



Casino Countermeasures: Are Casinos Cheating?

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ABSTRACT

Since Nevada legalized gambling in 1931, casinos have proliferated into the vast majority of states. In 2015, commercial casinos earned over \$40 billion. This is quite an impressive growth for an activity that was once relegated to the backrooms of saloons. Indeed, American casino companies are even expanding into other countries.

Casino games have a predetermined set of rules that all players—and the casino itself—must abide by. Many jurisdictions have particularized statutes that allow for the prosecution of players that cheat at these games. Indeed, players have long been prosecuted for marking cards and sliding dice. And casino employees have long been prosecuted for cheating their employers using similar methods. But what happens when casinos cheat their players? To be sure, casinos are unlikely to engage in traditional methods of cheating for fear of losing their licenses. Instead, this cheating takes the form of perfectly suitable—at least in the casinos' eyes—game protection countermeasures. This Article argues that some of these countermeasures are analogous to traditional forms of cheating and should be treated as such by regulators and courts. In addition, many countermeasures are the product of a bygone era—and serve only to slow down games and reduce state and local tax revenues.

Part II discusses the various ways that cheating occurs in casino games. These methods include traditional cheating techniques used by players and casino employees. An emphasis will be placed on how courts have adjudicated such matters. Part III describes countermeasures that casinos take to combat cheating. Part III also argues

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that some of these countermeasures are just reimagined variations of traditional cheating techniques—and gaming regulators and courts should treat them as such, especially considering the imbalance of powers between casinos and players. Part IV demonstrates that many countermeasures are counterproductive because they slow down the game and deprive the state and municipality of tax revenue.

I. INTRODUCTION

*“It’s not stacked, and any bastard who deals seconds from this new deck of years—why, we’ll crucify him head down over a privy.”*²

Gaming industry insiders often describe the battle between casinos and cheaters as a “cat-and-mouse game.”³ Cheaters try hard to stay one step ahead of the casinos. Whenever a successful cheating technique is exposed, casinos are ready to implement a new countermeasure to ensure they do not fall prey to this technique again. But by then it is too late; the cheaters are already poised to take advantage of a different chink in the casinos’ armor.

And while the history of the cat-and-mouse game has largely consisted of casinos chasing cheaters, there is a parallel chase where legitimate players are constantly looking for ways to take *legal* advantage of weaknesses in casinos’ procedures. These players are called advantage players, and have proved to be an equally—if not more—effective thorn in the side of casinos.⁴

The problem is that casino security is largely reactionary—and often more so than is justified. When one cheating or advantage-play technique makes the rounds, it is common for casinos’ countermeasure to go above and beyond. Imagine a big box store that has the occasional shoplifter stealing inexpensive goods. We would not expect the store to implement a countermeasure whereby every shopper is strip-searched on his way out (put aside the legal issues and public relations nightmare for a moment). The strip-searches would grind shopping to a halt, and the revenue spent hiring unnecessary personnel would make for a highly inefficient operation. Everyone would say that the reaction of the big box store was counterproductive and wasteful. But this is what casinos do all the time. A new scam turns up in a

² JOHN STEINBECK, *EAST OF EDEN* 169 (1986).

³ Adam Goldman, *Casinos use controversial database to catch cheats*, *LAS VEGAS SUN*, (Dec. 29, 2003, 11:39 AM), <https://lasvegassun.com/news/2003/dec/29/casinos-use-controversial-database-to-catch-cheats/>, [<https://perma.cc/X3E7-JX7S>].

⁴ See ELIOT JACOBSON, *ADVANCED ADVANTAGE PLAY: BEATING AND SAFEGUARDING MODERN CASINO TABLE GAMES, SIDE BETS AND PROMOTIONS* 5 (2015) (“Advantage play is the act of legally exploiting procedural or structural weaknesses in some aspect of casino games or operations in a way that generates an edge over the casino.”).

few casinos, and the casino industry responds by bringing a tank to a fistfight.

The “tank” largely consists of countermeasures that are designed to stymie certain cheating and advantage-play techniques. However, they often do more harm to the casino than good. And worse, some of these countermeasures harm legitimate players who would not even know how to cheat at solitaire. In fact, these countermeasures might constitute cheating themselves. After all, the power imbalance is clear. First, consumers widely lack knowledge about casinos’ market pricing. It is very hard for players to price-shop since casinos rarely advertise their payout structures and rules outside of the casinos themselves.⁵ Second, casinos can review suspicious players via their extensive surveillance system. In contrast, players can do no such thing if they feel cheated by the casino. Lastly, casinos are often protected by their jurisdiction’s gaming regulatory body. Casinos usually get the benefit of the doubt, and complaining patrons rarely make it past an administrative hearing.⁶

This Article proceeds as follows: Part II describes various techniques—both lawful and unlawful—that players have used to win money from casinos. I will also discuss how courts have adjudicated such matters. Part III describes various countermeasures that casinos have implemented to combat the techniques described in Part II. An emphasis will be placed on why the power imbalances between players and casinos might cause us to consider some of these countermeasures to be cheating in and of themselves. Part IV will explain that many of these countermeasures harm casinos by slowing down games and depriving states and municipalities of tax revenue.

II. CHEATING IN CASINOS

People have developed methods to beat games of chance from time immemorial. Dice that were surreptitiously weighted to favor certain num-

⁵ “Rules” does not refer to the general rules of play that are common among casinos. Instead, it refers to the rule deviations that can vary dramatically from casino to casino. Take the game of blackjack for example. Some casinos allow players to “split” aces once, while others allow players to split aces three times. The more times a casino allows a player to split aces, the more favorable the game is for the player. See ARNOLD SNYDER, *THE BIG BOOK OF BLACKJACK* 116 (2006).

⁶ *Cf.* WALTER T. CHAMPION, JR. & I. NELSON ROSE, *GAMING LAW IN A NUTSHELL* 113–14 (2012) (explaining that Nevada courts grant the state’s gaming regulatory agency “great deference” to findings of fact and “almost never” examine legal questions decided at the administrative level).

bers date back to the Roman Empire.⁷ The myriad methods people have devised to cheat casinos run the gamut from sophisticated and invisible to clunky and heavy-handed. Today, cheating is a crime in virtually all jurisdictions that offer gambling.⁸

Nevada defines “cheating” as “alter[ing] the selection of criteria which determine: (a) The result of a game; or (b) The amount or frequency of payment in a game.”⁹ The critical element of the statute is “alter,”¹⁰ and as we will see, courts have struggled to consistently determine when a game’s criteria have been altered. Despite the confusion, the statute is considered the gold standard since most jurisdictions around the world have adopted Nevada’s framework when drafting their own casino cheating statutes.¹¹

To understand how courts evaluate various schemes, it is imperative to understand the fundamental methods themselves and the backdrop against which they operate. Cheating in casinos generally takes two forms. First, players can cheat games while giving the appearance of legitimate play.¹² This is colloquially called cheating “from the outside.” Second, casino employees—usually dealers or floor supervisors—can cheat games while giving

⁷ Robert Rath, *The Royal, Seedy, and Supernatural History of Dice*, THE ESCAPIST (Aug. 21, 2014), <http://www.escapistmagazine.com/articles/view/video-games/columns/criticalintel/12141-The-History-of-Dice-and-The-Oldest-Dice-in-the-World>, [<https://perma.cc/74H7-DRJ8>]. For a more contemporary account of loaded dice, see *Berman v. Riverside Casino Corp.*, 323 F.2d 977, 980 (9th Cir. 1963) (alleging that the casino introduced loaded dice to cheat players).

⁸ See, e.g., NEV. REV. STAT. § 465.083 (2017) (making it “unlawful for any person . . . to cheat at any gambling game” in Nevada); see also I. NELSON ROSE & ROBERT A. LOEB, BLACKJACK AND THE LAW 75 (1998) (“Cheating is a felony in virtually all gambling jurisdictions.”)

⁹ NEV. REV. STAT. § 465.015 (2017).

¹⁰ BOB NERSESIAN, BEAT THE PLAYERS 173 (2006).

¹¹ STEVE FORTE, CASINO GAME PROTECTION: A COMPREHENSIVE GUIDE 39 (2004). For an example of a state statute similar to Nevada’s, see MISS. CODE ANN. § 75-76-309(2) (West 2017) (“It is unlawful to mark, alter or otherwise modify any associated equipment or gaming device in a manner that: (a) Affects the result of a wager by determining win or loss; or (b) Alters the normal criteria of random selection, which affects the operation of a game or which determines the outcome of a game.”). However, Macau, China, which is the world’s largest jurisdiction in terms of casino revenue, uses quite a different (and ambiguous) standard. It defines a cheater as one who “fraudulently runs or practices gaming or ensures the luck by means of mistake, deceit, or using any equipment” JORGE A.F. GODHINHO, THE MACAU PENAL CODE AND OTHER PENAL LAWS IN ENGLISH UNOFFICIAL TRANSLATION 32 (May 22, 2016) (draft version), <https://bit.ly/2OD4AkW>, [<https://perma.cc/Q75K-MDUP>].

¹² See FORTE, *supra* note 11, at 612 (defining “outside scams”).

the appearance of legitimately carrying out their job duties.¹³ This is called cheating “from the inside.” Playing from the inside can also include employees colluding with outside agents posing as legitimate players.

What follows are some of the more notorious cheating methods and how courts have construed their respective jurisdiction’s cheating statutes and regulations. Also included are methods that resemble cheating, but were ultimately held by courts to be acceptable—yet quite cunning—ways of beating casinos. These strategies are usually called “advantage plays,” because the player gains an advantage over the casino without crossing the line into cheating territory.¹⁴ Instead, players take advantage of some loophole inherent in a game’s design.¹⁵ Indeed, the most ubiquitous methods of beating casino table games largely involve legal techniques.¹⁶ Distinguishing between cheating and advantage plays will help determine which casino countermeasures should be construed as cheating and which should be valid.¹⁷

A. *Methods Used to Cheat Casinos*

1. Marked Cards

Marked cards are cards that have been physically altered to allow someone to identify them without looking at their faces.¹⁸

¹³ See *id.* at 609 (defining “inside scams”).

¹⁴ See FORTE, *supra* note 11, at 11. See also Anthony Cabot & Robert Hannum, *Advantage Play and Commercial Casinos*, 74 *MISS. L.J.* 681, 681 (2005) (“[A]dvantage play is where the player can overcome the mathematical advantage that is built into every house-banked casino game.”).

¹⁵ See FORTE, *supra* note 11, at 11.

¹⁶ See, e.g., *id.* at 105 (“[M]ore supervisors and surveillance personnel are exposed to suspected card counters than to all the other scammers revealed in this book combined!”). Card counting, as will be described in Part II.B.1, is a legal method of beating casinos at blackjack.

¹⁷ Commentators occasionally differ in their terminology. For example, Professors Cabot and Hannum classify both legal and illegal techniques into five separate categories of “advantage play.” Cabot & Hannum, *supra* note 14, at 686–88. In contrast, gaming consultant Steve Forte emphasizes that advantage plays do “not include the pure mathematical strategies like card counting” FORTE, *supra* note 11, at 11. Card counting is discussed in Part II.B.1, *infra*.

¹⁸ *United States v. Jing Bing Liang*, 362 F.3d 1200, 1201 n.2 (9th Cir. 2004) (“Certain cards can be marked for future detection These cards later can be identified without seeing their faces, which can thereby substantially increase the odds of winning a particular hand.”); GEORGE L. LEWIS JR., *CASINO SURVEILLANCE: THE EYE THAT NEVER BLINKS XI* (1996). For the science behind the sub-

In *Sheriff of Washoe County v. Martin*, a player was accused of cheating at the card game of blackjack.¹⁹ The defendant made subtle bends in the cards, allowing him to discern their identities even while the cards were facedown.²⁰ This technique is known as “card crimping.”²¹ The defendant challenged the cheating statute as unconstitutionally vague.²²

The Supreme Court of Nevada interpreted the cheating statute to proscribe “alter[ing] the identifying characteristics or attributes of a game with the intent to deprive another of money or property by affecting the otherwise established probabilities of the game’s various outcomes”²³ The court held that the conduct constituted cheating because the defendant altered “a crucial characteristic of the game.”²⁴ The values of the cards were known only to him—not to the casino or the other players.²⁵ Thus, *Martin* makes clear that players cheat when they physically alter cards to determine the cards’ identities.²⁶

In *Kelly v. First Astri Corp.*, a blackjack player lost \$120,000 and became suspicious that the cards were marked before being introduced into the game.²⁷ The tribal casino determined that numerous employees participated in the scam.²⁸ The casino manager testified that the cards were indeed marked with small red triangles that could be read before they were dealt from the blackjack shoe.²⁹ The player brought a tort action against the

stances used to mark cards, see SAMUEL RUBIN, *THE SECRET SCIENCE OF COVERT INKS* 55–68 (1987). Playing cards are not the only casino equipment that can be marked. The game of Pai Gow is played with thirty-two domino tiles that are mixed and distributed face down to the players and dealer. Domino tiles, like playing cards, can be marked. FORTE, *supra* note 11, at 387; BILL ZENDER, *PAI GOW WITHOUT TEARS* 62 (1989).

¹⁹ 662 P.2d 634, 635–36 (Nev. 1983).

²⁰ *See id.* at 636.

²¹ *Id.*; *see also* *Jing Bing Liang*, 362 F.3d at 1201 n. 2 (“Certain cards can be marked for future detection . . . by slightly folding them (‘crimping’) . . .”).

²² *Martin*, 662 P.2d at 636.

²³ *Id.* at 638.

²⁴ *Id.*

²⁵ *See id.*

²⁶ *See also* NERSISIAN, *supra* note 10, at 237 n.9 (“The one thing that is determined, nonetheless, is that daubing, bending, crimping or otherwise marking cards constitutes cheating and is a felony.”)

²⁷ 84 Cal.Rptr.2d 810 (Ct. App. 1999). For the backstory to the case, see BILL ZENDER, *HOW TO DETECT CASINO CHEATING AT BLACKJACK 2* (1999); Steve Forte, *Don’t Be a Mark for Marked Cards*, BLACKJACK FORUM (Dec. 1994), <http://www.blackjackforumonline.com/htadmin/markcard.htm>, [<https://perma.cc/AH54-BNHA>].

²⁸ *Kelly*, 84 Cal.Rptr.2d at 813.

²⁹ *See id.*

casino, but a California appellate court held that recovery was barred due to the state's longstanding policy against judicial resolution of gambling losses.³⁰

In *United States v. Vacarro*, a team of cheaters used marked cards to steal over \$500,000 while playing blackjack at a Mississippi casino.³¹ The scheme involved casino employees removing unmarked cards from the target casino, having their coconspirators mark the cards using a special dye, and replacing the cards in the casino's storage area.³² The marked cards were introduced into the game and the coconspirators bet accordingly. The defendants were convicted under the Racketeer Influenced and Corrupt Organizations Act for cheating a casino in violation of a Mississippi law that makes it "unlawful to mark, alter or otherwise modify any associated equipment or gaming device"³³

2. Glimpsing Facedown Cards

While physically altering (*i.e.*, marking) cards in order to aid identification is prohibited, the Supreme Court of Nevada has held that the state's cheating statute does not prohibit players from making decisions based on a dealer's facedown "hole card" if that card was exposed due to the dealer's error. In *Sheriff v. Einbinder*, a careless dealer exposed her otherwise-unknown hole card to a player who signaled this information to his agent who was also playing at the table.³⁴ In a pithy opinion, the court seemed to be satisfied with the defendant's conduct because he "was lawfully seated at his position at the blackjack table" and "did not use any artificial device to aid his vision."³⁵

³⁰ See *id.* at 812.

³¹ 115 F.3d 1211 (5th Cir. 1997).

³² See *id.* at 1215.

³³ *Id.* at 1220 (internal quotation marks omitted) (citing MISS. CODE ANN. § 75-76-309(2) (West 2017)); see also *United States v. Tschirgi*, 65 F.3d 177 (9th Cir. 1995) (unpublished disposition) (describing an identical scheme where a similar group cheated a tribal casino in Washington State out of \$800,000); *1 Plead Guilty in Card-Marking Scheme at Lummi Indian Casino*, SEATTLE TIMES (Feb. 3, 1995), <http://community.seattletimes.nwsourc.com/archive/?date=19950203&slug=2102984>, [https://perma.cc/2TRH-BX5B] (reporting the *Tschirgi* scam).

³⁴ 808 P.2d 22 (Nev. 1984) (unpublished table decision). For the text of the Nevada Supreme Court's order, see Arnold Snyder, *Is Spooking Legal?*, BLACKJACK FORUM (June 1987), <http://www.blackjackforumonline.com/content/spooking.htm>, [https://perma.cc/YU7C-V5SB].

³⁵ *Einbinder*, 808 P.2d at 22; see also Snyder, *supra* note 34.

In *United States v. Jing Bing Liang*, a team of cheaters used a sleight-of-hand technique to peek at the next card to be dealt from the “dealing shoe” in baccarat, a game where the hand closest to nine points wins.³⁶ Because they knew the identity of the next card, the cheaters greatly increased their advantage over the casino.³⁷ The conspirators performed this scam in casinos across the country, and eventually pleaded guilty under federal racketeering charges.³⁸ The method is nothing new, and has long been used to bilk casinos out of millions of dollars.³⁹

3. Sliding Dice

In *Skipper v. State*, the defendant was accused of cheating at the game of craps in a Nevada casino.⁴⁰ Craps involves players tossing dice down a long table and placing wagers on which numbers will appear.⁴¹ The dice are required to randomly tumble down the table.⁴² In *Skipper*, however, the defendant threw the dice in such a manner that a single die slid down the table without tumbling.⁴³ This technique is known as “dice scooting” or “dice sliding,”⁴⁴ and provides the cheater with a massive advantage over the casino.⁴⁵ To further ensure success, the defendant employed an agent—posing as another player—to obscure the dealer’s vision as the die slid down the table.⁴⁶

³⁶ 362 F.3d 1200, 1201 (9th Cir. 2004).

³⁷ *See id.*

³⁸ *See id.*

³⁹ *See* FORTE, *supra* note 11, at 362–63 (describing one such method of peeking the top card and noting that the “scam netted cheaters about three million dollars in one evening back in the middle 1980s in Atlantic City”).

⁴⁰ 879 P.2d 732, 733 (Nev. 1994).

⁴¹ ROBERT C. HANNUM & ANTHONY N. CABOT, *PRACTICAL CASINO MATH* 89 (2d ed. 2005).

⁴² *Skipper*, 879 P.2d at 734.

⁴³ *Id.* at 732.

⁴⁴ FORTE, *supra* note 11, at 274. This scam has stood the test of time. For recent examples, see *State v. Young*, 95 N.E.3d 420 (Ohio Ct. App. 2018); Todd Prince, *Foreign national booked in Las Vegas on charges of cheating at craps*, *LAS VEGAS REV.-J.* (Nov. 29, 2017), <https://www.reviewjournal.com/crime/foreign-national-booked-in-las-vegas-on-charges-of-cheating-at-craps/>, [<https://perma.cc/CTQ7-HJFQ>]; 2 on the run, 1 arrested after casino cheating scheme nets \$56,000, *WGNO* (Aug. 18, 2017), <http://wgno.com/2017/08/18/2-on-the-run-1-arrested-after-casino-cheating-scheme-nets-56000/>, [<https://perma.cc/98A7-2BGH>].

⁴⁵ FORTE, *supra* note 11, at 280–81.

⁴⁶ *Skipper*, 879 P.2d at 732–33.

The Supreme Court of Nevada reached two conclusions: (1) that the defendant's play violated the rules of craps, and (2) that this violation constituted cheating. In reaching its first conclusion, the court reasoned that the conduct violated the rules of craps because dice are required to randomly tumble, and the defendant intentionally used a confederate to "blindfold[] the dealer while placing the dice on the table in a winning combination."⁴⁷ The court reached its second conclusion by explaining that the statutes apply "to those who attempt to supplant elements of chance with surreptitious conduct that alters both the nature of the game and the criteria for winning."⁴⁸ The defendant's conduct satisfied this criteria because he "surreptitiously and contrary to the rules of the game, alter[ed] the probable outcome of a throw and drastically increase[d] the chances of winning certain types of bets on the craps table."⁴⁹

4. Mechanical and Electronic Devices

Not all Nevada cheating cases revolve around the interpretation of "alter." In *Sheriff, Clark County, Nevada v. Anderson*, the defendant built a computer into his shoes to assist him in playing blackjack.⁵⁰ He cut holes in his socks and used his toes to enter the values of cards as they were dealt.⁵¹ Based on the cards that had been dealt, the computer would provide the optimal playing strategy for the remaining cards.⁵² The defendant was charged under a Nevada statute prohibiting the use of a device to assist in game strategy.⁵³ The Supreme Court of Nevada rejected the defendant's argument that the statute's use of "device" was unconstitutionally vague,

⁴⁷ *Id.* at 734.

⁴⁸ *Id.*

⁴⁹ *Id.* But see Cabot & Hannum, *supra* note 14, at 768 (arguing that the slot machines cases, discussed *infra* in Part II.B.2, cannot be reconciled with *Skipper* because the logic would suggest that the rules of slot play allow for manipulation of the reels).

⁵⁰ 746 P.2d 643, 644 (Nev. 1987).

⁵¹ See *id.*

⁵² See *id.* The astute reader will recognize this strategy as card counting, albeit with the aid of a computer instead of one's mind. See *infra* Part II.B.1 (providing more information on card counting).

⁵³ *Anderson*, 746 P.2d at 644 & n.1 (citing then-current NEV. REV. STAT. § 465.075, which has since been modified to expressly ban the assistance of computers). For other device-prohibition statutes, see N.J. ADMIN. CODE §13:69F-8.1 (2012) ("no person shall possess with the intent to use, or actually use, at any table game, either by himself or herself or in concert with others, any calculator, computer, or other electronic, electrical or mechanical device to assist in projecting an outcome at any table game or in keeping track of or analyzing the cards having been

concluding that “a hidden computer is precisely the type of conduct envisioned by the statute” and that the term “device” “certainly includes computers.”⁵⁴

5. Other Sleight-Of-Hand Methods

In *Moore v. State*, a blackjack player in Nevada used a sleight-of-hand technique that allowed him to secretly remove a card from the game and switch it with another card in order to improve his hand.⁵⁵ The technique, known as “mucking,” has long been used by cheaters around the world.⁵⁶ The defendant was convicted under a narrow cheating statute that made it unlawful to change “the outcome of a game . . . after the outcome is made sure but before it is revealed to the players.”⁵⁷

In *State v. Heffner*, a dealer in Washington surreptitiously manipulated the order of the cards, enabling him to deal hands resulting in \$5,000 bonuses to players.⁵⁸ This sleight-of-hand technique is known as “stacking the

dealt, the changing probabilities of any table game, or the playing strategies to be utilized.”); *see also* Coquille Ind. Tr. Code §198.700.

⁵⁴ *Anderson*, 746 P.2d at 644.

⁵⁵ 692 P.2d 1278, 1278 (Nev. 1984).

⁵⁶ *See* FORTE, *supra* note 11, at 366 (describing a baccarat scam where a cheater stole millions from a casino in Asia by mucking cards in and out of play); GEORGE JOSEPH, “HAND MUCKING”: THE ART OF SWITCHING CARDS IN PLAY 14 (1982) (“I was surprised to find evidence of this muck as far away as Bophuthatswana in Southern Africa I was employed by Sun City Casino to demonstrate for their surveillance and casino personnel various methods of casino cheating and the procedures necessary to overcome sleight of hand stealing.”); DUSTIN D. MARKS, CHEATING AT BLACKJACK: INSIDE THE MINDSET AND METHODS OF THE GAME’S MOST SUCCESSFUL CHEATERS 174 (2016) (describing a mucking technique that “has been used by cheaters for years”); Andrew Rosenblum, *Why Baccarat, the Game of Princes and Spies, Has Become a Target for High-Tech Cheaters*, POPULAR SCIENCE (Aug. 11, 2011), <http://www.popsci.com/technology/article/2011-08/baccarat-101-why-high-rolling-game-princes-and-spies-has-become-target-high-tech-cheaters#page-5>, [<https://perma.cc/3J74-TJAS>] (noting how a cheater won \$1 million at Connecticut’s Foxwoods Casino using a mechanical device up his sleeve that allowed him to switch cards in baccarat).

⁵⁷ *Moore*, 692 P.2d at 1278 (quoting NEV. REV. STAT. § 465.070(1) (1981)).

⁵⁸ 110 P.3d 219, 221 (Wash. Ct. App. 2005).

deck.”⁵⁹ The dealer was convicted under a broader fraud statute, despite the existence of Washington’s cheating statute.⁶⁰

In *State v. Bethea*, an inattentive New Jersey craps dealer looked away as a player made a “winning” bet after the game’s outcome was known.⁶¹ The bet was paid and the casino’s surveillance department later discovered the late bet and alerted law enforcement.⁶² Placing winning bets after a game’s outcome is determined is called “past-posting.”⁶³ New Jersey defines cheating as winning money by “purposely or knowingly by any trick or sleight of hand performance or by fraud or fraudulent scheme, cards, dice or device.”⁶⁴ The defendant was convicted under this statute because he “waited for the

⁵⁹ STEVE FORTE, POKER PROTECTION: CHEATING . . . AND THE WORLD OF POKER 76 (2006) (defining “stacking the deck” as “position[ing] the cards during the pickup or riffle shuffle, for the purposes of dealing one or more strong hands to a dealer’s partner(s)”). Playing cards are not the only casino equipment that can be stacked. The game of pai gow is played with domino tiles that are shuffled and dealt facedown to players and the dealer. See discussion *supra* note 18. Domino tiles, like playing cards, can be stacked. FORTE, *supra* note 11, at 389.

⁶⁰ See *Heffner*, 110 P.3d at 222 (noting the existence of WASH. REV. CODE § 9.46.196 (2002)).

⁶¹ No. 13-11-3043, 2016 WL 6440654, at *1 (N.J. Super. Ct. App. Div. Nov. 1, 2016). See also Brian Ianieri, *Serial Cheater at Atlantic City Casino Games Loses Appeal*, THE PRESS OF ATLANTIC CITY (Nov. 1, 2016), http://www.pressofatlanticcity.com/business/serial-cheater-at-atlantic-city-casino-games-loses-appeal/article_e07adc5f-efa3-515f-aea4-245e868146c0.html [https://perma.cc/W4QW-V329].

⁶² See *Bethea*, 2016 WL 6440654, at *1.

⁶³ Betting on a winning number after it has already been determined is probably most prevalent in roulette. See FORTE, *supra* note 11, at 302 (“The most common approach for cheating [at roulette] is ‘past posting’, that is, betting on the winning number after the ball has landed.”); BILL FRIEDMAN, CASINO MANAGEMENT 38 (1974) (“[Past-posting] is the most common method of customer cheating In all games customers may try to switch wagers from losing to winning bets. This is particularly popular in roulette”). And as *Bethea* demonstrates, the technique can be used in craps too. See FORTE, *supra* note 11, at 284 (“Occasionally, past posting techniques similar to those used in roulette surface in craps.”). While the dealer in *Bethea* was inattentive and not part of the scam, past-posting has a greater chance of success when cheaters collude with dealers. See DARWIN ORTIZ, GAMBLING SCAMS 114 (1984) (“The most extensive past-posting conspiracy I know of occurred a few years at the San Remo Casino in Italy. About one-third of the croupiers were involved in a scam to allow agents to past post at roulette. The fraud eventually came to light when the dealers got so greedy that casino profits dropped by over 30 percent. In all, more than forty croupiers received prison terms.”).

⁶⁴ N.J. STAT. ANN. § 5:12-113(a) (West 2002).

craps dealer to become distracted and then placed his bet after the winning number was called.”⁶⁵

B. Legal Methods Used to Gain an Advantage Over Casinos

1. Card Counting

Contrary to what Hollywood would have you believe,⁶⁶ card counting does not constitute cheating.⁶⁷ Card counting is a strategy used to gain an advantage over the casino in the game of blackjack.⁶⁸ Card counters mentally keeping track of the ratio between high-valued and low-valued cards.⁶⁹ Generally speaking, players have an advantage when a sufficient number of high-valued cards remain in the deck.⁷⁰ In *Sheriff of Washe County v. Martin*, the Supreme Court of Nevada reasoned that card counting does not implicate the state’s cheating statute because it does not alter any of the basic features of the game.⁷¹

⁶⁵ *Bethea*, 2016 WL 6440654, at *6.

⁶⁶ *See, e.g.*, 21 (Relativity Media 2008).

⁶⁷ *See, e.g.*, *Chen v. Nev. State Gaming Control Bd.*, 994 P.2d 1151, 1153 (Nev. 2000) (Maupin, J., dissenting) (“[N]either card counting nor the use of a legal subterfuge such as a disguise to gain access to [blackjack] is illegal under Nevada law.”); *Lyons v. State*, 75 P.2d 219, 221–22 (Nev. 1989) (noting that card counting is not unlawful under the state’s cheating statute because players merely “exploit what their skills and the play of the games will afford them”); *Bartolo v. Boardwalk Regency Hotel Casino, Inc.*, 449 A.2d 1339, 1342 (N.J. Super. Ct. Law Div. 1982) (“[C]ard counting does not involve dishonesty or cheating.”); ROBERT A. NERSESIAN, *THE LAW FOR GAMBLERS* 18 & n.4 (2016) (explaining that the courts and legislatures uniformly agree that card counting does not constitute cheating, and collecting decisions from different states explaining such). Nor is card counting technically considered advantage play. FORTE, *supra* note 11, at 11. However, it is appropriate to include it in this section for two reasons. First, it is a legal strategy used to gain an advantage over the casino. Second, because of the controversy and myriad litigation over whether casinos must allow card counters to play.

⁶⁸ *See generally* BILL ZENDER, *CARD COUNTING FOR THE CASINO EXECUTIVE* (1990).

⁶⁹ *See* *Campione v. Adamar of New Jersey, Inc.*, 714 A.2d 299, 301 (N.J. 1998) (“Card counting is a method of playing blackjack that involves keeping track of the number of ‘high value’ cards.”).

⁷⁰ *Id.* (“[Card counting] allows a blackjack player to identify a favorable count, which occurs when an unusually high percentage of the cards remaining in the ‘dealing shoe’ are high value cards. At that time, the chances increase that the dealer will ‘bust,’ or deal cards that exceed 21 points, thereby permitting the card counter to win.”).

⁷¹ 662 P.2d 634, 638 (Nev. 1983).

2. Taking Advantage of Defective Equipment

The astute player can also take advantage of deficiencies in the equipment provided by casinos. As previously discussed, it is well established that players marking cards constitutes cheating.⁷² But what happens when poorly manufactured cards contain a defect that enables players to identify their values when they are facedown?

In 2012, world-famous poker player Phil Ivey won \$9.6 million while playing baccarat at New Jersey's Borgata Casino.⁷³ Casinos' playing cards are supposed to have symmetrical patterns on their backs so they cannot be distinguished when lying face down.⁷⁴ However, unbeknownst to Borgata, their cards were manufactured with tiny imperfections, and the cards could thus be distinguished if rotated 180 degrees.⁷⁵

Because Ivey wagered up to \$100,000 per hand, Borgata accommodated his unusual requests such as having his friend seated next to him and having the dealer rotate cards—under the guise of being superstitious.⁷⁶ In reality, Ivey's friend was trained to read the minute imperfections on the backs of the cards,⁷⁷ and he instructed the dealer to rotate the cards based on whether the cards' values were mathematically advantageous.⁷⁸ After all the cards were properly sorted, Ivey was effectively playing the game with the cards face-up. Ivey knew exactly when the favorable cards would fall and he bet accordingly. Borgata executives did not uncover the method until they heard a media report that London's Crockfords Casino withheld £7.3 million from Ivey.⁷⁹ At that point, Borgata determined that Ivey was using a scheme known as "edge sorting."⁸⁰

⁷² See *supra* Part I.A.1.

⁷³ *Marina Dist. Dev. Co. v. Ivey*, 216 F. Supp. 3d 426, 430 (D.N.J. 2016).

⁷⁴ See, e.g., JACOBSON, *supra* note 4, at 25 (discussing the vulnerability of games when the pattern on backs of playing cards is asymmetrical).

⁷⁵ See *id.*

⁷⁶ See *id.*

⁷⁷ See *id.* at 439 ("[Ivey's friend]'s mental acumen in distinguishing the minute differences in the patterns on the back of the playing cards is remarkable.").

⁷⁸ See *id.* at 430.

⁷⁹ See *id.* See also *Ivey v. Genting Casinos UK Ltd.* [2014] EWHC 3394 (QB).

⁸⁰ *Marina*, 216 F. Supp. 3d at 430. While edge sorting only recently gained prominence, it has been used in casinos long before *Marina*. See, e.g., JACOBSON, *supra* note 4, at 25 ("[Advantage players] have been using it to beat the house for 50 years or more."); FORTE, *supra* note 11, at 171 (referring to edge sorting by its original name, "playing the turn," and noting that it is "a very old advantage strategy once popular with many oldtimers"); STANFORD WONG, *BLACKJACK SECRETS* 137 (1993) ("I know a pro who has used [edge sorting] in a casino with good results.").

In a civil action brought by Borgata to recover Ivey's "winnings," a federal district court held that the edge-sorting scheme violated the marked-card provisions of the state's Casino Control Act.⁸¹ The court concluded that asking a dealer "to turn a card a particular way so that the pattern on the edge of the card will distinguish it from other cards" was no different from marking cards with physical substances or crimps.⁸² After New Jersey's gaming regulatory agency concluded its own investigation, the state refused to file criminal charges (and it never issued a decision as to the legality of the edge sorting scheme).⁸³

The *Marina District Development Company v. Ivey* court distinguished the impropriety of edge sorting from the propriety of card counting by reasoning that card counting uses memory and statistics, while edge sorting uses manipulation of cards.⁸⁴ This focus on "manipulation" makes it hard to reconcile with the following case, where the Supreme Court of Nevada held that a player's manipulation of a slot machine's handle was acceptable.

In *Lyons v. State*, the defendant was charged with cheating while playing slot machines in Nevada because he pulled the handle in a manner that caused the reels of the machine to stop spinning prematurely.⁸⁵ This technique is known as "handle-popping."⁸⁶ The court explained that the state's cheating statute was intended to prevent "knowing, purposeful, unlawful conduct designed to alter the criteria that determines the outcome" of a game.⁸⁷ The court acknowledged that while handle-popping indeed alters the usual criteria of the game, it does not constitute cheating because the statute is unconstitutionally vague as applied to handle-popping.⁸⁸ The court provided two justifications. First, the technique "neither damages nor mechanically alters a slot machine."⁸⁹ Instead, the player is taking advan-

⁸¹ *Marina*, 216 F. Supp. 3d at 433 (citing N.J. STAT. ANN. §§ 5:12-115(a)(2), (b) (2011)).

⁸² *Id.* at 434.

⁸³ *See id.* at 432-33 & n.5.

⁸⁴ *See id.* at 439 n.25.

⁸⁵ 775 P.2d 219, 222 n.3 (Nev. 1989).

⁸⁶ *Id.* at 220. *See also* FORTE, *supra* note 11, at 608 (defining handle-popping as "an old technique for manipulating the reels on mechanical slot machines"); Cabot & Hannum, *supra* note 14, at 768 (noting that handle-popping is now moot because of technological advancements).

⁸⁷ *Lyons*, 775 P.2d at 221.

⁸⁸ *See id.* at 222. *But see* Cabot & Hannum, *supra* note 14, at 767 (arguing that handle-popping constitutes cheating under contract theory because the player "is fraudulently attempting to alter the basic premise of the contract, i.e., to remove the random element upon which the very outcome of the contract is based").

⁸⁹ *Lyons*, 775 P.2d at 222.

tage of the slot machine's mechanical deficiencies.⁹⁰ Second, there were no rules directing players to pull a slot machine handle in a specific manner.⁹¹ The court emphasized that well-intentioned players can stumble upon various methods of handle manipulations in an attempt to change their luck.⁹²

Within one month of *Lyons*, the Nevada legislature took aim at handle-popping by amending a different cheating statute to expressly proscribe “varying the pull of the handle of a slot machine, with knowledge that the manipulation affects the outcome of the game”⁹³ Two years later, in *Childs v. State*, the defendant was charged with handle-popping under the new Nevada statute.⁹⁴

The *Childs* court reasoned that the amendment did not affect its decision in *Lyons* because a different statute already defined “cheat,” and handle-popping still did not fit that definition.⁹⁵ Put another way, even though the legislature expressly banned handle-popping, the underlying definition of “cheat” remained the same: “alter[ing] the selection of criteria which determine: (a) The result of a game; or (b) The amount or frequency of payment in a game.”⁹⁶ Moreover, because the amendment failed to describe what a “normal” pull of a slot machine handle looked like, players could not know what “varying the pull” of a handle looked like.⁹⁷

III. CASINO GAME PROTECTION COUNTERMEASURES AND POWER IMBALANCES

Casinos have implemented a wide variety of countermeasures to combat cheating, advantage play, and card counting. Indeed, many current countermeasures are the result of losses incurred through past use of these strategies.⁹⁸ On the other hand, some countermeasures are born out of an unjustified fear and do not solve any issues that threaten casinos.⁹⁹ Noted

⁹⁰ See *id.*

⁹¹ See *id.*

⁹² See *id.* at 223.

⁹³ *Childs v. State*, 816 P.2d 1079, 1080–81 (Nev. 1991) (citing NEV. REV. STAT. § 465.070(7) (2017)).

⁹⁴ *Id.* at 1079.

⁹⁵ *Id.* at 1081 (citing NEV. REV. STAT. § 465.015 (2017)).

⁹⁶ NEV. REV. STAT. § 465.015 (2017).

⁹⁷ *Childs*, 816 P.2d at 1081.

⁹⁸ See LEWIS, JR., *supra* note 18, at 9.

⁹⁹ See, e.g., FORTE, *supra* note 11, at 523–26 (discussing a variety of procedures that are counterproductive from the casino's perspective); ZENDER, *supra* note 27, at 134 (“With the advent of Lawrence Revere's book, *Blackjack as a Business*, and the well publicized blackjack teams formed by Ken Uston . . . , the casinos hit an all

gaming attorney Robert Nersesian suggests “casinos appear to cheat, and even cheat with the imprimatur of the State on occasion.”¹⁰⁰ This is not hyperbole.

Professors Cabot and Hannum posit that all casino regulatory systems share the common normative objectives of keeping games both fair and honest.¹⁰¹ They define “honesty” as whether a casino offers a truly random game, and “fairness” as the percentage of every dollar wagered that a casino should be allowed to keep.¹⁰² The following countermeasures arguably violate both objectives: they make games less honest because they reduce the random selections; and make games less fair because the casino keeps a higher percentage of every dollar wagered than it would otherwise keep under truly random conditions.

The imbalance of power between casinos and players is quite stark. Normatively speaking, we would expect any business catering to the general public to have superior bargaining power. But the imbalance between casinos and players is unique because of three factors: the lack public information about the market, the imbalance in ability to review questionable practices, and regulatory agencies that protect casinos’ practices.

First, there is a widespread lack in consumer knowledge about market pricing. Casinos generally do not advertise their rules and payout structures outside of their four walls. Therefore players cannot price shop casino games as easily as they can with cell phones or vegetables. And even when players do enter a casino, it is nearly impossible to determine the odds of winning and the frequency of payouts of popular games such as slot machines.¹⁰³

Second, casinos have access to an extensive surveillance system, and can review any oddities or improprieties that might arise.¹⁰⁴ Conversely, players have no such surveillance access (or expertise) if they feel aggrieved. Most of the time, casinos will review irregularities while the suspect parties are still on property. Because of this, casinos can react quickly and minimize their losses. Conversely, by the time retailers in other industries have time to review footage or use loss-prevention technology, it is too late: the thief is usually long gone. Moreover, most brick-and-mortar retailers do not have surveillance operators watching cameras in real time. To be sure, this power

time high on the paranoid-o-meter, and instituted many of the anti-counter methods used today.”).

¹⁰⁰ NERSESIAN, *supra* note 10, at 93.

¹⁰¹ HANNUM & CABOT, *supra* note 41, at 237.

¹⁰² *Id.*

¹⁰³ *See id.* at 238.

¹⁰⁴ *See infra* Part III.B.

imbalance between casinos and players is created by the state: casinos are generally required to install surveillance cameras.¹⁰⁵

Third, casinos in every jurisdiction are subject to the rules of their gaming regulatory body. But these agencies often give cover to casinos by allowing them to use methods that would normally be associated with those who cheat casinos. For example, while players are prohibited from marking cards, casinos are indeed allowed to use them.¹⁰⁶ In doing so, these gaming agencies aid casinos in making games less fair and less honest—which stands in direct contradiction to what Professors Cabot and Hannum posit are the main objectives of gaming regulators.

A. Preferential Shuffling

Preferential shuffling is a countermeasure used in blackjack where a casino will shuffle the deck whenever it wants.¹⁰⁷ Arguably the most contested of all casino countermeasures, many prominent gaming experts stand firm in their belief that it constitutes cheating.¹⁰⁸

In order to gain a worthwhile advantage using card counting, the cards need to be dealt to a sufficient depth in the shoe. Put another way, card counters will have a better gauge of their advantage as more cards are dealt. Because the odds in blackjack are dynamic, a “player’s expectation of winning will change as certain cards are played in the shoe.”¹⁰⁹ In order to combat card counting, casinos might preferentially shuffle whenever the composition of the undealt cards favors players. The effect of this preferential shuffle is threefold. First, card counters will not stay long if this coun-

¹⁰⁵ See, e.g., NEV. GAMING REG. 5.160(6) (2018) (“[E]ach licensee shall install, maintain and operate a casino surveillance system in accordance with the casino surveillance standards adopted by the chairman.”).

¹⁰⁶ See *infra* Part III.C. Another example, as noted in the previous paragraph, is that most jurisdictions mandate casinos install surveillance systems to monitor their games.

¹⁰⁷ See FORTE, *supra* note 11, at 560 (“[P]referential shuffling] occurs when a dealer shuffles early if the remaining cards favor the player, but deals down to the bottom of the deck if the remaining cards favor the house.”).

¹⁰⁸ See *id.* at 560–61 (collecting opinions from experts that believe preferential shuffling constitutes cheating); see also PETER A. GRIFFIN, THE THEORY OF BLACKJACK: THE COMPLETE CARD COUNTER’S GUIDE TO THE CASINO GAME OF 21 136 (6th ed. 1999) (“[S]ome people have suggested that the Gaming Commission should regard [preferential shuffling] as illegal.”); ZENDER, *supra* note 27, at 135 (“[Arnold] Snyder, [Edward] Thorp, Don Schlesinger and others have gone on record as stating that they believe preferential shuffling to be out and out cheating.”).

¹⁰⁹ Cabot & Hannum, *supra* note 14, at 752.

termeasure is used against them.¹¹⁰ After all, the idea of counting cards is to make big bets when the composition favors players. Here, the casino shuffles whenever that opportunity arises. This makes preferential shuffling quite effective at keeping card counters at bay *if* it is used against actual card counters (as opposed to players who are incorrectly determined to be card counters).¹¹¹ Second, it extinguishes any possible advantage card counters have because preferential shuffling has the effect of removing high-valued cards from the deck altogether—the very cards needed for players to have any chance at winning.¹¹² Indeed, the tactic adds about one-and-a-half percent to the house advantage.¹¹³ Third, it extinguishes any possible advantage that casual, unsophisticated players have. These last two effects probably push preferential shuffling into cheating territory.

Recall that cheating is generally defined as altering the elements of chance that determine the result of a game or the frequency of payment in a game.¹¹⁴ Here, preferential shuffling alters both the results of blackjack and the frequency of payments in the game.¹¹⁵ Indeed, whenever the composition of the remaining cards favors players, casinos can shuffle and destroy the expected favorable opportunities. Moreover, preferential shuffling increases the unfavorable opportunities for players.¹¹⁶ It is unlawful for casinos to remove cards from the deck, but preferential shuffling has the effect of doing so since it keeps favorable cards out of play.¹¹⁷ Indeed, mathematical simu-

¹¹⁰ See SNYDER, *supra* note 5, at 291 (“Preferential shuffling is primarily a method casinos use to get a higher advantage against non-counters who aren’t aware of it. Casinos like it because it chases the counters away from their tables in the first place, then gives the house a stronger advantage against the non-counters.”).

¹¹¹ In addition, it alienates non-card counters who get irritated when the casino shuffles in the middle of a “hot” shoe.

¹¹² See GRIFFIN, *supra* note 108, at 135–36.

¹¹³ SNYDER, *supra* note 5, at 291.

¹¹⁴ See, e.g., NEV. REV. STAT. § 465.015 (2017).

¹¹⁵ See also FORTE, *supra* note 11, at 560 (noting that blackjack expert Bryce Carlson thinks that preferential shuffling is “outright cheating . . . it alters the selection of criteria both with respect to the result and frequency of payment”) (citing BLACKJACK FORUM (June 1995)).

¹¹⁶ See *id.* at 561 (“[T]he preferential shuffle rids the game of favorable opportunities and increases unfavorable opportunities for all players.”) (emphasis in original).

¹¹⁷ SNYDER, *supra* note 5, at 291 (“It would be illegal for a casino to remove cards from a deck, but it is not illegal for them to employ a dealing style that will accomplish the same end.”). *But see* GRIFFIN, *supra* note 108, at 136 (“Since mathematically [preferential shuffling] is equivalent to shorting the deck . . . , and the latter practice is specifically prohibited by law, some people have suggested that the Gaming Commission should regard the practice as illegal. In all honesty, though, I

lations have repeatedly proven that preferential shuffling dramatically increases the house advantage against casual players and card counters alike.¹¹⁸ The injustice is magnified when one realizes that novice players will never know that casinos are forcing them to play at only the most disadvantageous times. And while players generally expect to lose in the long run, they also expect a fair shot at winning in the short run. Preferential shuffling all but eliminates this.

One former Nevada Gaming Control agent has suggested that preferential shuffling would be legal if casinos posted the rule change just like they would post any other rule change in blackjack.¹¹⁹ For example, casinos regularly advertise their blackjack rules, such as “Blackjack Pays 6-to-5” and “Dealer Hits Soft 17.”¹²⁰ This former agent suggests that casinos might one day have to post signs alerting players that “This Casino May Preferentially Shuffle At Any Time.”¹²¹ On the other hand, Professors Cabot and Hannum have argued that although casinos should “generally be permitted to set the terms and conditions of the gaming contracts that they are willing to accept, the overriding principles of gaming regulation are that the games offered are fair and honest.”¹²² And because of this basic rule of fairness, casinos should not be permitted to preferentially shuffle—even if it were an express contractual term.¹²³ To be sure, the Nevada Gaming Control Board still does not have a written policy on preferential shuffling.¹²⁴ However, a former chairman of the Nevada Gaming Control Board has stated that preferential shuffling is probably unlawful.¹²⁵

think we must recognize that player card-counting is just the obverse of preferential shuffling—what’s sauce for the goose is also for the gander.”).

¹¹⁸ See, e.g., GRIFFIN, *supra* note 107, at 136 (“[Preferential shuffling] would give the basic strategist a 1.5% disadvantage. By using a better correlated betting count to decide when to reshuffle, the house edge could probably be raised to 2%.”); ZENDER, *supra* note 26, at 135–40 (demonstrating that preferential shuffling hurts players, but concluding that “preferential shuffling works against the casino if it becomes procedure. A casino that shuffled in all positive deck situations, regardless of the number of decks, would be virtually shooting itself in the foot. The loss in total hands dealt would cost the casino more money than the additional 0.1 percent to 0.3 percent gained by shuffling on all positive counts”).

¹¹⁹ See ZENDER, *supra* note 27, at 140.

¹²⁰ See *id.*

¹²¹ See *id.*

¹²² Cabot & Hannum, *supra* note 14, at 752.

¹²³ See *id.*

¹²⁴ See David W. Schnell-Davis, *High-Tech Casino Advantage Play: Legislative Approaches to the Threat of Predictive Devices*, 3 UNLV GAMING L.J. 299, 332 (2012).

¹²⁵ See *id.*

All casino gambling “is essentially an adhesion contract between the casino and its patrons.”¹²⁶ And the preferential shuffle exposes the overwhelmingly superior bargaining power of the sophisticated casino versus the unsophisticated amateur gambler. Casinos often determine when to preferentially shuffle through software programs. Professors Cabot and Hannum emphasize the unfairness of casinos’ use of superior technology in determining when to preferentially shuffle.¹²⁷ And while casinos’ monopoly on using software is problematic,¹²⁸ the more troubling aspect with preferential shuffling is the possibility of duping the unsuspecting casual player.

B. Surveillance Cameras

Arguably the most visible countermeasure is the vast swath of surveillance cameras monitoring every inch of the casino floor.¹²⁹ For the bigger resorts, the number of cameras can run into the thousands.¹³⁰ And while it is readily apparent that casino ceilings are peppered with these black domes,¹³¹ not much is known about the inner-workings of the surveillance department.¹³² It may seem that with so many cameras, no one could get

¹²⁶ Cabot & Hannum, *supra* note 14, at 722.

¹²⁷ *See id.*

¹²⁸ *See infra* Part III.B.

¹²⁹ But not even constant monitoring really captures every aspect of a game. *See* FORTE, *supra* note 11, at 514 (“[T]he camera lens doesn’t always provide a complete picture. Perception of depth can present problems in the most fundamental areas, such as reading bet size, which is obviously a crucial factor.”).

¹³⁰ *See* Rachel Crosby, *Aria Security is the Old-Fashioned Way—Watching People*, LAS VEGAS REVIEW JOURNAL (Aug. 23, 2014), <https://www.reviewjournal.com/business/casinos-gaming/aria-security-is-the-old-fashioned-way-watching-people/>, [<https://perma.cc/J7HY-DX83>] (“Nearly 4,000 cameras cover activity in 98 percent of the luxury resort. Everything that happens is monitored. Every incident is recorded; every red flag investigated.”). But more surveillance cameras do not necessarily equate to more operators actually monitoring the gaming floor. *See, e.g.*, SNYDER, *supra* note 5, at 300 (“The surveillance department is always understaffed. In most of the big casinos, there will be anywhere from one to three surveillance monitors watching the video screens.”).

¹³¹ Casino surveillance cameras are usually encased in black domes, which make it “nearly impossible for people to tell which direction they are monitoring.” Elivia, *Casino Security Cameras—Things You Are Interested In*, REOLINK (last updated Oct. 11, 2018), <https://reolink.com/casino-security-cameras/> [<https://perma.cc/G9KZ-72HD>].

¹³² *See* FORTE, *supra* note 11, at 514 (“Over the last few years, a number of television shows have featured rare, behind the scenes glimpses into the surveillance world. For most pit personnel, this is the only time they have ever been exposed to the inner workings of this department.”).

away with any form of deception. But the truth is that the surveillance department—like most law enforcement agencies—rarely catches cheaters red-handed. Instead, most cheaters and advantage players are usually detected by appearing on the radar through prior incidents.¹³³ Indeed, the department is more reactive than proactive.¹³⁴ In addition, the ubiquitous presence of cameras has a powerful deterrent effect.¹³⁵ And most importantly (for our purposes), gaming regulators often mandate that casinos install a surveillance system.¹³⁶ In Nevada, casinos must monitor every table game—regardless of how small the stakes are or whether there are any players gambling.¹³⁷

Casinos' use of surveillance cameras can be quite concerning. To illustrate, first consider a cheating technique used by players who work with confederates: Blackjack requires dealers to load their hole cards on the table without anyone glimpsing their identities. But some dealers become sloppy and are susceptible to a technique that enables their hole cards to be viewed from far off the gaming table. This technique is called the “express play.”¹³⁸ It involves a confederate who is positioned off the target blackjack

¹³³ See *id.* at 515; see also *id.* at 532–33 (“Historically, when we look back at the most successful scams and strategies, industry awareness came after the fact—we first had to be a victim. No gamer ever recognized the possibility of peeking up into a shuffle machine with a hidden camera until it was too late.”).

¹³⁴ See *id.* at 515 (“[W]hen faced with suspect play, in many clubs the final say is left to the surveillance director who will review the footage at a later time. What if he suspects a card bending play, but the cards are long gone? What if the play warranted different viewing angles, but it’s too late? . . . This is an important process, but after the fact analysis is often too little, too late.”).

¹³⁵ MARKS, *supra* note 56, at 30. See also NEV. GAMING REG. 5.160(2) (2018) (“The purposes of a casino surveillance system are to assist the licensee and the state in safeguarding the licensee’s assets, in deterring, detecting and prosecuting criminal acts, and in maintaining public confidence and trust that licensed gaming is conducted honestly and free of criminal elements and activity.”); FORTE, *supra* note 11, at 517 (“Outside of the obvious advantages of reviewing suspect play, the biggest benefit of surveillance is the deterrent factor. This alone will keep the majority of the players and employees honest, and keep many cheaters guessing.”).

¹³⁶ *E.g.*, NEV. GAMING REG. 5.160(6) (2018) (“[E]ach licensee shall install, maintain and operate a casino surveillance system in accordance with the casino surveillance standards adopted by the chairman.”).

¹³⁷ NEV. GAMING REG. 5, ATTACHMENT 1 (2018) (“The surveillance system of all licensees operating three (3) or more table games must possess the capability to monitor and record: (a) Each table game area, with sufficient clarity to identify patrons and dealers; and (b) Each table game surface, with sufficient coverage and clarity to simultaneously view the table bank and determine the configuration of wagers, card values and game outcome.”).

¹³⁸ FORTE, *supra* note 11, at 166.

game, such as at a nearby slot machine, bar, or even a restaurant.¹³⁹ By increasing the distance from the target blackjack game, it creates a greater angle from which to view the dealer's hole card.¹⁴⁰ The confederate then signals his agent who is playing at the target game.¹⁴¹ To be sure, it is unlawful for a player to make a bet using information that is not available to all players.¹⁴² And because the player would be making a bet using information not available to all players—namely, the identity of the dealer's hole card gleaned by the confederate positioned away from the game—the express play is cheating, not merely an advantage tactic.¹⁴³

Now consider a similar strategy employed by casinos. Here, a floor supervisor becomes suspicious of a blackjack player and calls the surveillance department to “evaluate” the player.¹⁴⁴ The floor supervisor might suspect that the player is card counting, or, as is often the case, the supervisor just wants to be thorough to avoid future liability.¹⁴⁵ A surveillance operator

¹³⁹ See *id.* at 167.

¹⁴⁰ See *id.*

¹⁴¹ See *id.*

¹⁴² NEV. REV. STAT. § 465.070(2)(2017) (“It is unlawful for any person: To place, increase or decrease a bet or to determine the course of play after acquiring knowledge, *not available to all players*, of the outcome of the game or any event that affects the outcome of the game or which is the subject of the bet or to aid anyone in acquiring such knowledge for the purpose of placing, increasing or decreasing a bet or determining the course of play contingent upon that event or outcome.” (emphasis added)); see also *Sheriff v. Einbinder*, 808 P.2d 22 (Nev. 1984) (unpublished table decision). For the text of the Nevada Supreme Court’s order, see Arnold Snyder, *Is Spooking Legal?*, Blackjack Forum (June 1987), <http://www.blackjackforumonline.com/content/spooking.htm>, [<https://perma.cc/YU7C-V5SB>] (emphasizing that a player and his confederate did not cheat when glimpsing the dealer’s hole card because both players were seated at the same table).

¹⁴³ The film *CASINO*, (Universal Pictures 1995), provides a good depiction of a similar technique called “spooking.” See Universal Pictures, *Casino (1995) – Cheater’s Justice HD*, YOUTUBE (Jan. 29, 2017), <https://www.youtube.com/watch?v=KGp3PrC1CKI>, [<https://perma.cc/A3G4-R6LQ>]. There, the confederate spots the dealer’s hole card while positioned behind the dealer. See *id.* The confederate then sends electronic signals to his agent at the target blackjack table. See *id.* Unfortunately for the confederate, he winds up with a broken hand courtesy of the casino’s security staff. See *id.* For more on spooking, see SNYDER, *supra* note 5, at 311.

¹⁴⁴ See SNYDER, *supra* note 5, at 300 (“[The surveillance department] basically wait[s] for phone calls from the pit, requesting that they pay attention to some specific player who may be a card counter, or just a big bettor who is unknown to the pit personnel.”).

¹⁴⁵ See *id.*

then determines whether the player is counting through a card counting software program.¹⁴⁶

If the surveillance operator determines that a player is counting cards, the floor supervisor will be notified. At this point, the casino might bar the person from playing blackjack.¹⁴⁷ Alternatively, there are many other countermeasures casinos can implement.¹⁴⁸ For example, one option is to “flat-bet” the player, which restricts him from varying his bets as the composition of the cards tips in his favor.¹⁴⁹ This erases any potential advantage gained from betting small when the deck’s composition favors the casino or betting large when the composition favors the player. Another option is preferential shuffling, which as previously discussed, occurs when the casino shuffles the cards whenever it wants.¹⁵⁰ The ability of a casino to shuffle the cards when the composition favors the player—which eliminates the player’s

¹⁴⁶ FORTE, *supra* note 11, at 518.

¹⁴⁷ However, not all jurisdictions permit casinos to bar players solely because they are engaging in card counting. *See, e.g.*, LA. STAT. ANN. 27:27.2(A)(3)(b) (2018) (prohibiting Louisiana casinos from banning players “for reasons based solely on the skill level of the person”); *Uston v. Resorts Int’l Hotel, Inc.*, 445 A.2d 370, 376 (N.J. 1982) (holding that New Jersey casinos cannot ban blackjack players merely because they are counting cards). In these jurisdictions, other countermeasures are used to deter card counters, as will be discussed *infra*.

¹⁴⁸ *See Cabot & Hannum, supra* note 14, at 709 (“Some casinos do not take any measures to deal with most advantage players, such as card counters, reasoning that the harm caused does not justify the cost or consequences of taking affirmative action against the advantage players. Other casinos, however, undertake affirmative steps against advantage players where legally available, including criminal arrest, civil exclusion or changing the rules of play.”).

¹⁴⁹ *See id.* (“Other casinos, however, undertake affirmative steps against advantage players where legally available, including criminal arrest, civil exclusion or changing the rules of play.”). *See also* *Doug Grant, Inc. v. Greate Bay Casino Corp.*, 232 F.3d 173, 182–83 (3d Cir. 2000) (noting a New Jersey gaming regulation that grants “the casinos the authority to lower the betting limit whenever it identifies a card-counter so that the card-counter will not be able to bet high when the shoe becomes player-favorable,” as well as a subsequent amendment giving casinos even more discretion in accepting bets of any size); *SNYDER, supra* note 5, at 88 (describing the legal kerfuffle between card counters, Atlantic City casinos, and the New Jersey Casino Control Commission).

¹⁵⁰ *See supra* Part III.A; *see also* *Campione v. Adamar of New Jersey*, 714 A.2d 299, 306 (N.J. 1998) (noting that a New Jersey regulation permits casinos to “shuffl[e]-at-will, which allows casinos to shuffle after any round of play”). However, this technique is almost always referred to as “preferential shuffling” in casino parlance. *See, e.g.*, GRIFFIN, *supra* note 108, at 135.

opportunity to bet big at an advantageous time¹⁵¹—is one of the strongest countermeasures in the casino’s arsenal.

Regardless of which countermeasure is implemented, the casino has just benefitted from one of the fundamental requirements imposed on gamblers around the world: the prohibition of devices that aid playing strategy. The first device is the surveillance camera used to monitor the player. And as previously noted, casinos are generally required to install surveillance systems.¹⁵² The second device is the software program used to detect card counting. Recall *Sberiff, Clark County, Nevada v. Anderson*, where the Nevada Supreme Court held that it is unlawful for players to use a card-counting computer because it constitutes a “device” under the State’s anti-device law.¹⁵³ However, casinos are free to use such a device to the players’ disadvantage.¹⁵⁴ Likewise, casinos are also free to use surveillance cameras to the players’ disadvantage.¹⁵⁵ It becomes much easier to see why Robert Nerseanian believes that casinos “cheat with the imprimatur of the State.”¹⁵⁶ To be sure, a casino’s use of surveillance equipment and card counting software is not per se cheating. Instead, making use of such technology to the player’s detriment—manifested in the form of preferential shuffling or related countermeasure—is what makes the technology problematic.

Let us dig a bit deeper into this scenario. Recall that at the beginning of this section I explained that players are generally prohibited from making bets based on information that is not available to all players.¹⁵⁷ Moreover, confederates are prohibited from gathering this information in the first place—even if the confederate’s agent never makes a bet.¹⁵⁸ However, in our scenario, the casino can easily gather information that is not available to all players. Consider how blackjack is often dealt in a manner where the cards are pitched facedown and players are allowed to physically handle the cards (as opposed to the more common “shoe game,” where cards are dealt face-up and players may not touch them).¹⁵⁹ In these “pitch games,” casinos

¹⁵¹ See Cabot & Hannum, *supra* note 14, at 710 (“[A]ny advantage created through card counting, of course, is negated when the deck is shuffled.”).

¹⁵² See *supra* note 105.

¹⁵³ 746 P.2d 643, 644 (Nev. 1987); see *supra* Part II.A.4.

¹⁵⁴ See SNYDER, *supra* note 5, at 300 (noting that surveillance operators may review footage of suspected card counters and input their playing decisions into card-counting software).

¹⁵⁵ See *id.*

¹⁵⁶ NERSESIAN, *supra* note 10, at 93.

¹⁵⁷ See *supra* note 142 and accompanying text.

¹⁵⁸ Nevada only requires that the “purpose” of gathering such information is to make a bet. NEV. REV. STAT. § 465.070(2) (2017).

¹⁵⁹ See FORTE, *supra* note 11, at 612 (defining “pitch”).

might use procedures whereby some cards are never exposed to other players.¹⁶⁰ This is significant because the more cards that remain hidden, the harder it becomes for card counters to determine their advantage. But when casinos monitor games through surveillance cameras, they *can* identify these hidden cards. And when casinos identify these hidden cards, they can determine the advantage more accurately than the card counter can. This directly violates yet another fundamental law imposed on gamblers: the prohibition on the gathering and use of information that is not available to all players.

What makes the casinos' use of this information particularly egregious is the power dynamics between players and casinos. The power imbalance between the casual, unsophisticated player and the experienced, sophisticated casino should cause us to rethink what countermeasures are acceptable. The common-law doctrine of unconscionability has long held that extreme one-sided contracts in favor of the party with the superior bargaining power might be invalid.¹⁶¹ Likewise, Professors Cabot and Hannum suggest that since the overriding principle of gaming regulation is that the games are fair and honest, a casino's use of superior technology can "raise fundamental issues regarding the honesty and fairness of the games themselves sufficient to justify regulatory intervention."¹⁶² Here, a casino's use of surveillance cameras and card counting software might justify regulatory intervention because it violates a basic tenet imposed on all players: no use of information that is not available to all players.

C. Shuffle Machines and Dealing Shoes

Another ubiquitous countermeasure is the shuffle machine. First introduced in Las Vegas casinos in 1992, the inspiration for these machines came in response to the threat of card counting.¹⁶³ Shuffle machines mimic the actions of traditional shuffling by human dealers. However, these machines generally do not shuffle cards faster than humans. Nor are the machines necessarily more thorough. Instead, the machine acts as an extra pair of hands: While the dealer is attending to the game in progress, the machine

¹⁶⁰ See ZENDER, *supra* note 68, at 105 (explaining three situations when a casino can avoid exposing cards in order "to confuse the counter by not allowing him to see all the cards played").

¹⁶¹ See, e.g., *Williams v. Walker-Thomas Furniture Co.*, 350 F.2d 445 (D.C. Cir. 1965).

¹⁶² Cabot & Hannum, *supra* note 14, at 752.

¹⁶³ *Shuffle Master Inc. History*, FundingUniverse.com (Oct. 28, 2017), <http://www.fundinguniverse.com/company-histories/shuffle-master-inc-history/>, [<https://perma.cc/UM88-S2H3>].

shuffles a different deck of cards. And when the cards that are in play have been depleted, the dealer exchanges those cards for the freshly shuffled deck. Without a shuffle machine, there would be downtime as the dealer manually shuffles the deck. This downtime can be quite costly.¹⁶⁴

The potential problem with shuffle machines arises because some machines can actually identify the values of the cards. For example, the popular MD3 shuffle machine is capable of shuffling up to eight decks at a time and “can read and verify every card being shuffled.”¹⁶⁵ This has two immediate implications. First, the casino will know the precise order of every card in the deck *before* they are dealt. This recreates a classic form of cheating that has long been considered unlawful if implemented by players: the “cold deck.”¹⁶⁶ This scam involves the player switching an entire deck (or decks) for a deck that has been set in a prearranged order.¹⁶⁷ Likewise, a shuffle machine that knows the order of every card effectively creates a cold deck on the casino’s behalf.¹⁶⁸ The power imbalance could not be starker: It would clearly be unlawful for a player to “read and verify” every card as the deck was being shuffled. But casinos are allowed to do this with impunity, and most players have no idea that this is going on. If a casino knows the order of the deck, it can easily deduce the point at which the composition of the cards favors the players in blackjack. The casino can then engage in preferential shuffling by shuffling earlier than expected and erasing any possible player advantage.¹⁶⁹ Indeed, it was this very situation that led to a legal challenge of a casino’s use of the MindPlay electronic system. The complaint alleged that the system “informed the casino that the deck or shoe had become favorable to the plaintiff and unfavorable for the [casino]”

¹⁶⁴ See BILL ZENDER, CASINO-LOGY: THE ART OF MANAGING CASINO GAMES 10–12 (2008) (demonstrating that in blackjack, the difference between a two-minute manual shuffle and a 1.25-minute manual shuffle can result in a difference in annual revenue of hundreds of thousands of dollars for the casino).

¹⁶⁵ MD3, SCIENTIFIC GAMES, <https://www.sggaming.com/Shuffle-Master/Utilities/Shufflers/Baccarat-Products/MD3>, [<https://perma.cc/CTR6-M576>].

¹⁶⁶ See FORTE, *supra* note 11, at 74 (describing the cold deck as “[t]he most infamous of all gambling scams”); see also ZENDER, *supra* note 27, at 74–75 (describing how casinos can cheat players by dealing from a deck that has already been sorted into a prearranged order).

¹⁶⁷ See FORTE, *supra* note 11, at 74.

¹⁶⁸ The order of the cards will not be materially disturbed when the player cuts the deck. Indeed, the chain of cards remains the same—only the starting point changes.

¹⁶⁹ See *supra* Part III.A (providing more information about preferential shuffling).

and then shuffled the deck whenever it was in the plaintiff's favor.¹⁷⁰ The case was eventually dismissed because the court did not believe MindPlay worked as described in the complaint.¹⁷¹ But preferential shuffling is always a possibility if a casino's shuffle machine can discern the order of the deck.

The second implication of a device that can "read and verify" the identities of the cards is that the cards themselves must be marked. For example, the Angel Eye system openly advertises that its dealing shoe reads the markings off a proprietary style of playing card.¹⁷² This mimics the traditional marked card scam that is unlawful in every jurisdiction. But yet again, casinos do not receive any scrutiny for this practice. Like the shuffle machine that can identify the order of the deck, a dealing shoe that can read marked cards can determine when players have an advantage and notify the casino to shuffle accordingly.

IV. CASINO COUNTERMEASURES AND DECREASED TAX REVENUE

Many countermeasures are the product of a bygone era—one where paranoia was rampant and often unjustified. Despite the absence of a rationale, many countermeasures survive today. As previously demonstrated, some casino countermeasures potentially cross the line into cheating territory. At the very least, these countermeasures violate fundamental duties of fairness in light of the power imbalance between players and casinos. But these countermeasures can impose additional far-reaching, unfavorable effects on other entities. Indeed, many countermeasures are counterproductive because they slow down games and deprive the state and municipality of tax revenue.¹⁷³ Eliminating these countermeasures will lead to greater revenues for casinos and the state. Moreover, players will be happier since many countermeasures do nothing but alienate and irritate them.

¹⁷⁰ *Gambler Files Lawsuit Over Card-Counting System*, LAS VEGAS SUN, (Oct. 19, 2004), <https://lasvegassun.com/news/2004/oct/19/gambler-files-lawsuit-over-card-counting-system/>, [<https://perma.cc/RZ3U-VXEZ>].

¹⁷¹ See Schnell-Davis, *supra* note 124, at 332.

¹⁷² *Angel Eye Electronic Security System*, ANGEL EYE PLAYING CARDS CO., LTD., http://www.angelplayingcards.com/en_casino/engineering1.php, [<https://perma.cc/L72N-J8MV>].

¹⁷³ A jurisdiction's gaming tax revenue is generally derived from a casino's gross gaming revenue. See, e.g., *Nevada Gaming Summary*, UNLV CENTER FOR GAMING RESEARCH (2014), http://gaming.unlv.edu/abstract/nv_main.html, [<https://perma.cc/L4DF-DTKK>] (noting that Nevada's gaming taxes are "approx. 7.75% effective tax rate, with a 6.75% tax on gross gaming revenues and about 1 percent of taxes in fees").

Noted casino consultant Bill Zender has demonstrated that the gain of merely a few additional blackjack hands per hour can increase annual revenue by hundreds of thousands of dollars.¹⁷⁴ Clearly, “[t]he more hands dealt, the greater revenue the casino achieves”¹⁷⁵ But when considering how to speed up games, casino managers must carefully balance game protection considerations and customer satisfaction concerns with the gain in revenue produced by a more streamlined dealing procedure.

Zender suggests that the costliest countermeasure to casinos’ bottom line is not dealing deep enough into each blackjack shoe.¹⁷⁶ Consider a typical blackjack game dealt from a shoe that holds six decks of cards. Many casinos will typically only deal around 4.5 decks.¹⁷⁷ Casinos fear that if more cards are dealt, casinos may be vulnerable to card counters (remember, card counters have a better gauge of their advantage as more cards are dealt).¹⁷⁸ However, the concern over card counters is vastly disproportionate to the revenue that casinos relinquish by not dealing deeper into the shoe.¹⁷⁹ Just as casinos avoid downtime, players do not like to sit around and wait during a shuffle.¹⁸⁰ Reducing this downtime will make all parties happier, especially considering the exaggerated threat that card counting poses to

¹⁷⁴ See ZENDER, *supra* note 164, at 4–8; see also ZENDER, *supra* note 68, at 107 (“Even in a medium size casino, if the house could gain one more round dealt per table each hour, they would win an additional \$100,000 annually.”). *But see* Richard Munchkin, *Interview—Mike Patterson VP of Table Games at Barona Casino*, RICHARD MUNCHKIN BLOG (Nov. 6, 2012), <http://www.richardmunchkin.com/2012/11/interview-mike-patterson-vp-of-table.html>, [<https://perma.cc/ND2M-CCBT>]me (“I am not a big fan of time and motion studies. . . . I tell our dealers to slow down and make the game fun. The premise that if you deal faster you will make more money only works if you have an unlimited supply of players with an unlimited bankroll.”).

¹⁷⁵ ZENDER, *supra* note 164, at 9.

¹⁷⁶ See *id.* at 15.

¹⁷⁷ See *id.*

¹⁷⁸ See *id.* at 20 (“The industry belief at that time was the deeper the deck penetration, the more money you would lose to card counters (and it still is today, even though there’s plenty evidence to the contrary).”).

¹⁷⁹ See *id.* at 21 (“[A]ny executive who deals less than 75% of the multiple-deck shoe is costing his operation more revenue than a busload of ‘phantom’ card counters can possibly win (85% deck penetration or greater is optimal).”); ZENDER, *supra* note 68, at 107 (“An early shuffle point may save a casino \$10,000 to \$20,000 from possible counters per year, but, it most likely will cost them \$200,000 in wasted time.”).

¹⁸⁰ See, e.g., FORTE, *supra* note 11, at 114 (“After the release of *Beat the Dealer*, it took little time for a then virgin industry to flip out, literally, to the possibility of skillful play. Drastic countermeasures could be found everywhere; shuffle after every hand, double on eleven only, no splitting aces, and multiple decks. But the

casinos. Indeed, Zender recommends moving the cutoff point to 5.5 decks to maximize revenue.¹⁸¹

Other countermeasures can likewise be harmful to a casino's revenue. Until recently, many casinos offering "pitch" blackjack games¹⁸² would use a procedure where an outgoing dealer would hand the deck to the incoming dealer if a round ended before the deck is depleted.¹⁸³ This procedure allows the game to continue without the need for an early shuffle.¹⁸⁴ However, casinos have been moving away from this procedure because of their fear that allowing dealers to temporarily touch hands would facilitate cheating.¹⁸⁵ But there is no scam that could target this procedure that would not be possible anyway.¹⁸⁶ Instead, the retreat from this productive procedure is yet another unjustified response that only serves to slow down the game.

There are many countermeasures that similarly slow down games and reduce revenue.¹⁸⁷ Why do billion-dollar properties continue to implement them? Casino consultant Steve Forte suggests that it stems from a mindset held by many executives: avoid rocking the boat.¹⁸⁸ After all, if one were to make a procedural change and the casino were to coincidentally lose money one night (it happens), it would not be unreasonable to fear that the casino's management would associate the loss with the procedural change.

Does this attitude necessitate gaming regulatory agencies to step in and mandate certain procedures? Likewise, should these agencies prohibit certain countermeasures? It would not be new for an agency to do so. Indeed, New Jersey gaming law is replete with regulations controlling every minutia of a casino's shuffle.¹⁸⁹ And there is clearly a need for casinos to eliminate their unproductive countermeasures that do nothing other than slow down games and reduce tax revenue. On the other hand, should this job be left to agencies that often employ people with little to no gaming experience? There is much debate over what countermeasures are net benefits to casinos. It is easy to imagine an agency mandating procedures that end up doing more harm than good. After all, many of these unproductive

public revolted, business dropped off significantly, and the industry was forced to soften their stand.”).

¹⁸¹ See ZENDER, *supra* note 164, at 20–21.

¹⁸² See *supra* notes 159–60 and accompanying text (providing an explanation of pitch games).

¹⁸³ See FORTE, *supra* note 11, at 524.

¹⁸⁴ See *id.*

¹⁸⁵ See *id.*

¹⁸⁶ See *id.*

¹⁸⁷ See, e.g., ZENDER, *supra* note 164, at 9–16; FORTE, *supra* note 11, at 523–26.

¹⁸⁸ FORTE, *supra* note 11, at 526.

¹⁸⁹ See, e.g., N.J. ADMIN. CODE § 13:69F-2.5 (2012).

countermeasures have withstood the test of time—and agency capture is always a fear with any regulatory body.¹⁹⁰ Or maybe there should be something in between—perhaps a system where it is easy for casinos to request exemptions after providing some sort of reasonable showing to the agency. While the proper solution is not simple (nor clear), it is evident that many countermeasures are dragging down gaming revenues.

V. CONCLUSION

Casinos implement countermeasures for a variety of reasons. Some are thought to prevent cheating and advantage play. Others are thought to speed up games and increase revenue. Part II introduced many classical cheating techniques used by players and how courts have adjudicated them. Part III discussed various countermeasures and why they might be considered cheating in light of the power imbalance between casinos and players. Part IV considered whether casinos should streamline countermeasures, since many of them serve only to slow down games and reduce casino and tax revenues. This Article has comprehensively demonstrated that many countermeasures are unjustified and unproductive.

¹⁹⁰ See, e.g., Rachel E. Barkow, *Insulating Agencies: Avoiding Capture Through Institutional Design*, 89 TEX. L. REV. 15, 17 (2010) (noting that “[t]his kind of lopsided pressure can be seen in a range of areas, from criminal justice to consumer protection”).