same information to the track announcer, who then made the identity of the winner public. Because of the time-lag in developing the photo finish (i.e. the chemical process of printing the photograph on paper), Roper was able to profit from his bets. His ruse is discovered, however, inadvertently by a fifteen-year-old blind boy. The boy, Jamie Finland, spent a great deal of time listening to airline pilot chatter on a ham radio. By chance, Jamie's radio picked up Roper's transmissions to his bookie (i.e. just the horse's number), and Jamie eventually put two-and-two together, discovering Roper's secret. *Id.*

⁶² *Photo Finish*, WIKIPEDIA, http://en.wikipedia.org/wiki/Photo_finish.

⁶³ *Id.* (footnote omitted).

Of particular importance was the invention and development of videotape recording.⁶⁴ Several individuals and corporations were involved in the quest. Before videotape was even possible, however, certain advances in the materials science and technology of magnetic audiotape were necessary. By 1948, researchers had improved the quality of magnetic audiotape to such a degree that the prospect of adapting it to capture visual signals as well as sound was a realistic possibility.⁶⁵ “While many television researchers turned their attention to magnetic tape, the problems in using it for video were enormous.”⁶⁶ Initial experiments with fixed heads in the early 1950s failed to produce an adequate picture and sound quality. The physical design of the electromagnetic heads that controlled the passage of the tape though the mechanisms was not yielding a functional combination of picture synchronized with sound.⁶⁷ In November 1951, Alexander Poniatoff, president and founder of the Ampex Corporation,⁶⁸ announced that Ampex planned to develop a

⁶⁴ For an overview of the invention of videotape and videotape recording technology, see FINN JORGENSEN, *Early Fixed-Head Video Recorders*, in MAGNETIC RECORDING: THE FIRST 100 YEARS 137-152 (Eric D. Daniel et al. eds., 1999) [hereinafter MAGNETIC RECORDING]; JOHN C. MALLINSON, *The Ampex Quadruplex Recorders*, in MAGNETIC RECORDING 153-169. See also ALBERT ABRAMSON, *THE HISTORY OF TELEVISION, 1942-2000* 50-76 (2003).

⁶⁵ See FREDERICK M. REMLEY, *The Challenge of Recording Video*, in MAGNETIC RECORDING 129 (“The [first] successful introduction, beginning in 1948, of high-quality audio magnetic tape recording systems lent substance to a hope for magnetic video recorders of similar high performance and manageable cost.”). See also ABRAMSON, *supra* note 64, at 50 (“By 1950 Ampex had surpassed the older companies such as Studer, RCA, and Fairchild, and dominated the market. Ampex had now become the number-one producer of audio tape recorders for the industry. Their machines were reliable, easy to maintain and achieved excellent audio quality.”).

⁶⁶ ABRAMSON, *supra* note 64, at 50.

⁶⁷ See REMLEY, *supra* note 65, at 129 (“Various experimental video recorder schemes using fixed heads were demonstrated in the early 1950s, but no design reached a level of performance that justified manufacture.”). See also ABRAMSON, *supra* note 64, at 50 (“[S]imply speeding up the machine four or five times only extended the range to about 50,000 or 60,000 cycles—far cry from the necessary 3- to 4-megacycle bandwidth needed to record and play back a video signal. However, the challenge was there and many laboratories started projects to solve this problem.”).

⁶⁸ See BEVERLEY R. GOOCH, *Building on the Magnetophon*, in MAGNETIC RECORDING 72, 83 (“Ampex was founded in November 1944 in San Carlos, California, by Poniatoff, a Russian-born electrical engineer, who had emigrated to the United States in 1927. The company’s name was said to be derived from Poniatoff’s initials plus ‘ex’ for ‘excellence.’”),

working videotape recorder within the next six months. Ampex hired a team of research scientists to work on the project, including Charles Ginsburg and Ray Dolby.⁶⁹ Meanwhile, Bing Crosby Enterprises (“BCE”) also was hard at work, making a concerted effort to invent an operational videotape recorder. BCE experienced some initial success. BCE’s John T. Mullin and Wayne Johnson “altered a standard audio recorder (the Ampex 200) and gave the first demonstration of video signals recorded on magnetic tape on November 11, 1951.”⁷⁰ BCE continued its efforts and demonstrated another prototype in October 1952.⁷¹ BCE first worked with a black-and-white recorder, and in 1955 expanded its efforts to include color.⁷² Not to be left behind, the Ampex team of Charles Ginsburg, Charles Anderson, Ray Dolby, Shelby Henderson, Alex Maxey, and Fred Pfof achieved a significant breakthrough by switching their mechanical design from fixed heads to moving heads. “[O]n May 3, 1954, Ampex applied for their first patent on Ginsburg’s and Dolby’s work.”⁷³ The moving heads provided distinct advantages, such as superior video and sound quality.⁷⁴ The Ampex team continued to adjust their

⁶⁹ See JORGENSEN, *supra* note 64, at 142 (“On November 12, 1951, an article in the *San Mateo Times* quoted Ampex head Poniatoff’s announcement of his company’s goal to produce a video tape recorder in 6 months. The initial budget was \$14,500. The project would be led by Charles Ginsburg, hired in January 1952, later to be joined by Ray Dolby and others.”). See also ABRAMSON, *supra* note 64, at 51 (“Ginsburg was hired in December 1951 and given a small budget (\$14,500) to start the project.”); *id.* at 52 (“Dolby, who was a friend of Poniatoff, started to work in his engineering laboratory while still a senior at high school. He began as a technician and tester in the summer of 1949 on audio projects at the Ampex factory, five hours a day.”); *id.* (“Dolby officially joined the video project in August 1952.”) (footnote omitted).

⁷⁰ ABRAMSON, *supra* note 64, at 50.

⁷¹ JORGENSEN, *supra* note 64, at 143 (“BCE came in first, on October 3, 1952, with a demonstration of a high-resolution recording of a motion picture Three months later both the *Wall Street Journal* and the *New York Times* reported a successful demonstration of an improved recorder, now using a tape recently developed by Minnesota Mining and Manufacturing Company (3M).”).

⁷² *Id.* at 148, (“BCE, after developing a black-and-white recorder, took the next obvious step to a color video tape recorder, demonstrating an engineering model on February 7, 1955 . . .”).

⁷³ ABRAMSON, *supra* note 64, at 52.

⁷⁴ MALLINSON, *supra* note 64, at 155 (“On September 1, 1954, the Ampex video recorder project was started in earnest. Charles Ginsburg now was joined by Charles Anderson, Ray Dolby, Shelby Henderson, Alex Maxey, and Fred Pfof, the team that finally succeeded in 1956 with the VRX-1000, the first quadruplex video recorder.”); see also *id.* at 153 (“The Ampex VR-1000 was the first video recorder to use the

designs, working with a “new transverse head drum”⁷⁵ and a “multivibrator modulator.”⁷⁶ Their invention: the quadruplex video tape recorder, which they eventually marketed as the VR-1000, became the “worldwide standard” in the industry for the next two decades.⁷⁷

In February 1956, a demonstration was made to about 30 Ampex senior personnel Representatives of CBS, ABC, and the Canadian and British broadcasting companies were invited in the next few weeks to see similar demonstrations. Jack Mullin, of Bing Crosby Enterprises (BCE), was also invited and he said, “It is all over for us [referring to BCE’s longitudinal, fixed-head video recorder]! It was a beautiful picture, better than ours!”⁷⁸

Ampex gave a public demonstration in April 1956: “There was a moment or two of stunned silence as the astonished audience witnessed both picture and sound with no apparent difference in quality from the live program recorded moments earlier Ampex was flooded with orders almost immediately.”⁷⁹ By the end of the month, “Ampex had received orders for eighty-two commercial units at a price of \$45,000 each.”⁸⁰ On November 30, 1956, CBS aired “the first videotaped network broadcast” of a television show (“Douglas Edwards and

revolutionary concept of moving heads as well as the tape, the head motion being transversely across the width of a 2-inch wide tape.”)

⁷⁵ ABRAMSON, *Supra* note 64, at 64.

⁷⁶ MALLINSON, *supra* note 64, at 65 (“On March 5, 1955, they gave a very convincing demonstration to the board of directors.”).

⁷⁷ *Id.* at 155 (“Quadruplex video tape recorders were the worldwide standard for professional video for about 25 years (1956-1980) . . .”).

⁷⁸ *Id.* at 158-159, *See also* ABRAMSON, *supra* note 64 at 50 (“In February 1956, an in-house demonstration was given to a small Ampex management group. They recorded and played back part of the ‘Bob Crosby Show’ from the local CBS affiliate. The results were sensational.”); *See also*, JORGENSEN, *supra* note 64, at 142 (“The first player in the video tape recorder development race was John T. (Jack) Mullin, an engineering graduate of Santa Clara University.”); and REMLEY, *supra* note 65, at 130 (“The first successful video recording system offered for sale was a large, complex machine developed by the Ampex Corporation in California. It was demonstrated at the 1956 conference of the National Association of Broadcasters and delivered to a few customers the following year, identified as the VRX-1000.”).

⁷⁹ ABRAMSON, *supra* note 64, at 71.

⁸⁰ *Id.* at 73.

the News”), which was “the first use of the Ampex recorder in broadcast history.”⁸¹

C. Tony Verna – *The Pioneer*

In his book, *Instant Replay: The Day That Changed Sports Forever*, Tony Verna describes his role in the creation of Instant Replay.⁸² Verna grew up in Philadelphia⁸³ and following a brief stint at West Point,⁸⁴ steadily worked his way up the ranks at CBS during the 1950s, when television was in its infancy.⁸⁵ Verna came from a technologically savvy family. Starting at a young age, he learned the fundamentals of photography and photographic developing techniques in a family darkroom in the basement of his South Philadelphia home.⁸⁶ Combining his superior intelligence with a tireless work ethic, Verna cultivated his creativity during the early days of television production. In addition to cutting his teeth with in-studio productions, Verna made his mark with a variety of events filmed live on-location as well.⁸⁷ He gained tremendous experience while overseas working on the 1960 Summer Olympic Games in Rome, where he was responsible for sending highlight film to New York on a daily basis.⁸⁸

Verna gave a great deal of thought to how he might be able to work out the practical mechanics of showing his television audience a replay of a segment of a sports broadcast for quick review. He had conceived the idea for Instant Replay, but early videotape machines did not have the features necessary to make it work accurately or promptly. Although the machines had mechanical numerical counters (as did magnetic sound tape machines in the early 1960s) that approximated the number of

⁸¹ *Id.* at 75.

⁸² *See generally* VERNA, *supra* note 1, at 1-18.

⁸³ *Id.* at 19-32.

⁸⁴ *Id.* at 26-29.

⁸⁵ *Id.* at 32-60.

⁸⁶ *Id.* at 19 (“[A] lot of my growing up was in the family’s photographic studio.”). *See also id.* at 30 (Verna explains that his “father and brothers were professional photographers, so in photography I knew the ins and outs.” He received a Polaroid camera for his birthday in 1948 and “[n]o sooner had the wrappings come off than the camera was taken apart . . . to see how the hell instant photography worked.”).

⁸⁷ *Id.* at 32-37.

⁸⁸ *Id.* at 61-63.

feet that were passing along the reels of the machine; the counters on those devices were not precise enough to enable an operator to rewind the tape to a specific location (e.g. the place where a football play began with the center's snap to his quarterback) in order to re-watch a given play—and certainly not a specific and relevant portion of a play.⁸⁹

To solve this problem, Verna conceived an alternative method for identifying an exact place on the videotape; he added an arbitrary audible signal—a tone—that an operator could hear when rewinding the tape that would allow him to identify where a play had begun.⁹⁰ Upon detecting that sound, the operator could stop the rewinding process (if his reflexes were up to the task) and be very close to the desired point on the tape at which he could press “play” to view the “Instant Replay.” Verna experimented enough with his idea that he finally decided to try it during a live football broadcast. He decided to try his innovation at the Army-Navy football game on December 7, 1963.⁹¹

Although Verna had to do his own “end-run” around executives at CBS in order to transport the cameras, lenses, and other equipment necessary from New York to Philadelphia, he managed to pull it off.⁹² Verna briefed the on-air commentator, the

⁸⁹ *Id.* at 7 (describing videotape technology in 1963 when he first successfully used instant replay during a live football game: “The tape machines had numerical counters on them, but they were highly unreliable for a machine pulling its tape at 15 inches a second.”).

⁹⁰ *Id.* at 7-8 (“Then it came to me. When radio began, they used a 40-cycle burst of audio tones as a time check for their stations and a lead in before the start of the day’s broadcasting. Hmmm. What if it were an audio tone that was being distorted? What if instead of listening to my words being mangled, I’d be listening to a ton’s changing pitch as it was tightening to its original distinct sound? I inputted my commands as ‘beeps’ directly onto the cue track; and by focusing on the tape rather than the hardware I was able to do what the recorder couldn’t do.”); *id.* at 10-11 (“I overlaid a pattern of timed audio tones on the tape’s cue track as it went about recording the live play. With the tones being put on the unused audio track, the home viewers would not hear those beeps when the tape played back.”).

⁹¹ *Id.* at 1-18 (Verna explains his conception and first use of instant replay during the Dec. 7, 1963 Army-Navy football game in Chapter 1, entitled “Birth of the Instant Replay.”). *See also* KERKHOFF, *supra* note 5, at 80 (“Television recorded another first Dec. 7, 1963, when CBS debuted its new toy, the instant replay, during the Army-Navy game from Philadelphia.”).

⁹² VERNA, *supra* note 1, at 8-10 (Describing the problems of securing and transporting the twelve-hundred-pound Ampex VTR-1000 machine and ancillary parts

great Lindsey Nelson, in advance to prepare him for the possibility of using Instant Replay during the game.⁹³ Explaining both the concept itself and the process to an announcer who had never previously dealt with the prospect of using such a novel invention during a live football broadcast left the announcer at a loss for words!⁹⁴ Fortunately for Verna, in the closing minutes of the game, Army quarterback, Rollie Stichweh, provided an ideal opportunity to introduce the world to Instant Replay.⁹⁵ Trailing 21-7 with 6:19 remaining in the fourth quarter, Army had the ball on the Navy one-yard line. Stichweh faked a hand-off and ran in for a touchdown. Verna describes the first on-air Instant Replay:

It was an isolation that [cameraman] George Drago had caught on his camera and which [tape operator] John Wells immediately rewound and then hit the play button. During the seven to ten seconds while the pre-roll played back, I heard the tones strengthen, and, lo and behold, clean video came up. My technical director, Sandy Bell, punched it up while I shouted into Lindsey's ear, "This is it."

And when that Instant Replay hit the screen, we got Lindsey's famous on-air shout, "This is not live! Ladies and Gentlemen, Army did not score again."⁹⁶

Viewers that day were witnesses to something truly remarkable—the birth of the Instant Replay!

Needless to say, Instant Replay technology improved a great deal between December 7, 1963 and when the NFL first began

and back-up parts.). For a discussion of the development of this machine, *see also* MALLINSON, *supra* note 64, at 160-162.

⁹³ VERNA, *supra* note 1, at 10 (According to Verna, Nelson's initial reactions was: "You're going to do what?"). *Id.* at 12 (Verna continued: "I remember after I told him what my plans were he fell silent. I guess he was trying to figure out how he would explain something to the viewers that they had never seen before . . . that what they were now seeing was not a new play but a replay of what they had just seen.").

⁹⁴ *Id.* at 12.

⁹⁵ Stichweh and Navy quarterback, NFL Hall-of-Famer Roger Staubach, became friends. After graduation from their respective service academies, both served in Vietnam—Stichweh in combat duty. *See Friendships Wrapped in the Army-Navy Rivalry*, N.Y. TIMES (Sept. 27, 2012), http://www.nytimes.com/2012/09/27/sports/ncaafootball/army-navy-rivalry-led-to-friendship-for-roger-staubach-and-rollie-stichweh.html?pagewanted=all&_r=2.

⁹⁶ VERNA, *supra* note 1, at 14.

implementing it for officiating in 1986.⁹⁷ As Verna himself noted: “The Instant Replay was created not just to relive the moment but to analyze the moment⁹⁸ They enabled one to analyze what the replays revealed – information that hadn’t been seen during the regular coverage.”⁹⁹ Tony Verna’s contribution cannot be underestimated. “Before December 7, 1963, the Instant Replay was not only unknown, as noted, it was unforeseen.”¹⁰⁰ As might have been expected, there was also a great deal of discussion regarding *how* to use Instant Replay in officiating.

⁹⁷ See *id.* at 116-117 (“My original working equation wasn’t flawed. It had the same fate as any other invention once it’s introduced. You expect it to be improved upon. Electronic circuitry replaced my three-man operation. Instant Replay became a built-in feature of the telecast, but it was being achieved with so little hassle that the Instant Replay was no longer being hailed for its own identity.”); *id.* at 93 (“[I]n 1967, Ampex came out with the HS-100 and ABC aired the first slow-motion instant replay during a downhill skiing event in Vail, Colorado.”). As an interesting aside, 1986—the year that the NFL began using Instant Replay as an officiating tool—was also was the year that Paul Simon released his award-winning album *Graceland*, which featured a song entitled “The Boy in the Bubble.” Simon’s lyrics capture the mid-80s public’s fascination with the incredible state of technology:

These are the days of miracle and wonder
 This is the long-distance call
 The way the camera follows us in slo-mo
 The way we look to us all
 The way we look to a distant constellation
 That’s dying in a corner of the sky
 These are the days of miracle and wonder
 And don’t cry baby don’t cry
 Don’t cry

It’s a turnaround jump shot
 It’s everybody jumpstart
 It’s every generation throws a hero up the pop charts
 Medicine is magical and magical is art
 Thinking of the Boy in the Bubble
 And the baby with the baboon heart

PAUL SIMON, *The Boy in the Bubble*, on GRACELAND (Warner Bros. Records 1986).

⁹⁸ VERNA, *supra* note 1, at 150 (2008).

⁹⁹ *Id.* at 157.

¹⁰⁰ *Id.* at 117.

D. Adoption of Instant Replay by the Leagues

1. General

“To players, coaches and fans, there was an obvious use for the invention beyond the entertainment value.”¹⁰¹ The NFL first experimented with using Instant Replay as an officiating tool in seven preseason games in 1978.¹⁰² Interestingly, it was the United States Football League (“USFL”) that first used Instant Replay during its regular season in 1985.¹⁰³ The NFL first used it during the regular season in 1986. The NHL first used Instant Replay in 1991. The NBA began using it in 2002, and MLB started in 2008. As is true with the adoption of most technology, the Leagues have gradually adapted their rules and methods through trial and error.

As Instant Replay technology improved and became commonplace during the 1960s and 70s, in the course of the routine weekly television broadcasts of football, hockey, basketball, and baseball games, on-air commentators and viewers at home experienced the luxury of second-guessing referees and umpires. After reviewing an Instant Replay within seconds on TV, it was fairly clear when officials had erred.¹⁰⁴

¹⁰¹ KERKHOFF, *supra* note 5, at 80.

¹⁰² *NFL History by Decade*, NFL, <http://www.nfl.com/history/chronology/1971-1980> (“A study on the use of instant replay as an officiating aid was made during seven nationally televised preseason games.”). *See also A Look Back at Replay in the NFL*, KROSSOVER INTELLIGENCE, INC. (Aug. 14, 2012), <http://www.krossover.com/blog/2012/08/a-look-back-at-replay-in-the-nfl/> (“The NFL first flirted with instant replay during the preseason of 1978.”).

¹⁰³ George Usher, *USFL Has the Jump on NFL in Instant Replays*, L.A. TIMES (Dec. 1, 1985), http://articles.latimes.com/1985-12-01/sports/sp-5672_1_instant-replay (“A review official in the press box would watch the replay on a television monitor, then relay his decision to the referee. The referee then would indicate whether the coach was correct and if the call should be reversed; or that a replay was imperfect or non-existent, and therefore there could be no challenge, or that the official was correct. In the latter case, the team that lost the challenge would lose a timeout. Or, if it had no timeouts left, it would be penalized 5 yards for delay of game.”).

¹⁰⁴ *See, e.g.*, discussion *supra* Part I.A.4-6 (discussing examples of missed calls involving Duane Sutter, Jorge Orta, and Howard Eisley).

Clearly, this was not an ideal situation for the Leagues.¹⁰⁵ The electronic medium was demonstrating that it occasionally had vision superior to the officials on the field, ice, court, and diamond. There were some who argued that on-field officiating preserved an important “human element” in sports, an element that would be lost if Instant Replay officiating were to become the norm.¹⁰⁶ But in the long run, the Leagues have determined that the advantages of using Instant Replay as an officiating tool outweigh its disadvantages.¹⁰⁷

Each organization that has embraced Instant Replay as part of its officiating has established both procedures and substantive rules.¹⁰⁸ The balance of this section of the Article takes a brief look back at the paths that the Leagues took to reach their present status. Part II will examine the current NFL, NHL, NBA, and MLB substantive and procedural rules for Instant Replay.

2. NFL¹⁰⁹

By 1970, television Instant Replay had changed fans’ attitudes about officiating.¹¹⁰ Also, by the mid-1970s, NFL owners began considering the possibility of using video to assist

¹⁰⁵ KERKHOFF, *supra* note 5 at 81 (After a controversial call that went against the Washington Redskins Nov. 16, 1975: “A local attorney filed suit in federal court to reverse the decision.”).

¹⁰⁶ *See id.* (“Lions coach Rick Forzano was a no-vote, stating, “Part of the fun of being in athletics is judgment calls. Maybe in the future it will become so technical, you won’t need officials or coaches. You’ll have machines out there.”). *See, e.g., id.* at 84 (“Speaking for the dissenters, the Chiefs coach John Mackovic said he didn’t want to lose the game’s human element. ‘I always enjoyed the shortcomings, knowing they were part of the game,’ he said.”). Traditionalists, clinging to the imperfect, nostalgic past, resisting the use of technology is nothing new to sports. *See, e.g.,* VERNA, *supra* note 1, at 38-39 (“A lot of ballparks were hostile to televised sports, thinking that TV could cut their attendance.”).

¹⁰⁷ For additional discussion regarding the advantages and disadvantages, *see infra* Part I.E.

¹⁰⁸ *Instant Replay*, WIKIPEDIA, http://en.wikipedia.org/wiki/Instant_replay.

¹⁰⁹ For an excellent “play-by-play” summary of the NFL’s history of adopting Instant Replay review, *see generally* KERKHOFF, *supra* note 5, at 80-91.

¹¹⁰ *See* VERNA, *supra* note 1, at 121 (“The stadium crowd [at Super Bowl IV in New Orleans on January 11, 1970] was typical of how the crowd had changed since the inception of the Instant Replay. The problem came when the Instant Replay proved a game official wrong. There was no way I could ignore a stadium of fans chanting the word bullshit loud enough in Louisiana for even Bert Bell to hear it in his Pennsylvania resting site.”).

officials.¹¹¹ Officials experimented with Instant Replay in seven games during the 1978 preseason, although by 1980, “most coaches thought it was only a matter of time.”¹¹² The late 1970s and early 1980s saw the advent of personal in-home videotape recorders that gave television fans an opportunity to record and scrutinize individual plays.¹¹³ It was clear to the home video recording industry that the ability to record sports was a principal consideration. When consumer models of videotape recorders were just beginning to hit the store shelves in 1976-77, industry leaders such as Sony, Zenith, Panasonic, and RCA had to face the reality of consumer market interests when designing their products. “They agreed that...the programs most likely to be recorded would be movies and sports.”¹¹⁴ Manufacturers felt the need to make consumer VHS tapes to accommodate the desires of the US market “since American football, one of the most popular sports, requires at least 3 hours.”¹¹⁵ Tony Verna notes the importance and influence of these in-home devices.

Okay, let’s pick it up in 1980. Seventeen years have passed since the first Instant Replay. The videotape recorders had made their way into the living room. How did that affect the Instant Replay? The home recorder allowed the viewer to go back and replay what just happened in the game. When the infrared remote control came out, which was about that time, it made it even easier for people on the couch to check out their own Instant Replays, instead of just relying on the people in truck. Like any other innovation, it also took on a special kind of expectancy. In the case of the Instant Replay, it took on a sense of irretrievability.¹¹⁶

¹¹¹ See KERKHOFF, *supra* note 5, at 81 (“Before the end of the regular [1975] season, the 26 NFL coaches were polled by a video production company. More than half said they favored instant replay to determine close calls.”).

¹¹² Usher, *supra* note 103.

¹¹³ For an account of the progression of in-home consumer videotape players, giving the average fan the ability to watch replays, see HIROSHI SUGAYA, *Consumer Video Recorders*, in MAGNETIC RECORDING, *supra* note 64, at 182-200. See also ABRAMSON, *supra* note 64, at 186.

¹¹⁴ MAGNETIC RECORDING, *supra* note 64, at 191.

¹¹⁵ *Id.*

¹¹⁶ VERNA, *supra* note 1, at 156-57.

By 1985, the Competition Committee voted to experiment with Instant Replay during the preseason.¹¹⁷ In March 1986, the owners voted to adopt the Instant Replay for use in the 1986 regular season.¹¹⁸

In the beginning, there were a very limited number of situations that were subject to Instant Replay review. The first NFL Instant Replay rules only scrutinized “questions of possession or touching, such as plays involving fumbles, receptions, interceptions, muffs, ineligible players touching a pass or questions involving the sidelines, goal lines or end lines, such as breaking the plane of the goal line.”¹¹⁹ The system did not review penalties, “[t]he replay official in the press box . . . [was] not . . . an NFL official, and conversations with the referee . . . [were] conducted via walkie-talkie.”¹²⁰ It was up to the official in the press box to notify the referee on the field, who, in turn could “also ask the press box official for clarification.”¹²¹ The original Instant Replay format used a very high standard of review – requiring that “any ruling by the press box official . . . [had to be] . . . ‘totally conclusive,’” and it did not permit coaches, players, or any team personnel to ask for Instant Replay review.¹²²

Dallas Cowboys owner, Tex Schramm, voiced his approval: “This is probably one of the best decisions we’ve had at a league meeting in many years, as far as people expressing themselves

¹¹⁷ KERKHOFF, *supra* note 5, at 83 (“Slowly, replay forces were gaining momentum. In 1985, the competition committee first approved use of instant replay for eight exhibition games, although the vote failed 16-8 (four didn’t vote) for the 1985 regular season.”).

¹¹⁸ Michael Janofsky, *Instant Replay Gets Approval by N.F.L.*, N.Y. TIMES, Mar. 12, 1986, at B9. *See also* KERKHOFF, *supra* note 5, at 83 (“23 in favor, four against and one abstention.”).

¹¹⁹ Janofsky, *supra* note 118. *See also* KERKHOFF, *supra* note 5, at 83-84 (In its first iteration, the NFL’s Instant Replay review was “intended to focus on plays of possession – fumbles, interceptions, and receptions – and most plays governed by the sideline.”).

¹²⁰ KERKHOFF, *supra* note 5, at 84.

¹²¹ Janofsky, *supra* note 118.

¹²² *Id.* *See also* Oldfather & Fernholz, *supra* note 11, at 49-50 (“The NFL owners voted to adopt a limited form of instant replay in 1986 in an attempt to eliminate egregiously bad calls. Under the original replay system, a designated replay official had the sole discretion to review each play on a monitor and to order non-judgment calls reversed if he found ‘indisputable’ evidence that the on-field call was incorrect. This format gave total control to a single official, as neither the teams nor the referees could call for a replay of a disputed call.”) (footnotes omitted).

and doing something to help the game,' Schramm said. 'Replay has become a fixture on television broadcasts, so we should use what the public sees.'"¹²³

As one might expect with any new system, the first year of using Instant Replay review had its share of difficulties. Some of the problems were with communication. For example, an official on the field thinks he hears "complete" when actually the official in the booth had said "incomplete."¹²⁴ Critics lashed out at the inordinate amount of time that it was taking and complained that the system lacked equality because the same number of cameras was not available at all games.¹²⁵ Long delays would continue to plague the system over the next several years, leading to the disgruntled owners revoking it in 1992.¹²⁶

Then, during the ensuing years, television audiences were treated to more and more second-looks that exposed on-field officiating mistakes.¹²⁷ The 1998 season was the tipping point.¹²⁸ Detroit Lions owner, William Clay Ford became exasperated with some of the officials' errors following a loss to the New England Patriots and said, "I've never seen a game called like that in my life. I thought it was terrible. I don't give a (bleep) if the commissioner fines me or not. It's just terrible. If we don't get instant replay, I give up . . ."¹²⁹ And enough of the mistakes had playoff implications that the momentum swung back.¹³⁰

¹²³ KERKHOFF, *supra* note 5, at 84.

¹²⁴ *Id.* at 85.

¹²⁵ *Id.* at 86.

¹²⁶ *Id.* at 89.

¹²⁷ *Id.* at 65-79 (Chronicling numerous officiating mistakes during the 1998 season, including the infamous "heads/tails" coin-toss call by Jerome Bettis ("The Bus") on Thanksgiving Day.).

¹²⁸ *Id.* at 89-91.

¹²⁹ *Id.* at 68 (quoting William Clay Ford, owner of the Detroit Lions, in 1998).

¹³⁰ *See id.* at 69 (Less than a week later, after more controversial officiating in the Bills vs. Patriots game: "The outcome of the game prompted Buffalo owner Ralph Wilson, an instant replay opponent, to change his stance."). *See also id.* at 70 (Regarding the Bills vs. Patriots game, Kerkhoff explains: "Under the old instant replay rules, Jefferson's pass reception at the 26 probably wouldn't have held up. Without instant replay, the call was not correctable. Had Jefferson been ruled out of bounds, Buffalo would have taken possession and the Hail Mary wouldn't have happened." (Pass interference was called against the Bills on the Hail Mary, and the Patriots scored immediately thereafter to win.)).

Polls by ESPN, CNN-SI and Fox indicated more than 90 percent of fans favored use of instant replay to sort out the mess. Hysteria from Buffalo and Pittsburgh, where fans believed their teams had been victimized by poor officiating, was expected. Now, national publications were taking notice. *Newsweek* weighed in on the controversies. *USA Today* gave it front-page play. Richard Sandomir, who writes about sports and television for *The New York Times* said, "It has become abundantly clear there are a dozen key calls a fan could point out over the course of a season that could use another look. Not having replay creates a lot of negative talk. I think bringing back replay could create more talk, more positive talk."¹³¹

The availability of superior technology publicly exposed referees' mistakes. Commenting on several specific missed calls during the 1998 season, Blair Kerkhoff remarks: "The missed out-of-bounds call on the pass reception in the Patriots-Bills game, and the Testaverde touchdown against the Seahawks were blunders that instant replay could have rectified."¹³² When the television screen revealed facts that contradicted on-field decisions, it was only natural for those who felt the sting of injustice to demand change.

On March 18, 1999, the *New York Times* announced the news that NFL owners had once again reinstated Instant Replay review: "After a seven-year absence, instant replay will return this fall to the National Football League for a one-year trial. The move was approved by N.F.L. owners . . . in the wake of an outcry stemming from controversial calls by officials that had a major impact on several games last season."¹³³

Only the Bengals, Cardinals, and Jets voted against it. Coaches were satisfied with the latest revision: Two challenges were allowed during the initial 28 minutes of each half, with the team requesting the replay losing a timeout for each challenge not upheld. Challenges during the final two

¹³¹ *Id.* at 74.

¹³² *Id.* at 79.

¹³³ Thomas George, *N.F.L. Backs Limited Replay After Complaints of Bad Calls*, N.Y. TIMES (Mar. 19, 1999), <http://www.nytimes.com/1999/03/18/sports/pro-football-nfl-backs-limited-replay-after-complaints-of-bad-calls.html>.

minutes of play were to be called from the press box by an NFL replay assistant with previous officiating experience. Transferring that decision from the coaches to the officials was a key element in the proposal.¹³⁴

Although the system has continued to evolve, Instant Replay review has become a stable component of NFL officiating ever since 1999.

3. NHL

On June 24, 1991, the National Hockey League's Board of Governors voted to use Instant Replay review for the 1991-92 season.¹³⁵ The league's officials influenced the decision to adopt it.¹³⁶ The NHL had been studying and discussing the issue for seven years before finally agreeing on the amendments to the rules to incorporate Instant Replay review.¹³⁷ The new Instant Replay rules put "a video goal judge in each arena . . . [to] help the referee to rule on disputed goals."¹³⁸ According to the NHL's Vice President of Hockey Operations, Jim Gregory, the plan during the first season was for the rules to permit Instant Replay review of only four types of determinations regarding potential goals: 1) Determining whether a puck, in fact, crossed the goal line (in which case it *would count* as a "good goal"); 2) Determining whether a puck was kicked or thrown into the net (in which case it would *not count* as a "good goal"); 3) Determining whether a puck went into the net directly off an official (in which case it would *not*

¹³⁴ KERKHOFF, *supra* note 5, at 91. *See also* Oldfather & Fernholz, *supra* note 11, at 45-46 ("Instant replay eventually returned after several controversial calls marred the 1998 NFL season."). *See also id.* at 50-51 ("The revised replay system that returned to the NFL in 1999 had some important distinctions from the 1986-1991 version. Most importantly, the plenary power of the replay official was largely devolved to coaches. Under the new system, a coach initiates a challenge by using a timeout; if he is vindicated, the challenging coach gets his timeout back. Originally, the coach only had two challenges to use per game; the rule has since been revised to give a coach a third challenge if he is successful on his first two challenges.") (footnotes omitted).

¹³⁵ *Let's Skate to the Videotape*, N.Y. TIMES (June 25, 1991), <http://www.nytimes.com/1991/06/25/sports/let-s-skate-to-the-videotape.html>.

¹³⁶ KERKHOFF, *supra* note 5, at 108 ("Video review had been part of the NHL since the 1991-92 season at the request of officials.").

¹³⁷ *NHL Approves Video Replays on Disputed Goals*, MONTREAL GAZETTE, June 25, 1991, at C1.

¹³⁸ *Id.*

count as a “good goal”); and 4) Determining whether a puck crossed the goal line before the net was dislodged or before the end of a period occurred (in which case it *would count* as a “good goal”).¹³⁹ The time limit for official review using Instant Replay was two minutes.¹⁴⁰

And, in order to facilitate the official’s ability to determine whether a puck crossed the goal line before time expired at the end of a period, “the league also voted to use game clocks that...count[ed] in tenths of seconds in the final minute of every period.”¹⁴¹ NHL President John Ziegler explained: “This is not going to eliminate all controversies with respect to Goals . . . [but] . . . [w]e can at least . . . provide assistance to those people, who, under great pressure and at very difficult times, have to make these difficult decisions.”¹⁴² One of the supporters of Instant Replay, President of the Quebec Nordiques, Marcel Aubut, although enthusiastic and optimistic, nevertheless cautioned that there would certainly be bumps in the road.¹⁴³ He acknowledged that it took the NFL years of trial and error in an effort to smooth wrinkles in their system, a system that “was not always 100-percent positive.”¹⁴⁴

4. NBA

Ten years after the NHL voted to institute Instant Replay review, the NBA followed suit.¹⁴⁵ During the 2002 playoffs, televised slow motion replays demonstrated that several calls on last-second shots were miscalled.¹⁴⁶ And, although the party-line was that no *one* miscall was the catalyst for adopting Instant

¹³⁹ *Let’s Skate to the Videotape*, *supra* note 135; *NHL Approves Video Replays on Disputed Goals*, *supra* note 137.

¹⁴⁰ *NHL Approves Video Replays on Disputed Goals*, *supra* note 137.

¹⁴¹ *Let’s Skate to the Videotape*, *supra* note 135. See also NBA OFFICIAL RULES, *supra* note 56, at Rule 5 §II (“The game clock shall be equipped to show tenths-of-a-second during the last minute of each period.”).

¹⁴² *NHL Approves Video Replays on Disputed Goals*, *supra* note 137.

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ Broussard, *supra* note 18; Steve Wyche, *NBA Votes to Try Replay; League Will Experiment in 2002-03 Season*, WASH. POST, July 30, 2002, at D1; *Instant Replay Wins Approval*, L.A. TIMES, July 30, 2002, at 6.

¹⁴⁶ Broussard, *supra* note 18. See also *Instant Replay Wins Approval*, *supra* note 145.

Replay review, there was little doubt that the controversies stirred by the miscalls in the playoffs were a significant factor.¹⁴⁷ Senior Vice President of Basketball Operations, Stu Jackson, explained:

As we saw last season, last-second plays sometimes occur in which it is impossible for a human being to determine whether the play took place before time expired. In those circumstances, the game officials will now have the use of instant replay to assist them in making the correct call.¹⁴⁸

Consequently, the NBA's first Instant Replay rules required officials automatically to review every shot taken at the buzzer at the close of every quarter and overtime period.¹⁴⁹ "All three officials . . . look[ed] at a designated monitor, which . . . show[ed] footage from a televised broadcast or from in-house feeds . . ."¹⁵⁰ Jackson emphasized the potential benefit of putting advanced technology to good use, remarking, "Now we have the ability, through technology, to assist us with these plays."¹⁵¹ According to Chris Broussard in the *New York Times* the day after the league's vote to adopt Instant Replay:

The referees will also review whether a player's foot is on the 3-point line or out of bounds, and whether a 24-second shot clock or 8-second backcourt violation has occurred before a shot is taken. Foul calls will also be reviewed, but only to determine whether a player was fouled before time expired, not whether the call was right or wrong.¹⁵²

5. MLB

It was not until 2008 – 45 years after Tony Verna's groundbreaking moment during the Army-Navy game in December of 1963 – that MLB began using Instant Replay as an

¹⁴⁷ See Broussard, *supra* note 18.

¹⁴⁸ *Id.*

¹⁴⁹ Broussard, *supra* note 18. See also *Instant Replay Wins Approval*, *supra* note 145.

¹⁵⁰ Wyche, *supra* note 145.

¹⁵¹ *Id.*

¹⁵² See Broussard, *supra* note 18.

officiating tool.¹⁵³ In August 2008, Stan McNeal of the *Sporting News* reported that its “use would be limited to calls on home runs – fair or foul, over the fence or not, interfered with by a fan or not.”¹⁵⁴ McNeal quoted the Cleveland Indians’ General Manager, Mark Shapiro, whose remark echoed Stu Jackson’s words upon the NBA’s adoption of Instant Replay review: “We have the technology and ability to get the calls right, so we should.”¹⁵⁵ MLB was concerned about making an already slow-paced game even slower.¹⁵⁶ Thus, the original rule changes allowed review of home runs only.¹⁵⁷ Both the Players’ Association and Umpires gave the Instant Replay review plan the green light.¹⁵⁸

MLB established a procedure that differed significantly from, for example, the NFL’s first use. Rather than having managers throw flags to trigger review, the umpires had sole discretion about when to initiate a review.¹⁵⁹ Borrowing an idea from the NHL, MLB decided to establish a central office in New York City. Once the on-field umpires decided to take a second look at a putative home run, the crew chief contacted the New York office, where a replay official watched the video and then “relay[ed] his view back to the park.”¹⁶⁰ The crew chief at the game itself, however, made the final decision about whether the hit in question was or was not a home run.¹⁶¹ In addition, there was also a viewing station set up at every MLB ballpark.¹⁶²

¹⁵³ See Stan McNeal, *Upon Further Review ... Baseball Replay Didn’t Arrive on August – As Was Rumored – But It’s Still on the Horizon*, THE SPORTING NEWS, Aug. 2008, at 76.

¹⁵⁴ *Id.* See also Carrie Muskat, *Instant Replay Makes Debut at Wrigley*, MLB.com (August 28, 2008), <http://m.cubs.mlb.com/news/article/3382822/>.

¹⁵⁵ McNeal, *supra* note 153.

¹⁵⁶ See *id.* (“No one wants a game that is considered slow-moving by some to drag more.”).

¹⁵⁷ Although video technology had the capability to accurately call “balls and strikes,” that was something that MLB did not adopt. See Robert Adair, *Cameras And Computers, Or Umpires?*, 32 THE BASEBALL RESEARCH J. 22, 22 (2004).

¹⁵⁸ See McNeal, *supra* note 153 at 76,77.

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.*

II. CURRENT INSTANT REPLAY RULES & ANALYSIS

A. Overview

Part II looks at the mechanics of the current use of Instant Replay review in the Leagues in detail. Through the years, sports officials have relied primarily on their own direct, first-hand, observations as evidence to make their decisions. Officials watch closely and listen. In addition, occasionally officials have conferred with one another in order to determine the facts.¹⁶³ Today, Instant Replay allows sports officials to use additional “circumstantial evidence” to make important decisions. From the outset, time has been a major factor. Organizers have tried to limit the time consumed by Instant Replay review in an effort to maintain the customary pace of games.¹⁶⁴ Tony Verna bluntly acknowledges that Instant Replay is a double-edged sword:

I was pleased that the Instant Replay had sped-up the tempo of the televised game. That was just what I wanted. I felt good that the game was now being viewed with continuing anticipation that didn't exist before. As a director, you knew that viewers were now expecting a second look at the action.

¹⁶³ See, e.g., MLB OFFICIAL RULES, *supra* note 24, at Rule 9.02(c) (specifically providing: “If the umpires consult after a play and change a call that had been made, then they have the authority to take all steps that they made deem necessary, in their discretion, to eliminate the results and consequences of the earlier call that they are reversing”); *id.* at Rule 9.04(c) (“If different decisions should be made on one play by different umpires, the umpire-in-chief shall call all the umpires into consultation, with no manager or player present. After consultation, the umpire-in-chief...shall determine which decision shall prevail, based on which umpire was in the best position and which decision was most likely correct.”); NFL OFFICIAL RULES, *supra* note 40, at Rule 15 §3, art. 6 (“In the event of a disagreement [among officials], the crew should draw aside for a conference.”); NBA OFFICIAL RULES, *supra* note 56, at Rule 2 §IV(b) (“If two officials give conflicting signals as to who caused the ball to go out-of-bounds, they will conference and reconstruct the play in an attempt to make the correct call. **** If one official signals and another official clearly knows the call is incorrect, they should conference and the calling official may change the call on the information given.”); *id.* at Rule 2 §IV(e) (“If the two officials differ on a block/charge foul involving the restricted area and/or lower defensive box, they will conference and share information in an attempt to make the correct call.”).

¹⁶⁴ Standen, *supra* note 2, at 378 (“Technological limitations, the leagues’ interests in a speedy game, and even an allowance for human error all might (so far) have combined to restrict replay to the most objective and consequential calls.”) (footnote omitted). For a more detailed discussion regarding the consumption of time during Instant Replay review, see *infra* Part III.A.

But once the Instant Replay was used for officiating, it had the opposite effect on the playing field. It slowed down the game, big time.¹⁶⁵

Each league has developed its own rules and strategies to keep the disruption of Instant Replay reviews to a minimum. Moreover, every professional sports league has had to determine its own method of operation and how the league wants to use Instant Replay to assist officials. For example, the NHL has a team of replay officials in a central location monitoring video feeds.¹⁶⁶ Each league has also had to decide what kinds of plays are “reviewable,” the scope of review, and the standard of review. For example, in MLB, prior to the 2014 season, only questions relating to home runs were reviewable. Was the ball fair or foul? Did the ball actually clear the home run barrier (i.e., go over the fence) or did it strike a surface below the home run barrier?¹⁶⁷ Although the technology exists to allow video review of balls and strikes, Major League Baseball has not adopted it and is unlikely to do so.¹⁶⁸ In the NFL, replay officials do not independently review each play, looking for a holding penalty. In terms of the standard of review, for example, in order to overturn a field official’s decision, NFL officials must conclude that the replay shows “indisputable visual evidence” to overturn the call on the field.¹⁶⁹

B. NFL

1. Reviewable Situations

The NFL has a long list of reviewable plays, including rulings involving the perimeter of the field, passing plays, dead balls, and many more plays subject to review.¹⁷⁰ The replay system reviews calls involving the perimeter of the field: sideline, goal line, end

¹⁶⁵ VERNA, *supra* note 1, at 83.

¹⁶⁶ NHL OFFICIAL RULES, *supra* note 46, at Rule 38.5.

¹⁶⁷ Muskat, *supra* note 154.

¹⁶⁸ See Adair, *supra* note 157 at 22. See also Etan Green & David Daniels, Impact-Averse Arbitrators (Oct. 31, 2014) (unpublished Ph.D. research, Stanford University) (on file with Stanford University Graduate School of Business).

¹⁶⁹ NFL OFFICIAL RULES, *supra* note 40, at Rule 15 §9, art. 3.

¹⁷⁰ *Id.* at Rule 15 §9, art. 4.

zone, and end line.¹⁷¹ This is likely due to the lack of field visibility on close line calls such as whether a player's foot touched the line or whether the player was in bounds when catching a ball. Both referees and coaches can challenge calls involving recovery of loose balls, where the ball could have been in or out of bounds, and whether a player himself was in or out of bounds.¹⁷² All scoring plays are automatically reviewed in an effort to prevent unfairness in the outcome of a game.¹⁷³ The small number of games in an NFL season and the great amount of weight each game is given make reviewing all scoring plays a necessity.¹⁷⁴ A mistake on a potential scoring play could wrongfully end a team's chance at a Super Bowl win.

Another reviewable play is whether a pass is complete or incomplete when the player is close to the sideline, goal line, end zone, or end line.¹⁷⁵ In 2013, the NFL added touchbacks,¹⁷⁶ rulings involving a runner's momentum, and kicks contacting pylons to reviewable plays.¹⁷⁷ Passing plays are also video reviewable plays.¹⁷⁸ Typical reviewable passing plays involve whether a pass to another player is complete, incomplete or intercepted during play.¹⁷⁹ Reviewable passing plays also include a fumble by a quarterback that could be a pass, whether a player touched a forward pass, whether a forward or backward pass was thrown, and whether a ball is thrown forward from beyond the line of

¹⁷¹ *Id.* at Rule 15 §9 art. 4(a).

¹⁷² *Id.*

¹⁷³ Standen, *supra* note 2, at 376-77 ("The NFL now automatically reviews all scoring plays, meaning the NFL now will review every 'enrichment' to see if it was 'unjustly' acquired, with an eye to disgorging the benefit. Similarly, baseball umpires will resort to replay to review home runs; basketball referees will check the monitors to see if a last-second, game-winning shot left the shooter's hands in the nick of time.") (footnotes omitted).

¹⁷⁴ Each team only plays 16 games in the NFL regular season. In comparison each team plays 162 games in the MLB regular season.

¹⁷⁵ NFL OFFICIAL RULES, *supra* note 40, at Rule 15 §9, art. 4(b). Interceptions at the perimeter of the field may also be reviewed. *Id.*

¹⁷⁶ *Id.* at Rule 3 §39 ("A Touchback is the situation in which a ball is dead on or behind a team's own goal line, provided the impetus came from an opponent and provided it is not a touchdown.").

¹⁷⁷ *Id.* at Rule 15 §9, art. 4(a)(5).

¹⁷⁸ *Id.* at Rule 15 §9, art. 4(b).

¹⁷⁹ *Id.*

scrimmage.¹⁸⁰ Whether a ball is a “dead ball”¹⁸¹ is a reviewable play.¹⁸² There are different scenarios listed in the rules that outline when a dead ball is reviewable.¹⁸³

The NFL has also gone so far as to outline what plays are *not* reviewable.¹⁸⁴ These include questioning the “play or game clock,”¹⁸⁵ a proper down,¹⁸⁶ penalty administration, a runner down by a defenseman not involving fumbles, positioning of the ball (not including first down or goal line), recovering a loose ball (not involving boundary lines or end zones), field-goal¹⁸⁷ or try attempts that cross above the poles without touching anything,¹⁸⁸

¹⁸⁰ *Id.* (Reviewable passing plays also include “[w]hether a forward pass has been thrown from behind the line of scrimmage after the ball has been beyond the line.”).

¹⁸¹ *Id.* at Rule 3 §2, art. 2 (“A Dead Ball is one that is not in play. The time period during which the ball is dead is between downs. This includes the interval during all time outs (including intermission) and from the time the ball becomes dead until it is legally put in play.”). *Id.* at Rule 3 §12, art. 2 (“A Dead Ball Foul (or a subsequent foul) is a foul that occurs after a down ends and before the next snap or free kick.”).

¹⁸² *Id.* at Rule 15 §9, art. 4(c).

¹⁸³ *Id.* (“Dead Ball: When the on-field ruling is: (1) a runner down by defensive contact, and the recovery of a fumble by an opponent or a teammate occurs in the action that happens following the fumble; (2) a runner out of bounds, and the recovery of a fumble by an opponent or teammate occurs in the action that happens following the fumble; (3) an incomplete forward pass, and the recovery of a fumble, or the recovery of a backward pass, by an opponent or a teammate occurs in the action following the fumble or backward pass; or (4) a loose ball out of bounds, and it is recovered in the field of play by an opponent or a teammate in the action after the ball hits the ground.

Note 1: If the on-field ruling of down by contact, out of bounds, or incomplete forward pass is changed, the ball belongs to the recovering player at the spot of the recovery and any advance is nullified. If the ball goes out of bounds in an end zone, the result of the play will be either a touchback or a safety.

Note 2: If the Referee does not have indisputable visual evidence as to which player recovered the loose ball, or that the ball went out of bounds, the ruling on the field will stand.”).

¹⁸⁴ *Id.* at Rule 15 §9, art. 5.

¹⁸⁵ *Id.* at Rule 4 §1 (The Game Clock tracks the time the football is in play during a game. The Clock starts when there is a kick, punt, pass, or whatever motion that puts the ball into play. The Clock stops when one of the provisions in Rule 4 §4 occur. The Game Clock times four 15-minute periods for a total of 60 minutes per game.)

¹⁸⁶ *Id.* at Rule 3 §8, art. 1 (“A Down is a period of action that starts when the ball is put in play (3-2-1) and ends when ball is next dead (7-2-1).”).

¹⁸⁷ *Id.* at Rule 3 §11 (“A Field Goal is made by kicking the ball from the field of play through the plane of the opponents’ goal by a drop kick or placekick either: (a) From behind the line on a play from scrimmage; or (b) During a fair catch kick. See 11-403; 3-9; and 10-2-4-a.”).

¹⁸⁸ *Id.* at Rule 11 §4, art. 1 (“A field goal is scored when all of the following conditions are met: (a) The kick must be a placekick or dropkick made by the offense

inadvertent or erroneous whistle, and a “delayed spike”¹⁸⁹ to kill the clock.¹⁹⁰

Though the list of reviewable plays is a long one, the referees still hold the final judgment on whether a previous call is overturned.¹⁹¹

The fact that the NFL and, increasingly, the other professional sports leagues are turning to instant replay – and focusing that replay in an effort to disgorge unjust enrichments – does not by itself preclude temporal variance by referees on other, less important umpiring calls. In the NFL, for instance, referees still call pass interference penalties without replay review, and those decisions can certainly be highly impactful on the teams’ respective probabilities of winning. In the NBA, calls on the “charge/block” game action are not replayed . . .¹⁹²

Arguably, pass interference, like the charge-block call in basketball, could actually be reviewed by Instant Replay. Pass interference and the charge-block in basketball in one sense actually are not “judgment calls.” Either the defender made contact with the receiver while the ball was airborne or he did not. Perhaps the decision about whether the contact is “incidental” is

from behind the line of scrimmage or from the spot of a fair catch (fair-catch kick). If a fair catch is made or awarded outside the inbound line, the spot of the kick is the nearest inbound line. (b) *After the ball is kicked, it must not touch the ground or any player of the offensive team before it passes through the goal* (emphasis added). (c) The entire ball must pass through the vertical plane of the goal, which is the area above the crossbar and between the uprights or, if above the uprights, between their outside edges. If the ball passes through the goal, and returns through the goal without striking the ground or some object or person beyond the goal, the attempt is unsuccessful.”).

¹⁸⁹ *Id.* at Rule 8 §2, art. 1(4) (A “delayed spike” is when the quarter back, “after delaying his passing action for strategic purposes, is prohibited from throwing the ball to the ground in front of him, even though he is under no pressure from defensive rusher(s).”). *Id.* at Rule 8 §2, art. 1(4).

¹⁹⁰ *Id.* at Rule 15 §9, art. 5.

¹⁹¹ *Id.* at Rule 15 §9, art. 3; Standen, *supra* note 2, at 392 (“In football, instant replay review has minimized the opportunity for variance, although referees retain discretion in assessing holding or interference penalties.”).

¹⁹² Standen, *supra* note 2, at 377-78. (footnotes omitted). For discussion about “temporal variance” in sports officiating, see *infra* Part III. A.2.

judgment.¹⁹³ There are limits on reviewable plays because the league does not want to slow down the game and reduce the fan's experience. "If the NFL's sole objective were getting every single call correct, replay's usage would be unlimited."¹⁹⁴

2. Triggering Review

A Head Coach initiates a challenge by throwing a red flag onto the playing field.¹⁹⁵ The red flag must be thrown prior to the next "legal snap or kick."¹⁹⁶ Similarly, the NFL Replay Central must initiate Instant Replay review before the ball is put back into play.¹⁹⁷

The NFL has thus restrained the scope and power of referees in the context of instant replay. Only a coach can initiate a challenge in the first twenty-eight minutes of a half. After that, a replay booth official has total discretion. Additionally, certain calls, specifically judgment calls, cannot be reviewed. This is because judgment calls are inherently subjective, and thus the official reviewing the call on a replay monitor would ultimately substitute his judgment for that of the official who made the original call. The rationale for bringing back replay was to eliminate egregious mistakes, not subjective calls.¹⁹⁸

Presumably, a coach's decision boils down to a judgment call by the coaching staff, and it depends on what probabilities they are willing to embrace. Assistants watch the Instant Replay upstairs and are in audio contact with the head coach on the field, and the head coach must quickly decide whether to risk challenging any given call.¹⁹⁹ If NFL Replay Central initiates

¹⁹³ Similarly, the charge-block call boils down to whether a defender's feet were stationary when the offensive player was airborne.

¹⁹⁴ Oldfather & Fernholz, *supra* note 11, at 75 ("The rationale for maintaining the chain gangs instead of adopting a more accurate computer system is similar to the reason the NFL limits the use of instant replay.").

¹⁹⁵ NFL OFFICIAL RULES, *supra* note 40, at Rule 15 §9, art. 1.

¹⁹⁶ *Id.* "A Snap is a backward pass that puts the ball in play to start a scrimmage down."

Id. at Rule 3 §32.

¹⁹⁷ *Id.* at Rule 15 §9, art. 3 n.2.

¹⁹⁸ Oldfather & Fernholz, *supra* note 11, at 52.

¹⁹⁹ Standen, *supra* note 2, at 376. ("[C]oaches are wise to throw the red challenge flag only where the potential gain from a reversed call is worth it.").

Instant Replay review, Replay Central notifies the referee on the field directly through his headset, and the referee makes the on-field announcement and begins to review the play.²⁰⁰

3. Review Procedure

When a coach uses his challenge, the referee will immediately go to the coach and ask what the coach is challenging.²⁰¹ The referee then announces the challenge to the stadium and heads for the large review monitor on the sidelines.²⁰² Meanwhile, NFL Replay Central has already begun reviewing the play and looking at the best angle and footage to supply the referee. Therefore, when the referee arrives at the large review monitor, the play is ready for his review.²⁰³ The referee reviews the play and makes the decision whether to uphold or reverse the challenged call.

4. Review Personnel

The personnel involved in reviewing a play are each team's Head Coach, the Referee, and the NFL Replay Central.²⁰⁴ Each Head Coach is granted two challenges per game, and each challenge uses a timeout.²⁰⁵ When a Head Coach's challenge is successful, the team's timeout is restored.²⁰⁶ If he uses both challenges and both are successful, the Head Coach is granted a third challenge.²⁰⁷ However, if a Head Coach uses both challenges and loses one or both of his challenges, then he loses the right to challenge future plays.²⁰⁸

²⁰⁰ Jarrett Bell, *Bell: At NFL Command Center, Reviews Must be Right*, USA TODAY (Nov. 10, 2014), <http://www.usatoday.com/story/sports/nfl/2014/11/10/officiating-command-center-reviews-dean-blandino/18784813/>.

²⁰¹ Peter King, *Trying to Put the Instant Back in Replay*, SI.COM (Sept. 1, 2014), <http://mmqb.si.com/2014/09/01/nfl-instant-replay-review-changes-mailbag/>.

²⁰² *Id.*

²⁰³ *Id.*

²⁰⁴ NFL OFFICIAL RULES, *supra* note 40, at Rule 15 §9, art. 1-3.

²⁰⁵ *Id.* at Rule 15 §9, art. 1.

²⁰⁶ *Id.*

²⁰⁷ *Id.*

²⁰⁸ *Id.* If a team initiates a challenge when it has exhausted all of its timeouts, it will receive a penalty of 15 yards.

The referee plays a strong role in Instant Replay review. The referee conducts all Instant Replay reviews during an NFL game.²⁰⁹ The referee will only commence review after consulting the covering officials.²¹⁰ The review is done at the field-level monitor and calls are only overturned if the referee has “indisputable visual evidence” that a change must be made.²¹¹

NFL Replay Central recently became a reality in the 2014-2015 NFL season.²¹² The building is located in New York and is run by Dean Blandino, the NFL Vice President of Officiating, and Alverto Riveron, a Senior Director of Officiating.²¹³ The referee communicates to Blandino and Riveron the coach’s challenge, so the two can prep the required footage and send it to the monitor prior to the referee’s arrival.²¹⁴ NFL Replay Central also informs the referee whether they consider that the call is either obviously right or wrong.²¹⁵ This helps the referee eliminate any unnecessary time reviewing the play.²¹⁶ Blandino explained:

We have a monitor here. When there’s a tight catch at the sideline, or any scoring play, or any turnover, they are calling that out either to myself or to Al Riveron, and we go over and we start to review the play, the same way the official would in the replay booth. So we can look at the angles even before the review is initiated and then when the referee makes the announcement, we’re already setting it up for him. Before the ref goes under the hood, we’re telling the replay official, ‘Replay B, the end zone shot. That’s the best shot. Get that cued up for the referee.’ Where we’re really saving the time is when the ref goes under the hood and he doesn’t have to take all the time looking at all the replays—there’s no discussion, we’re not trying to wait for angles. He goes right in, looks at the play, looks at it for 60 seconds if he needs to, and then comes to a decision. That’s been the biggest change. In the past, the ref comes over and communicates with the replay

²⁰⁹ *Id.* at Rule 15 §9, art. 3.

²¹⁰ *Id.*

²¹¹ *Id.*

²¹² King, *supra* note 201.

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ *Id.*

²¹⁶ *Id.*

official, ‘What’s the ruling on the field? What angles are you going to show me?’ We’re having that conversation while he’s on the way over to get under the hood.²¹⁷

Blandino said that with the new system in place the referee only reviews the play itself for 15-20 seconds whereas before the system was in place the referees would probably use the entire 60 seconds reviewing a play.²¹⁸ NFL Replay Central allows for a more efficient system.

5. Review Standard

The standard of review is high in the NFL. A referee can only reverse a decision if the standard of review is met.²¹⁹

The NFL Rulebook explicitly states that a call should only be reversed “when the Referee has indisputable visual evidence available to him.” Thus, the original call must be given great deference. This review standard arguably protects the institutional integrity of officiating by ensuring that animosity does not cultivate amongst crews, and that referees do not have to fear that any call they make could be reversed.²²⁰

The high standard of review “prevent[s] Instant Replay reversals from becoming more controversial than the original call.”²²¹ Since coaches will likely only challenge what they believe to be a seriously miscalled decision, the standard for review also allows the game to continue at a relatively fast pace with little interruption.²²² Arguably a high standard means a higher

²¹⁷ *Id.*

²¹⁸ King, *supra* note 201.

²¹⁹ NFL OFFICIAL RULES, *supra* note 40, at Rule 15, §9 art. 3.

²²⁰ Oldfather & Fernholz, *supra* note 11, at 52 (citation omitted).

²²¹ *Id.* at 62 (“In contrast, the NFL has one overriding standard of review for challenged calls: The official must see ‘indisputable visual evidence’ to overturn the original call. This standard is highly deferential to the on- field official who made the original call. According the NFL spokesman Greg Aiello, ‘[u]nder the standard of the instant-replay rule, [the video evidence] has to be clear-cut,’ otherwise ‘you can’t reverse the call.’ The rationale for this standard is to prevent instant replay reversals from becoming more controversial than the original call.”(footnotes omitted)).

²²² *Id.* at 63 (“[A] lower threshold for overturning calls would make it more likely that NFL coaches would challenge borderline calls. This would result in longer games

likelihood that the referees have enough evidence to make a correct decision on a play.²²³

6. Time Limit

Each review itself must only be a maximum of sixty seconds in length.²²⁴ This time limit begins when the referee starts his review at the field-level monitor.²²⁵ The purpose of a limited time frame is to reduce the delay in the game. Since so many angles of each play are provided and NFL Replay Central serves as another set of eyes on the play, the referee can quickly use his judgment and video evidence to make a determination on the play.²²⁶

Since NFL Replay Central has been in operation, the length of game delays because of Instant Replay has been reduced to just over two minutes for each review.²²⁷ As the system becomes more efficient, the league anticipates less and less time spent reviewing plays.²²⁸

7. Decision Communication

Once the referee has made a decision on an Instant Replay review, the referee will go to the middle of the field to explain his

with more interruptions, which was the most significant problem with the original replay system.”).

²²³ *Id.* at 52 (“The error correction mission of replay review is more apparent, and is quite clearly the predominant, if not the sole, rationale for the mechanism. The question facing an NFL referee viewing a replay of a challenged play is simply whether the initial call was correct.”).

²²⁴ *Id.* at 51 (“The other big change from the earlier version of instant replay was that owners instituted a time limit for reviews. Originally, the limit was ninety seconds, before being reduced to sixty seconds in 2006.”(footnote omitted)).

²²⁵ NFL OFFICIAL RULES, *supra* note 40, at Rule 15, §9 art. 3.

²²⁶ King, *supra* note 201.

²²⁷ *Id.* (“The average delay per review was down 17 seconds through Week 3 of the preseason from the first three weeks last year: 2:24 last year, 2:07 this year . . .”) (in reference to the 2014-2015 season). *See also* Bell, *supra* note 200 (“It’s no wonder that the games are shorter this season – averaging 3:06:23 through nine weeks, even with the extra flags from the points of emphasis, compared to 3:08:36 last year – with supervising officials never more than a few feet away from seeing a replay. Heading into Week 10, there were 221 reviews initiated by replay officials and coaches challenges, plus 54 scoring plays and 66 turnovers reviewed, in 134 games. Those numbers are comparable to the past two seasons, but reversals are down – 81 through nine weeks, compared to 100 at that point in 2013.”) (in reference to the 2014-2015 season).

²²⁸ King, *supra* note 201.

conclusion.²²⁹ If the referee sees indisputable visual evidence that he made an incorrect call, he will explain to the crowd and the fans at home through the live telecast why he is overturning the call.²³⁰ Alternatively, if there is not enough evidence to overturn the call, the referee will state that the play stands.²³¹

8. Appeal Post-Instant Replay Review

As of the 2014-2015 NFL season, there is no post-Instant Replay appeal process. The NFL grants great deference in the referees and their analysis of the video footage provided for the Instant Replay. Because of the high standard of review applied to NFL Instant Replay analysis, it is unlikely that an appeal process would overturn any Replay review decision.²³²

Instant Replay is also used in the NFL for discipline hearings and analyzing injuries.²³³ NFL Replay Central sets aside footage to be reviewed at a later date.²³⁴

C. NHL

1. Reviewable Situations

Reviewable situations revolve around whether a team scored a goal.²³⁵ Goal scoring is especially important in hockey because games tend to be rather low scoring, and thus every goal has the potential to significantly affect the momentum and the outcome of games. The Video Goal Judge must review every goal during a game.²³⁶ Reviewable plays include whether the puck crossed the goal line, entering the net, and whether the puck crossed the goal

²²⁹ Aaron Reynolds, *About NFL Instant Replay Rules*, EHOW, http://www.ehow.com/facts_4745281_nfl-instant-replay-rules.html.

²³⁰ *Id.*

²³¹ *Id.*

²³² Oldfather & Fernholz, *supra* note 11, at 78 (“‘Indisputable visual evidence’ works as a standard of review in the NFL because the calls in question turn on clear, verifiable determinations, and because the standard is amenable to the sort of quick application necessary in the midst of a game in which it is important to maintain the audience’s interest.”).

²³³ Bell, *supra* note 200.

²³⁴ *Id.*

²³⁵ NHL OFFICIAL RULES, *supra* note 46, at Rule 38.4.

²³⁶ *Id.* at Rule 38.2.

line before or after time expired.²³⁷ If a puck does not cross the goal line, then no goal has been scored.²³⁸ Thus, the majority of the reviewable plays in the NHL involve determining whether the puck entered the net and if the puck legally entered the net.²³⁹ The timing of the goal is also important. The puck must cross the goal line before the end of a period to have a legal goal.²⁴⁰

Video review also determines whether a goal was scored prior to the goal net being dislodged.²⁴¹ If the goal net is displaced prior to the puck crossing the line, then there is no goal.²⁴² Alternatively, if the puck crosses the line before the net is dislodged, the goal will stand.²⁴³ If the defensive team deliberately moves the net before the puck crosses the line and the offensive player is still in possession of the puck, then the referee will use his discretion regarding whether the defensive team should be issued a minor penalty²⁴⁴ for delaying the game.²⁴⁵ The referee, however, can award a goal if the offensive player has already shot the puck into the net and the defensive player either deliberately

²³⁷ *Id.* at Rule 38.4(i),(iii).

²³⁸ *Id.* at Rule 78.4 (“A goal shall be scored when the puck shall have been put between the goal posts by the stick of a player of the attacking side, from in front and below the crossbar, and entirely across the red line the width of the diameter of the goal posts drawn in the ice from one goal post to the other with the goal frame in its proper position. The goal frame shall be considered in its proper position when at least a portion of the flexible peg(s) are still inside both the goal post and the hole in the ice. The flexible pegs could be bent, but as long as at least a portion of the flexible peg(s) are still in the hole in the ice and the goal post, the goal frame shall be deemed to be in its proper position. The goal frame could be raised somewhat on one post (or both), but as long as the flexible pegs are still in contact with the holes in the ice and the goal posts, the goal frame shall not be deemed to be displaced.”).

²³⁹ *Id.* The term “the net” does not necessarily refer to the puck physically making contact with the goal net. Rather “the net” means the space past the plane of the goal line.

²⁴⁰ *Id.*

²⁴¹ *Id.* at Rule 38.4(ii)

²⁴² *Id.* at Rule 78.5(x).

²⁴³ *Id.*

²⁴⁴ *Id.* at Rule 16.1 (“For a minor penalty, any player, other than a goalkeeper, shall be ruled off the ice for two (2) minutes during which time no substitute shall be permitted.”).

²⁴⁵ *Id.* at Rule 63.2 (“In the event the goalpost is deliberately displaced by a defending player, prior to the puck crossing the goal line between the normal positions of the goalposts, the Referee shall assess a minor penalty for delaying the game if the attacking player has not yet taken the shot or in the act of taking the shot at the open net (see 63.6).”).

or accidentally dislodges the net prior to the puck crossing the goal line.²⁴⁶ This is only the case if the offensive player shoots the puck prior to the defensive player or goalie displacing the net and it is determined that if the net had not been displaced, the puck would have otherwise entered the net.²⁴⁷

An apparent goal is declared “no goal” if the puck deflects off an official and into the net.²⁴⁸ Thus, if there is any doubt whether a referee touched the puck, causing the puck to change its path and enter the net, then the Video Goal Judge must review the play.²⁴⁹ If it is determined that the referee did not touch the puck directly prior to the puck entering the net, then the goal will stand.²⁵⁰

Video replay is also used to determine whether a puck has been directed or batted into the net by a hand or a foot.²⁵¹ If an attacking player uses a distinct kicking motion, where a player uses his skate to propel the puck into the net and it deflects off any player of either team into the net, it must be ruled no goal.²⁵² If a puck deflects off an attacking player’s skate without a distinct kicking motion or off his skate while he is trying to stop and the puck enters the goal, it will be a good goal.²⁵³ A kicked puck that

²⁴⁶ *Id.* at Rule 63.6 (“In the event that the goal post is displaced, either deliberately or accidentally by a defending player, prior to the puck crossing the goal line between the normal position of the goalposts, the Referee may award a goal.”).

²⁴⁷ *Id.* (“In order to award a goal in this situation, the goal post must have been displaced by the actions of defending player or goalkeeper, the puck must have been shot (or the player must be in the act of shooting) at the goal prior to the goal post being displaced, and it must be determined that the puck would have entered the net between the normal position of the goal posts.”).

²⁴⁸ *Id.* at Rule 78.5(iii).

²⁴⁹ *Id.* at Rule 38.4(v).

²⁵⁰ *Id.* at Rule 67.6.

²⁵¹ *Id.* at Rule 38.4 (iv).

²⁵² *Id.* (“Puck directed or batted into the net by a hand or foot . . . [w]ith the use of a foot/skate, was a distinct kicking motion evidence? If so, apparent goal must be disallowed. A DISTINCT KICKING MOTION is one which, with a pendulum motion, the player propels the puck with his skate into the net. If the Video Goal Judge determines that it was put into the net by an attacking player using a distinct kicking motion, it must be ruled NO GOAL. This would also be true even if the puck, after being kicked, deflects off any other player of either team and then into the net. This is still NO GOAL.”); *Id.* at Rule 49.1 (“The action of a player deliberately using his skate(s) with a kicking motion to propel the puck or to contact an opponent.”).

²⁵³ *Id.* at Rule 49.2 (“A puck that deflects into the net off an attacking player’s skate who does not use distinct kicking motion is a legitimate goal. A puck that is directed

goes into the goal after deflection off of another player on the ice is not a legitimate goal and will be waived off,²⁵⁴ but if a player's stick hits the kicked puck directly prior to entering the goal, the goal is considered a good goal.²⁵⁵ This is the case even if it is the stick of the player who kicked the puck.²⁵⁶

Another reviewable play is to determine whether a player used a high-stick to swat the puck into the goal.²⁵⁷ "High-sticking the puck" is prohibited in the game of hockey.²⁵⁸ The League has also prohibited "cradling the puck on the blade of the stick (like lacrosse) above the normal height of the shoulders" during the game, in a penalty shot or shootout attempt.²⁵⁹ Thus, if the puck hits the stick above the crossbar, the goal is not allowed.²⁶⁰ If the puck hits the stick below the crossbar prior to crossing the goal line, the goal is allowed.²⁶¹ Instant Replay is used to determine where the puck hits the attacking player's stick,²⁶² but a goal is allowed if the puck hits a defending player's stick above the crossbar and enters his own net.²⁶³

Instant Replay in the NHL can also be used in situations where the referee needs confirmation to verify "good hockey goals."²⁶⁴ The principal purpose of Instant Replay is to assist referees in order to determine the legitimacy of all potential

into the net by an attacking player's skate shall be a legitimate goal as long as no distinct kicking motion is evident.").

²⁵⁴ *Id.* ("(i) A kicked puck that deflects off the body of any player of either team (including the goalkeeper) shall be ruled no goal.").

²⁵⁵ *Id.* ("(ii) A kicked puck that deflects off the stick of any player (excluding the goalkeeper's stick) shall be ruled a good goal.").

²⁵⁶ *Id.* ("(iii) A goal will be allowed when an attacking player kicks the puck and the puck deflects off his own stick and then into the net.").

²⁵⁷ *Id.* at Rule 38.4(vi).

²⁵⁸ *Id.* at Rule 80.1 ("Batting the puck above the normal height of the shoulders with a stick is prohibited. When a puck is struck with a high stick and subsequently comes into the possession and control of a player from the offending team (including the player who made contact with the puck), either directly or deflected off any player or official, there shall be a whistle.").

²⁵⁹ *Id.* at Rule 80.3.

²⁶⁰ *Id.*

²⁶¹ *Id.*

²⁶² *Id.* at Rule 38.4(vi).

²⁶³ *Id.* at Rule 80.3 ("A goal scored as a result of a defending player striking the puck with his stick carried above the height of the crossbar of the goal frame into his own goal shall be allowed.").

²⁶⁴ *Id.* at Rule 38.4(viii).

goals.²⁶⁵ For example, if a puck goes through a hole in the mesh of the net or enters the net from underneath the goal frame, in both cases the referee will rule no goal.²⁶⁶ This also applies in situations where the referee has lost sight of the puck and it is determined that the puck crosses or has crossed the goal line.²⁶⁷ Instant Replay is used in order to determine if the puck entering the net was unaffected by the whistle and thus the timing of the whistle is irrelevant to whether the goal occurred at the end of a continuous play.

Lastly, Instant Replay in the NHL can be used to correct the official game clock.²⁶⁸ Thus, if time is lost because of a false face-off or if a goal was scored prior to stopping the play, then Instant Replay can be used to correct the remaining time left in a period.²⁶⁹ The Video Goal Judge can assist the Game Timekeeper and referees in any dispute regarding time.²⁷⁰

2. Triggering Review

Instant Replay review in the NHL is triggered by either a request from the referee or a request from the Video Goal Judge to clarify a disputed goal.²⁷¹ The referee commences a video review if he questions the legality of a goal.²⁷² The referee contacts the off-

²⁶⁵ *Id.*

²⁶⁶ *Id.*

²⁶⁷ *Id.* This situation occurred on Dec. 30, 2014, the night that Professor VerSteege visited the NHL Situation Room in Toronto. LA Kings' Drew Doughty fired a shot that ricocheted off of the in-goal camera so fast that neither the on-ice officials – nor the players, including Doughty, – realized that the puck had entered the net. The officials in the Situation Room caught it immediately and began reviewing the shot. They communicated with the goal judge on-site in Edmonton, and ordered that play be stopped (34 seconds later). After review in the Situation Room, the goal was awarded to Doughty and the Kings and the clock reset accordingly. See Derek Van Diest, *Oilers Defeat Kings to End Nine-Game Losing Streak*, NHL.COM (Dec. 31, 2014, 1:54 AM), <http://www.nhl.com/gamecenter/en/recap?id=2014020543>.

²⁶⁸ NHL OFFICIAL RULES, *supra* note 46, at Rule 38.4(vii).

²⁶⁹ *Id.* at Rule 38.6 (“Any loss of time on the game or penalty clocks due to a false face-off must be replaced . . .”).

²⁷⁰ *Id.* at Rule 34.7 (“In the event of any dispute regarding time, the matter shall be referred to the referees for adjudication and their decision shall be final. They may use the Video Goal Judge to assist in rendering their final decision. The Game Timekeeper shall assist to verify game time using an additional timing device.”).

²⁷¹ See *id.* at Rule 38.1(i),(ii).

²⁷² *Id.*

ice official requesting that the Video Goal Judge review the apparent goal.²⁷³ The off-ice official then notifies the Video Goal Judge of the request and the Video Goal Judge commences Instant Replay analysis.²⁷⁴ When there is a video review, the referee notifies the players and the players must immediately go to their respective benches.²⁷⁵

The Video Goal Judge triggers Instant Replay analysis if he sees a potential goal or situation involving a potential goal that the on-ice officials missed.²⁷⁶ The NHL Situation Room in Toronto contacts the Video Goal Judge at the arena to let him know that the play is being reviewed. The Video Goal Judge then contacts the referee informing him that the play is under review and the referee delays the next start of play until he is notified of the verdict.²⁷⁷ This contact occurs at the first stoppage of play after the incident takes place and is through the off-ice official.²⁷⁸

3. Review Procedure

After or even prior to the Instant Replay analysis being initiated, the play is reviewed in the NHL Situation Room.²⁷⁹ Each technician is in charge of one game on any given night.²⁸⁰ The technician will rewind and re-watch the footage, review multiple angles, slow motion, and even frame by frame if necessary to make a decision on a goal.²⁸¹ The technician reports his finding or asks for assistance from one of the four NHL senior executives in

²⁷³ *Id.* at Rule 38.2 (“Upon making contact with the off-ice official at ice level, the Video Goal Judge should say initially that he is “looking at the play.”).

²⁷⁴ *Id.*

²⁷⁵ *Id.* (“When the Referee indicates there is to be a video review, all players (with the exception of the goalkeepers) will go to their respective players’ bench immediately and failure to do so would result in a game misconduct penalty with a fine to the Coach.”).

²⁷⁶ *Id.* at Rule 38.2 (“When the Video Goal Judge observes an incident involving a potential goal that was undetected by the on-ice officials he will contact the referee at the first stoppage of play and inform him that a review of the play is in progress.”).

²⁷⁷ *Id.*

²⁷⁸ *Id.*

²⁷⁹ Rich Chere, *NHL’s ‘War Room’ a Dreamland for Die-Hard Hockey Fans*, NJ.COM (Nov. 24, 2010, 7:29 AM), http://www.nj.com/devils/index.ssf/2010/11/nhls_war_room_a_dreamland_for.html.

²⁸⁰ *Id.*

²⁸¹ *Id.*

charge who then communicates the findings to the Video Goal Judge at the arena.²⁸²

4. Review Personnel

In addition to the Situation Room staff in Toronto, there are three personnel involved in reviewable plays during NHL Games: the referees, the Video Goal Judge, and the Official Scorer.

On-ice referees have general supervision of NHL hockey games.²⁸³ They have full control of both game officials and players during the game, including any game stoppages.²⁸⁴ Referees also hold the final decision on any disputes occurring during a game.²⁸⁵ The referees hold the duty to impose penalties “prescribed by the rules for infractions thereof and they shall give the final decision in matters of disputed goals.”²⁸⁶ For example, the referee has the right to disallow goals if there is goalie interference.²⁸⁷ Thus, if an attacking player interferes with a goalkeeper in his crease, the referee has the sole discretion regarding whether to disallow the goal.²⁸⁸ This is not a video reviewable play; however, this situation

²⁸² *Id.* As of the end of the 2013-2014 season, the four senior executives holding power in the NHL Situation Room were Mike Murphy, Senior Vice-President of Hockey Operations, Colin Campbell, Vice President and Director of Hockey Operations, Kris King, Vice President of Hockey Operations, and Rod Pasma, Senior Director of Hockey Operations.

²⁸³ *See* NHL OFFICIAL RULES, *supra* note 46, at Rule 31.2 (“In the event of any dispute regarding time or the expiration of penalties, the matter shall be referred to the Referee for adjustment and his decision shall be final. He may use the Video Goal Judge to assist in rendering the final decision. See Rule 38 – Video Goal Judge.”).

²⁸⁴ *Id.*

²⁸⁵ *Id.*

²⁸⁶ *See id.* at Rule 31.4 (“The Referees may consult with the Linesmen, Goal Judge or Video Goal Judge before making their decision.”).

²⁸⁷ *See id.* (Titled “Interference on the Goalkeeper,” Rule 69.1 states: “The rule will be enforced exclusively in accordance with the on-ice judgment of the Referee(s), and *not by means of video replay or review.*”) (emphasis added).

²⁸⁸ Greg Wyshynski, *NHL Explains Bizarre No-Goal Call in Lightning vs. Canadiens game*, YAHOO SPORTS BLOG (Nov. 12, 2013, 10:11 PM), <http://sports.yahoo.com/blogs/nhl-puck-daddy/nhl-explains-bizarre-no-goal-call-lightning-vs-031134789—nhl.html>. Controversy arose in Nov. 2013 when the Tampa Bay Lightning played the Montreal Canadiens when Radko Gudas, a Lightning Defenseman, shot the puck. The puck quickly entered the net and flew back out. The referee signaled no goal and play continued. Upon review in the Toronto War Room, the puck did enter the net and was a goal, but since there was goalie “incidental contact” by Lightning forward Tyler Johnson on goaltender Carey Price, the goal was called off.

has generated a lot of public dispute as to whether it should be a reviewable play.

Referees may consult with the linesmen, the goal judge, or Video Goal Judge prior to making the final ruling of either goal or no goal.²⁸⁹ The NHL Official Rules even reference the human factors that are involved in blowing the whistle to stop a play.²⁹⁰ The officials have a tough job when it comes to enforcing the rules of hockey, and even though the NHL Rules seem straight forward, with a game as fast as hockey it can be difficult to make the correct on-ice call.²⁹¹ The rules allow the referee to use the Video Goal Judge to assist in any disputes regarding time or the expiration of penalties in order to correct any human delay from when the infraction occurred to when the whistle is blown.²⁹²

A Video Goal Judge is located in a secluded area of each NHL arena with unobstructed view of both goals and the location is large enough to fit the Video Goal judge, Video Technician, and Supervisor of Officials.²⁹³ The Video Goal Judge reviews replays of disputed goals by the request of a referee or when an incident is observed prior to a goal that was undetected by an on-ice official.²⁹⁴ The Video Goal Judge has the final ruling when he is requested to review a disputed goal.²⁹⁵ Prior to the 2003-04

²⁸⁹ See NHL OFFICIAL RULES, *supra* note 46, at Rule 36.1 (“It is up to the Referees and/or Video Goal Judge to decide if it is a goal.”).

²⁹⁰ See *id.* at Rule 31.2 (“As there is human factor involved in blowing the whistle to stop play, the Referee may deem the play to be stopped slightly prior to the whistle actually being blown. The fact that the puck may come loose or cross the goal line prior to the sound of the whistle has no bearing if the Referee has ruled that the play had been stopped prior to this happening.”).

²⁹¹ Berman, *supra* note 2, at 1361. (“[T]he basic difference between the two is fairly well settled: rules turn upon factual predicates that are sharper edged, whereas standards require those who apply them to exercise evaluative judgment.”).

²⁹² See NHL OFFICIAL RULES, *supra* note 46, at Rule 31.2 (“As there is human factor involved in blowing the whistle to stop play, the Referee may deem the play to be stopped slightly prior to the whistle actually being blown. The fact that the puck may come loose or cross the goal line prior to the sound of the whistle has no bearing if the Referee has ruled that the play had been stopped prior to this happening.”).

²⁹³ See *id.* at Rule 38.5 (“The Video Goal Judge must be located in a secluded area in the upper level of the building with an unobstructed view of both goals. The location must be large enough to seat three people (Video Goal Judge, Video Technician and Supervisor of Officials) and have space for necessary monitors, replay and recording equipment.”).

²⁹⁴ See *id.* at Rule 38.1.

²⁹⁵ *Id.*

season, General Managers voted that all video reviews are to be done in the NHL Situation Room in Toronto in order to keep consistency across the league.²⁹⁶ In the Situation Room, all of the footage of the game is analyzed and a decision is made – either goal or no goal.²⁹⁷ Mike Murphy, the Senior Vice President of Hockey Operations, was quoted:

Before, our reviews could take as long as six or seven minutes... Now, at the most, no more than two or two-and-a-half minutes, Usually much faster... What's more, the real-time technology actually has reduced the number of official reviews – and significantly, Murphy said. This past season the Situation Room officially reviewed 343 plays – mostly to verify goals (for kick-ins, high-stick usage or to see if the puck really crossed the goal line), but also for time-clock checks. That's about 100 reviews per season fewer than before the Situation Room opened in 2011-12.²⁹⁸

The NHL Situation Room adds a level of reliability to the League. And although there are elements of learning and adapting when new technological advances emerge, the NHL has succeeded in its Instant Replay review of goal scoring.²⁹⁹

²⁹⁶ Chere, *supra* note 279. Prior to the consistency that the NHL Situation Room provides and its ability to challenge on-ice calls that referees missed, there was less consistency. Blair Kerkhoff details the contested goal that Dallas Stars' Brett Hull scored in overtime against the Buffalo Sabres to win the 1998-1999 Stanley Cup Finals. Replays showed that Hull's skate was in the crease, which easily could have been called goalie interference. "Such goals had been routinely nullified since the league cracked down on crease encroachments by video replay three years earlier . . . Bryan Lewis, the league's director of officiating, insisted he and replay official Scott Brinkman reviewed the tape a dozen times while the Stars were celebrating. They ruled the goal legal. Lewis said Hull had possession throughout the sequence, but the referees did not seek a review from the video judge." KERKHOFF, *supra* note 5, at 107-111.

²⁹⁷ See NHL OFFICIAL RULES, *supra* note 46, at Rule 38.5.

²⁹⁸ John, Kryk, *A Look Inside the NHL's Replay War Room. Can It Work in the NFL?*, TORONTO SUN (Apr. 18, 2014, 6:22 PM), <http://www.torontosun.com/2014/04/18/a-look-inside-the-nhls-replay-war-room-can-it-work-in-the-nfl>.

²⁹⁹ Joe Delessio, *Quest for Perfection*, SPORTS ON EARTH (Jan. 21, 2014), <http://www.sportsonearth.com/article/66886124/nhl-replay-system-flawed-but-fixable>. There have been a lot of disputes on the expansion of Replay technology in the NHL. The NHL was the first league to implement a consistent system by creating the NHL Situation Room but they seem to have been slow to expand the review process to cover more controversial and sometimes game-changing plays.

5. Review Standard

A “no goal” call cannot be overturned unless the Video Goal Judge determines that a goal has been scored.³⁰⁰ The NHL does not directly define the standard of review that is applied to Instant Replay. However, for a goal to be scored the puck must entirely cross the line between the goal posts from in front and below the crossbar.³⁰¹ The NHL Situation Room has gone to great lengths to make the correct calls when it comes to goals. The employees use a standard similar to “beyond a reasonable doubt.” They must physically see the puck cross the line. If there is an obstruction of clear view or a question on whether the puck crossed the line, they will rule no goal. For example, on December 30, 2014, the NHL Situation Room reviewed an apparent goal by the Nashville Predators against the St. Louis Blues. They issued the following statement:

At 16:03 of the second period in the St. Louis Blues/Nashville Predators game, the Situation Room initiated a video review to further examine a play at the St. Louis net. Video review was inconclusive in determining whether Filip Forsberg’s shot completely crossed the St. Louis goal line. Therefore the referee’s call on the ice stands - no goal Nashville.³⁰²

In this case, there was inconclusive evidence as to whether the puck completely crossed the goal line because St. Louis Blues goalie’s glove covered the puck.³⁰³ The call cannot be overturned unless there is conclusive evidence that warrants a reversal.

6. Time Limit

If a potential goal requires video review, the review must be done prior to or during the next stoppage in play.³⁰⁴ A goal cannot

³⁰⁰ NHL OFFICIAL RULES, *supra* note 46, at Rule 38.2.

³⁰¹ NHL OFFICIAL RULES, *supra* note 46, at Rule 78.4.

³⁰² *STL @ NSH – 16:03 of the Second Period*, NHL – NHL SITUATION ROOM BLOG (Dec. 30, 2014, 9:51 PM), <http://www.nhl.com/ice/blogpost.htm?id=35416>. See *infra* note 523.

³⁰³ *Id.*

³⁰⁴ NHL OFFICIAL RULES, *supra* note 46, at Rule 78.6 (“Any potential goal requiring video review must be reviewed prior to or during the next stoppage of play.”).

be reviewed once play has resumed and the puck has dropped resuming play.³⁰⁵

7. Decision Communication

Once the Video Goal Judge has reviewed the disputed goal, the Video Goal Judge must use a phone or the communication system used to contact the referee at the penalty bench to convey the final decision.³⁰⁶ The Referee then informs the arena of the final decision and play resumes. Subsequently, during the game, the Public Address Announcer announces the final decision on the play.³⁰⁷ If it is decided that the goal was legal, the Announcer communicates the time the goal was scored and who scored the goal.³⁰⁸ If it is decided that there was no goal or the goal was illegal, the Announcer communicates the reasoning for disallowing the goal.³⁰⁹

A report is filed immediately following every game and faxed or sent electronically to the NHL office in Toronto.³¹⁰ After every game, the Video Goal Judge must also call the NHL Toronto office and provide a verbal report of all the video reviews conducted during the game.³¹¹

8. Appeal Post-Instant Replay Review

A team has no option for a post-Instant Replay Review. The team may file a complaint to the Commissioner's Office but it is likely that no call involving Instant Replay analysis will be overturned. The NHL has put a great deal of effort into perfecting its analysis of determining legal goals, and if a call has been

³⁰⁵ *Id.* (“[N]o goal may be awarded (or disallowed) as a result of video review once the puck has been dropped and play has resumed.”).

³⁰⁶ *See id.* at Rule 38.1(iii) (“After viewing the incident he will promptly convey his decision directly to the Referee at the penalty bench. When a play has been referred to the Video Goal Judge, his decision shall be final.”).

³⁰⁷ *Id.* at Rule 38.2 (“Once the play has been reviewed and deemed a goal, the goal will be announced in a normal manner. If the review reveals the goal must be disallowed, the Public Address Announcer shall announce the reason for the disallowed goal as reported by the Referee.”).

³⁰⁸ *Id.*

³⁰⁹ *Id.*

³¹⁰ *See id.* at Rule 38.3.

³¹¹ *See* NHL, OFFICIAL RULES 2014-2015 (2014), Rule 38.3.

confirmed or overturned after the Instant Replay review, the NHL will probably stand by its decision.

D. NBA

1. Reviewable Situations

The NBA has a number of plays that are reviewable by Instant Replay, including the expiry of time, fouls, illegal contact or interference, and other vital rules that can alter the outcome of a basketball game.³¹² Instant Replay can be used if a basket is made or a foul is called when there is no time remaining on the clock and if there are any issues with the clock involving the expiry of time or if the clock malfunctions.³¹³ Instant Replay can also be used if officials question whether a basket was made or foul was made prior to the expiration of the 24-second shot clock or if the clock needs to be adjusted during the fourth period or last two minutes of overtime periods.³¹⁴

Player altercations also can lead to an Instant Replay analysis.³¹⁵ The officials have much more leeway to trigger Instant Replay “during the last two minutes of the fourth period or the last two minutes of any overtime period(s).”³¹⁶ During this timeframe, officials may use Instant Replay if they are uncertain whether a defender was inside or outside a restricted area when illegal contact occurred or if they are uncertain about a call involving goaltending or a potential basket interference violation.³¹⁷ Allowing review during overtime and the last two minutes of the fourth quarter is important because of the potential

³¹² NBA OFFICIAL RULES, *supra* note 56, at Rule 13 §1.

³¹³ *Id.* at Rule 13 §I(a)(1),(2),(5).

³¹⁴ *Id.* at Rule 13 §I(a)(8),(11).

³¹⁵ *Id.* at Rule 13 §I(a)(4) (“For purposes of this instant replay rule only, a Player Altercation shall mean a situation in which (i) two or more players are engaged in (a) a fight or (b) a hostile physical interaction that is not part of normal basketball play that does not immediately resolve by itself or with the intervention of game officials or players, or (ii) one player commits a hostile act against another player that results in the offending player being ejected from the game – for example, when a player intentionally or recklessly harms or attempts to harm another player through the use of a punch, elbow, kick or blow to the head.”).

³¹⁶ *Id.* at Rule 13 §I(a)(12).

³¹⁷ *Id.* at Rule 13 §I(a)(12),(13).

that these calls have to change the momentum or outcome of a game.

The officials can use Instant Replay if they are uncertain about how to characterize a foul.³¹⁸ These plays include: whether a personal foul should be a flagrant foul³¹⁹ or a “clear-path-to-the-basket foul”³²⁰; whether an off-ball foul occurred³²¹; and determining which player should take the free throws as a result of a foul.³²²

There are a few situations in a game that are reviewable plays that relate to the regular rules of Basketball. The officials may review a play if they are uncertain about: 1) whether a shot was a two or three-point shot;³²³ 2) which team should be awarded possession on an out-of-bounds call;³²⁴ and, 3) whether a team has

³¹⁸ *Id.*

³¹⁹ *Id.* at Rule 4 §III(f) (“A flagrant foul is unnecessary and/or excessive contact committed by a player against an opponent whether the ball is dead or alive.”).

³²⁰ *Id.* at Rule 12(B) §I(e)(6) (“Two free throw attempts and possession of the ball on the sideline nearest the spot where play was interrupted if an offensive player, or a teammate, is fouled while having a clear-path-to-the-basket. The ball and an offensive player must be positioned between the tip-of-circle extended in the backcourt and the basket in the frontcourt, with no defender between the ball and the basket when the personal foul occurs. However, if a defender is ahead of the player being fouled and has the opportunity to position himself between the ball and the basket, there is no clear path foul. Additionally, if the defensive player who commits the foul is ahead of the player with the ball who he fouls anytime after that offensive player enters the frontcourt, no clear path has occurred regardless if he is fouled from behind or on the side. There must be team possession and the new play must originate in the backcourt, including throw-ins, and the offended team must be deprived of an opportunity to score.”).

³²¹ *Id.* at Rule 13 §I(a)(14) (“Officials are not reasonably certain whether an off-ball foul occurred prior to (a) offensive player beginning his shooting motion on a successful basket if the off-ball foul is committed by a defensive player, (b) a defensive foul is committed prior to the ball being released on a throw-in or (c) the ball being released on a successful field goal if the off-ball foul is a double foul or committed by an offensive player.”).

³²² *Id.* at Rule 13 §I(a)(3), (9), (10), & (14).

³²³ *Id.* at Rule 5 §I(c) (“A successful field goal attempt from the area outside the three-point field goal line shall count three points. (1) The shooter must have at least one foot on the floor outside the three-point field goal line prior to the attempt. (2) The shooter may not be touching the floor on or inside the three-point field goal line. (3) The shooter may contact the three-point field goal line, or land in the two-point field goal area, after the ball is released.”).

³²⁴ *Id.* at Rule 2 §V(c) (“When a team is entitled to a throw-in, an official shall clearly signal (1) the act which caused the ball to become dead (2) the spot of the throw-in (3) the team entitled to the throw-in, unless it follows a successful field goal or free throw.”).

too many players on the court.³²⁵ For example, the officials would determine whether a player stepped on the line while attempting a three-point shot. What seems like a simple reviewable play is actually quite complicated. The official must look at the player's feet because as a player is in the act of shooting, the player's toe often rolls forward, making it difficult to determine whether his toe was on the line or behind the line.³²⁶

The officials cannot use Instant Replay review to check the legality of a basket when there is .2 or .1 seconds on the game clock.³²⁷ In these situations, "the officials will judge the legality of the basket" based on the Official Rules with no assistance from Instant Replay.³²⁸

2. Triggering Review

If an on-court referee questions a call, all he needs to do is signal for a replay.³²⁹ The referee does this by putting his right arm in the air and making a circle with this forearm.³³⁰ The play is not reviewed until a time-out in play.³³¹ At the time-out, the referee heads to the scoring table and requests the footage from the play.³³²

3. Review Procedure

After a review has been triggered, all of the game referees go to the scoring table where the play in question is ready to be

³²⁵ *Id.* at Rule 12 §III ("If the ball is put into play and remains in play with one team having six or more players on the court, a non-unsportsmanlike technical foul will be assessed on the team with too many players and such team would lose possession if it had possession at the time the violation was discovered.").

³²⁶ *Making The Call: Instant Replay*, NBA.COM, (Dec. 19, 2014), http://www.nba.com/video/channels/nba_tv/2014/12/19/20141218-mtc-instant-replay.nba/.

³²⁷ NBA OFFICIAL RULES, *supra* note 56, at Rule 13 §I(b) ("Instant Replay will NOT be used to check a successful basket in 1 above if the throw-in, free throw attempt or jump ball started with .2 or .1 on the game clock.").

³²⁸ *Id.*

³²⁹ Jessica Golden, *A Look Inside the NBA's New Instant Replay Center*, CNBC (Dec. 8, 2014, 2:35 PM), <http://www.cnbc.com/id/102249251>.

³³⁰ *Making the Call*, *supra* note 326 (information from the video provided at NBA.com).

³³¹ *Id.*

³³² *Id.*

viewed.³³³ During this time, the NBA Instant Replay Center immediately reviews every angle of the play in question to provide the referee with the best and most conclusive footage.³³⁴ The referees review the various camera angles and speeds provided before they make a determination on the call.³³⁵ Rod Thorn, the president of operations for the NBA said, “It [NBA Instant Replay Center] gives us the ability to put plays beside each other, zoom in, do slow motion. It gives the referees an added tool to get more calls correct.”³³⁶

When a play is being reviewed at the end of the fourth period or in overtime, the officials keep both teams on the court while they review the play.³³⁷ The officials will also keep the players on the court, at the end of the second period, if they are reviewing a foul, or if any clock violations occurred prior to the expiration of the period.³³⁸

4. Review Personnel

The NBA operates differently than every other league. The NBA does not have a sole official that is dedicated as the Replay official, but rather the NBA takes the position that it values the decision of the crew of officials as a whole.³³⁹ The “Crew” consists of two referees and one crew chief that are assigned to each game.³⁴⁰ The crew chief is the official who is in charge of the game.³⁴¹ If the officials cannot agree on a play, then it is the responsibility of the crew chief to make the final decision.³⁴²

The NBA Replay Center helps referees make decisions by providing the evidence – that is, the footage – the referees need to

³³³ Golden, *supra* note 329.

³³⁴ *Id.*

³³⁵ *Id.*

³³⁶ *Id.*

³³⁷ NBA OFFICIAL RULES, *supra* note 56, at Rule 13 §III(g).

³³⁸ *Id.* at Rule 13 §III(f).

³³⁹ *Id.* at Rule 13 §III(a).

³⁴⁰ *Id.* at Rule 2 §I(a).

³⁴¹ *Id.* at Rule 2 §II(f); *id.* at Rule 2 §IV(a) (“The crew chief shall have the authority to set aside or question decisions regarding a rule interpretation made by either of the other officials.”).

³⁴² *Id.* at Rule 2 §II(f); *id.* at Rule 2 §IV(a).

make decisions.³⁴³ The Replay Center is located in Secaucus, New Jersey and is connected with all 29 NBA arenas.³⁴⁴ The average speed with which the NBA Replay Center can provide footage of a requested review of a play is 47 seconds.³⁴⁵ One person is assigned to each live game and is in charge of monitoring, reviewing, and analyzing every call.³⁴⁶

Some have suggested that, although technology has continued to improve the Instant Replay process, referees will likely never be replaced with machines alone.³⁴⁷ The NBA Replay Center only acts as an aid to the referees; the Crew Chief has the final decision on all calls.³⁴⁸ Rob Thorn, the President of Basketball Operations for the NBA recently said, “I think there will always be a human element involved. There will just be more and more ways that we can help the referee do his job.”³⁴⁹

5. Review Standard

Similar to the “clear and convincing” legal standard, the NBA must have “clear and conclusive” video evidence in order to overturn an official’s original call.³⁵⁰ This means that the officials

³⁴³ *Making The Call*, *supra* note 326 (information from the video provided at NBA.com).

³⁴⁴ Golden, *supra* note 329.

³⁴⁵ *Id.* (“On a busy night, the NBA says it is bringing in more than 28 terabytes of video—the equivalent of 560 double-sided Blue-Ray DVDS.”).

³⁴⁶ *Id.*

³⁴⁷ *See, e.g., id.*

³⁴⁸ *Id.*

³⁴⁹ *Id.*; David Aldridge, *Replay Center Aims to Help Refs Make the Calls Quickly*, NBA.COM (NOV. 10, 2014, 3:10 PM), http://www.nba.com/2014/news/features/david_aldrige/11/10/morning-tip-nba-instant-replay-center-joe-borgia-state-of-the-indiana-pacers-shortening-the-nba-schedule/ (“Our feeling was the following: The Center is not here to replace the official We try to help the ref make the right call by giving him the best angle possible. His job is to call the game. At this particular time, that’s the best approach for us. But as you know, in the modern NBA, we study everything. At some point in time, if we feel there is something that can help, then we’ll address it.”).

³⁵⁰ NBA OFFICIAL RULES, *supra* note 56, at Rule 13 §III(d); *Cross v. Ledford*, 120 N.E.2d 118, 123 (Ohio 1954) (citing *Merrick v. Ditzler*, 110 N.E. 493 (Ohio 1915)) (Although many courts have defined the “clear and convincing” standard of evidence, one that is particularly succinct comes from the Ohio Supreme Court one hundred years ago: “[C]lear and convincing evidence is that measure of degree of proof which will produce in the mind of the trier of facts a firm belief or conviction as to the allegations sought to be established. It is intermediate, being more than a mere

must physically see that the original call made on the court was incorrect. Rod Thorn admits, “There’s still going to be times when it’s not clear.”³⁵¹ There is also a lack of consistency across the various team arenas:

There is still variance within arenas, however, and there is an economic component at work here. Some teams use more cameras than others do on their broadcasts. There is a team, for example, that has two robo-cameras to take those pictures from behind the backboard we all see, but has only one operator for the two cameras – and the operator only works the basket at which the home team is shooting.³⁵²

One rationale that supports the need to keep the standard of review high is that a high standard of review arguably reduces the percentage of errors that are made.

6. Time Limit

In the NBA, all Instant Replay reviews are intended to last only two minutes, but referees have discretion.³⁵³ If they feel that they need an extended period of time to accurately review a play, then they are allowed to extend the review period as necessary.³⁵⁴ In addition, referees may use extra time if the replay review involves a player altercation.³⁵⁵

7. Decision Communication

After the crew reviews a play, they will make a final ruling.³⁵⁶ The game officials provide their ruling to the official game scorer if the play has anything to do with a change in the score or a personal foul.³⁵⁷ If the reviewed play involved a throw-

preponderance, but not to the extent of such certainty as is required beyond a reasonable doubt as in criminal cases. It does not mean clear and unequivocal.”).

³⁵¹ Aldridge, *supra* note 349.

³⁵² *Id.*

³⁵³ NBA OFFICIAL RULES, *supra* note 56, at Rule 13 §III(b).

³⁵⁴ *Id.*

³⁵⁵ *Id.*

³⁵⁶ *Id.* at Rule 13 §III(d).

³⁵⁷ *Id.* at Rule 2 §V(b).

in, the official will signal the spot and team that is entitled to the throw-in.³⁵⁸

The video review is immediately provided to fans through different media outlets.³⁵⁹ The fans can view the replay on the Jumbotron or on the television live broadcast.³⁶⁰ Fans will also have an opportunity to view the replay through Twitter or various social media websites.³⁶¹

8. Appeal Post-Instant Replay Review

There are no post-instant replay review processes. The high standard of review reduces the risk of incorrect calls. However, if a team has any issues they may appeal to the commissioner.³⁶²

E. MLB

1. Reviewable Situations

Prior to the 2014 expansion, video review was only used at the discretion of umpires for boundary calls involving home runs. As of the 2014 baseball season, each team manager begins each game with one challenge to be applied to multiple reviewable calls within a single play. A “call” is an oral pronouncement or physical gesture communicating a judgment by one or more umpires or by the entire crew after conferring with another on a play. Ninety percent of plays are eligible for review; however, due to the pace of the game, the league has limited each manager to no more than two challenges per game. Reviewable plays include:

Approximately 90 percent of all plays will be subject to review, including calls involving home runs, ground-rule doubles, fan interference, boundary calls, plays at first base, force plays, tag plays, fair-foul and trap plays in the outfield, hit by pitch, timing plays, touching the base, passing runners and any dispute involving ball-strike counts, outs, score or

³⁵⁸ *Id.* at Rule 2 §V(c).

³⁵⁹ Golden, *supra* note 329.

³⁶⁰ *Id.*

³⁶¹ *Id.*

³⁶² *See, infra* notes 604-608 and accompanying text.

substitutions. All other plays, including interference and obstruction, will not be reviewable.³⁶³

A manager may challenge the umpires' decision on a home run. This play may be reviewed if there is inconclusive evidence regarding whether the ball hit an object or left the playing field, and a manager may also challenge an umpire if there is a question as to whether the ball was fair or foul, or if it is unclear whether a fan interfered with the ball by reaching over any barrier.³⁶⁴ A manager may challenge a home run if it is unclear whether the ball struck the top of a barrier, struck a railing, or whether the ball stayed within the field.³⁶⁵ The manager can use any of the home run issues above to refute an umpire's ruling to call or not call a home run.

A manager has a right to challenge whether a live ball remained in bounds for the umpires' call on non-home run boundary calls. The manager has this right if the decision involves whether a live ball:

(1) [B]ounces out of the field of play; (2) strikes the top of a fence or hits a railing or other obstacle in the ballpark; (3) is interfered with by a fan reaching over the fence; (4) is successfully caught by a fielder proximate to a stadium boundary (e.g., while falling into the stands); or (5) leaves the field of play and becomes a dead ball.³⁶⁶

A manager may challenge any of these plays if he believes the umpires made an incorrect decision.

A manager can challenge the umpires' decision on whether a ball is fair or foul. A foul ball from the Official Baseball Rule 2.00 is "a batted ball that settles on foul territory,"³⁶⁷ the area between the first base to the fence and the area between the third base to

³⁶³ Paul Hagen, *Expanded Replay Approved, To Begin This Season*, MLB.COM (Jan. 16, 2014), <http://m.mlb.com/news/article/66737912/mlb-approves-expanded-instant-replay-beginning-with-2014-season>.

³⁶⁴ MLB, MAJOR LEAGUE BASEBALL REPLAY REVIEW REGULATIONS § V(A), *available at* http://mlb.mlb.com/mlb/official_info/official_rules/replay_review [hereinafter *MLB REPLAY REVIEW*].

³⁶⁵ *Id.*

³⁶⁶ *Id.* at § V(B).

³⁶⁷ MLB OFFICIAL RULES, *supra* note 24, at Rule 2.

the fence and everything directly above those areas.³⁶⁸ It is also a foul ball if the ball “touches the person of an umpire or player, or any object foreign to the natural ground”³⁶⁹ while the ball is in foul territory. A fair ball is a ball that is batted and settles on fair ground³⁷⁰ – the area of the field between home plate to first and third base all the way to the fence surrounding the back of the field.³⁷¹ Fair ground also includes the foul lines.³⁷² A manager can only challenge foul ball calls when the ball first lands at or beyond the umpires positioned at first and third bases.³⁷³ The umpire has the final decision regarding whether the ball landed in front of him or not, and the umpire’s decision on the ball’s position is not subject to review.³⁷⁴ For example, if an umpire determines that the ball is behind him and calls either “fair ball” or “foul ball,” a manager can challenge the umpire’s call.

Force or tag plays are subject to review.³⁷⁵ These plays involve a defensive player with the ball, tagging a runner or batter-runner or touching a base to get the runner out.³⁷⁶ If a manager uses his challenge on a force or tag play, the Replay Official is only allowed to decide whether the fielder caught the ball.³⁷⁷ A force or tag play still contains a substantial amount of umpire judgment when making a call. The Replay Official cannot review the umpire’s judgment regarding a runner rounding “first base in an attempt to advance to second base” or whether a runner left a base early when he was already tagged up.³⁷⁸ Also, a manager cannot challenge the umpire’s judgment regarding a runner leaving the base path while trying to reach the next base or home plate.³⁷⁹ The umpire’s judgment will be used to determine whether a runner is out at second base on a force play when the fielder may or may not have touched second base while trying to

³⁶⁸ *Id.*

³⁶⁹ *Id.*

³⁷⁰ *Id.*

³⁷¹ *Id.*

³⁷² *Id.*

³⁷³ MLB REPLAY REVIEW, *supra* note 364, at § V(C).

³⁷⁴ *Id.*

³⁷⁵ *Id.* at V(D).

³⁷⁶ MLB OFFICIAL RULES, *supra* note 24, at Rule 2.00.

³⁷⁷ *Id.*

³⁷⁸ MLB REPLAY REVIEW, *supra* note 364, at § V(D).

³⁷⁹ MLB OFFICIAL RULES, *supra* note 24, at Rule 7.08(a)(2).

complete a double play and avoiding a collision with a runner.³⁸⁰ The call on the force play at second base is not subject to review and is only under the umpire's judgment. However, all other aspects of this play are subject to review such as "whether the fielder caught the ball, had control of the ball, was down off the bag or tagged the runner."³⁸¹

Catch plays in the outfield are also subject to review.³⁸² A catch is legal if the fielder firmly secures possession of the ball in his hand or glove.³⁸³ Catch plays are not reviewable in the infield.³⁸⁴ For instance, if a batter hits a fly ball³⁸⁵ or a line drive,³⁸⁶ and the outfielder is in the infield, the outfielder is considered an infielder and, therefore, the catch is not reviewable.³⁸⁷

The umpire determines whether a catch play in the outfield is reviewable, and his decision is not reviewable.³⁸⁸ If the umpire has any doubt as to whether the fielder caught the ball, he can allow the call to be reviewed.

A manager can challenge certain base running calls.³⁸⁹ A manager may also challenge "calls involving whether a base runner passes a preceding runner before such runner is out in violation of Rule 7.08(h)."³⁹⁰ A manager can challenge calls made determining "whether a base runner scored ahead of a third

³⁸⁰ MLB REPLAY REVIEW, *supra* note 364, at § V(D).

³⁸¹ *Id.*

³⁸² *Id.* at § V(E). See MLB OFFICIAL RULES, *supra* note 24, at Rule 2.00 ("Fly balls or line drives fielded by a defensive player in the infield shall not be eligible for review. Any outfielder who stations himself in the infield on the play shall be considered an infielder for the purpose of this Regulation. A fly ball (but not a line drive) touched by an infielder (other than the pitcher or catcher) in an area behind the original positioning of the nearest infielder (other than the pitcher or catcher) shall be considered a fly ball or line drive in the outfield subject to review. The Umpire shall determine whether a call is reviewable under this provision. Such a determination by the Umpire is not reviewable.").

³⁸³ MLB OFFICIAL RULES, *supra* note 24, at Rule 2.00.

³⁸⁴ MLB REPLAY REVIEW, *supra* note 364, at § V(E).

³⁸⁵ MLB OFFICIAL RULES, *supra* note 24, at Rule 2.00.

³⁸⁶ *Id.*

³⁸⁷ MLB REPLAY REVIEW, *supra* note 364, at § V(E).

³⁸⁸ *Id.*

³⁸⁹ MLB REPLAY REVIEW, *supra* note 364, at § V(F).

³⁹⁰ MLB REPLAY REVIEW, *supra* note 364, at § V(F)(1). See also, MLB OFFICIAL RULES, *supra* note 24, at Rule 7.08(h) ("Any runner is out when . . . he passes a preceding runner before such runner is out").

out.”³⁹¹ Also, a manager can challenge “upon appeal by the defensive Club,” whether a runner touched a base.³⁹² Appeal plays are plays in which the batter does not touch a base and subsequently does not rectify his mistake by going back and touching the base prior to the defensive team making an appeal on the play or the player being tagged out.³⁹³ For example, if a player fails to touch first base but touches second base, the runner will stand unless the defensive team appeals and it is determined the batter did not touch the prior base.³⁹⁴ Also, if a Replay Official decides a runner did not touch home plate and the fielder did not tag the runner, the Replay Official can rule that the runner is “safe” at home unless a manager appeals the call prior to the Crew Chief contacting the Replay Official.³⁹⁵

Another reviewable play is whether a pitch hit a batter.³⁹⁶ A pitch hits a batter if the ball touches the batter or his clothing.³⁹⁷ The Home Plate Umpire makes a game-time decision as to whether a ball hit the bat and declares the ball either fair or foul depending on the circumstances.³⁹⁸ If a pitched ball hits the batter or his clothing while he is in proper batting position, then any runners on base will advance one base, or if the batter is hit and he is not in proper batting position, then the other runners will return to their respective bases and the umpire will either call

³⁹¹ MLB REPLAY REVIEW, *supra* note 364, at § V(F)(2); MLB OFFICIAL RULES, *supra* note 24, at Rule 4.09(a).

³⁹² MLB REPLAY REVIEW, *supra* note 364, at § V(F)(3). *See also*, MLB OFFICIAL RULES, *supra* note 24, at Rule 7.10(b) (“Any runner shall be called out, on appeal, when . . . (b) with the ball in play, while advancing or returning to a base, he fails to touch each base in order before he, or a missed base, is tagged.”).

³⁹³ MLB OFFICIAL RULES, *supra* note 24, at *Comment* to Rule 7.10(b) (“PLAY. (a) Batter hits ball out of park or ground rule double and misses first base (ball is dead) – he may return to first base to correct his mistake before he touches second but if he touches second he may not return to first and if defensive team appeals he is declared out at first.”).

³⁹⁴ *Id.*

³⁹⁵ MLB REPLAY REVIEW, *supra* note 364, at § V(F) (Example stating “A runner attempts to score on a play at the plate. The catcher misses the tag on the runner, and the runner fails to touch home plate, but the umpire calls a tag and the runner ‘out.’ The offensive manager challenges the call, and the Replay Official determines that the catcher missed the tag. The Replay Official shall disregard the failure of the runner to touch home plate, declare the runner ‘safe’ and score the run.”).

³⁹⁶ MLB REPLAY REVIEW, *supra* note 364, at § V(G).

³⁹⁷ *Id.*

³⁹⁸ *Id.*

a “strike”³⁹⁹ or a “ball.”⁴⁰⁰ Also, if the ball hits the batter while he is in the strike zone,⁴⁰¹ or the batter does not try to avoid the ball and the batter is not attempting to hit the ball, then the batter does not become a runner and will receive a strike.⁴⁰² For example if the ball hits the batter while he is in the strike zone, regardless of whether he tried to avoid the ball, the umpire will call a strike.⁴⁰³ Alternatively, if the ball hits a batter who has not tried to avoid being hit and the ball is not in the strike zone, then the umpire will call ball.⁴⁰⁴

Nevertheless, the replay regulations provide: “whether the ball was in the strike zone when it touched the batter and whether the batter made any attempt to avoid being touched by the ball, shall not be reviewable.”⁴⁰⁵ If the umpire rules that the ball hit the batter and is therefore a “hit batter dead ball,” the manager for the defensive team can challenge the call if the manager believes that the ball did not hit the batter.⁴⁰⁶ If the Replay Official reverses the call, the Replay Official will determine where to place the batter, based on if the ball lands in fair or foul territory.⁴⁰⁷

A manager can challenge the umpire’s decision regarding collisions at home plate.⁴⁰⁸ A collision at home plate occurs when the runner attempts to score by touching home plate and collides with the catcher or another player covering home plate.⁴⁰⁹ The catcher is not allowed to block the runner unless the catcher is holding the ball.⁴¹⁰ This rule is intended to decrease the likelihood of potential injuries. The Comment in Rule 7.13(1) explains further:

The failure by the runner to make an effort to touch the plate, the runner’s lowering of the shoulder, or the runner’s pushing

³⁹⁹ MLB OFFICIAL RULES, *supra* note 24, at Rule 2.00.

⁴⁰⁰ *Id.* See also *id.* at Rule 5.09(a).

⁴⁰¹ *Id.* at Rule 2.00.

⁴⁰² *Id.* at Rule 6.08(b).

⁴⁰³ *Id.*

⁴⁰⁴ *Id.*

⁴⁰⁵ MLB REPLAY REVIEW, *supra* note 364, at § V(G).

⁴⁰⁶ *Id.*

⁴⁰⁷ *Id.*

⁴⁰⁸ MLB REPLAY REVIEW, *supra* note 364, at § V(H).

⁴⁰⁹ MLB OFFICIAL RULES, *supra* note 24, at Rule 7.13(1).

⁴¹⁰ *Id.* at Rule 7.13(2).

through with his hands, elbows or arms, would support a determination that the runner deviated from the pathway in order to initiate contact with the catcher in violation of Rule 7.13. If the runner slides into the plate in an appropriate manner, he shall not be adjudged to have violated rule 7.13. A slide shall be deemed appropriate, in the case of a feet first slide, if the runner's buttocks and legs should hit the ground before contact with the catcher. In the case of a head first slide, a runner shall be deemed to have slid appropriately if his body should hit the ground before contact with the catcher.⁴¹¹

Also, the Crew Chief will have discretion regarding whether a collision at home plate should be reviewed.⁴¹² For example, if the umpire calls a runner out for violating Official Baseball Rule 7.13 on a close play, but the runner collides with the catcher and touches home plate, then the Crew Chief may exercise his discretion for an Instant Replay review.⁴¹³ If the umpire's call of the Rule 7.13 violation is overturned, then the Replay Official also must determine whether a run should be granted (i.e., if the player was tagged prior to touching home plate).⁴¹⁴ Alternatively, if the manager challenges the Rule 7.13 violation call, the Crew Chief can decline to review the call, but the manager is still allowed to challenge whether the runner was tagged or forced out before touching home plate.⁴¹⁵

2. Triggering Review

Either the Crew Chief or a Club Manager can trigger a review of an umpire's call on a play.⁴¹⁶ Each Club Manager has one challenge at the beginning of each game that can be used to challenge multiple reviewable calls in a single play.⁴¹⁷ If a manager uses his challenge and the Replay Official overturns the

⁴¹¹ *Id.* at *Comment* to Rule 7.13(1).

⁴¹² MLB REPLAY REVIEW, *supra* note 364, at § V(H) (paraphrasing Example 1).

⁴¹³ *Id.*

⁴¹⁴ *Id.*

⁴¹⁵ *Id.* (paraphrasing Example 2).

⁴¹⁶ *Id.* at § II(A).

⁴¹⁷ *Id.* at § II(B)(1).

call, the manager will retain his challenge.⁴¹⁸ However, if the manager uses his challenge and the Replay Official affirms the umpire's decision, the manager loses his right to challenge any call for the rest of the game.⁴¹⁹ A manager cannot have more than two challenges per game.⁴²⁰

To exercise one of his challenges, a manager must approach the umpire who made the call.⁴²¹ For example, if the manager is only challenging one call on a play, he must approach the umpire who made that call.⁴²² However, if the manager is challenging multiple calls on a play, then he may approach any umpire who made a call on the play.⁴²³ If the call was made after the entire crew discussed the play, then the manager must approach the Crew Chief.⁴²⁴

The umpire will ask the manager if he wishes to invoke one of his challenges.⁴²⁵

If the manager does not respond right away, the umpire will "revoke the [m]anager's right to challenge any call relating to that play" ⁴²⁶ If this situation occurs, the manager retains his challenge and the game resumes.⁴²⁷

The Crew Chief also has the power to invoke a review of a play.⁴²⁸ He can initiate Instant Replay for any calls pertaining to home runs or collisions at home plate.⁴²⁹ Starting at the top of the seventh inning and for the rest of the game, the Crew Chief, either by his sole discretion or at the request of a manager with no challenges left, has the power to initiate review on any reviewable call.⁴³⁰ A manager with no challenges left can only request the review; the manager "cannot insist that the Crew Chief . . .

⁴¹⁸ *Id.*

⁴¹⁹ *Id.*

⁴²⁰ *Id.*

⁴²¹ *Id.* at § II(B)(3).

⁴²² *Id.*

⁴²³ *Id.*

⁴²⁴ *Id.*

⁴²⁵ *Id.* at § II(B)(4).

⁴²⁶ *Id.*

⁴²⁷ *Id.*

⁴²⁸ *Id.* at § II(A).

⁴²⁹ *Id.* at § II(C).

⁴³⁰ *Id.*

initiate [the] Replay Review.”⁴³¹ The Crew Chief cannot initiate review of any play or call himself if a manager still has challenges remaining.⁴³²

3. Review Procedure

As mentioned, in order to initiate review, a manager must approach the appropriate umpire or the Crew Chief depending on the reviewable call(s).⁴³³ Once the Crew Chief is aware that the manager is exercising his challenge on a play or the Crew Chief initiates review on his own discretion, the Crew Chief signals that the play is under review by “pointing in the direction of the headset technician and walking toward him.”⁴³⁴ The area where the headset technician is located is the “designated communication location”: an area where the Crew Chief and another umpire can “communicate with the Replay Official, home public address announcer, and the television broadcasters.”⁴³⁵

The Crew Chief then informs the Replay Official of the call(s) requested for review, and the Replay Official and Crew Chief determine whether the play is eligible for review.⁴³⁶ While the Crew Chief informs the Replay Official, the other umpire relays the request to the home Club’s public announcer.⁴³⁷

The Replay Official conducts a review of the call(s) on the play as per his conversation with the Crew Chief.⁴³⁸ A Replay Official at the Replay Command Center in New York reviews all Instant Replays.⁴³⁹ The Replay Command Center is located at

⁴³¹ *Id.* at § II(C)(1).

⁴³² *Id.* at § II(C)(2).

⁴³³ *Id.* at § II(B)(3).

⁴³⁴ *Id.* at § II(J)(1).

⁴³⁵ *Id.*

⁴³⁶ *Id.* at § II(J)(2).

⁴³⁷ *Id.* During the umpire’s communications with the home Club’s public announcer, the television broadcasters listen to the communications so they can inform the viewers at home. *Id.*

⁴³⁸ *Id.* at § II(J)(3).

⁴³⁹ Hagen, *supra* note 363 (“The on-site officials will not make the call, however. All reviews will be conducted at the Replay Command Center at MLBAM headquarters in New York. Two additional four-man umpiring crews will be hired and umpires will be rotated through New York to review video feeds. Every ballpark will have a designated communication location near home plate. There, the crew chief and at least one other Major League umpire will have access to a hard-wired headset connected to the Replay Command Center. The decision of the replay official in New York will be final.”).

Major League Baseball Advanced Media (hereafter “MLBAM”).⁴⁴⁰ Once a video review process is initiated, the Replay Official will review the video and audio.⁴⁴¹

Once the Replay Official makes a decision on a play, he will notify the Crew Chief of his final verdict.⁴⁴² The Replay Official will either let the call stand or overturn the call.⁴⁴³ If he changes the call, the Replay Official gives the Crew Chief instructions on the “placement of runners.”⁴⁴⁴ Similar to expectation damages, the Replay Official must use “his discretion to place both Clubs in the same position they would have been in had the call on the field been correct.”⁴⁴⁵ The Crew Chief communicates the Replay Official’s final decision to each team.⁴⁴⁶

4. Review Personnel

There are four major parties involved in invoking a review of a play during a baseball game in MLB: 1) the Club Manager; 2) the Crew Chief; 3) the umpires; and 4) the Replay Official. Each team has a Club Manager.⁴⁴⁷ That Club Manager, often referred to

⁴⁴⁰ *Id.*

⁴⁴¹ MLB REPLAY REVIEW, *supra* note 364, at § (VI)(B)(2).

⁴⁴² *Id.* at § II(J)(3).

⁴⁴³ *Id.*

⁴⁴⁴ *Id.*

⁴⁴⁵ *Id.* at § IV. Section IV goes through the discretionary standard the Replay Official should use when placing runners. *Id.* at § IV(A)(3) (“*Factors to Consider*. The Replay Official should consider several factors when placing the runners, including: (a) the depth of fly balls; (b) the speed of runners; (c) the location of runners on the field when the play occurred; (d) the number of outs at the time of the play; and (e) whether the incorrect call affected the subsequent behavior or conduct of the offensive or defensive players.”).

⁴⁴⁶ *Id.* at § II(J)(4).

⁴⁴⁷ MLB OFFICIAL RULES, *supra* note 24, at Rule 2.00 (“THE MANAGER is a person appointed by the club to be responsible for the team’s actions on the field, and to represent the team in communications with the umpire and the opposing team. A player may be appointed manager. (a) The club shall designate the manager to the league president or the umpire-in-chief not less than thirty minutes before the scheduled starting time of the game. (b) The manager may advise the umpire-in-chief that he has delegated specific duties prescribed by the rules to a player or coach, and any action of such designated representative shall be official. The manager shall always be responsible for his team’s conduct, observance of the official rules, and deference to the umpires. (c) If a manager leaves the field, he shall designate a player or coach as his substitute, and such substitute manager shall have the duties, rights and responsibilities of the manager. If the manager fails or refuses to designate his

as the Club's Field Manager,⁴⁴⁸ is in charge of invoking challenges for video review according to the MLB Replay Review Regulations.⁴⁴⁹ If the manager cannot perform his duties because of an "injury, illness, ejection, removal or other legitimate reasons," the coach designated with managerial duties will act as the Club's Manager for purposes of Instant Replay review.⁴⁵⁰

The Crew Chief is usually the most experienced umpire in the crew and acts as the contact person between the league office and the crew (umpires).⁴⁵¹ The Crew Chief holds the power of review at any time throughout the game for calls involving home runs or collisions at home plate.⁴⁵² The Crew Chief also acts as a buffer for any requests for review by managers and determines if the manager's challenge is proper and timely.⁴⁵³ The Crew Chief has the sole discretion to contact the Replay Official throughout the game for confirmation on various calls that are not technically reviewable plays.⁴⁵⁴ For example, the Crew Chief may ask the

substitute before leaving, the umpire-in-chief shall designate a team member as substitute manager.").

⁴⁴⁸ MLB REPLAY REVIEW, *supra* note 324, at § II(B)(2).

⁴⁴⁹ *Id.* at § II(A).

⁴⁵⁰ *Id.* at § II(B)(2).

⁴⁵¹ *Umpire (Baseball)*, WIKIPEDIA (last modified Dec. 20, 2012, 1:50 AM), [http://en.wikipedia.org/wiki/Umpire_\(baseball\)#Crew_chief](http://en.wikipedia.org/wiki/Umpire_(baseball)#Crew_chief) ("The Crew Chief shall coordinate and direct his crew's compliance with the Office of the Commissioner's rules and policies. Other Crew Chief responsibilities include: leading periodic discussions and reviews of situations, plays and rules with his crew; generally directing the work of the other umpires on the crew, with particular emphasis on uniformity in dealing with unique situations; assigning responsibilities for maintaining time limits during the game; ensuring the timely filing of all required crew reports for incidents such as ejections, brawls and protested games; and reporting to the Office of Commissioner any irregularity in field conditions at any ballpark.") (quoting *2007 MLB Umpire Crews*, MLB.COM (retrieved May 5, 2007), http://www.mlb.com/mlb/official_info/umpires/crews.jsp).

⁴⁵² MLB REPLAY REVIEW, *supra* note 364, at § II(C).

⁴⁵³ *Id.* at § II(A).

⁴⁵⁴ *Id.* at § II(J)(6) ("The Crew Chief may communicate with the Replay Official at any time during a game for purposes of: (a) record-keeping (i.e., to review the ball-strike count to a batter, the number of outs in an inning, and the score of the game); (b) determining whether a player or players properly were substituted for during a game pursuant to Official Baseball Rules 3.03, 3.04, 3.05, 3.08, and/or 4.04; (c) determining, after appeal, whether a batter fails to bat in his proper turn, and another batter completes a time at bat in his place, in violation of Official Baseball Rule 6.07; or (d) confirming that an Umpire's decision on the field was consistent with the Official Baseball Rules under circumstances in which the misapplication of the rule(s) being checked could result in a protest of the game pursuant to Official Baseball rule 4.19. If

Replay Official to confirm that the substitution of players was done correctly.⁴⁵⁵ However, a manager does not have the right to use his challenge regarding whether the other team properly substituted its players pursuant to Official Baseball Rules.⁴⁵⁶

There are usually one or more umpires assigned to each game.⁴⁵⁷ The umpires may change any original call as long as the call is appealed.⁴⁵⁸ The umpires must have collective agreement before changing a call.⁴⁵⁹ An umpire cannot question or comment on another umpire's decision unless he is asked for his opinion by the umpire who made the decision.⁴⁶⁰ The umpire-in-chief is located behind the catcher and rules on calls related to home plate, including but not limited to balls and strikes, fair and foul balls, "all decisions on the batter," and the like.⁴⁶¹ A field umpire is located on the field, makes decisions regarding bases, and aids the umpire-in-chief.⁴⁶²

The Replay Official plays a vital role in reviewable plays. The Replay Official is the person who actually conducts a review of the play.⁴⁶³ The Replay Official has the aid of assistant technicians who are appointed by MLBAM.⁴⁶⁴ The technicians have sole control over the monitors or computer that show the Instant Replay.⁴⁶⁵ Since the Replay Official has no control over the equipment, he/she can only give instructions to review feeds from both the home and away local broadcasts of the game plus additional camera feeds from both broadcasts (not exceeding six

the Crew Chief approaches the headset technician without pointing in his direction to signal the start of Replay Review, the Official Scorer may presume that Replay Review is not being sought, and instead that the Umpire is seeking a record-keeping, illegal substitution, batting out of order or rules check as set forth above.”).

⁴⁵⁵ *Id.*

⁴⁵⁶ *Id.*

⁴⁵⁷ MLB OFFICIAL RULES, *supra* note 24, at Rule 9.01(a).

⁴⁵⁸ *Id.* at Rule 9.02(c).

⁴⁵⁹ *Id.*

⁴⁶⁰ *Id.* (“No umpire shall criticize, seek to reverse or interfere with another umpire’s decision unless asked to do so by the umpire making it.”).

⁴⁶¹ *Id.* at Rule 9.04(a).

⁴⁶² *Id.* at Rule 9.04(b).

⁴⁶³ MLB REPLAY REVIEW, *supra* note 364, at § VI(B)(2).

⁴⁶⁴ *Id.* at § VI(B)(1).

⁴⁶⁵ *Id.* at § VI(B)(2).

additional camera feeds), a “high-home camera feed,”⁴⁶⁶ and, when available, the national broadcast feeds.⁴⁶⁷ Once the Crew Chief contacts and instructs the Replay Official to review a call on a play, the Replay Official’s decision is “final and binding.”⁴⁶⁸

5. Review Standard

The Replay Official must use a “clear and convincing evidence”⁴⁶⁹ standard in order to overturn the umpire’s original call on a play.⁴⁷⁰ Thus, the Replay Official must “definitively conclude”, given the replay review or evidence on the play, that the umpire’s decision on the field was in error.⁴⁷¹

To date, the Instant Replay review in MLB has been a success. There were 1,276 challenges in the 2014 baseball season, and 47.65% of the on-field calls were overturned.⁴⁷² These numbers show the high incidence of human error involved in making live game-time decisions.⁴⁷³

6. Time Limit

As with the other professional sports leagues, MLB requires a timely replay review. “A manager must exercise his challenge, or

⁴⁶⁶ *Baseball Telecasts Technology*, WIKIPEDIA (last modified Dec. 11, 2014), http://en.wikipedia.org/wiki/Baseball_telecasts_technology (“The ‘high home’ camera from high behind home plate. Its purpose is that it can trace the arc of a home run and measure the distance the ball traveled. The ‘high home’ camera can also measure a runner’s lead off first base while showing in different colors (green, yellow, red) and how far off the base and into pickoff danger a runner is venturing.”).

⁴⁶⁷ MLB REPLAY REVIEW, *supra* note 364, at § VI(A).

⁴⁶⁸ *Id.* at § II(K)(2).

⁴⁶⁹ *Clear and Convincing Evidence*, CORNELL UNIVERSITY LAW SCHOOL - LII, http://www.law.cornell.edu/wex/clear_and_convincing_evidence (“A medium level of burden of proof which is a more rigorous standard to meet than the preponderance of the evidence standard, but a less rigorous standard to meet than proving evidence beyond a reasonable doubt. In order to meet the standard and prove something by clear and convincing evidence, a party must prove that it is substantially more likely than not that it is true.”). *See also supra* note 350.

⁴⁷⁰ MLB REPLAY REVIEW, *supra* note 364, at § III.

⁴⁷¹ *Id.*

⁴⁷² Daren Willman, BASEBALLSAVANT.COM (last visited 01/22/2015), <http://baseballsavant.com/apps/replays.php>. These numbers include the playoff series for ALCS and NLCS and the World Series games between Kansas City and St. Louis. *Id.*

⁴⁷³ For discussion regarding factors that may contribute to such split-second decision-making errors, see *infra* Part III.A.2.

the Crew Chief must initiate replay review,” prior to the start of the next pitch or play.⁴⁷⁴ Also, the umpire must acknowledge the request for review before the commencement of the next pitch or play.⁴⁷⁵ A new play has begun when the pitcher is on the rubber on the pitcher’s mound about to throw the next pitch and the batter is in the batter’s box ready to hit the next pitch.⁴⁷⁶ Only the defensive team can initiate an “appeal”⁴⁷⁷ play that will allow a review on any call on the prior play.⁴⁷⁸ A challenge that ends the game must occur immediately after the play is finished.⁴⁷⁹ In those cases, both teams must stay in their dugouts until the Replay Official makes a decision.⁴⁸⁰

There are strict timing rules when a challenge occurs at the same time as a pitching change.⁴⁸¹ A defensive manager must exercise any challenge prior to requesting a pitching change.⁴⁸² If the offensive manager or Crew Chief wishes to exercise his challenge, he must do so either before the relief pitcher crosses the foul line or steps on the warning track.⁴⁸³ The Crew Chief may use his discretion whether to allow the offensive manager’s challenge if the defensive manager accelerated the relief pitcher process in order to prevent the offensive manager’s challenge.⁴⁸⁴

Regardless of whether the manager is exercising his challenge, after exhausting his challenges, or requesting the Crew Chief to review the play at the Crew Chief’s discretion, the manager must immediately run out onto the field to dispute the call if an umpire calls a third out.⁴⁸⁵ The manager only has less than ten seconds from the umpire’s third-out call to get on the field.⁴⁸⁶ After the manager is on the field, he has no longer than

⁴⁷⁴ MLB REPLAY REVIEW, *supra* note 364, at § II(D)(1).

⁴⁷⁵ *Id.*

⁴⁷⁶ *Id.*

⁴⁷⁷ MLB OFFICIAL RULES, *supra* note 24, at Rule 2.00 (“An APPEAL is the act of a fielder in claiming violation of the rules by the offensive team.”).

⁴⁷⁸ MLB REPLAY REVIEW, *supra* note 364, at § II(D)(1).

⁴⁷⁹ *Id.*

⁴⁸⁰ *Id.*

⁴⁸¹ *Id.* at § II(D)(2).

⁴⁸² *Id.*

⁴⁸³ *Id.*

⁴⁸⁴ *Id.*

⁴⁸⁵ *Id.* at § II(D)(3).

⁴⁸⁶ *Id.*

thirty seconds to notify the umpire of his challenge.⁴⁸⁷ The Crew Chief has to either immediately initiate Replay Review or hold an umpire conference to discuss the play.⁴⁸⁸ When a challenge involves a third-out call, the Crew Chief holds the defensive players on the field.⁴⁸⁹

If the Crew Chief signals for a play to be reviewed and a manager desires to challenge another call on the play, the manager must exercise his challenge before the Crew Chief's contact with the Replay Official.⁴⁹⁰ The manager must get the Crew Chief's attention before the Crew Chief calls the Replay Official to commence the review of the play.⁴⁹¹ It is likely that the purpose of this rule is to avoid wasting any more time than necessary.

The Crew Chief has the final and binding decision of determining whether the manager's challenge was timely.⁴⁹² If the Crew Chief determines that the call was untimely, the manager will not be charged with exercising his challenge.⁴⁹³

7. Decision Communication

Once the Replay Official makes a decision on a play, he communicates the final decision to the Crew Chief of either confirming the call on the field or reversing the call.⁴⁹⁴ The Replay Official will tell the Crew Chief either that the on-field call was correct or that he does not have enough evidence to reverse the call.⁴⁹⁵ In other words, the Instant Replay does not meet the "clear and convincing evidence" standard.⁴⁹⁶ If the Replay Official instructs the Crew Chief to change the call, then the Crew Chief must act according to the Replay Official's instructions and position the players on the field accordingly.⁴⁹⁷

⁴⁸⁷ *Id.*

⁴⁸⁸ *Id.*

⁴⁸⁹ *Id.*

⁴⁹⁰ *Id.* at § II(D)(4).

⁴⁹¹ *Id.*

⁴⁹² *Id.* at § II(D)(5).

⁴⁹³ *Id.*

⁴⁹⁴ *Id.* at § II(J)(3).

⁴⁹⁵ *Id.*

⁴⁹⁶ *Id.*

⁴⁹⁷ *Id.*

After speaking with the Replay Official, the Crew Chief will inform both Clubs of the final decision by either a signal or personally speaking with each manager.⁴⁹⁸ It is not required for the umpire or the Crew Chief to explain the decision to the Club Managers but they must at least signal the final decision from the Replay Official.⁴⁹⁹

Once the Replay Official has communicated this final decision to the Crew Chief, the MLBAM technician communicates the decision to the Club's announcer and the television broadcasters so they can communicate the decision to the fans.⁵⁰⁰ If there is clear footage that shows the play and the call in dispute, the clip is sent to the ballpark and the television broadcasters.⁵⁰¹ The Club and the broadcasters can then show the Instant Replay footage to fans in the ballpark through the big screen and broadcasters can provide the footage to viewers at home.⁵⁰²

8. Appeal Post-Instant Replay Review

There are no post-Instant Replay appeal processes as of the conclusion of the 2014 MLB season.⁵⁰³ The Replay Official has the final and binding decision on any play he is being asked to review and Clubs cannot ask for further review on the calls.⁵⁰⁴ If any on-field personnel argues the contested call or decision of the Replay Official, he will be ejected.⁵⁰⁵

The Official Baseball Rules provide Clubs with the ability to protest a call,⁵⁰⁶ however, if the call was challenged by a manager

⁴⁹⁸ *Id.* at § II(J)(4).

⁴⁹⁹ *Id.*

⁵⁰⁰ *Id.*

⁵⁰¹ *Id.* at § II(J)(5).

⁵⁰² *Id.*

⁵⁰³ *Id.* at § II(K)(2).

⁵⁰⁴ *Id.*

⁵⁰⁵ *Id.* at § II(K)(3).

⁵⁰⁶ MLB OFFICIAL RULES, *supra* note 24, at Rule 4.19 ("PROTESTING GAMES. Each league shall adopt the rules governing procedure for protesting a game, when a manager claims that an umpire's decision is in violation of these rules. No protest shall ever be permitted on judgment decisions by the umpire. In all protested games, the decision of the League President shall be final. Even if it is held that the protested decision violated the rules, no replay of the game will be ordered unless in the opinion

and sent to the Replay Official for Instant Replay review, the call cannot be further reviewed. The Replay Official's decision is "final and binding."⁵⁰⁷

III. ANALYSIS & RECOMMENDATIONS

A. Pros & Cons of Using Instant Replay

1. General

As is true with most things in life, achieving a balance increases the chances for success. The balance needed in order to make Instant Replay successful for officiating lies in harmonizing the quest for accuracy with the objective of maintaining the customary pace, flow, and rhythm of any given sport.⁵⁰⁸ The Case Book of the Official Rules of Major League Baseball emphasizes the importance of getting calls right: "It is better to consult the rules and hold up the game ten minutes to decide a knotty problem than to have the game thrown out on protest and replayed."⁵⁰⁹ To punctuate the point, the Case Book adds, "The first requisite is to get the decisions correctly. If in doubt don't hesitate to consult your associate. Umpire dignity is important but never as important as 'being right.'"⁵¹⁰ There is no desire to disrupt games unreasonably and/or unnecessarily, but the difficulty lies in defining "unreasonably" and "unnecessarily."⁵¹¹

of the League President the violation adversely affected the protesting team's chances of winning the game.").

⁵⁰⁷ *Id.* at § II(K)(2). For additional discussion regarding protest procedure, see *infra* Part III.D.

⁵⁰⁸ See, e.g., Oldfather & Fernholz, *supra* note 11, at 74 ("[T]he instant replay process is undoubtedly driven by the need to have a review mechanism that can be implemented without interrupting the flow of the game or otherwise detracting from the game's entertainment value."); *id.* at 76 ("[T]he NFL accepts imperfection to maintain the pace of the game. . . ."); *id.* at 75-76 ("Because the goal is not a perfectly officiated game, the NFL is willing to live with a limited and flawed instant replay system.").

⁵⁰⁹ MLB OFFICIAL RULES, *supra* note 24, at Rule 9.00. (The "User's Guide" that accompanies the Official MLB Rules explains that the Case Book contains "material [that] interprets and elaborates on the language of the Official Rules, providing insight into the Rules Committee's intent when drafting the Official Rules.").

⁵¹⁰ *Id.*

⁵¹¹ Most sports penalize unnecessary delays. See, e.g., NHL OFFICIAL RULES, *supra* note 46, at Rule 63.1 (covering "Delaying the Game," "A player or team may be

All sports have important physiological and psychological components. The speed with which coaches and players transition from play-to-play and situation-to-situation affects the outcome of

penalized when, in the opinion of the Referee, is [sic] delaying the game in any manner." This sentence is grammatically incorrect. Perhaps it should be redrafted to read: "A player or team may be penalized when, in the opinion of the Referee, *he is (or they are)* delaying the game in any manner." See also *id.* at Rule 67.3 ("A goalkeeper who holds the puck with his hands for longer than three seconds shall be given a minor penalty unless he is actually being checked by an opponent. The object of this entire rule is to keep the puck in play continuously and any action taken by the goalkeeper which causes an *unnecessary stoppage* must be penalized without warning. A goalkeeper shall be assessed a minor penalty when he deliberately holds the puck in any manner which, in the opinion of the Referee, causes an *unnecessary stoppage* of play.") (emphasis added); *id.* at Rule 72.1 (covering "Refusing to Play the Puck," "The purpose of this section is to enforce continuous action and both Referees and Linesmen should interpret and apply the rule to produce this result."); *id.* at Rule 76.6 (imposing "a bench minor penalty for delay of game" in situations where players "are late to the face-off location and therefore [are] in an offside position for the ensuing face-off"); *id.* at Rule 76.7 ("If, in the opinion of the Referee . . . this [i.e., the defending team has failed to place "enough players on the ice for the ensuing face-off"] is being done as a stalling tactic, he will issue a warning to the offending team's Coach and any subsequent violations shall result in the assessment of a bench minor penalty for delay of game."); *id.* at Rule 77.3 (covering "Delays"); *id.* at Rule 82.1 ("If there is any undue delay by either team in changing players, the Referee shall order the offending team or teams to take their positions immediately and not permit any further player changes."); *id.* at Rule 82.2(i),(iii) (specifying the precise number of seconds that teams are allowed when making a line change following a stoppage of play); *id.* at Rule 82.3 ("Any attempts to delay the game *by stalling or otherwise unnecessary actions* by either team shall result the assessment of a bench minor penalty for delaying the game.") (emphasis added); *id.* at Rule 86.4 ("No delays shall be permitted by reason of any ceremony, exhibition, demonstration or presentation unless consented to reasonably in advance by the visiting team."); *id.* Rule 86.8 (imposing a bench minor penalty for delay of game at the beginning of a period); MLB OFFICIAL RULES, *supra* note 24, at Rule 6.02(b) ("The batter shall take his position in the batter's box promptly when it is his time to bat"); *id.* at *Comment* to MLB Rule 6.02(b) ("[T]he umpire should eliminate hitters walking out of the batter's box without reason If pitcher delays once the batter is in his box and the umpire feels that the delay is not justified he may allow the batter to step out of the box momentarily."); *id.* at Rule 6.02(c) (penalizing the batter with a "strike," "If the batter refuses to take his position in the batter's box."); *id.* at Rules 8.02, 8.03, 8.04 (providing various penalties for delays caused by a pitcher); *id.* at Rule 8.06 (limiting the delays caused by visits to the mound); NFL OFFICIAL RULES, *supra* note 40, at Rule 4 §2, Article 1 (imposing a 15-yard penalty "For delaying the start of a half"); NFL Rule 4 §6 ("Delay of Game"); NFL Rule 4 §7 ("Actions to Conserve Time"); NFL Rule 12 §3, art. 1 nn.6(l),(m) (imposing a 15-yard unsportsmanlike conduct penalty for repeated violation of the substitution rule and, "More than two successive delay-of-game penalties (after warning) during the same down."); NBA OFFICIAL RULES, *supra* note 56, at Rule 3 §V(c) ("A substitute must be ready to enter the game when beckoned. No delays for removal of warm-up clothing will be permitted."); *id.* at Rule 12(A) §II ("Delay-of-Game").

games. When an Instant Replay review requires any delay beyond what would have otherwise occurred in the normal sequence of events, that delay has the potential to affect the coaches and players, and therefore, outcomes.⁵¹² The same can be said for media time-outs, game-delays due to injuries, team time-outs,⁵¹³ weather and field-condition delays,⁵¹⁴ which interrupt and delay the ordinary flow of games. For example, the NHL requires that “play shall be stopped immediately . . . [w]hen a goalkeeper has lost his helmet and/or facemask and his team has control of the puck.”⁵¹⁵ The NBA Rules provide that “[a]n official may suspend play for any unusual circumstance”⁵¹⁶ The media affects

⁵¹² See, e.g., Oldfather & Fernholz, *supra* note 11, at 76 (“[T]he NFL accepts imperfection to maintain the pace of the game”). See also NBA OFFICIAL RULES, *supra* note 56, at Rule 13 §III(b) (“Replay reviews should be conducted within two minutes. Notwithstanding this general rule, referees have the discretion to extend the review period as reasonably necessary under unusual circumstances”).

⁵¹³ See, e.g., NHL OFFICIAL RULES, *supra* note 46, at Rule 87.1 (“Each team shall be permitted to take one thirty-second time-out during the course of any game, regular season or playoffs.”); MLB OFFICIAL RULES, *supra* note 24, at Rule 2.00 (“‘TIME’ is the announcement by an umpire of a legal interruption of play, during which the ball is dead.”); NFL OFFICIAL RULES, *supra* note 40, at Rule 4 §5, art. 1-5 (covering “Charged Team Timeouts,” “Injury Timeouts,” “Injury Timeouts Prior to Two-Minute Warning Of Either Half,” “Injury Timeouts After Two-Minute Warning Of Either Half,” and “Referee’s Timeout,” respectively); NBA OFFICIAL RULES, *supra* note 56, at Rule 5 §VI(A)(a-c) (explaining the mechanics of regular timeouts lasting either 100 or 60 seconds); *id.* at Rule 5 §VI(C)(c) (explaining that in the case of “regular and 20-second timeouts,” “This rule may be used for any reason, including a request for a rule interpretation.”).

⁵¹⁴ See, e.g., MLB OFFICIAL RULES, *supra* note 24, at Rule 4.01(c) (granting the umpire-in-chief authority “to determine when a game shall be called, suspended or resumed on account of weather or the condition of the playing field.”); *id.* at Rule 5.10(b) (requiring that an umpire “shall call ‘Time’ [w]hen light failure makes it difficult or impossible for the umpires to follow the play.”).

⁵¹⁵ NHL OFFICIAL RULES, *supra* note 46 at Rule 9.6. See also *id.* at Rule 10.5 (permitting a team to request a measurement of an opponent’s stick); *id.* at Rule 11.9 (permitting a member of the NHL’s Hockey Operations to inspect equipment for possible illegality “at any time, before, during, or after any game”); *id.* at Rule 31.11 (“Should a Referee accidentally receive an injury which incapacitates him from discharging his duties while play is in progress, the game shall be automatically stopped.”); *id.* at Rule 32.3 (permitting the Linesmen to “stop play for a variety of other situations as noted in sections 32.4 and 33.5 [sic] below.”); MLB OFFICIAL RULES, *supra* note 24, at Rule 4.15(b) (providing that a game may be forfeited when a team “Employs tactics palpably designed to delay or shorten the game.”).

⁵¹⁶ NBA OFFICIAL RULES, *supra* note 56, at Rule 2 §V(e). See also *id.* at Rule 4 §XII (“An official can suspend play for retrieving an errant ball, re-setting the timing

outcomes when they dictate game-stoppage at specific, pre-determined intervals.⁵¹⁷ The balance that the Leagues have struck in the case of media time-outs is a balance between revenue and disruptions to the customary pace, flow, and rhythm of games. League management and team owners have decided that they are willing to endure such disruptions as a trade-off for the income derived from media contracts.⁵¹⁸ Player injuries also cause delays.⁵¹⁹ Occasionally, a delay caused by an injury consumes more time than any television commercial break or replay. Because of concerns for player safety and efforts to avoid liability, the interruption of the normal flow of a game includes providing

devices, delay-of-game warning, inadvertent whistle, instant replay, a seriously injured player or any other unusual circumstance.”).

⁵¹⁷ See, e.g., NHL OFFICIAL RULES, *supra* 46, at Rule 87.1 (“Television commercial time-out guidelines are established by the League. However, no commercial time-out is permitted after the scoring of a goal. No commercial time-out is permitted after the calling of an icing infraction, except when a penalty or penalties are assessed that affect the on-ice strength of either team.”). The NHL takes media time-outs during each period at the first stoppage of play – except as noted above – after the 14-minute-mark, 10-minute mark, and 6-minute mark. Interview with Rod Pasma, Senior Director, NHL Hockey Operations (Dec. 30, 2014).

⁵¹⁸ See, e.g., DEAN SMITH & GERALD BELL, *THE CAROLINA WAY 203-04* (2004) (Coach Smith acknowledges that television contracts have significantly affected college basketball). See, e.g., VERNA, *supra* note 1, at 93 (“CBS . . . purchased the 1966-68 NFL TV rights for \$18.8 million per year.”).

⁵¹⁹ See, e.g., NHL OFFICIAL RULES, *supra* 46, at Rule 8.1 (“In the case where it is obvious that a player has sustained a serious injury, the Referee and/or Linesman may stop the play immediately.”). See also, *id.* at Rule 76.2 (designating the location of the ensuing face-off after “play is stopped for an injured player”); MLB OFFICIAL RULES, *supra* note 24, at Rule 5.10(b) (requiring that an umpire “[S]hall call ‘Time’ . . . [w]hen an accident incapacitates a player or an umpire.”); NFL OFFICIAL RULES, *supra* note 40, at Rule 4 §5, art. 2, 3,4 (“Injury Timeouts,” “Injury Timeouts Prior To Two-Minute Warning Of Either Half,” “Injury Timeouts After Two-Minute Warning Of Either Half,” respectively); NBA OFFICIAL RULES, *supra* note 56, Rule 5 §VI(C)(g) (“If a player is injured as a result of a player on the opposing team committing a flagrant foul or unsportsmanlike act, play will resume when playing conditions are safe and no timeout will be charged, unless a mandatory is due, as a result of any delay due to the player’s injury.”); *id.* at Rule 5 §VI(C)(k) (“If a team has no timeouts remaining and a player is injured and cannot be removed from the playing court during a stoppage of play, no excessive timeout will be charged and play will resume when playing conditions are safe.”). See *id.* at *Comments On The Rules* II(N) (entitled “Guidelines For Infection Control,” “If a player suffers a laceration or a wound where bleeding occurs or if blood is visible on a player’s uniform, the officials shall suspend the game at the earliest appropriate time and allow a maximum of 30 seconds for treatment.”).

time for necessary medical attention.⁵²⁰ There is a willingness to trade game time lost for injury treatment and liability avoidance. Similarly, the Leagues' executives have weighed the benefits and detriments associated with the disruptions caused by Instant Replay review. They use this analysis when deciding what procedural and substantive rules to adopt for implementing Instant Replay.⁵²¹

One of the most important positive aspects of using Instant Replay as an officiating tool is its accuracy. The slow motion and frame-by-frame analysis coupled with multiple angles and the capability to enlarge specific portions of the visual frame provide distinct advantages over the perceptions of on-field, on-ice, and on-court officials in real time.⁵²² Admittedly, even with video

⁵²⁰ In some situations other rules also are relaxed when injuries occur. *See, e.g.*, NHL OFFICIAL RULES, *supra* note 46, at Rule 39.3 (Although ordinarily banging on the boards with a stick or other object results in a bench minor penalty, but "If this is done in order to get the attention of the on-ice officials for a legitimate reason (i.e. serious injury, illness, etc.), then discretion must be exercised by the Referees.").

⁵²¹ Of course, occasionally, streaking fans, weather, runaway squirrels, and even air conditioning and power outages disrupt and delay games as well. For example, a power outage disrupted Super Bowl XLVII (2014), causing a 34-minute delay at the Superdome in New Orleans, Louisiana. *See also* NFL OFFICIAL RULES, *supra* note 40, at Rule 17 §1, art. 2 ("If spectators enter the field and/or interfere with the progress of the game in such a manner that in the opinion of the Referee the game cannot continue, he shall declare time out."); *id.* at Rule 17 §1, art. 3,4 (specifically identifying occurrences that may allow a game to be "called," including: "state or municipal law, or by darkness if no lights are available" and "severely inclement weather, lightning, flooding, [and] power failure."); *id.* at Rule 17 §1, art. 4 ("The Commissioner has the authority to review the circumstances of each emergency and to adjust the following procedures in whatever manner he deems appropriate."); NBA OFFICIAL RULES, *supra* note 56 at *Comments on the Rules* II(D) (entitled "Game Cancellation," identifying the circumstances under which a game may be canceled either prior to the opening tipoff or after the game has begun, such as "extremely hazardous playing conditions"). Even the use of the designated hitter in the American League, adopted in 1973, arguably prolongs games because, more often than not, a designated hitter is likely to have an at-bat more successful than what a weaker-hitting pitcher would. *See* MLB OFFICIAL RULES, *supra* note 24, at Rule 6.10(b).

⁵²² *See, e.g.*, VERNA, *supra* note 1, at 183 ("The Instant Replay today is capable of an image five times sharper [than when it began in 1963]. It's in color, and it has the benefit of super-slow motion plus its high definition capabilities are a natural for improved officiating. And my hope is that Major League Baseball comes around in the same manner to help out officials on games that could determine a club's season."); KERKHOFF, *supra* note 5 at 63 ("These days, technology is better than ever. Television shows replays from so many angles. Why not use this technology to improve the game? I used to do that. I remember one time I was in the locker room 90 minutes after a game. I called Jose Canseco out on a pitch and he didn't like it. I brought him into the

enhancements and a variety of camera angles, occasionally the view is obstructed and officials are unable to see precisely what they are looking for on the video replay.⁵²³ More often than not, video is able to provide evidence sufficient to decisively confirm or overturn initial in-game rulings made with the naked eye.⁵²⁴ The advanced precision of contemporary digital technology has increased the speed with which replay officials are able to review initial calls and report their decisions on review.⁵²⁵

2. Honest Mistakes, Temporal Variance, & Impact Aversion

Improved accuracy is important to help correct at least three types of mistakes: 1) mistakes due to honest, good faith error; 2) mistakes due to “temporal variance”; and 3) mistakes due to “impact aversion.” First, as was suggested, officials occasionally make mistakes in absolute good faith. In some situations, a player or another official blocks the view. For example, when a base runner is sliding into home, a catcher’s body might obstruct an umpire’s line of sight. Similarly, when several football players dive for a fumble, multiple bodies and equipment make it difficult for officials to see under the pile. There are also some instances when the action occurs so fast that the limitations of human perception make it difficult for our eyes, ears, and brains to process the blur of information-overload. Officials must make split-second decisions in the wake of high-speed action. These can be caused by physical factors such as obstructions and speed of play. However,

video room and we both watched the replay. We talked about it.” (quoting Steve Palermo, former American League umpire).

⁵²³ This actually occurred on Dec. 30, 2014, the night that Professor VerSteege observed the operations in the NHL Situation Room in Toronto. St. Louis Blues goalie, Brian Elliott, gloved a puck shot by the Nashville Predators at the instant that it appeared on the verge of crossing the goal line. Elliott’s glove obstructed the view of the puck in such a way that it was physically impossible for the Toronto Replay officials to determine whether it completely crossed the goal line. *See supra* note 302.

⁵²⁴ *See* Oldfather & Fernholz, *supra* note 11, at 52 (“The error correction mission of replay review is more apparent, and is quite clearly the predominant, if not the sole, rationale for the mechanism. The question facing an NFL referee viewing a replay of a challenged play is simply whether the initial call was correct.”).

⁵²⁵ *See* VERNA, *supra* note 1, at 195 (“Now with the digital changes, the Instant Replay process that once slowed down NFL officiating got a whole new digitally-fast life for the 21st century.”).

researchers have further identified two psychological phenomena that also influence decisions.

One such phenomenon is “temporal variance,” whereby officials subconsciously are prone to adjust their decisions in late-game situations to give a team that is behind a chance to catch up.⁵²⁶ Jeffery Standen explains:

The enforcement of rules in sports is also subject to temporal variance. Indeed, many sports fans appear to prefer temporal variance in the enforcement of rules. They think game umpires or referees should not call certain transgressions of the rules of the game at certain times. Calling a “foot fault” in a professional tennis match or a mere “ticky-tack” foul on the basketball court might be acceptable early in the game when plenty of time remains for the players or teams to decide the contest on their own. To call such a foul or fault in “crunch time,” the closing minutes or final set when the call is likely to have an apparent and immediate effect on the game’s outcome, constitutes unjustified “interference” with the game by the referee.⁵²⁷

⁵²⁶ See Standen, *supra* note 2, at 356 (“Temporal variance in the enforcement of rules is never costless. Every decision by an umpire or referee not to call the touch foul in basketball or foot fault in tennis due to the closeness of the game or the consequential importance of the penalty saves the offender from paying the penalty. At the same time, the non-call disgorges the competitive benefit from the opponent. This is unjust.”); *id.* at 367 (“Referees need to treat the entire game equally, lest their increased leniency in the game’s closing stages changes the statistical probabilities that were in play throughout the contest.”); *id.* at 371. (“[I]n sports, varying the penalty according to the game situation typically penalizes the team that has built a lead playing by the rules. Almost by definition in any late-game, clutch situation, one team enters that time period with a lead. The team has built that lead during the long portion of the game played under the normal enforcement of the rules. If referees vary the enforcement of the rules in crunch time, they unilaterally institute a new, different game.”). See also Berman, *supra* note 2, at 1327 (“The McEnrovian position – that at least some rules of some sports should be enforced less strictly toward the end of close matches – is an endorsement of what might be termed ‘temporal variance.’”).

⁵²⁷ Standen, *supra* note 2, at 352-53 (footnotes omitted). See also Standen, *supra* note 2, at 354 (“Temporal variance in the enforcement of rules is wrong because it defeats the ultimate purpose of rules, wrong because it allows for poorly written rules, wrong because it corrects for (and thereby permits) rules that specify egregious penalties, and wrong because it fails to describe the nature of rules accurately. Most significantly, the justification is wrong because it emphasizes the consequences of the penalty apart from the penalty itself and introduces a foreign and ultimately pernicious set of considerations into the penalty schematic.”).

The other psychological phenomenon is “impact aversion,” whereby officials are subconsciously prone to adjust their decisions in pivotal situations to avoid upsetting the status quo.⁵²⁸ Stanford University Ph.D candidates Etan Green and David Daniels studied over one million MLB pitches from 2009-2011, examining the accuracy of the ball-strike calls. They articulate the premise of impact aversion as follows:

Analyzing over one million decisions, we find that all 75 umpires in our sample distort their directive by avoiding the option that would more strongly change the expected outcome of the game. For pitches at the same location, umpires make different calls depending on the effects that each option would have on the likely outcome of the game. If a ball would change the expected outcome of the game more than a strike, the umpire will call strikes for pitches he would otherwise call balls; if a strike would change the expected outcome of the game more than a ball, the umpire will call balls for pitches he would otherwise call strikes. We call this behavior *impact aversion*. The impact-averse umpire distorts his directive by favoring the option that would better preserve the current outcome of the game.⁵²⁹

Impact aversion is potentially significant. Faced with split-second, boarder-line, ball-strike decisions, the umpires in the Green-Daniels study subconsciously adjusted their calls in order to avoid pivotal options (i.e., options that “would significantly shift the expected outcome”⁵³⁰). They elaborate:

When . . . one option becomes pivotal, we find that the average umpire will now distort his decisions by choosing the pivotal option as much as 30 percentage points less frequently, selecting the pivotal option only 20% of the time and the non-pivotal option 80% of the time. In general, a larger difference in the impacts of the umpire’s options induces more bias towards the non-pivotal option.⁵³¹

⁵²⁸ See Green & Daniels, *supra* note 169.

⁵²⁹ *Id.* at 1-2.

⁵³⁰ *Id.* at 2.

⁵³¹ *Id.*

Impact aversion is most prevalent when the calls are boarder line: “umpires will choose the correct option when it is obvious but will avoid the more pivotal option when the correct option is not obvious.”⁵³² Additionally, Green and Daniels find that “[c]alls under time pressure generally exhibit greater impact aversion than calls not under time pressure.”⁵³³ In their conclusion, Green and Daniels point out the especially pernicious nature of this problem: “Impact aversion distorts difficult and consequential decisions, and it generates greater distortions as these decisions become more difficult and more consequential.”⁵³⁴

These two psychological phenomena (which in some respects may be contradictory) – temporal variance and impact aversion – are impulses that allow something akin to situational ethics to affect the objectivity of officials. Arguably, Instant Replay review has the potential to correct temporal variance mistakes. And with decreased temporal variance, for example, basketball defenders are more likely to make an extra effort to play within the rules in crunch time in an effort to avoid the consequences of potential penalties. Players simply are undertaking the risk that they will incur penalties.⁵³⁵ Thus, if administrators emphasize to officials the importance of refraining from temporal variance, and if Instant Replay review is used to decrease the incidence of temporal variance, then players will shape their conduct accordingly. Instant Replay review will often be necessary to

⁵³² *Id.* at 3. *See also id.* at 11 (“Even in three-ball or two-strike counts, obvious strikes are still called strikes, and obvious balls are still called balls. But where calls are not obvious, umpires enforce different strike zones.”); *id.* at 27 (“[U]mpires make the correct call when it is obvious and avoid making the more pivotal call when the correct call is not obvious [T]he umpire balances two goals: first, to make the correct call; and second, to avoid making a pivotal error.”); *id.* at 30 (“Every umpire in our sample shades away from the more pivotal call when the self-consistent call is not obvious.”); *id.* at 41 (“When the correct call is obvious, umpires make it every time. But when the correct call is uncertain, umpires distort their directive by avoiding the more pivotal call.”).

⁵³³ *Id.* at 40. Green and Daniels also conclude that MLB umpires are impact averse, even though the “more impact-averse umpires are less likely to receive lucrative assignments.” *Id.* at 28. *See also id.* at 41 (“The most impact-averse umpires appear to be trading compensation for less public scrutiny.”).

⁵³⁴ *Id.* at 44.

⁵³⁵ *See* Berman, *supra* note 2, at 1342 (“We might say that, by violating the rule, an actor has “assumed the risk” that he’d be subject to a disproportionately excessive penalty, or that he forfeited his claim against a disproportionate penalty.”).

correct errors caused by impact aversion since, by definition, impact aversion is more likely to occur in close calls (i.e., when the accurate call is not obvious) and calls that officials make instantaneously, with no time for reflection.⁵³⁶

On Sunday January 5, 2015, in the waning minutes of the NFC Wild-Card Playoff game between the Dallas Cowboys and the Detroit Lions, an incident occurred that might illustrate an officials' error caused by both temporal variance and impact aversion, acting in concert. With 8:25 remaining in the game, the Lions led the Cowboys 20-17. The Lions had the ball, third-down-and-one on the Dallas 46-yard-lineyard line. Lions' quarterback, Matthew Stafford, threw a pass intended for tight end Brandon Pettigrew. Cowboys' linebacker Anthony Hitchens defended on the play. Hitchens briefly held Pettigrew's jersey, face-guarded Pettigrew, and made contact with Pettigrew while the pass was in-flight just before the ball reached Pettigrew. The officials threw a penalty flag, called pass interference, signaled and announced an automatic first down for the Lions, but they then picked up the flag and announced that there was no penalty without further explanation.⁵³⁷ Consequently, the Lions punted on fourth-and-one, and the Cowboys capitalized moments later with a game-winning touchdown. Replays of the play certainly provide sufficient evidence to show that Hitchens's contact did constitute defensive pass interference.⁵³⁸ Afterwards, the NFL has said that it will consider expanding Instant Replay review to include pass interference calls such as this.⁵³⁹ The decision on the field to pick up the flag and not enforce defensive pass interference on this play arguably qualifies as temporal variance because the officials decided not to enforce a penalty in crunch time – a penalty that

⁵³⁶ See *supra* notes 531-533 and accompanying text.

⁵³⁷ See *Pass Interference Call Against Cowboys Should Not Have Been Overturned – Mike Pereira*, FOX SPORTS (Jan. 4, 2015), <https://www.youtube.com/watch?v=tdAKk42OzVw>.

⁵³⁸ There are numerous Internet postings that analyze this play. See, e.g., Michael Rothstein, *Matthew Stafford Still Irked by Play*, ESPN (Jan. 11, 2015), http://espn.go.com/nfl/playoffs/2014/story/_id/12150761/matthew-stafford-detroit-lions-says-pass-interference-non-call-tough-swallow.

⁵³⁹ See Cindy Boren, *NFL Says Replay Review of Pass Interference Calls Will Be Discussed After Cowboys-Lions Flub*, WASH. POST (Jan. 12, 2015), <http://www.washingtonpost.com/blogs/early-lead/wp/2015/01/12/nfl-says-replay-review-of-pass-interference-calls-will-be-discussed-after-cowboys-lions-flub/>.

allowed the trailing team, the Cowboys, – an opportunity to come from behind. In addition, the call-reversal (i.e., non-call) also arguably illustrates impact aversion, because it had the impact of not altering the course of events (i.e., since the pass was otherwise incomplete).

It is clear, then, that the use of instant Replay provides a way to correct both mistakes caused by both temporal variance and impact aversion. Therefore, Instant Replay can correct: 1) good faith, honest mistakes; 2) mistakes resulting from temporal variance; and 3) mistakes resulting from impact aversion.

3. Normative Effect

One less obvious positive influence resulting from the use of Instant Replay review is its normative effect. Because referees know that they are subject to Instant Replay review, like trial judges, they pay closer attention in an effort to decrease the likelihood of being overturned on appeal. Judge Richard Posner explains this normative effect: “District judges also do not like to be reversed. Even though a reversal has no tangible effect on a judge’s career . . . it can imply criticism rather than merely disagreement, and no one likes a public rebuke.”⁵⁴⁰ Posner adds that “reversal threat keeps him [i.e., the trial judge] working carefully”⁵⁴¹ NFL referee Jim Tunney,⁵⁴² who had thirty-one years of experience in the League, agrees that Instant Replay review indeed has had a normative influence. According to Tunney:

I thought the replay raised our level of intensity. It made us even sharper because we didn’t want to be reversed. You know, the IRO official had to be just as sharp. He didn’t want to get it wrong and hear about it the next Tuesday from the NFL. The name of this job is focus. Lose it for a split second and it makes a big difference. We emphasized how important

⁵⁴⁰ RICHARD A. POSNER, HOW JUDGES THINK 141 (2008).

⁵⁴¹ *Id.*

⁵⁴² *See supra* note 43 and accompanying text.

it was not to lose focus when plays were being checked by replay.⁵⁴³

In addition to its normative effect on officials, one commentator has even suggested that a stricter adherence to rules increases player safety as well: “To be sure, the tighter the rules are enforced, the less physical contact there will be.”⁵⁴⁴ Furthermore, use of Instant Replay enhances player safety in another subtle, indirect way. Before Instant Replay, for example, a questionable call on the ice in an NHL game occasionally fueled anger and frustration for the players. One understandable, emotional reaction to that anger and frustration was for players to vent through “pay-back” by fighting or other unnecessary violence during play. Because Instant Replay review provides a way to more definitively get calls right – either confirming or reversing questionable on-ice calls, in some instances, players are less likely to react violently because – although they may not like the result – Instant Replay at least decreases the likelihood of an injustice, which can cause impulses of revenge or retribution.⁵⁴⁵

Thus, using Instant Replay review as an officiating tool offers at least three distinct advantages: 1) superior accuracy by employing advanced technology to determine specific facts; 2) an added incentive for game officials to pay better attention than they might otherwise in the absence of the specter of being reversed on appeal; and 3) enhanced player safety. One of the benefits of advantage number one is that superior accuracy provides a means to correct both good faith mistakes as well as mistakes induced by subconscious psychological factors such as temporal variance and impact aversion. Its principal disadvantage is the disruption that it causes to the otherwise normal flow of activity in games. However, like media time-outs and the interruptions caused by injuries and other interruptions, the

⁵⁴³ KERKHOFF, *supra* note 5, at 102. But, “Jerry Markbreit . . . one of the NFL’s best officials before retiring after the 1998 season at the age of 64” disagrees: “Replay shouldn’t matter to officials, and as far as I’m concerned, it doesn’t. Instincts picked up from years of training tell you how to call them. You can’t worry about replay. Umpires who make calls at first base can’t be worried about the replay. Neither can a football official.” *Id.* at 104-05.

⁵⁴⁴ Berman, *supra* note 2, at 1333.

⁵⁴⁵ Interview with Rod Pasma, a Senior Director at the NHL Hockey Operations (Dec. 30, 2014).

Leagues strive to balance the benefits of the Instant Replay review disruption against its detriments.

B. High Stakes: Winners, Losers, Records, & Milestones

Of course, it is always useful to acknowledge that the topic being addressed is games. Nevertheless, competitors know that, even in friendly, recreational games, participants typically do their best to abide by the applicable rules and endeavor to maximize the possibility that the process and outcome will proceed pursuant to the rules. In the Leagues, participants and fans have a right to expect that winning and losing will depend on the merits of their efforts, decisions, and performances.⁵⁴⁶ The capabilities of modern video technology increase the likelihood that officials will insure that that happens. Perhaps we place too much emphasis on winning and losing in modern athletics, but at the highest professional levels of the NFL, NHL, NBA, and MLB, we have come to accept winning and losing as important and serious matters. At these levels of competition, winning and losing have serious consequences.⁵⁴⁷ Winners usually earn more money. They earn more money than losers directly as a result of prize money, but they also earn more indirectly through endorsements and leverage in future salary negotiations. Losing, on the other hand, ordinarily means less money and might even decrease the likelihood of retaining a job in sports.⁵⁴⁸

In addition to these consequences for participants such as players, coaches, and the staffs of the teams, winning and losing also affects revenues for myriad collateral businesses and individuals whose jobs are affected in less direct ways. Restaurants that are located close to sports venues and other businesses such as sports card and memorabilia shops, plus parking facilities and transportation industries (just to name a

⁵⁴⁶ Admittedly, occasionally factors beyond human control such as weather also affect games.

⁵⁴⁷ See Oldfather & Fernholz, *supra* note 11, at 48 (“The NFL is big business. Careers may be at stake, as may a team’s playoff fortunes, which in turn may affect the team’s financial health as well as the psychic health of its fans.”).

⁵⁴⁸ Green and Daniels estimate, “that on average, \$75,000 hangs in the balance for each call.” Green & Daniels, *supra* note 169, at 54. See also *id.* at 55 (“On average, impact aversion distorts about \$3,000, or 4%, of team value every call.”).

few) stand to prosper or lose money.⁵⁴⁹ Even Internet businesses, which sell items as diverse as game tickets and clothing, feel the effects of the outcomes of games. Given the breadth of the potential financial rewards and losses that hang in the balance, it is all the more important to maximize the likelihood of applying the rules accurately through the use of Instant Replay review.

In addition to the financial stakes involved, there are also more abstract concerns. In one important sense, many would argue that the integrity of the games themselves requires maximizing the accuracy of officiating. By maximizing the accuracy of play calling, sports are honored themselves as well as the reputations and memories of all who have been part of the sports in the past. Lastly, this is important for honoring future participants.

One reason why certain incidents in the history of sports have acquired nearly legendary status is that they had such serious consequences for the ultimate outcomes. Recall the ramifications that followed in the wake of the Fred Merkle incident, Cornell's fifth down touchdown, Don Chandler's field goal, Duane Sutter's "off-side" goal, Jorge Orta's single, and Howard Easley's 3-pointer.⁵⁵⁰ If Merkle did actually touch second base (as both he and Christy Matthewson claimed), and an Instant Replay official confirmed that fact, then the Giants would have won that game. If the Giants had won that game, it is more likely that they would have won the Pennant instead of the Cubs. If Instant Replay had corrected Cornell's fifth down, the teams would not have had to endure several days of uncertainty while they waited for the film (coupled with good sportsmanship) to right the official's wrong. If Instant Replay had disallowed Chandler's fourth quarter field goal, the Colts probably would have won the game and the opportunity to face the Browns for the NFL Championship. If Instant Replay could have nullified Duane Sutter's goal, the Flyers would have had a far better chance of winning the 1980 Stanley Cup. If Instant Replay review had overturned umpire Don Denkinger's erroneous call on Joege Orta's

⁵⁴⁹ See, e.g., IRVING REIN, BEN SHIELDS, & ADAM GROSSMAN, *THE SPORTS STRATEGIST: DEVELOPING LEADERS FOR A HIGH-PERFORMANCE INDUSTRY* 96-120 (2015).

⁵⁵⁰ See *supra* Part I.A.

“single” in the 9th inning of Game Six of the 1985 World Series, it is much more likely that the Cardinals would have recorded two more outs before the Royals would have scored two more runs, and the Cardinals would have won the Series. Similarly, if Instant Replay review could have confirmed the validity of Howard Easley’s 3-pointer, as Isiah Thomas aptly noted, the Jazz would have been ahead by seven points, not four. A seven-point lead certainly would have increased the chances of a Utah victory in that important Game 6. Of course, it is anyone’s conjecture as to how subsequent events in these games (and subsequent games) ultimately would have transpired. As these examples show, the stakes, indeed, can be incredibly high.

Beyond the ultimate question of winning versus losing, Instant Replay review has the potential to affect records and other milestones. For example, Peyton Manning tied Brett Favre’s career-touchdown-pass record of 508 in the Broncos vs. San Francisco Forty-Niners’ game on Sunday October 19, 2014, and then broke the record moments later. But on number 508, a 39-yard pass play to Wes Welker with 2:57 remaining in the first quarter, although the ruling on the field was a touchdown (Welker dove towards the goal line, making contact with the left-front-corner pylon with the ball), the Instant Replay official was needed to confirm the call.

Perhaps one of the most famous such incidents involving a milestone occurred June 2, 2010, when Detroit Tigers’ pitcher Armando Galarraga pitched a no-hit, perfect game. Unfortunately, the first base umpire, Jim Joyce, mistakenly called the Indians’ 27th batter, Jason Donald, safe at first base, but Instant Replay immediately revealed that he should have been called out.⁵⁵¹ The on-air commentators and media recognized the mistake with the

⁵⁵¹ See, e.g., Don Denkinger, *Former MLB Umpire, on Jim Joyce Blown Call – MLB Radio Network*, MLB RADIO NETWORK (June 3, 2010), <http://www.youtube.com/watch?v=2ujjqcX8xng> (Don Denkinger in a radio interview, discussing his blown call in the ‘85 Series game Six and Jim Joyce’s blown call that cost Armando Galarraga a no-hitter on June 2, 2010.). See also *Sports Center Top 10 – Blown Calls*, *supra* note 52 (First base umpire Jim Joyce’s “safe” call, spoiling Galarraga’s perfect game makes #2 on this list.); *Umpire Admits Mistake That Cost Detroit Tigers’ Galarraga a Place in History*, TODAY SHOW (June 3, 2010), <http://www.youtube.com/watch?v=eddsu-YjPyk> (covering replays of Galarraga’s June 2, 2010 Detroit Tigers 3-0 win over the Cleveland Indians).

benefit of slow motion, frame-by-frame analysis. The next batter, Trevor Crowe, made an out, but Galarraga was robbed of the opportunity to be the twenty-first pitcher in MLB history to throw a no-hit, perfect game. To be sure, the replays caused severe heartache for Galarraga, Joyce, and many others who were involved either directly or indirectly. At least it was clear. Joyce made a mistake. He admitted his mistake and apologized to Galarraga.⁵⁵² The public (indeed nearly everyone) has acknowledged his accomplishment. Yet, he has not *officially* been credited with a no-hitter and perfect game. There was talk in the days and weeks afterwards that the Commissioner of MLB, Bud Selig, might step up and use his authority to right the wrong by declaring Donald out at first, on the evidence of the replay. Selig, however, declined to do so.⁵⁵³

Interestingly, the MLB Rules provide that video replay may be used to correct some statistical errors: “The Executive Vice President for Baseball Operations shall have access to all relevant and available video and, after considering any evidence he wishes to consider, may order a change in a judgment call if he determines that the judgment of the official scorer was clearly erroneous.”⁵⁵⁴ But correcting an official scorer’s error of judgment is decidedly different from correcting an umpire’s error of judgment.

In their study of impact aversion,⁵⁵⁵ Green and Daniels note that Joyce’s missed call, which cost Galarraga his no-hit, perfect game, illustrates how public pressure – when officials are in the spotlight – affects their decision-making. They explain, “In order to avoid such criticism, umpires may avoid making pivotal calls

⁵⁵² See, e.g., Green & Daniels, *supra* note 169, at 23 (“The problem, of course, is that Joyce’s decision is easily the most egregious blown call in baseball over the past 25 years. After watching the replay, Joyce told reporters, ‘I just cost that kid a perfect game . . . It was the biggest call of my career.’”) (quoting Tyler Kepner, *Perfect Game Thwarted by Faulty Call*, N.Y. TIMES, June 3, 2010, at B12).

⁵⁵³ See, e.g., Ben Walker, *Selig Lets Call Stand in Way of Galarraga’s Gem*, SFGATE (June 4, 2010), <http://www.sfgate.com/sports/article/Selig-lets-call-stand-in-way-of-Galarraga-s-gem-3186770.php>.

⁵⁵⁴ MLB OFFICIAL RULES, *supra* note 24, at Rule 10.01(a).

⁵⁵⁵ See *supra* notes 531-37 and accompanying text.

that could be seen as mistaken. If so, umpires will display greater impact aversion when they face greater public scrutiny.”⁵⁵⁶

C. Instant Replay Reviews Facts Not Law: Re-Examining Standards of Review

One important aspect of Instant Replay is that the replay official is reviewing *facts* not rule interpretations. The replay official does not second-guess the field official’s application or interpretation of the rulebook.⁵⁵⁷ Rather, every instance considered above in Part II’s “Situations Reviewable” is a fact determination.⁵⁵⁸ Did the puck completely cross the goal line?⁵⁵⁹ Was the receiver’s foot in bounds when he had possession of the ball?⁵⁶⁰ Did the ball leave the shooter’s hand before time expired?⁵⁶¹ In law, the distinction between facts and laws is not necessarily a bright-line. To be sure, it is not uncommon for different jurisdictions to classify them differently. Something that one jurisdiction regards as a question of fact another jurisdiction might treat as a question of law, and vice-versa.⁵⁶² There is a great deal of uniformity, but it is not absolute. Judge Robert Keeton explains facts in legal analysis as follows:

Ordinarily each “fact” found is specific to that case, and to some time and to some place where something allegedly happened or some circumstance allegedly existed that is

⁵⁵⁶ Green & Daniels, *supra* note 169, at 23. *See also id.* at 41 (“Impact aversion reflects a desire to avoid public scrutiny. By avoiding pivotal calls, umpires avoid criticism for making mistakes that disrupt the course of the game.”).

⁵⁵⁷ *See* Oldfather & Fernholz, *supra* note 11, at 60 (“Few legal rules share the concrete clarity of the sideline or the plane of the goal line.”). But, Instant Replay reviews are questions of fact not questions of law.

⁵⁵⁸ One commentator has expressed the view that Instant Replay review today may address some rules interpretations. *See* Standen, *supra* note 2, at 374 (“Although replay was initially used mostly for those umpire judgments that were more objective in nature, increasingly replay review is employed for calls that involve more judgment and discretion.”).

⁵⁵⁹ *See supra* Part II.C.1.

⁵⁶⁰ *See supra* Part II.B.1.

⁵⁶¹ *See supra* Part II.D.1.

⁵⁶² In Copyright Law, for example, some circuits treat the question of whether a work is “original” as a question of law while others treat it as a question of fact. *See, e.g., Superior Form Builders, Inc. v. Dan Chase Taxidermy Supply Co.* 74 F.3d 488, 495 (4th Cir. 1996); *Matthew Bender & Co. v. West Publishing Co.*, 158 F.3d 674, 681 (2d Cir. 1998).

relevant to the outcome of that case. In other words, adjudicative facts are ordinarily case specific, time specific, and place specific. For example, the traffic light was red (or it was not), at 11:42 a.m. on a designated day[,] when the cars of the plaintiff and defendant collided at the intersection of Main Street and 4th Avenue.

“Adjudicative facts,” so described, fit neatly into the contrast between the specificity of facts and the generality of law. The fit remains comfortable even when we take note that evaluations of the conduct of the two drivers whose vehicles collided at an intersection, under legal standards of negligence, are so treated as adjudicative facts. The evaluations concern the quality of the conduct that occurred at a specific time and place. The evaluations, as well as the historical facts on which they are based, are case specific, time specific, and place specific.⁵⁶³

This is a key aspect of the Instant Replay review process. It is especially important because of how it relates to the applicable standards of review.⁵⁶⁴ In American law, appellate judges typically are required to grant a great deal of deference to factual determinations made by the trial court (whether the factual determination in question was made by a jury or by a trial judge).⁵⁶⁵ Theoretically, the trier of fact in a trial courtroom is in a position superior to an appellate judge in relation to facts. In the trial courtroom, as trier of fact, a juror or judge can inspect

⁵⁶³ ROBERT E. KEETON, *KEETON ON JUDGING IN THE AMERICAN LEGAL SYSTEM* 543 (1999).

⁵⁶⁴ *See* Oldfather & Fernholz, *supra* note 11, at 52 (“The NFL has thus restrained the scope and power of referees in the context of instant replay. Only a coach can initiate a challenge in the first twenty-eight minutes of a half. After that, a replay booth official has total discretion. Additionally, certain calls, specifically judgment calls, cannot be reviewed. This is because judgment calls are inherently subjective, and thus the official reviewing the call on a replay monitor would ultimately substitute his judgment for that of the official who made the original call. The rationale for bringing back replay was to eliminate egregious mistakes, not subjective calls.”). *See also id.* at 77 (“[T]he calls subject to review almost uniformly involve bright-line determinations, and the “indisputable visual evidence” standard requires a high level of proof in order for a call to be reversed.”).

⁵⁶⁵ *See id.* at 62 (“[A]ppellate courts grant a tremendous amount of deference to lower court determinations of issues of fact.”). The same is true with Instant Replay review in professional sports, where there is a high degree of deference to the call on the field because of the standard of review.

documents and material objects, look into a witness's eyes, listen to a witness's tone of voice, and observe a witness's facial expression and body language. In contrast, an appellate judge is less able to assess such facts because she must rely only on the detached, written record on appeal, without the benefit of first-hand observation. For these reasons, American law typically imposes a high standard of review on appellate judges regarding questions of fact. Generally speaking, an appellate court must find that the trial court's trier of fact "abused its discretion" in order to over-rule the trial court's determination about a fact.⁵⁶⁶ "Abuse of discretion" is a very high standard.

Many courts define their abuse of discretion standard as falling somewhere between unreasonableness and simple error. It is commonplace, for example, for courts to say an abuse has occurred when the reviewing court on the whole record has a definite and firm conviction that a mistake has been committed. Such phrasings often explicitly trace their origins to Judge Magruder's opinion in *In re Josephson*, which in turn applied that language from the Supreme Court's 1948 definition of clearly erroneous for bench trial fact findings under Rule 52.30 In fact, abuse of discretion in these and other cases often is rendered as a test for "clear error of judgment," while some courts more explicitly say that the test is one for clear error, without quoting the analogous Rule 52 formula of "definite and firm conviction of mistake."⁵⁶⁷

"As the Tenth Circuit sometimes defines abuse of discretion: 'a trial court's decision will not be disturbed unless the appellate court has a definite and firm conviction that the lower court made a clear error of judgment or exceeded the bounds of permissible choice in the circumstances.'"⁵⁶⁸

The task of Instant Replay officials differs from appellate judges in another distinct way. "As a general matter, the appellate

⁵⁶⁶ *See id.* at 54 ("As a general matter, trial court rulings on questions of law receive no deference, but trial court and jury determinations of fact are entitled to a great deal of deference. Additionally, there are decisions that are committed to the discretion of the trial judge. This discretion is never absolute, and such decisions are reviewed for "abuse of discretion," a standard that varies from one context to another.").

⁵⁶⁷ STEVEN ALAN CHILDRESS & MARTHA S. DAVIS, *FEDERAL STANDARDS OF REVIEW* § 4.21 (4th ed., 2010) (Defining Abuse of Discretion: Sliding Contextual Meaning).

⁵⁶⁸ *Id.* (citing *FDIC v. Rocket Oil Co.*, 865 F.2d 1158, 1160 (10th Cir. 1989)).

court may only consider things already in “the record” which consists of the information brought before the trial court. There are limited exceptions to this, but for the most part appellate courts are restricted to using the information presented in the trial court to resolve issues first raised in the trial court.”⁵⁶⁹ In this regard, Instant Replay review is very different from appellate review in law because video evidence is not available to referees on the field at the instant of decision-making.⁵⁷⁰

Another crucial difference between Instant Replay review and appellate procedure is that, unlike the appellate judges who have *less* information about facts than the triers of fact at the trial court level, Instant Replay officials have factual information far superior to officials who made the calls in real time on the field, ice, or court. Technology provides multiple angles and the opportunity for both enlargement and frame-by-frame analysis. “The replay official not only has a ‘record’ to review that is as good as what the on-field official had, he has a record that is often undeniably better. He has access to multiple angles, and the ability to watch it all in slow motion and high definition.”⁵⁷¹ It is as if appellate judges were able to watch video replays of a witness’s testimony and determine for themselves a witness’s demeanor and credibility, by listening to the tone of voice and observing body language and facial expressions in slow motion and frame-by-frame.

Given that Instant Replay officials have information that is actually superior to the official or officials who made the initial call in real time, one must ask why the Leagues’ standards of review – the standards applied to determine whether to overturn an initial call – are such demanding standards. Why are they so high? “Indisputable visual evidence” is a high standard⁵⁷² that is

⁵⁶⁹ Oldfather & Fernholz, *supra* note 11, at 53.

⁵⁷⁰ Of course there are a number of other differences. *See, e.g., id.* at 58 (“[A]n official who overturns an on-field call does not write an opinion, does not create precedent, and has no influence over the interpretation of the rules.”).

⁵⁷¹ *Id.* at 67.

⁵⁷² *See id.* at 69 (“Replay review depends almost entirely on the belief that an official who has the benefit of looking at a replay will be in a better position to rule on the question under consideration than was the official who made the call in real time. Indeed, the “indisputable visual evidence” standard seeks to ensure that assumption holds true in the case of any reversal of a call: If there is not indisputable visual evidence, then the reviewing official does not enjoy a competency advantage (or at least

at least exacting as “clear and convincing”⁵⁷³ and perhaps more analogous to “beyond a reasonable doubt.”⁵⁷⁴ It may be logical and preferable to apply a lower standard of review, given that Instant Replay officials have access to facts that – in nearly every case – are not merely equal to the official on the field, ice, or court, but actually much better. The NBA Instant Replay rules require only that the officials be “reasonably certain” of the need to consult Instant Replay to review an initial call.⁵⁷⁵ But the standard of review required to overturn an initial, on-court decision is still very high – “clear and conclusive’ visual evidence.”⁵⁷⁶

One principal justification for having such high standards of review must be that they are designed as disincentives for coaches to challenge calls. If a standard creates a disincentive, then it will decrease the number of challenges, which decreases the amount of disruption and delay time.⁵⁷⁷

not one of a sufficient magnitude).”). *See also id.* at 78 (“Indisputable visual evidence’ works as a standard of review in the NFL because the calls in question turn on clear, verifiable determinations, and because the standard is amenable to the sort of quick application necessary in the midst of a game in which it is important to maintain the audience’s interest.”).

⁵⁷³ *See supra* notes 352, 472 and accompanying text.

⁵⁷⁴ In a recent article, Mass. Superior Court Judge Richard E. Welch III proposed the following definition of “beyond a reasonable doubt”: “Proof beyond a reasonable doubt is proof that leaves you firmly convinced of the defendant’s guilt. In other words, you have an abiding conviction that the charge is true. There are very few things in this world that we know with absolute certainty, and in criminal cases the law does not require proof that overcomes every possible doubt. If, based on your consideration of the evidence, you are firmly convinced and have an abiding conviction that the defendant is guilty of the crime charged, you must find him guilty. If, on the other hand, you think there is a real possibility that he is not guilty, you must give him the benefit of the doubt and find him not guilty.” Hon. Richard E. Welch III, “*Give Me That Old Time Religion*”: *The Persistence of the Webster Reasonable Doubt Instruction and the Need to Abandon It*, 48 *NEW ENG. L. REV.* 31, 51-52 (2013). For an in-depth analysis see Miller W. Shealy, Jr., *A Reasonable Doubt About “Reasonable Doubt,”* 65 *OKLA. L. REV.* 225 (2013).

⁵⁷⁵ *See generally* NBA OFFICIAL RULES, *supra* note 24, at Rule 13 §I(a) (identifying 14 different situations that trigger Instant Replay review).

⁵⁷⁶ *Id.* at Rule 13 §(III)(d) (“Following replay review, the crew will make a ruling. The call made by the game officials during play will be reversed only when the replay provides the officials with ‘clear and conclusive’ visual evidence to do so. For clock malfunctions, the officials will not make a ruling prior to using replay.”).

⁵⁷⁷ *See* Oldfather & Fernholz, *supra* note 11, at 63 (“[A] lower threshold for overturning calls would make it more likely that NFL coaches would challenge borderline calls. This would result in longer games with more interruptions, which was the most significant problem with the original replay system.”).

[T]he NFL has one overriding standard of review for challenged calls: The official must see “indisputable visual evidence” to overturn the original call. This standard is highly deferential to the on-field official who made the original call. According the NFL spokesperson Greg Aiello, “[u]nder the standard of the instant-replay rule, [the video evidence] has to be clear-cut,’ otherwise ‘you can’t reverse the call.’ The rationale for this standard is to prevent instant replay reversals from becoming more controversial than the original call.⁵⁷⁸

But presumably an Instant Replay official could substitute his judgment for that of the on-field official by using a lower standard of review – either preponderance of evidence or *de novo*. If the Leagues’ rule makers were to retain a strict limit on the number of coach’s challenges allowed, the limited number of challenges by itself should serve the objective of minimizing delays while maintaining the customary pace of games. But a lower standard of review would acknowledge the reality that Instant Replay officials have access to more and better facts than on-field officials. Having superior factual information, Instant Replay officials should be allowed to overturn calls based on a lower, less deferential standard of review. In those situations where Instant Replay reviews are automatic,⁵⁷⁹ a preponderance of evidence or *de novo* standard would not necessarily cost additional time. Rather it would better allow the Instant Replay official to correct errors made by on-field officials.

A lower standard of review would improve the likelihood of getting calls right and would eliminate the artificial deference for on-field officials. What is more important: the feelings of the officials or getting it right? It would not take appreciably longer to apply a preponderance of evidence standard or *de novo* standard than an indisputable visual evidence standard. In fact, it might take less time! The interests in reaching an accurate result are so compelling – because so much is at stake⁵⁸⁰ – that a lower standard of review will increase the chances that Instant Replay officials will be able to correct on-field errors. Games are on the

⁵⁷⁸ *Id.* at 62.

⁵⁷⁹ *See supra* Part II.

⁵⁸⁰ *See supra* Part III.B.

line. Records are on the line. Who wins and who holds records matters, if no other reason than respect for history, the games themselves, and all who will participate in the future.⁵⁸¹ A duty is owed to the past, present, and future to maximize the accuracy of the Instant Replay review decision-making process by lowering the current standards of review to better reflect the superior factual information that is available to Instant Replay officials versus on-field officials.

The Leagues have gradually expanded the use of Instant Replay to assist officials. MLB, for example, significantly broadened the scope of situations reviewable in the 2014 season.⁵⁸² In part, the Leagues' willingness to expand the number of situations reviewable reflects an acceptance of the superior accuracy that Instant Replay offers. To be sure, the Leagues would be well advised to continue to consider additional situations that could benefit from Instant Replay review.⁵⁸³

⁵⁸¹ See *supra* Part III.A.

⁵⁸² See *supra* Part II.E.1.

⁵⁸³ See Oldfather & Fernholz, *supra* note 11, at 74 ("Consider the NFL's reluctance to part with the chain measurement system."). *But see also id.* at 75 ("The rationale for maintaining the chain gangs instead of adopting a more accurate computer system is similar to the reason the NFL limits the use of instant replay. If the NFL's sole objective were getting every single call correct, replay's usage would be unlimited."); *id.* at 75 ("However, this would slow the game to a crawl, and eliminate the drama that makes the NFL so unique."); *id.* at 75-76 ("Because the goal is not a perfectly officiated game, the NFL is willing to live with a limited and flawed instant replay system."). But one might well ask whether any aspect of on-field officiating delays a football game more than measurement with the chain gang? See also Berman, *supra* note 2, at 1360. Berman puzzles over why a foot fault in tennis is determined by the location of a player's foot in relation to lines on the court. His query is as follows:

To start, why should it involve the competitors' *feet* at all? If the challenge were to serve the ball into a specified space from a specified distance, why isn't the relevant distance the distance that the *ball* must travel? Why wouldn't the challenge be better understood to require that the racquet strike the ball behind the vertical plane defined by the baseline? Furthermore, even if the specific distance that should matter is the distance from net to feet, why should we care about the precise location of the feet at the moment the racquet strikes the ball and not be satisfied with specifying the location of the feet at the start of the service motion?

Id. (emphasis in original).

The answer possibly lies in the history of the sport. This rule is actually analogous to the requirement in baseball that the pitcher maintain contact with the pitcher's plate. Part of the reason for the rule is that an umpire can see whether a server's foot crosses the line just like a baseball umpire can see whether a pitcher's foot fails to stay on the

D. Additional Appeal Post-Instant Replay?

One question worth trying to answer is whether it might be advisable to permit an additional tier (or tiers) of appeal beyond Instant Replay. The two alternatives are external and internal. External appeal could come in the form of arbitration or litigation. In the alternative, the Leagues could establish an internal review mechanism, such as a 3-person panel, a commission, or the appeal to a league president or commissioner. There are several reasons why internal appeal is far preferable to external. But before considering the relative merits of external versus internal appeal, it is useful to consider the pros and cons of allowing *any* post-Instant Replay appeal.

The principal problem with allowing any appeal beyond the decision of an Instant Replay official is timing. Once an official makes an in-game decision, everything that occurs during a game or contest afterwards occurs in the context of the decision made. Athletes, coaches, and even officials are likely to shape their behavior, taking into account specific instances as they unfold. For example, a penalty in ice hockey often results in a power play, which in turn may result in a goal. If any appellate decision maker, post-Instant Replay, were to rule that that penalty was in error, should the goal that was scored during the power play be disallowed? An actual example of this type of problem occurred in the 2004 Summer Olympics in Athens, Greece. American gymnast Paul Hamm won the all-around gold medal on August 18, 2004. During the competition, judges made a mathematical error in computing the score of South Korea's Yang Tae-young – an error that was not discovered until two days after the competition.

pitcher's plate. These rules were written before video technology made possible detecting whether a vertical plane was breached or anything else. Perhaps in the future, if tennis rule makers wish to pursue Berman's suggestion, they could use video technology to detect whether a player's serving arm crosses a specific imaginary horizontal plane rather than being concerned with whether a player's foot has crossed a painted line of the court. *See also id.* at 1363 ("And it's hidden from public view because the Hawk-Eye electronic system that determines whether a ball lands within the lines is not used to judge foot faults. From the perspective of optimal game design, that might be a good thing. In general, rule makers who want to preserve the rule enforcers' option to sometimes apply the standard that animates a rulified standard should arrange things so that noncompliance with the rule isn't apparent. Transparency is not always a virtue.").

“Yang had been wrongly docked a tenth of a point on his second-to-last routine, the parallel bars. Yang ended up with the bronze [medal], 0.049 points behind Hamm. Add that extra 0.100, though, and Yang would have finished on top, 0.051 points ahead of the American.”⁵⁸⁴ In the wake of the mathematical error that negatively affected Yang’s score, it is possible – some might even argue probable – that coaches and competitors adjusted their thinking, effort, and perhaps even their competitive routines. Even the gymnastics judges may have tilted the subjective scores that they awarded to Hamm, Yang, and all other competitors, taking into account Yang’s erroneous score. The Court of Arbitration for Sport⁵⁸⁵ recognized this problem and ruled: “The solution for error, either way, lies within the framework of the sport’s own rules.”⁵⁸⁶ Under the sport’s rules, the error needed to have been pointed out to the officials during the competition, not *post hoc*. “The International Gymnastics Federation (FIG) acknowledged the error and suspended three judges [who were responsible for the mathematical error]. But it said repeatedly it would not change the results because the South Koreans didn’t protest until after the meet.”⁵⁸⁷ The Court of Arbitration for Sport explained that, “An error identified with the benefit of hindsight, whether admitted or not, cannot be a ground for reversing a result of a competition.”⁵⁸⁸ The sound reasoning of Court of Arbitration for Sport in this case explains why it would be ill advised to allow any kind of post-Instant Replay appeal – whether external or

⁵⁸⁴ Nancy Armour, *Sports Court Rules American Gymnast Paul Hamm Can Keep His Disputed Olympic Gold*, SIGNONSANDIEGO.COM (Oct 21, 2004, 8:09 AM), <http://www.utsandiego.com/sports/olympics/gym/20041021-0809-hammmedal.html>.

⁵⁸⁵ The Court of Arbitration for Sport was created in 1984 in response to the growing number of sports-related disputes. COURT OF ARBITRATION FOR SPORT (CAS), DIGEST OF CAS AWARDS III, 2001-2003 xxviii (Kluwer Law International 2004). The CAS has jurisdiction over commercial disputes and disciplinary actions. *Id.* at xxxiii. Commercial disputes include contract disputes and disputes resulting in civil liability. *Id.* Disciplinary disputes are primarily doping-related. *Id.* Disputes are only submitted to CAS if there is a provision in the original agreement that specifies that disputes be arbitrated through CAS. *Id.* “An international court like the CAS, which can offer specialist knowledge, low cost and rapid action, provides a means of resolving sports disputes adapted to the specific needs of the international sporting community.” *Id.* at xxvii.

⁵⁸⁶ Armour, *supra* note 584.

⁵⁸⁷ *Id.*

⁵⁸⁸ *Id.*

internal – for anything other than the *final play* or *final routine* of any athletic game or contest.

Keeping in mind the timing issue illustrated by the Hamm-Yang controversy, let us consider the prospects of external appeal. What factors influence whether a court should have the authority to intercede and countermand the rules or decisions of private organizations such as the Leagues? The relationship between the courts and private associations is extremely important. At its most basic level, this question requires consideration of when it is appropriate (or wise) for our courts to step in and alter the internal rules and decisions of private organizations.⁵⁸⁹

An Oklahoma court recently considered whether the judiciary ought to overturn the outcome of a high school football playoff game.⁵⁹⁰ In denying the plaintiff's request for an injunction to replay all or a part of the game in question, District Judge Bernard M. Jones thoughtfully addressed the legal, practical, and policy concerns involved. Judge Jones's comments deserve lengthy quotation.

[I]t borders on the unreasonable, and in some respects extends far beyond the purview of the judiciary, to think this Court more equipped or better qualified than Defendant to decide the outcome or any portion of a high school football game. Courts ought not meddle in these activities or others, especially when the parties have agreed to be bound by and have availed themselves to the governance of these activities associations.

This is not to say, however, that Courts must always defer to these associations or that the deference is without limitation. There are certainly rare and extraordinary instances where a Court must intervene to safeguard rights and ensure a level playing field. This, however, is not one of those instances.

There is simply no way to fully and completely replicate the events and conditions of the disputed quarterfinal in such a way that would alleviate any and all anxiety or question of

⁵⁸⁹ See GRANT GILMORE, *THE AGES OF AMERICAN LAW* 90 (1977) (“The obvious alternative to a judicial solution of such problems is a legislative solution. A legislative committee, unlike a court, can analyze a problem in depth and cut thorough to a rational solution.”).

⁵⁹⁰ *Indep. Sch. Dist. No. 189 of Okla. Cnty v. Okla. Secondary Sch. Activities Ass'n*, CV-2014-2235.

fairness. Unfortunately, whether in terms of fairness or weather or field conditions, player fatigue, the actions of the coaches or referees, etc., on the day of the quarterfinal, there is no best way to right this wrong without creating even greater uncertainty or inviting further error. Undoubtedly, the pursuit of further judicial action would result in the frustration of the world of athletics as we know it. This slippery slope of resolving athletic contests in court instead of on campus will inevitably usher in a new era of robed referees and meritless litigation due to disagreement with or disdain for decisions of gaming officials – an unintended consequence which hurts both the court system and citizens it is designed to protect.⁵⁹¹

Generally speaking, courts certainly should intercede when a private association violates a state constitution, the U.S. Constitution, a state law, or federal law.⁵⁹² It is more difficult to justify allowing a court to overturn the rulings of referees, umpires, or other officials operating within the structure of the league's internal rules or bylaws. Although appellate judges are accustomed to review the decisions of trial court judges for error, it would be unwise to permit a court to review the decisions of Instant Replay officials acting within the scope of their employment within the Leagues.

Beyond violations of state or federal law and state or federal constitutions, arguably, courts should only interfere with private associations if the association has breached its own rules, the breach caused serious harm to the plaintiff, and the plaintiff has exhausted all internal remedies. In *Harding v. United States Figure Skating Association*, District Judge Panner explained that,

[C]ourts should rightly hesitate before intervening in disciplinary hearings held by private associations Intervention is appropriate only in the most extraordinary circumstances, where the association has clearly breached its

⁵⁹¹ *Id.* at pp. 2-3.

⁵⁹² *See, e.g.*, *Am. Needle v. NFL*, 560 U.S. 183 (2010) (involving allegations of Antitrust violations on the part of the NFL); *Kleinknecht v. Gettysburg College*, 989 F.2d 1360 (3d Cir. 1993) (involving allegations of negligence on the part of the college); *Brentwood Acad. v. Tenn. Secondary Sch. Athletic Ass'n*, 13 F. Supp. 2d 670 (M.D. Tenn. 1998) (involving allegations of First Amendment violations on the part of the State's high school athletic association).

own rules, that breach will imminently result in serious and irreparable harm to the plaintiff, and the plaintiff has exhausted all internal remedies. Even then, injunctive relief is limited to correcting the breach of the rules. The court should not intervene in the merits of the underlying dispute.⁵⁹³

Judge Panner ruled that three-days'-notice before a hearing date established by the defendant was "one of those rare cases where judicial intervention was appropriate" because the USA Figure Skating Association's bylaws stated that "the Hearing Panel shall set a place and date for a hearing that is reasonably convenient for all parties."⁵⁹⁴ The judge ruled:

Defendant violated this rule by unilaterally setting a time and date for the hearing that was just three days after the reply was due. Defendant acted contrary to its bylaws by setting the date before it received the reply. Furthermore, in view of the complexity of the charges, March 10 was not a date reasonably convenient for all parties.⁵⁹⁵

Because of the inherent deficiencies involved with the prospect of judicial review of sports, it makes sense for the governing bodies of the Leagues to utilize Instant Replay and other technology to maximize the likelihood that officiating will be as error-free as practical.⁵⁹⁶ Because courts require that a plaintiff first exhaust all internal remedies prior to undertaking judicial review, it becomes even more logical for the Leagues to establish an internal, post-Instant Replay review process. Leagues occasionally apologize publicly for officiating errors.⁵⁹⁷ It is quite a

⁵⁹³ *Harding v. United States Figure Skating Ass'n*, 851 F.Supp. 1476, 1479 (D. Or. 1994), *vacated on other grounds*, 879 F. Supp. 1053 (D. Or. 1995).

⁵⁹⁴ *Id.* at 1478,1479.

⁵⁹⁵ *Id.* at 1478.

⁵⁹⁶ Currently, the Leagues do not have formal post-Instant Replay review procedures. *See, e.g.*, Oldfather & Fernholz, *supra* note 11, at 56 ("[T]he NFL's system is one in which all review is interlocutory. Once the game is over the result is final, and no subsequent determination that a call was erroneous will change that result.").

⁵⁹⁷ *See, e.g.*, Mike Halford, *Report: NHL Apologizes to Panthers for Blown Goalie Interference Call*, NBC SPORTS (Mar. 21, 2014, 6:15 PM), <http://prohockeytalk.nbcsports.com/2014/03/21/report-nhl-apologizes-to-panthers-for-blown-goalie-interference-call/> (last visited Feb. 20, 2015). *See also NBA Statement on*

different matter to consider the prospect of actual reversal or sending teams back to start over at the point of a mistaken call. This type of situation already exists – and has existed for a long time – in baseball where the rules permit play to proceed “under protest.”⁵⁹⁸

In order for a league president to uphold a protest, two criteria must exist: 1) an umpire’s decision must be in violation of the rules; and, 2) the league president must determine that the mistake “adversely affected the protesting team’s chances of winning the game.”⁵⁹⁹ The requirement that “an umpire’s decision is in violation of these rules,” coupled with the admonition that “[n]o protest shall ever be permitted on judgment decisions by the umpire,” makes it clear that a league president will not uphold a manager’s protest unless the manager’s allegation is that the umpire has made a mistake regarding the rules. In other words, the umpire’s mistake must be a question of law – not facts.

Missed Call in Grizzlies-Nuggets Game, NBA (Apr. 1, 2014), <http://official.nba.com/nba-statement-on-missed-call-in-grizzlies-nuggets-game/>.

⁵⁹⁸ MLB OFFICIAL RULES, *supra* note 24 at Rule 4.19.

PROTESTING GAMES.

Each league shall adopt rules governing procedure for protesting a game, when a manager claims that an umpire’s decision is in violation of these rules. No protest shall ever be permitted on judgment decisions by the umpire. In all protested games, the decision of the League President shall be final.

Even if it is held that the protested decision violated the rules, no replay of the game will be ordered unless in the opinion of the League President the violation adversely affected the protesting team’s chances of winning the game.

Rule 4.19 Comment: Whenever a manager protests a game because of alleged misapplication of the rules the protest will not be recognized unless the umpires are notified at the time the play under protest occurs and before the next pitch, play or attempted play. A protest arising on a game-ending play may be filed until 12 noon the following day with the league office.

Id. See also *id.* at Rule 2.00 (noting that the league president has the authority for “determining any protested games”).

⁵⁹⁹ *Id.* at Rule 4.19. The NFL, on the other hand, expressly prohibits protests. See NFL OFFICIAL RULES, *supra* note 40, at Rule 17 §2, art. 2. (“The authority and measures provided for in this entire Section 2 do not constitute a protest machinery for NFL clubs to avail themselves of in the event a dispute arises over the result of a game The Commissioner will not apply his authority in cases of complaints by clubs concerning judgmental errors or routine errors of omission by game officials. Games involving such complaints will continue to stand as completed.”).

Therefore, a league president already has the authority to uphold a protest in MLB when he determines that an umpire has made a mistake about the rules that has adversely affected a team's chances of winning. The league president has the power to tell the teams to return to the point of the game when the protest occurred and to begin again from that point.⁶⁰⁰ The infamous George Brett home run with pine tar on his bat in 1983 is a poignant example.⁶⁰¹

American League President Lee MacPhail ruled that umpire Tim McClelland was wrong to void a home run hit by George Brett with a bat that had more pine tar than allowed by the rules.⁶⁰² The ruling meant that the home run was declared valid, and that the game was resumed on August 18, with the batter following Brett in the batting order batting with two outs in the 9th inning.⁶⁰³

The NBA Constitution permits post-game protests, and grants the Commissioner authority to make decisions about protests.⁶⁰⁴ The NBA protest procedure states "In order . . . to protest against or appeal from the result of a game, notice thereof must be given to the Commissioner within forty-eight (48) hours after the conclusion of said game, by E-mail or fax, stating therein the grounds for such protest."⁶⁰⁵ There is a \$10,000 fee for an NBA protest, which is refundable if the Commissioner upholds the protest.⁶⁰⁶ The Commissioner notifies the opposing team, and then both teams have five days in which to file evidence with the Commissioner "bearing on the issue."⁶⁰⁷ The Commissioner then

⁶⁰⁰ See generally DAVID NEMEC & ERIC MIKLICH: FORFEITS AND SUCCESSFULLY PROTESTED GAMES IN MAJOR LEAGUE BASEBALL: A COMPLETE RECORD, 1871-2013 (2014).

⁶⁰¹ See, e.g., *Protest Definition*, BASEBALL-REFERENCE.COM, <http://www.baseball-reference.com/bullpen/Protest> (last visited Feb. 20, 2015).

⁶⁰² See MLB OFFICIAL RULES, *supra* note 24 at Rule 1.10(c) ("The bat handle, for not more than 18 inches from its end, may be covered or treated with any material or substance to improve the grip. Any such material or substance that extends past the 18-inch limitation shall cause the bat to be removed from the game.").

⁶⁰³ *Protest*, *supra* note 602.

⁶⁰⁴ See NBA, CONSTITUTION AND BY-LAWS OF THE NBA, art. 38 (May 29, 2012), available at <http://mediacentral.nba.com/media/mediacentral/NBA-Constitution-and-By-Laws.pdf>.

⁶⁰⁵ *Id.*

⁶⁰⁶ *Id.*

⁶⁰⁷ *Id.*

has an additional five days “after receipt of such evidence” to render a decision.⁶⁰⁸

Since MLB league presidents have the authority to overturn an umpire’s decision when it involves a mistake of law, and the NBA Commissioner may decide protests, it seems logical that a league president or commissioner should also have the authority to overturn an Instant Replay official’s mistake of fact. Thus, it would make sense for the Leagues to establish procedures for an internal review of Instant Replay decisions, but arguably only in the narrowest circumstances. Assuming that multiple camera angles and video enhancements such as enlargement of the image, slow motion, stop action, and frame-by-frame analysis have provided the Instant Replay official with access to factual information that was superior to the on-field official, and assuming that the League president (or his designee) has access to that same information, the standard of review at this final level of appeal should be very high. At this point, a league president or commissioner (or whoever hears such appeals) should only overturn an Instant Replay official’s decision using an extremely deferential standard of review, such as when the Instant Replay official’s call was an abuse of discretion or was erroneous beyond a reasonable doubt.⁶⁰⁹ An exceptionally high standard is appropriate for the same reason that an abuse of discretion standard typically is appropriate when an appellate court is reviewing a trial court’s determination of facts. Absent new evidence that was unavailable to the Instant Replay official (such as a different camera angle), Instant Replay officials have experience in making such decisions that is likely to prove superior to that of a league president or commissioner. It would perhaps be preferable to establish a three-judge panel, comprised of individuals who regularly serve as Instant Replay officials to serve as a kind of “Supreme Court” for Instant Replay rather than relying on a league president or commissioner.

Whether the Instant Replay appeal is handled by a single individual (e.g., league president, commissioner, or overseer of officials) or a group (e.g., a three-person panel, commission, or

⁶⁰⁸ *Id.*

⁶⁰⁹ *See supra* notes 567, 568, 574 and accompanying text regarding definitions of these evidentiary standards.

some kind of “supreme officiating court”), it would be wise to establish such a mechanism or process to serve as the court of last resort within each league’s structure.⁶¹⁰ An internal appeals process, post-Instant Replay review, would provide finality and would also decrease the likelihood that a state or federal court would be willing to entertain a case involving a disputed decision of an Instant replay official.

ADDITIONAL RECOMMENDATIONS & CONCLUSIONS

Arguably, the best-refereed league in terms of Instant Replay is the NHL.⁶¹¹ The other leagues have used the NHL Situation Room as a model for each league’s own consolidated replay center.

Borgia, [NBA Senior Vice President, Replay and Referee Operations and NBA] Executive Vice President of Operations and Technology Steve Hellmuth and other league officials visited the National Football League and National Hockey League to see their replay setups (Major League Baseball was still fine-tuning its replay system at the time). The NBA’s setup had to be different because the triggers for replay are so different in each sport. The final determination on a call in the NHL and in baseball is made at the league’s offices in Toronto and New York, respectively. The NHL uses two

⁶¹⁰ League commissioners currently have authority to make numerous decisions that relate to activity that occurs during the course of game. *See, e.g.*, NHL OFFICIAL RULES, *supra* note 40, at Rule 23.2 (granting that “the Commissioner . . . shall have full power to impose such further penalties by way of . . . fine on the penalized player or any other player involved in the altercation.”); *id.* at Rule 23.8 (granting the Commissioner authority “to impose such further penalty [for a Game Misconduct Penalty] as he shall deem appropriate”); *id.* at Rule 28.1 (“Commissioner may, at his discretion, investigate any incident that occurs in connection with any Pre-season, Exhibition, League or Playoff game and may assess additional fines and/or suspensions for any offense”); *id.* at Rule 40.5 (authorizing the Commissioner to investigate and investigate penalties and suspensions relating to physical abuse directed against officials); *id.* at Rule 46.20 (authorizing “the Commissioner or his designee based upon . . . reports and other information as he deems sufficient, *including but not limited to television tapes*” to determine penalties imposed on players for being “involved in an altercation, other than during periods of the game”) (emphasis added); *id.* at Rule 70.10 (authorizing “the Commissioner or his designee” to determine which players ought to be fined and/or suspended for leaving the bench illegally during an altercation, specifically permitting the Commissioner or his designee to use “reports and other information *including but limited to television tapes.*”) (emphasis added).

⁶¹¹ Standen, *supra* note 2, at 388 (“The best-refereed contests among the four major professional sports leagues are NHL games.”).

former players as its replay officials, and they have only one call to adjudicate: whether the puck crosses the goal line and should count as a goal. Major League Baseball uses current umpires as its replay officials. The umpires are brought off the road as a crew twice during the season for one week each to handle the replays on a rotating basis. The NFL has a replay official on site at each game during the season.⁶¹²

The NHL has been using the Situation Room since the early 2000s and has had years to perfect its system.⁶¹³ That being said, the NHL system is not perfect. The NHL has done a good job as conquering the art of goal scoring; however, it may be time to expand replay review to cover other aspects of the game that can lead to a change in momentum and ultimately a goal. The League has an office in New York that reviews hits that are potentially illegal.⁶¹⁴ For example, it is illegal to hit another player in the head from the player's blind side. The League takes the time to review each blindside hit that results in a player's injury, however, no real discipline is given until the next day.⁶¹⁵ By making these reviews faster and more efficient during games, players would receive longer in-game penalties when the hit goes unnoticed by the on-ice referees.⁶¹⁶ NHL hockey is a fast game. It

⁶¹² Aldridge, *supra* note 349.

⁶¹³ The Canadian Press, *NHL Centralized Replay Proving to Be Model as MLB Adopts Expanded Review*, NHL.COM (Jan. 21, 2014, 5:15 PM), <http://www.nhl.com/ice/news.htm?id=701676> ("So as much grief as NHL officiating gets at times, there's reason to believe the league's review process — at least when it comes to whether the puck crossed the line — is the best system available for professional leagues.").

⁶¹⁴ Department of Player Safety FAQ's, *Where Does the Department of Player Safety Monitor Games?*, NHL.COM (Nov. 7, 2014), <http://www.nhl.com/ice/news.htm?id=738846#q2>.

⁶¹⁵ Steve Silverman, *Why the NHL Must Expand the Use of Instant Replay*, BLEACHERREPORT.COM (Jan. 28, 2013), <http://bleacherreport.com/articles/1504927-why-the-nhl-must-expand-the-use-of-instant-replay> ("When Phoenix forward Raffi Torres ran at Marian Hossa of the Chicago Blackhawks in last year's first round playoff series [2011-2012 season], Hossa suffered a concussion and was knocked out of action for the remainder of the series. A day later, the NHL suspended Torres for 25 games (later reduced to 21 games). Torres was vilified from coast to coast for his dirty play. The long-time agitator got his just reward . . . While the league came down on him hard, the on-ice officials missed the call. Torres did not get so much as a two-minute roughing call for his shot on Hossa.").

⁶¹⁶ *Id.* ("In 2010, Boston Bruins center Marc Savard suffered a severe concussion when he was hit from behind by Pittsburgh's Matt Cooke (Cooke was not penalized for

is very difficult to make the correct calls on the spot, but the NHL is already using the technology, so why not expand to other areas of the game?

All of the Leagues are looking at ways to evolve and improve. “We always think we can improve,” said Roger Goodell, NFL Commissioner, in reference to Instant Replay. “Consistency is important. By bringing it into the league office on Sundays and having one person actually making that decision, you can make an argument there’s consistency.”⁶¹⁷ The NFL would like to improve its game footage by adding additional cameras to the field including cameras on the goal line.⁶¹⁸

‘We don’t have a look down the line,’ Blandino [NFL’s vice president of officiating] allowed, speaking into the headset. There has been much discussion about the NFL placing stationary cameras on the goal line, to supplement the network angles.⁶¹⁹

This is something that the NHL has perfected. The NHL can see 99.9 percent of the ice, which allows them to make more calls that are correct. The NHL also has access to an immense amount of footage from the cameras they have installed in each arena and the footage from both the home and away networks.

The NBA is struggling with a similar issue. The camera angles and footage are not the same in every arena.⁶²⁰ This is an easy but expensive fix. It requires the league to install the same

his hit). Savard was carried off the ice on a stretcher and while he came back briefly, it appears all but certain that his NHL career is over.”) Note: Marc Savard has not played a game of hockey since 2010.

⁶¹⁷ Department of Player Safety FAQ’s, *supra* note 614. Other controversial plays include a player sending the puck over the glass from the defensive zone leading to a penalty, double-minor high-sticking penalties, puck deflecting off of the protective netting, etc.

⁶¹⁸ Bell, *supra* note 200.

⁶¹⁹ *Id.* (“On the Cook touchdown – where he crashed into the pylon while falling to the turf – there is not any evidence to cause Blandino to overturn the ruling on the field. It’s tough to see where Cook’s knee and the football are in relation to the goal line Blandino would love to have those stationary cameras on the goal lines.

After the Cook score, he said, ‘That would be a situation where that could have helped.’ It’s about making the right call – which still happens over and over with the vast resources at hand.”) Blandino is referring to a 59-yard romp with a pass from Austin Davis to Jared Cook.

⁶²⁰ Aldridge, *supra* note 349.

camera system in the same locations in every arena. In the long run, the payoffs will be enormous and will help to maintain the consistency in Instant Replay review. The 2014-2015 season is the first season where the league is using the NBA Replay Center as a centralized location of review so it is only natural that the system is still imperfect during its first season of use.

MLB radically overhauled its replay system for the 2014 season. Part of the delay was due to the risk of making games longer. Ultimately, the push for a more comprehensive Instant Replay review system came after too many incorrect calls were being made.⁶²¹ The league has been facing challenges of finding ways to increase the pace of play in order to keep the attention of the millennial generation. Understandably, MLB did not want to implement an extensive review process that could lengthen the game when they are striving to make games shorter. That being said, the 2014 implementation did not appreciably disturb the pace of play or lengthen the games.⁶²²

An ever-present concern with replay in any sport is that it will slow the flow of the game. Totaled up, the challenges this year have taken about 2,031 minutes — over 1.4 days. This sounds long, but the average challenge takes only about 1 minute and 48 seconds. There have been only 0.48 challenges per game on average — just slightly less than one every other game. All else equal, expanded replay challenges add less than a minute to any given game (about 52 seconds, to be precise).⁶²³

The critiques on the system are fairly simple — very few people feel it takes away from the aesthetic *feel* of a traditional baseball game.⁶²⁴ This argument has lost its luster. Does a fan

⁶²¹ Department of Player Safety FAQ's, *supra* note 614 ("Ultimately, it came after too many incorrect calls over a number of years. 'Executive VP of baseball operations Joe Torre) explained it in a beautiful way,' La Russa recalled. 'When the game is over and there's been a big miss and the wrong team caught a break that probably directed impacted it, there's so much conversation about the miss that you forget about the competition that went on that got to that point.'") *Id.*

⁶²² Oliver Roeder, *Has Expanded Replay Worked Well in Baseball? Here's Our Call*, FIVETHIRTYEIGHT (Sept. 12, 2014, 12:59 PM), <http://fivethirtyeight.com/features/has-expanded-replay-worked-well-in-baseball-heres-our-call/>.

⁶²³ *Id.*

⁶²⁴ *Id.*

really prefer more calls to be incorrect just to maintain the tradition of a baseball game?⁶²⁵ MLB, like the other leagues, will work on getting the replay process faster and more efficient. But so far, the implementation has been a success.⁶²⁶

Unlike the NFL and MLB, neither the NHL nor the NBA has implemented a coach's challenge. Both leagues are worried about the disturbing the pace of play and length of games. The NHL provides little opportunity for review of plays. Short of an apparent goal, the NHL does not use Instant Replay for situations that are likely to stir up a coach's challenge. For example, there is not "solid criteria" on how to rule on goalie interference, which makes it a difficult play to review.⁶²⁷

'A lot of discussion has taken place with our managers about coach's challenges, and we've beaten it up pretty good,' Murphy [Senior Vice President of Hockey Operations] said. 'You get into reviews on goalie interference, that's a very subjective area, so we've got to have very defined parameters as to what is goalie interference. . . . There's a lot going on there that has to be detailed if you're going to do it this accurately and do it correctly.'⁶²⁸

The NBA wants to implement a coach's challenge but it wants to make sure it more nearly perfects the current Instant Replay system before complicating things.⁶²⁹ The NBA Deputy Commissioner Adam Silver was quoted:

'Eventually, you may have someone sitting at a desk rather than having a discussion of three referees every time there's a

⁶²⁵ Department of Player Safety FAQ's, *supra* note 614 ("I think in sports in general, everybody wants the right call: The fans want the right call, the fans want the right call, the players want the right call,' Murphy said. 'Sometimes even when it goes against them, they can live if the call is right. They can live with it. I think that's one of the things that every sport is pushing for is to make sure we get the right call and that we get the right call in a timely fashion.'"). *Id.*

⁶²⁶ Roeder, *supra* note 622.

⁶²⁷ Department of Player Safety FAQ's, *supra* note 614. *See also* Art Regner, *Regner: Crease Rule Too Subjective*, MSN SPORTS (Nov. 3, 2014), <http://www.msn.com/en-us/sports/nhl/regner-crease-rule-too-subjective/ar-BBdx6RR?ocid=hmlogout>.

⁶²⁸ Department of Player Safety FAQ's, *supra* note 614.

⁶²⁹ Ben Golliver, *NBA Discusses 'Challenge Flags' for Coaches to Dispute Calls with Referees*, SPORTS ILLUSTRATED (Jun. 13, 2013), <http://www.si.com/nba/point-forward/2013/06/13/nba-challenge-flags-coaches-referees-officials>.

disputed play,' Stern said, according to the paper. 'We might have one person whose job it is to keep the headphones on and always watch. And you might let a coach throw the flag in the last two minutes. We're striving for accuracy.'⁶³⁰

Prior to the 2014 season, the NBA implemented a coach's challenge in its D-League.⁶³¹ The D-League is testing the coach's challenge for the NBA. If all is successful, it is likely the NBA will implement the challenge in the 2015-2016 season.

As of 2014, all four leagues have a similar Instant Replay review process. However, all four leagues need to improve. Anaheim Ducks coach Bruce Boudreau was quoted as saying, "In the end, all we want is the right call . . . I think that's what both teams want."⁶³² With the constant innovation and advancement of technology, it is up to the leagues to keep up and evolve as needed. So far, the leagues have done a good job by having centralized review locations. These centralized facilities allow games to be more consistent and efficient. The amount of time spent waiting for a review of a play is now less than the average commercial break. The Leagues need to continue to evolve as new issues arise. As of the 2014-2015 season, the NFL, the NHL, the NBA, and MLB are all on the right track.

Throughout history, technology has dramatically changed the dynamics of human endeavor.⁶³³ Peoples' expectations evolve as technology evolves. In ancient legal systems, eyewitness testimony was often the only evidence available. But as the reliability of forensic science has improved, the law of evidence has embraced new technologies such as photographs, fingerprints, chemical analysis of samples of hair, blood, and other bodily fluids, DNA

⁶³⁰ *Id.*

⁶³¹ Gino Pilato, *New Coach's Challenge Rule to Be Implemented in Upcoming NBA D-League Season*, D-LEAGUE DIGEST (Nov. 3, 2014), <http://dleaguedigest.com/2014/11/03/new-coaches-challenge-rule-to-be-implemented-in-upcoming-nba-d-league-season/>.

⁶³² Department of Player Safety FAQ's, *supra* note 614.

⁶³³ *See, e.g.*, GRANT GILMORE, *THE AGES OF AMERICAN LAW* 14 (1977) ("But even during periods when no one challenges the basic rules, the society we live in continues to evolve and change – in response to technological developments, to shifts in patterns of moral or religious belief, to the growth or decline of population, and so on. The process by which a society accommodates to change without abandoning its fundamental structure is what we mean by law.").

analysis, and audio and video recordings. Similarly, in sports, officials originally relied on their eyes and ears in real time to analyze the actions occurring in games and to render decisions. Gradually new technologies such as still photographs provided the photo finish to help determine winners of racing events and electronics provided feedback for fencing officials more accurate than the human eye and ear. Later video Instant Replay added a novel dimension, offering a new tool for assessing facts in sports.

Today we are beyond the experimental stage of using Instant Replay in sports officiating. We are instead at a point where its reliability far exceeds the reliability of on-field, on-ice, and on-court officials, no matter how experienced, how adept, or how proficient they may be. Faced with this reality, the Leagues are working towards fine-tuning, improving, expanding, and doing their best to perfect its use.⁶³⁴ All acknowledge that the principal issue is how best to balance the desire for accuracy with the desire to maintain the integrity and traditions of the sports that we have grown to love and enjoy. All things human are subject to human error. As our court system has recognized, parties are not entitled to a perfect trial but they are entitled to a fair one. Fairness, no doubt, means many different things to different people. However, those who participate in sports typically strive for accurate application of the relevant rules. Given the high stakes and enormous costs involved in today's professional sports, it is best to err on the side of accuracy within reason. Today Instant Replay technology provides opportunities to maximize the accuracy of many rules decisions coupled with speed once unimaginable. As participants and fans become accustomed to the relatively minor interruptions necessary to achieve accurate rules decisions, similar to the delays caused by team time outs, media time outs, injury time outs, and the many other interruptions – planned and unplanned – that they have grown to accept, they are likely also to

⁶³⁴ For example, the NHL is currently considering expanding Instant Replay review to include matters such as an off-side that leads to a goal, determining which player should be penalized, whether a high stick contact came from one's own team, whether the puck hit the protective netting, whether a skate causes a cut, and refining goalie interference. Interview with Rod Pasma, Senior Director, NHL Hockey Operations (Dec. 30, 2014).

accept Instant Replay reviews as an integral part of sports and a tradition that is an essential part of them.

As is true for all eyewitnesses, referees, umpires, and other sports officials will continue to make good faith, honest mistakes. They may not have an adequate angle to see what happened. A moving player or another official may obstruct their view. They may be too far from the action to have seen precisely what happened. Instant Replay review provides a means to correct mistakes caused by these types of circumstances. In addition, scholars and researchers have discovered that referees, umpires, and other sports officials are prone to temporal variance and impact aversion; they subconsciously adjust or even lose their objectivity when faced with the pressures of pivotal decisions when games hang precariously in the balance, especially in high stakes situations. Given these understandable human frailties, it is logical that the Leagues maximize the potential for Instant Replay to correct these and the other, honest, ordinary human errors.⁶³⁵

⁶³⁵ See, e.g., Standen, *supra* note 2, at 377 (“The focus for perfection in sports officiating – namely the focus on the prevention of unjust gain, and less so on penalties that would merely restore the status quo ante, vindicate a “promise,” or punish a wrongdoer supplies a telling refutation of “temporal variance” school: restitutive remedies are the most “unfair.” They are the most likely to elicit an outraged response from fans. They are the most “intrusive” call for a referee.”) (footnote omitted); *id.* at 392 (“In football, instant replay review has minimized the opportunity for variance, although referees retain discretion in assessing holding or interference penalties.”) (footnote omitted).