

If We Allow Football Players And Boxers To Be Paid For Entertaining The Public, Why Don't We Allow Kidney Donors To Be Paid For Saving Lives?

*Philip J. Cook & Kimberly D. Krawiec*¹

I. INTRODUCTION

The law regulates and sometimes prohibits activities that harm others. In addition, the law sometimes regulates or prohibits activities primarily because they create health and safety risks to the participants themselves. Such “paternalistic” regulations are readily justified when applied to children, adults who are mentally ill or cognitively limited, or those who are temporarily incapacitated (for example, due to intoxication). When applied to adults of sound mind, however, purely paternalistic laws can be challenged as an over reach of government, an imposition on individual autonomy and liberty.²

Nonetheless, a variety of paternalistic laws are on the books. These laws regulate, tax, or prohibit risky activities. We are particularly interested in one of these risky activities, namely kidney donation by living donors. Although living kidney donation is a common medical procedure and donors usually enjoy a full recovery, the loss of a kidney poses long-term health risks, in particular that of renal failure should the donor’s remaining kidney fail.³ In the United States and most every other country (with the notable exception of Iran), kidney donation is permitted but financial compensation for donors is prohibited.⁴ Not only is there no legal market for kidneys, donors in the United States are often not even reimbursed for their full out-of-pocket

¹ Terry Sanford Professor Emeritus of Public Policy, Sanford School of Public Policy, Professor Emeritus of Economics and Sociology, Duke University; Kathrine Robinson Everett Professor of Law, Duke University School of Law; Senior Fellow, Kenan Institute for Ethics, Duke University.

² John Stuart Mill, *ON LIBERTY* Elizabeth Rapaport, ed. Indianapolis/Cambridge, Hackett 1978 [1859]; Jim Leitzel *REGULATING VICE: MISGUIDED PROHIBITIONS AND REALISTIC CONTROLS* New York: Cambridge UP, 2008. Gerald Dworkin *Paternalism* in Richard A. Wasserstrom (ed.) *MORALITY AND THE LAW* 1971.

³ See Umberto Maggiore, et al, *Long-term risks of kidney living donation: review and position paper by the ERA-EDTA DESCARTES working group*, 32(2) *NEPHROLOGY DIALYSIS TRANSPLANTATION* 216 (2017), <https://doi.org/10.1093/ndt/gfw429>.

⁴ Randolph T. Beard, David L. Kaserman, and Rigmar Osterkamp. *THE GLOBAL ORGAN SHORTAGE: ECONOMIC CAUSS, HUMAN CONSEQUENCES, POLICY RESPONSES*. Stanford, 2013.

costs.⁵ The ban on compensation may protect potential donors from the temptation of easing their financial situation by giving up a kidney, a choice they may regret in later years.

At the same time, the need for transplantable kidneys is great, far exceeding current availability from deceased and living donations. The official waiting list of Americans with renal failure is now approximately 100,000, with a typical wait time of five years or more.⁶ Those on the waiting list are kept alive on dialysis, which is both costly to taxpayers (since Medicare pays for a large percentage of the costs) and debilitating to the patients.⁷ Even with dialysis, thousands of renal-failure patients die each year for want of a suitable kidney.⁸ The wait could be largely eliminated by easing the current ban on compensation for donors. An adequate supply of living donors would be especially valuable because living donors tend to provide higher quality kidneys with greater opportunity for developing a close tissue match, thus reducing the chance of rejection.⁹ Current estimates suggest that if compensation were permitted, the cost of payments for recruiting an adequate number of donors would be substantially less than the savings from reducing the number of renal patients on dialysis at government expense.¹⁰

Kidney donation is thus what is sometimes referred to as a “contested commodity” or “taboo trade.”¹¹ Kidney donation is permitted only insofar as the profit motive has no part in the

⁵ Although federal law permits reimbursement for the “expenses of travel, housing, and lost wages,” neither Medicare nor most insurance policies pay these expenses. As a result, the majority of donors must pay out of pocket some portion of their donation-related expenses. 42 U.S. Code § 274e - Prohibition of organ purchases. D. R. Salomon et al, AST/ASTS Workshop on Increasing Organ Donation in the United States: Creating an “Arc of Change” From Removing Disincentives to Testing Incentives, 15, (5) Am. J. of Transplantation 1173 (2015). The average out-of-pocket cost to living donors in the United States is \$5,000, according to James R. Rodrigue, Jesse D. Schold, and Didier A. Mandelbrot, *The decline in living kidney donation in the United States: Random variation or cause for concern?*. TRANSPLANTATION 96: 767-73, 2013.

⁶ The Organ Procurement & Transplantation Network keeps a waiting list of candidates for kidney transplantation (including those who also need a pancreas), which included 98,272 distinct individuals when accessed on November 9, 2017 <https://optn.transplant.hrsa.gov/data/view-data-reports/national-data/#>. That count underestimates the need, since many renal patients who would benefit from a quick transplant are currently kept off the waiting list. See KC Abbott and RS Gaston, *Counseling patients for kidney transplantation: Awkward conversations?* American Journal of Transplantation 12(2): 273-4, Feb. 2012.

⁷ Herwig-Ulf Meier-Kriesche & Bruce Kaplan, *Waiting Time on Dialysis as the Strongest Modifiable Risk Factor for Renal Transplant Outcomes*, 74 TRANSPLANTATION 1377, 2002.

⁸ Philip J. Cook & Kimberly Krawiec, *A Primer on Kidney Transplantation: Anatomy of the Shortage*, LAW & CONTEMPORARY PROBLEMS 77(3), 1-24, 2014.

⁹ Alope K. Mandal, Jon J. Snyder, David T. Gilbertson, et al., *Does Cadaveric Donor Renal Transplantation Ever Provide Better Outcomes than Live-Donor Renal Transplantation?* TRANSPLANTATION 75(4): 494-500, Feb. 2003.

¹⁰ PJ Held, F McCormick, A Ojo, and JP Roberts *A cost-benefit analysis of government compensation of kidney donors* Amer. J Transplantation 2016 16: 877-885.

¹¹ Kimberly D. Krawiec, *Foreword: Show Me the Money: Making Markets in Forbidden Exchange*, 72 LAW & CONTEMPORARY PROBLEMS i-xiv (2009)

donors' decision. To an extent, the ban on compensation for kidney donation is motivated by a paternalistic concern for the potential donors. People who opt to donate a kidney to save the life of a relative or friend, or out of pure altruism, are welcome in this scheme, but those who would donate primarily for the money are excluded. As it turns out, most kidneys are donated after death. In 2016, there were almost 10,000 deceased donors (with 13,431 transplants) and 6,000 living donors (with 5,629 transplants).¹²

In this paper, we contrast the compensation ban on organ donation with the legal treatment of football and other violent sports where both acute and chronic injuries to participants are common. While there is some debate about how best to regulate these sports in order to reduce the risks, there appears to be no debate about whether participants should be paid. For the best adult football players, college scholarships and perhaps a professional contract worth multiple millions are possible. Indeed, the National Football League is the highest grossing in the world; the NFL collected \$13 billion in revenue in 2016¹³ and the 32 teams have a market value of anywhere from \$1.6 billion to \$4.8 billion.¹⁴ While the recent evidence on the long-term medical damage from concussion has caused widespread concern, there is no prominent voice calling for a ban on professional football. Indeed, the stakes are so high at this point as to make a ban almost unthinkable in the foreseeable future.¹⁵ That observation helps illustrate the importance of history, custom, and established interests in shaping the debate over regulating risky activity.

It is nonetheless an interesting thought experiment to consider a principled position for regulating both violent sports and kidney donation -- *if* we could turn a blind eye to this history, the resulting array of stakeholders, and the sense of normalcy from long experience. Starting *de novo*, behind a veil of historical ignorance, where would logic take us? Our main conclusion is the form of an inequality, $A > B$; violent sports (A) are more problematic than kidney donation (B). The logical implications are twofold: first, if ethical concerns persuade thoughtful people that the "right" answer is to ban compensation for kidney donation, then the same logic would suggest that compensation should also be banned for participation in violent sports. Second, if

¹² <https://optn.transplant.hrsa.gov/data/view-data-reports/national-data/#>

¹³ <https://www.marketwatch.com/story/the-nfl-made-13-billion-last-season-see-how-it-stacks-up-against-other-leagues-2016-07-01>

¹⁴ <https://www.forbes.com/nfl-valuations/list/#tab:overall>

¹⁵ On the other hand, there appears to be the beginning of a grass roots movement to ban football for children. See *Should School Board Discontinue Support for High School Football?* PEDIATRICS Dec. 2016.

the “right” answer is to permit compensation for participation in violent sports, then compensation for kidney donation should also be permitted. We see no logical basis for the current combination of banning compensation for kidney donors while allowing compensation for football players and boxers.

We focus on the core argument for a ban on compensation for kidney donation, namely the paternalistic concern that even well-informed adults will sometimes be enticed by a financial reward to donate a kidney when in fact that is not in their “true” self-interest. In this view, the allure of money, especially for those who are in debt and struggling to make ends meet, will overcome good sense, leading to “exploitation” and even “coercion” to which people with less income and education are particularly vulnerable. But the same concerns apply with still greater force to participation in violent sports. Whatever one concludes about the ethics of regulating risky choices, and the problematic aspects of choices involving money and risk, the current circumstance – ban compensation for kidney donors, permit compensation for participation in violent sports – appears difficult to defend.

II. HISTORY AND LEGAL STATUS: ORGAN DONATION AND VIOLENT SPORTS

A. Organ Donation

With the notable exception of Iran, laws throughout the world prohibit markets in human organs.¹⁶ In the United States, the relevant law is the National Organ Transplant Act (NOTA), which prohibits the transfer of any human organ in exchange for “valuable consideration.”¹⁷ The term “valuable consideration” is not defined and its meaning is far from clear, but is generally assumed to include a wide range of monetary and in-kind payments that go beyond the reimbursement of reasonable expenses.¹⁸

The original purpose of the statute was merely to establish a national organ procurement and distribution system. The valuable consideration language was only added fairly late in the

¹⁶ Hippen, Benjamin E. "Organ sales and moral travails: lessons from the living kidney vendor program in Iran." 614 *Policy Analysis* (2008) (discussing the Iranian system).

¹⁷ Pub. L. No. 98-507, 98 Stat. 2339 (1984) (codified as amended at 42 U.S.C. §§ 273–274e (2006 & Supp. IV 2011)).

¹⁸ Krawiec, Kimberly D., and Michael A. Rees. "Reverse Transplant Tourism." *Law & Contemporary Problems* 77.3 (2014): 145.

legislative process in response to a particular incident -- a *Washington Post* article about H. Barry Jacobs, a Virginia physician whose medical license had been revoked for Medicare fraud, who intended to establish a for-profit organ brokerage.¹⁹ Careful reviews of NOTA's legislative history suggest that Congress did not delve into the costs and benefits of a regulated system of compensated organ donation, whether such a system could be designed to protect donors and recipients, or what such a system might look like if it were to succeed.²⁰ Instead, the historical record suggests that the ban against valuable consideration arose out of political expediency, and was unrelated to the statute's main goal – the development of a national procurement and distribution system.²¹

Organ donation is today so widely accepted that it is difficult to recall the skepticism with which it was first greeted by religious leaders, the general public, and (in the case of living donation, at least) the medical community. Deceased donation violates taboos about death and desecration of the human body. Many religious tenets are in tension with deceased organ donation, and the concept of brain death required a drastic rethinking of what it meant to be dead.²² These controversies over the definition of death continue to this day, as scientific and medical advances continue to shed new light on the human body and its operation.²³ Given these hurdles, the high rates of deceased organ donation in many countries, including the United States, are an astonishing testament to transplant professionals' success in transforming the once macabre act of deceased donation into a celebrated "gift of life".²⁴

The ethical, moral, and practical controversies surrounding living donation are even more pronounced. Because living organ donors are healthy, living donation appears to violate a central tenet of medicine – *primum non nocere*, or first do no harm.²⁵ Organ donation does harm to the donor – there are the immediate risks of the surgery itself, as well as potential long-term effects -- with no corresponding

¹⁹ Sally Satel, Joshua C. Morrison, & Rick K. Jones, *State Organ Donation Incentives Under the National Organ Transplant Act*, 77 LAW & CONTEMP. PROBS., no. 3, 2014 at 217 (discussing the origination of NOTA's ban on valuable compensation).

²⁰ Krawiec and Rees, 159-162.

²¹ *Id.*

²² Kieran Healy, *Last Best Gifts: Altruism and the Market for Human Blood and Organs* 25 (2006), at 27-34 (discussing the difficulties deceased donation posed for various religious traditions).

²³ Howard, Richard J., Danielle L. Cornell, and Larry Cochran. "History of deceased organ donation, transplantation, and organ procurement organizations." *Progress in transplantation* 22.1 (2012): 6-17.

²⁴ Healy 23-42 (detailing this transformation).

²⁵ See NATIONAL ACADEMIES OF SCIENCES, ENGINEERING AND MEDICINE, *ORGAN DONATION: OPPORTUNITIES FOR ACTION* 263 (2006).

physical benefits.²⁶ The procedure is justified, instead, by the psychological benefits that accrue to the donor from helping another, usually a close family member.²⁷

Yet these psychic benefits pose their own ethical concerns. When kidney donation is to an immediate family member, ethicists naturally worry that donors may feel coerced or compelled to donate.²⁸ Some ethicists have even gone so far as to question whether such a donation can ever be truly voluntary, given the emotional attachments involved.²⁹ Organ donation to a stranger, very rare in practice, raises different concerns. As one leading ethicist put it: “The radical altruism that motivates a person to make a potentially life-threatening sacrifice for a stranger calls for careful scrutiny.”³⁰

In any event, while there remains some matters for concern, the bottom line is that kidney donation, both living and deceased, has become commonplace and widely accepted under the current regime. At this point, opening the door to donor compensation seems like a reasonable and urgent next step, which enjoys broad support from the American public.³¹

B. Violent Sports

1. *Fighting Sports*

As is the case with organ donation, risky sports, such as boxing, mixed martial arts (MMA), and football, are today so widely accepted that it is difficult to imagine the once-precarious legal status of these endeavors. But at various points in history, both fighting sports and football were under serious threat of extinction, saved only through regulatory (or self-regulatory) changes designed to enhance safety, and public relations campaigns from well-placed advocates. Were it not for these interventions, each might well have gone the way of dueling – outlawed, as public opinion regarding the risk-benefit trade off evolved.³²

²⁶ *Id.* at 268-70.

²⁷ See, e.g., The President’s Council on Bioethics, *Living Donors: Process, Outcomes, and Ethical Questions* (2006), Part III.a., https://bioethicsarchive.georgetown.edu/pcbe/background/ginger_gruters.html

²⁸ Howard, et. Al.

²⁹ Testa G. Ethical issues regarding related and nonrelated living organ donors. *World Journal of Surgery* 2014; 38: 1658–1663.

³⁰ Truog, Robert D. "The ethics of organ donation by living donors." *New England Journal of Medicine* 353.5 (2005): 444-446.

³¹ Cite to survey?

³² Dueling, of course, served many functions beyond just sport, including dispute resolution, defending honor, and furthering political interests. See, e.g., STEPHEN BANKS, *A POLITE EXCHANGE OF BULLETS: THE DUEL AND THE ENGLISH GENTLEMAN, 1750-1850* 234 (2010); BARBARA HOLLAND, *GENTLEMEN’S BLOOD: A HISTORY OF DUELING FROM SWORDS AT DAWN TO PISTOLS AT DUSK* 79 (2003).

The law has always and inevitably had an uneasy relationship with violent sports, and that is particularly the case with boxing and other fighting sports. An activity whose result and purpose is the infliction of serious physical injury on the participants is, by definition, at odds with the criminal law of assault, which provides no exemption for consensual violence.³³ Unlike other dangerous sports, such as football, a boxing match is won only through the infliction of harm on an opponent.³⁴

As a result, fighting sports have always required an exception from the general criminal law, in order to avoid the violation of statutes against assault and, in some cases, homicide. Over time, the law of consent developed exceptions for fighting sports, although the exact contours of that exception were often unclear and shifted over time. A classic articulation of the distinction comes from Foster's Crown Law:

Here is the appearance of combat, but it is in reality no more than a friendly exertion of strength and dexterity. They are manly diversions. They tend to give strength, skill and activity, and make fit people for defence . . . I would not be understood to speak of prize-fighting and public boxing matches, or any other exertions . . . of the like kind . . . which are exhibited for lucre, and can serve no valuable purpose; but on the contrary encourage a spirit of idleness and debauchery.³⁵

The difficulty for the common law, both in England and the United States, was how to distinguish permitted "manly diversions" from prohibited activities that served "no valuable purpose." One mechanism at early common law was the attempt to distinguish legal sparring from illegal prize fighting.³⁶ The distinction was simple enough in theory, and prize fighting was argued to pose a number of harms not posed by legitimate sports: (1) public disruption, stemming from disorderly fans, (2) gambling, and (3) injury to the participants.³⁷

Interestingly for our purposes, compensation, or the offering of a "prize," was related to these dangers, creating a connection between compensation and illegality that closely parallels debates about compensated organ donation. As typified by the previously quoted Foster's excerpt, the belief was that those fighting for money were not simply engaged in a demonstration of skill or seeking to build character or agility. Early cases, especially in England, thus sought to draw distinctions based on whether a reward, or prize money, was offered to the combatants,³⁸ and whether the fighters used gloves, on the

³³ See supra notes __ and accompanying text [referencing Phil's section on consent here]

³⁴ A boxing match is won through one of three methods: (1) points (that is, one fighter lands more punches than the other), (2) technical knockout (the opponent cannot continue the fight, even if still standing), or (3) knockout (a fighter is knocked to the mat and remains down for at least ten seconds). [cite]

³⁵ Mark James, *Sports Law* at 137 (quoting Foster, Crown Law).

³⁶ James at 149.

³⁷ Forman at 76.

³⁸ *People v. Taylor*, 96 Mich. 576, 56 N. W. 27 (1893).

rationale that sparring with gloves was not inherently dangerous, despite the occasional death.³⁹ Other important facts included whether the fight was held in private (legal sparring) or in public (illegal prize fighting),⁴⁰ and whether the fight was conducted pursuant to the Queensbury rules.⁴¹ But the cases were inconsistent, with some declaring illegal even fights waged with gloves,⁴² or conducted according to the Queensbury rules,⁴³ or conducted in a private gymnasium or club, or in which no prize was awarded.⁴⁴ In any event, the continuing popularity of boxing made convictions difficult and enforcement inconsistent.⁴⁵ In the 1920's New York became the first state to legalize boxing, provided that it was supervised by a permanent state regulatory commission, a model still followed in a majority of states today.⁴⁶

Today, boxing's popularity is being challenged by MMA.⁴⁷ Although the violence of the sport initially led to controversy and public outcry, it also increased MMA's visibility and popularity, turning what was intended to be a one-time event into a regular competition.⁴⁸ One of the most vocal critics was Arizona senator John McCain, who called MMA "human cockfighting" and called for a complete ban. As a result, MMA was banned in forty states,⁴⁹ television networks refused to air it, and even pay-per-view became reluctant to televise events.⁵⁰ As stated by one commenter: "With political bans and pay-per-view revenue drying up, the UFC nearly became bankrupt and began looking to sell. MMA in America was essentially dead."⁵¹

In 2001, a group of investors, including boxing promoter Dana White, bought the UFC for \$2 million and began working with state legislatures and regulatory bodies across the country to legalize MMA.⁵² That same year the state of New Jersey became the first state to adopt what eventually became the "Mixed Martial Arts Uniform Rules of Conduct" (the "Unified Rules").⁵³ The Uniform rules are

³⁹ R v Young, 10Cox 371 (1866).

⁴⁰ Id.; R v Orton, 14Cox CC 226 (1878). See also, R v Coney, 8 QBD 534 (1882) (a bare knuckle fight in front of spectators who bet on the outcome was an illegal prize fight).

⁴¹ R v Roberts, [cite]

⁴² Commonwealth v. McGovern, 116Eky.212, 75 S.W. 261, 66 L.R.A. 280 (1903); State v. Bumlum, 56 Vt. 445, 48 Am. Rep. 801 (1884)..

⁴³ Commonwealth v. Sullivan, 16 Wkly. Notes Cas. 14 (Penn. 1885) (in 40 Cent. Dig., col. 2497); Seville v. State, 49 OhioSt.117, 30N.E.621 (1892); State v. Olympic Club, 46 La. Ann. 935, 15 So. 190 (1894); n re Athletic Clubs, 5 Ohio S. & C. P. Dec. 696 (1896), (in 40 Cent. Dig., col. 2496).

⁴⁴ Commonwealth v. Welsh, 73 Mass. 324 (1856); Commonwealth v. Barrett, 108 Mass. 302 (1871).

⁴⁵ Elmer M. Million, The Enforceability of Prize Fight Statutes, 27 Ky. L.J. 152, 160 (1939).

⁴⁶ Forma at 76-77.

⁴⁷ UFC vs boxing: How UFC is edging ahead in the popularity stakes, <https://sports.bwin.com/en/news/infographics/ufc-vs-boxing-graphic,116485.html>

⁴⁸ Adam Hill, A Timeline of UFC Rules: From No-Holds-Barred to Highly Regulated, Bleacher Report (available at <http://bleacherreport.com/articles/1614213-a-timeline-of-ufc-rules-from-no-holds-barred-to-highly-regulated>)

⁴⁹ Lystad, et al, supra at 2.

⁵⁰ Smith at ___ [need pin cite].

⁵¹ Id.

⁵² Smith.

⁵³ Lystad at 2.

comprehensive and cover all aspects of MMA fights, including scoring, round length, fighter attire, and fouls.⁵⁴ Today MMA is legal and regulated in every US state and is one of the fastest growing sports in America.⁵⁵

2. *Football*

From the very start, the violence of American football contributed to its appeal while fueling public outrage. Newspapers of the era proclaimed the danger (and, thus, the excitement) of the sport. For example, the New York Times reported: “The present Rugby game of football as played in this country is a very risky pastime, carrying nearly the same risk that a soldier [assumes] on the battle field.”⁵⁶ Said another article: “The bold students risk life and limb to gain football honors for their colleges.”⁵⁷ Some colleges, most notably Harvard, banned football amid rising controversy.⁵⁸

At the same time that football had to fight elite college administrators and faculties for its existence, it also came under serious threat in a number of southern states. Ironically, given football’s popularity in the South and Midwest today, football was at that time still associated with elite Northern colleges, and thus many Southerners, particularly evangelicals, were skeptical of the sport.⁵⁹ Much like the Northern progressives who opposed football, Southern evangelicals also viewed sports such as prize fighting and football as venues for drinking and gambling, which incited immoral crowds, and distracted from colleges’ educational mission.⁶⁰ In the wake of highly-publicized deaths, bills were introduced in a number of Southern state legislatures to outlaw football, including Georgia, whose governor ultimately vetoed legislation prohibiting football.⁶¹ In other words, as was the case with fighting sports, resistance to football sprang from a number of sources, only some of which were related to the riskiness of the sport.

Before gaining full acceptance, football faced a number of challenges, which were met with public relations campaigns and rules changes designed to increase safety (or the appearance of safety).⁶² The most celebrated of these challenges was the 1905 crisis, which prompted rule changes, the creation of

⁵⁴ Unified Rules and Other Regulations of the UFC, <http://www.ufc.com/discover/sport/rules-and-regulations#15>

⁵⁵ Lydia DePillis, *The Battle To Protect Fighters In The Fastest-Growing, Least-Regulated Sport In America*, The Wash. Post (April 23, 2016).

⁵⁶ Harrison at 824 (quoting “Change the Football Rules: The Rugby Game as Played Now Is a Dangerous Pastime,” New York Times, December 2, 1893.)

⁵⁷ *Id.* (quoting “Ready for the Great Struggle,” New York Times, November 30, 1893).

⁵⁸ *Id.*

⁵⁹ Christopher C. Meyers, “*Unrelenting War on Football*”: *The Death of Richard Von Gammon and the Attempt to Ban Football in Georgia*, 93 Ga. Hist. Q. 388, 400 (2009).

⁶⁰ *Id.* at 398.

⁶¹ *Id.* At 400-404.

⁶² Harrison at 824-25.

the Intercollegiate Athletic Association of the United States (IAAUS, the precursor to the NCAA), and a now famous intervention by Teddy Roosevelt.⁶³

In the end, football survived these early threats to its existence, not because it solved the safety issues, but because its promoters and advocates succeeded in painting the virtues of football as exceeding the costs.⁶⁴ Obviously, football, even at this early stage, brought real financial benefits to schools and teams.⁶⁵ But more importantly, football played into a “culture of manliness” prevalent at the turn of the 20th century. Risk taking, physical exertion, loyalty, and athletic skill were all a part of that cultural ideal.⁶⁶ Meanwhile, periodic rule changes and improvements in safety equipment reduced the incidence of acute injuries and deaths on the field.

III. RISKS TO PARTICIPANTS

Each year in the United States, 6,000 people donate a kidney, voluntarily assuming the medical risks attendant on surgery and thereafter of living with just one kidney.⁶⁷ These risks have been quantified and will be documented below. Our interest is in comparing these risks with those stemming from participation in violent sports where there is no ban on inducements for participation at the highest level. Indeed, the average annual compensation for a player in the National Football League is between \$2 and \$3 million (depending on the team),⁶⁸ with one player making over \$50 million this year. Injuries are common, and retired players are very often disabled by the long term effects of these injuries as well the cumulative effect of thousands of blows to the body. While it is difficult to quantify these effects in a way that provides a natural comparison with kidney donation, we provide some statistics that suggest that, for example, a man who signs a contract to play in the NFL for a year is consenting to be exposed to far greater medical risks than someone who volunteers to donate a kidney.

We focus our analysis on football, because the epidemiology of injury and disability is better developed than for the fighting sports. It is worth noting, however, that there has always

⁶³ See generally, John S. Watterson, *The Gridiron Crisis of 1905: Was It Really a Crisis?* 27 *JOURNAL OF SPORT HISTORY* 291 (Summer 2000) (discussing the 1905 crisis).

⁶⁴ Harrison 828-829.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ Cook & Krawiec 2014

⁶⁸ file:///C:/Users/pcook/Downloads/statistic_id675385_average-player-salary-in-the-nfl-by-team-2017-18.pdf

been concern about the risk posed by fighting sports. That concern has accelerated in recent years, due to a better understanding of the long-term effects of head trauma. As a result of these risks, medical associations around the world have long called for limitations or bans on boxing, including the American Medical Association and various state medical associations.⁶⁹ The Australian Medical Association,⁷⁰ Canadian Medical Association,⁷¹ and British Medical Association⁷² oppose fighting sports, including boxing and MMA, at both the professional and amateur level. Professional boxing is already banned in Sweden and Norway and there have been calls for bans in other countries.⁷³

Because MMA is a relatively new sport, the state of empirical research on the incidence of injuries is still less extensive than in more established sports like boxing. Yet, there has already been a strong response from the medical community against MMA. The American Medical Association,⁷⁴ Canadian Medical Association,⁷⁵ British Medical Association⁷⁶ and Australian Medical Association⁷⁷ have all called for a ban on MMA and for increased investment in research to assess the extent and frequency of injuries suffered in MMA fights. Despite the relative scarcity of empirical research, a recent systematic review of the epidemiology of MMA injuries concluded that MMA posed high injury rates –

⁶⁹ See Trumbull, *A.M.A., Citing Danger, Asks Abolition of Boxing*, N.Y. Times, Dec. 6, 1984, at A1; Proceedings of the House of Delegates, 132nd Annual Meeting, June 19-23, 1983. Chicago, American Medical Association, 1983, p 370; Proceedings of the House of Delegates, 38th Interim Meeting, Dec 2-5, 1984. Chicago, American Medical Association, 1984, p 371; Robert Glenn Morrison, *Medical and Public Health Aspects of Boxing*, JAMA 1986;255:2475-2480.

⁷⁰ Australian Medical Association, Position Statement on Combat Sport, Nov, 22 2015, https://ama.com.au/system/tdf/documents/Combat_Sport_2015_AMA_Position_Statement.pdf?file=1&type=node&id=42629.

⁷¹ Canadian Medical Association Submission on Bill S-209, An Act to Amend the Criminal Code (prize fights) April 15, 2013

https://www.cma.ca/Assets/assets-library/document/en/advocacy/Bills-209_en.pdf#search=combat%20sports

⁷² [cite] Ash – can we get a citation for this? It was in your memo, but no citation to the report.

⁷³ Robert Glenn Morrison, *Medical and Public Health Aspects of Boxing*, JAMA 1986;255:2475-2480.

⁷⁴ H-470.965 ultimate and extreme fighting (2016); <https://policysearch.ama-assn.org/policyfinder/detail/%20H-470.965%20ultimate%20and%20extreme%20fighting.%20sort%3A?uri=%2FAMADoc%2FHOD.xml-0-4281.xml> (“Our AMA: (1) opposes ultimate fighting and extreme fighting events; and (2) encourages states which have not banned these events to pass a law doing so”).

⁷⁵ Canadian Medical Association. *Mixed martial arts (MMA) ban.* https://www.cma.ca/Assets/assets-library/document/en/advocacy/Bills-209_en.pdf#search=mixed%20martial%20arts (last visited on 8/6/17).

⁷⁶ Caroline White, “Mixed martial arts and boxing should be banned, says BMA” *British Medical Journal*; London 335.7618 (Sep 6, 2007): 469.

⁷⁷ Australian Medical Association, *Mixed Martial Arts Must be Banned*,” <https://www.amawa.com.au/mixed-martial-arts-must-be-banned-ama-wa/> (“The state government should ban mixed martial arts (MMA) fighting in all forms, the Australian Medical Association (WA) said today”).

higher than most or, possibly, all other full contact combat sports -- with patterns and frequency similar to professional boxing.⁷⁸

A. Kidney Donation

The immediate risks attendant on the surgery can be briefly summarized. A systematic review and meta-analysis of the literature found that there were post-operative complications in 7.3% of cases, which the authors deemed a “low complication rate.”⁷⁹ Complications included wound infection (1.6%) and bleeding (1.0%). A questionnaire study of donors three months after their operation found that 18.5% rated their overall health as “somewhat worse” than before, suggesting that over 80% had fully recovered in a subjective sense.⁸⁰ The most serious outcome, death, is quite rare. Segev and colleagues, in a study of 80,347 donors over the period 1994-2009, determined that there had been 25 deaths, for a rate of 3.1/10,000 operations⁸¹ – about twice as high as the annual chance of being killed in a motor vehicle accident for the most relevant age group (45-64) during that period.⁸²

Following recovery, donors typically do not suffer disability related to the loss of their remaining kidney, since one functioning kidney does everything required for normal functioning of the body. In the study cited above, Segev and colleagues compared kidney donors with a sample of non-donors taken from one of the large longitudinal health surveys (NHANES III).⁸³ The latter sample was matched on age and health status, which is important since donors are a relatively healthy group as a result of the selection process, and in the absence of donation would be expected to live longer and healthier lives than a representative cross-section of the U.S. population with the same age and sex distribution. The authors concluded that the “Long-term risk of death was no higher for live donors than for age- and comorbidity-matched NHANES III

⁷⁸ Lystad at 4. The authors urge caution in interpreting their results, due to possible methodological differences in the way that injuries are calculated and recorded across sports. Nonetheless, these differences arguably suggest that MMA is even more dangerous, as compared to other fighting sports, than the studies suggest. *Id.* at 4-6.

⁷⁹ K Kortram, JN Lizermans, and FJ Dor *Perioperative events and complications in minimally invasive live donor nephrectomy: A systematic review and meta-analysis*. *Transplantation* 2016 Nov; 100(11): 2264-2275.

⁸⁰ K Hosseini, AY Omorou, J Hubert, WN Sime, M Ladriere, F Guillemin. *Nephrectomy complication is a risk factor of clinically meaningful decrease in health utility among living kidney donors*. *Value in Health* 2017 1-7.

⁸¹ DI Segev, AD Muzaale, BS Caffo, SH Mehta, AL Singer, SE Taranto, MA McBride, RA Montgomery. *Perioperative mortality and long-term survival following live kidney donation*. *JAMA* March 10, 2010 303(10) 959-966.

⁸² Computed from data provided by the Centers for Disease Control and Prevention at <https://webappa.cdc.gov/sasweb/ncipc/mortrate.html> on 12/15/17. The traffic fatality rate in the United States during 1999-2009 for people aged 45-64 was 1.36/10,000.

⁸³ *Id.*

participants.” Similarly, an analysis of 3,368 donors age 55 and over found no difference in all-cause mortality in comparison with a matched sample from the Health in Retirement Survey.⁸⁴ The only exception to this null conclusion is a study of Norwegian donors that found a divergence in the mortality rates after 10 years, so that by 25 years 18% of the donors had died, compared with 13% of the matched controls.⁸⁵ A recent review article that included these studies and a handful of others confirms that there is no difference in death rates for at least the first ten years, and that the Norwegian study’s conclusion of divergence after that has not been replicated.⁸⁶

What about the particular threat for donors that their single kidney may fail, which in the absence of an immediate transplant would mean that they go on dialysis? The best study of donors in the United States found a higher cumulative incidence of failure and end stage renal disease (ESRD) for donors than nondonors – 0.31 percent versus 0.04 percent.⁸⁷ While the risk is significantly elevated for donors, it remains very low in an absolute sense, representing an increased chance of about 1 in 400.

Finally, a questionnaire study of 2,455 donors who were between 5 and 48 years from their surgery found that 84 percent were satisfied with their lives.⁸⁸ The likelihood of satisfaction was enhanced by the donors’ feeling that their gift had positive effects on their relationships.

B. Football

It should be noted that the growing body of research on the medical and health consequences of kidney donation discussed in the previous section is in part motivated by an interest in providing potential donors with the information they need in order to make a well-informed decision. In comparison, the epidemiological evidence on participation in violent

⁸⁴ P. P. Reese, R. D. Bloom, H. I. Feldman, P. Rosenbaum, W. Wang, P. Saynisch, N. M. Tarsi, N. Mukherjee, A. X. Garg, A. Mussell, J. Shults, O. Even-Shoshan, R. R. Townsend, J. H. Silber *Mortality and Cardiovascular Disease Among Older Live Kidney Donors*. American Journal of Transplantation. 14(8) Aug 2014 1853–1861

⁸⁵ G Mjoen et al. *Long-term risks for kidney donors*. Kidney Int. 86, 2014. 162-167.

⁸⁶ NN Lam, kl Lentine, AS Levey, BL Kasiske, AX Garg. *Long-term medical risks to the living kidney donor*. Nature Reviews Nephrology 11, 2015: 411-419.

⁸⁷ A D Muzaale, AB Massie, M-C Wang, RA Montgomery, MA McBride, JL Wainright, DL Segev. *Risk of end-stage renal disease following live kidney donation*. JAMA. 2014 Feb 12; 311(6): 579-586.

⁸⁸ EE Messersmith et al. *Satisfaction with life among living kidney donors: A RELIVE study of long-term donor outcomes*. Transplantation 2014 Dec 27 98(12) 1294-1300

sports is meager, and in any event few youths (or their parents) are exposed to a systematic account of the injuries and chronic disabilities entailed in a decision to pursue one of these sports as a career.

One challenge in making a meaningful comparison between the risks entailed in kidney donation, and the risks entailed in participation in contact sports, is that the latter may stretch out for many years and involve not one choice (donate or not) but rather a series of choices regarding participation. In particular, of the millions who play football in their youth, the young men who are drafted into the National Football League each year have almost all played organized football for a number of years, including in high school and college, and have been exposed to the risk of injury throughout. Various comparisons of football with the single act of donation may be possible, such as “play in one game” or “play for one season.” But given that our focus is on inducements, we take a somewhat different approach, namely to focus on the risks associated with a professional career. If NOTA’s ban on inducements were applied to football, then the NFL would presumably disappear, and the possibility of a post-collegiate career playing football would go with it. The thought experiment here can be motivated by imagining a blank slate in regulating kidney donation and football, where the question is whether inducements should be allowed for either. If the discussion focused solely on the risks of serious injury and disability, it appears clear that allowing substantial inducements for kidney donation is a more attractive proposition. The additional donors who are recruited by the inducement would have a small probability of death from the operation and a slightly elevated chance of kidney failure. In contrast, inducement to play professional football comes loaded with a large chance of orthopedic problems and mental disability in later life.

The risks of an NFL career are suggested by statistics on acute injuries during practices and games kept by each team. In addition, data are becoming available on the health status and causes of death for former players. What is not clear from the available epidemiology is how much of the disability observed in former pros is the result of their professional career, as opposed to injuries sustained playing in college, high school, and even before. To put the professional experience in context, then, we begin with injuries to youths.

Rough physical contact is part of the game in football, and injuries are common from an early age. For boys less than 20 years old, football, among all the sports and other types of recreational activities, is the most common cause of injury requiring a trip to the emergency

department.⁸⁹ An analysis of emergency room visits for 2001-2009 estimated there were 350 thousand youths per year treated for football injuries, almost all males

Of these, 25 thousand were treated for non-fatal traumatic brain injuries (TBI), typically concussion, of which over half (13,667) were males age 15-19.⁹⁰ About 1.5 million males in this age group played organized tackle football in 2009, and if we can assume that most of the injuries affected those rather than youths playing pick-up games, the *treated* TBI injury rate was close to 1 percent. The *overall* rate is thought to be much higher, since most concussions are not treated.⁹¹

An alternative set of national estimates link concussion risk to game exposure, for school football teams.⁹² The authors' estimates suggest that over the course of a 10-game playing season, a high school player would have a 1.55% chance of being concussed, and a college player a 3.0% chance. These statistics are somewhat out of date, and there has been a strong upward trend in reported concussions in organized football – in part due to the national “Heads Up” campaign initiated by the Centers for Disease Control in 2004, increased media attention, and the passage of youth sports concussion laws in all 50 states.⁹³ These laws specify that young players with possible concussions must be removed from the game and cleared for return by a set protocol.

About 1.5% of college players are ultimately drafted into the National Football League,⁹⁴ and for those professional players more precise information is available on acute injury rates. A recent report by the Harvard Law School found that in 2016, the 2,274 active players in the NFL experienced 2066 injuries during the preseason and regular season, where “injury” is defined as an event recorded by the team trainer that would typically require time lost from practice or

⁸⁹ Centers for Disease Control and Prevention, *Nonfatal traumatic brain injuries related to sports and recreation activities among persons aged <=19 years --- United States, 2001-2009*. MMWR Oct 7, 2011, 60(39): 1337-1342.

⁹⁰ *Id.*

⁹¹ DH Daneshvar, CJ Nowinski, A McKee, RC Cantu. *The epidemiology of sport-related concussion*. Clin Sports Med 2011 Jan; 30(1): 1-17. Some of these statistics are updated through 2012 in VG Coronado et al. *Trends in sports- and recreation-related traumatic brain injuries treated in US emergency departments: The National Electronic Injury Surveillance System – All Injury Program (NEISS-AIP) 2001-2012*. J Head Trauma Rehabil 30(3) 2015 185-197. For analysis of an alternative source of data on emergency visits, see BJ Smart et al. *Tackling causes and costs of ED presentation for American football injuries: a population-level study*. Amer. J Em Medicine. 34, 2016. 1198-1204. That study reported that almost half of football injuries treated in an emergency department in 2010 and 2011 were orthopedic, including sprains and fractures.

⁹² Daneshvar 2011

⁹³ Coronado et al 2015

⁹⁴ <http://www.ncaa.org/about/resources/research/estimated-probability-competing-professional-athletics>

game. Of these injuries, 244 were concussions, which works out to .073 concussions per player-season – at 7.3%, over twice the rate for college players, and about equal to the rate of surgical complications in kidney donation.⁹⁵

A recent study of “life after football” brings together the official injury reports and survey information to paint a grim picture.⁹⁶ The authors report that 93% of former players missed at least one game due to injury, and half had 3 or more major injuries, often requiring surgery. For a substantial majority, injuries ended their career or contributed to the decision to end their career. Nine of 10 former players have nagging aches and pains from football when they wake up, and for most the pain lasts all day. For those age 30-49, the ability to work is impaired by injury.⁹⁷

But what has garnered considerable attention and concern is the fact that a high percentage of former players have chronic traumatic encephalopathy (CTE) by the time they die. CTE is a progressive neurodegeneration associated with repetitive head trauma,⁹⁸ with a variety of symptoms: impulsivity, depression, apathy, anxiety, explosivity, episodic memory loss, and attention and executive function problems.⁹⁹ A recent postmortem study of a sample of donated brains of former NFL players found that 110 of 111 indicated either mild or (more commonly) severe CTE. Interviews with family members found that behavior, mood, and cognitive symptoms were common among this group.¹⁰⁰

These findings do not imply that 99% of former NFL players will have CTE. The brains in this study were voluntarily submitted for examination by family members who were often motivated by a desire to know the cause of their loved ones dementia or other neurological problems – which is to say, the brains of those who died without such problems may be largely

⁹⁵ Deubert Cohen Fernandez 2017 *Protecting and Promoting the Health of NFL Players*
<https://footballplayershealth.harvard.edu/law-and-ethics-protecting-and-promoting/>

⁹⁶ Holstein, James A., Richard S. Jones, and George E. Koonce Jr. *Is There Life after Football? Surviving the NFL*. New York: New York University Press, 2015

⁹⁷ Given these statistics, it is surprising that NFL players who play at least 5 years before retirement have a lower death rate, including a lower suicide rate, than the population at large, according to EJ Lehman, MJ Hein, CM Gersic, *Suicide mortality among retired National Football League players who played 5 or more seasons*. *Am J Sports Med* 44(1), 2016, 2486-2491. In response, it should be noted that NFL players as a group are more highly educated than average, and are extraordinary physical specimens, so that the national average is not an apt comparison if the goal is to determine how their football careers affected their mortality rate.

⁹⁸ J Mez et al., *Clinicopathological evaluation of chronic traumatic encephalopathy in players of American football*. *JAMA* 2017 318(4): 360-370.

⁹⁹ *Id.*

¹⁰⁰ *Id.*

missing from the sample. But the 111 brains do represent 8.5% of the 1300 former NFL players who died during the period that these brains were donated.¹⁰¹ That places something of a logical lower bound on the prevalence of CTE. Presumably the true prevalence is much higher than 8.5%.

The other problem with these remarkable findings is that they do not provide a direct indication of the cause or causes of the CTE and associated disabilities. Repetitive head trauma is recognized as a necessary but not sufficient condition for CTE.¹⁰² The subjects had been exposed to repetitive head trauma throughout their careers as football players, which typically would have started in high school or well before. In fact, there is some evidence that age at first exposure to football may be related to the likelihood of impaired cognitive performance by former football players.¹⁰³ Elite players who choose to go professional following college likely increase their chances of neurological problems in later life, which are already high as a result of their exposure up until that point. Unfortunately, the science does not provide a basis for sorting out the additional contribution of an NFL career to this health burden.

While it is not possible to do a precise “apples to apples” comparison of the medical risks associated with kidney donation, and the risks associated with a professional football career, it seems clear that the acute risk of injury and of long-term disability are far higher for the football player. As discussed above, most NFL veterans live out their lives following retirement with serious physical and mental disabilities. The vast majority of kidney donors lead entirely normal lives following recovery from the initial operation.

IV. THE LIMITS OF CONSENT

A. Living Kidney Donation as a Risky Choice

Adults are born with two kidneys but only need one to sustain full health. For that reason an adult can donate a kidney and, after recovering from the operation, expect that her life span and health will not be much affected. Still, as explained above, there are risks entailed in the

¹⁰¹ <https://www.nytimes.com/interactive/2017/07/25/sports/football/nfl-cte.html>

¹⁰² Christine M. Baugh, Clifford A. Robbins, Robert A. Stern and Ann C. McKee *Current Understanding of Chronic Traumatic Encephalopathy* *Curr Treat Options Neurol.* 2014 Sep; 16(9): 306.

¹⁰³ JM Stamm, Bourlas, Baugh et al. *Age of first exposure to football and later life cognitive impairment in former NFL players.* *Neurology* 2015 84(1) 1114-1120.

operation, and the loss of redundancy in kidney function may cause medical problems in later life if the patient is unlucky enough to suffer kidney failure. Concern for the potential kidney donor's welfare motivates a variety of restrictions on donation, including a ban on financial compensation.¹⁰⁴ This ban is paternalistic: it deprives donors of compensation in part because the allure of a financial payoff may cause some people to choose to donate against what might be considered, given the risks, their "true" best interests.¹⁰⁵

Is that restriction justified? Whether and when sane, sober, well-informed, adults should be banned by government authority from choosing to engage in an activity that risks their own life and limb is an ancient point of contention.¹⁰⁶ There are a variety of hazardous activities that are permitted with no legal bar to receiving compensation. Included on this list are such occupations as logging, roofing, commercial fishing, and military service.¹⁰⁷ Also included are violent sports such as football, boxing, and mixed martial arts (MMA). These examples illustrate a broad endorsement of the principle that consenting adults should be allowed to exchange (in a probabilistic sense) their physical health and safety for financial compensation, even in some instances where the ultimate product is simply providing a public entertainment.

One potentially distinguishing feature of kidney donation is that the harm is not the result of an accident, but rather of the deliberate action (of the surgeon and medical team). In that sense, kidney donation may be usefully related to other voluntary medical procedures that carry some risk. Here is a partial list, categorized by legal status:

- *Permitted and commonly compensated:* donate eggs, sperm, or blood plasma; participate in medical experiments; serve as a surrogate mother (in some states).
- *Permitted but do not involve compensation:* sex change operation, cosmetic surgery

¹⁰⁴ Alexander M. Capron *Six Decades of Organ Donation and the Challenges that Shifting the United States to a Market System Would Create Around the World* LAW & CONTEMPORARY PROBLEMS 77(3), 25-70, 2014.

¹⁰⁵ *Id.*

¹⁰⁶ See JS Mill (1978 [1859]), *supra* note 2; H.L.A. Hart LAW, LIBERTY, AND MORALITY, 1963; MICHAEL J. TREBILCOCK THE LIMITS OF FREEDOM OF CONTRACT 147-63 (1993); Leitzel 2008 *supra* note 2.

¹⁰⁷ W. Kip Viscusi *The Value of Life: Estimates with Risks by Occupation and Industry* ECONOMIC INQUIRY 42(1) Jan. 2004: 29-48

- *Permitted but payment is banned*: donation of a kidney, liver, whole blood for transfusion,¹⁰⁸ or bone marrow (depending on extraction method and jurisdiction)¹⁰⁹.

It would be difficult to find a principled basis that would rationalize this pattern in legal status. Still, the public debate is to some extent informed by common themes, and a belief that the law should reflect a consistent application of relevant principles. Among the relevant themes are freedom from unwarranted government interference, respect for individual preferences and choices, and a concern for the interpersonal and societal effects of individual choices.¹¹⁰

B. The Harm Principle and External Effects of Risky Choices

In the search for a principled basis for setting legal boundaries on self-hazardous choices, a natural starting point is the tenet that adult choices that do not hurt others should be allowed by government. This Harm Principle was developed by JS Mill in his classic treatise *On Liberty* (1859).¹¹¹ It provides a rationale for the view that adults in the possession of their faculties should be free to choose to engage in risky activities if that choice does not harm others who are not part of the bargain.¹¹²

JS Mill was a prominent adherent to the utilitarian school of philosophical thought, which defines the public good as the sum of individual utilities and endorses the view that rational individuals are best positioned to make the choices that will further their own interests. In other words, adults in possession of their full faculties are in the best position to construct their own lives, and in particular decide whether and when to engage in risky activities. In this view, paternalistic regulations – those imposed for the individual’s own good – should be limited to restrictions on children or on adults who are not in a position to make free and in some sense

¹⁰⁸ Although NOTA does not address blood products, FDA labeling regulations require that whole blood for transfusion be labeled as “paid” if the donor received compensation and, as a practical matter, whole blood for transfusion in the United States is procured on an almost entirely voluntary basis. [cites]

¹⁰⁹ Except for bone marrow extracted through apheresis in the 9th circuit. Discuss *Flynn v. Holder*

¹¹⁰ See, for example, Capron 2014 *supra* note XX; I. Glenn Cohen *Regulating the Organ Market: Normative Foundations for Market Regulation* LAW & CONTEMPORARY PROBLEMS 77(3) 2014: 71-100; T. Randolph Beard & Jim Leitzel *Designing a Compensated-Kidney Donation System* LAW & CONTEMPORARY PROBLEMS 77(3) 2014: 253-288.

¹¹¹ *Supra* note 2.

¹¹² While Mill derives an argument for liberty from government interference by utilitarian logic, other philosophers have asserted a direct claim based on individual autonomy. See, for example, Gerald Dworkin *Paternalism* in Richard A. Wasserstrom (ed.) *MORALITY AND THE LAW* 1971 ; Isaiah Berlin *TWO CONCEPTS OF LIBERTY* Oxford 1958.

well-informed choices.¹¹³ A slightly different version of this argument is to assert that while everyone makes poor choices at times, the typical (sane and sober) adult is better able to make choices that further his or her own interests than is a legislature or government regulatory agency. This claim has implicitly been challenged by the development of behavioral economics over the last half century, with its extensive documentation of the systematic errors to which adults are prone when making complex decisions. We return to that challenge in the next section.

While the Harm Principle appears to create a broad scope for individual autonomy, that is only true under specified limits on the kinds of external effects that are considered problematic. Most individuals are enmeshed in a web of sentiment and responsibility to family members, neighbors, co-workers and others, so that a risky choice that results in injury or death will tend to have harmful consequences for other people, including those who had no direct authority or influence over that choice. Furthermore, third-party effects are created by participation in private and government insurance programs and eligibility for safety net programs where any financial costs (for medical care, for example) are broadly shared.¹¹⁴

In any event, in the case of living kidney donation, the direct external effects include considerable surplus of benefit over cost, in the sense that enhancing the quality and quantity of kidneys available for transplantation would reduce disability and save lives among patients, while saving the cost (to taxpayers) of maintaining these patients on dialysis.¹¹⁵ Hence for kidney donation, unlike, say, dueling or boxing (or a great variety of other risky activities), it appears that the external effects are far more positive than negative.

A concern with effects on society and culture also play an important role in the treatment of consensual violence, both pro and con. The criminal law relating to interpersonal violence generally rests on the legal myth that assaults disrupt the public order and are crimes against the State.¹¹⁶ In principle, then, the question of whether the actual victim had consented is not relevant to establishing the guilt of the assailant. If two people agree to settle their differences

¹¹³ Leitzel 2008 *supra*

¹¹⁴ *Id.* 28-30. Leitzel quotes JS Mill “I fully admit that the mischief which a person does to himself may seriously affect, both through their sympathies and their interests, those nearly connected with him and, in a minor degree, society at large” (Mill 1978, p. 79).

¹¹⁵ Held et al. 2016

¹¹⁶ Dempsey 2009, pp. 185–210, Harel 2008; LE Chiesa, *Consent is Not a Defense to Battery: A Reply to Professor Bergelson* Ohio State Journal of Criminal Law 9(1) Fall 2011.

with a fistfight, they may both be prosecuted for assault and battery.¹¹⁷ More serious consensual violence, dueling with guns or edged weapons, has long been outlawed. Yet in other circumstances, consent transforms interpersonal violence into an acceptable or even virtuous activity, as in the case of surgery or sports.¹¹⁸ An operation to remove a kidney for transplant following the donor's consent is of course not a criminal act, but rather (now considered) a virtuous one for both the surgeon and the donor. A boxer who knocks out his opponent (causing concussion), or a linebacker who sacks the quarterback with a crushing tackle, are cheered by their fans and team mates. In these cases, the violence is exempt from criminal liability, usually by statute but in any event by common practice.

The treatment of consensual violence in sports may be challenged from both sides. Libertarians under the influence of the Harm Principle may question why the carve out in the criminal law is limited to activities that could be construed as sports, and does not extend to voluntary fights up to and including duels. Those with a more paternal view will take the contrary position, suggesting that boxing should be given the same criminal status as a barroom brawl. What are the special virtues of football, boxing, or other violent sports that balance against the foreseeable harms in the form of injuries to participants?

The principled distinction between criminal assault when the participants have consented, and the legal violence inherent in some sports, can be argued in various ways. For one thing, the violence in organized sports is regulated by the rules that are intended to limit the potential for serious injury. That argument may be tested against the increasing evidence regarding acute and chronic injury suffered by professional athletes, as previously summarized. A second line of

¹¹⁷ The Model Penal Code states that the victim's consent to bodily injury is a defense "when conduct is charged to constitute an offense because it causes or threatens bodily injury, consent to such conduct or to the infliction of such injury is a defense if: (a) the bodily injury consented to or threatened by the conduct consented to is not serious; or (b) the conduct and the injury are reasonably foreseeable hazards of joint participation in a lawful athletic contest or competitive sport or other concerted activity not forbidden by law."¹¹⁷ The MPC also distinguishes simple assault—purposely, knowingly or recklessly caused bodily injury, to which the defense of consent might be applied, or become a mitigating factor— from aggravated assault— purposely, knowingly or recklessly caused *serious* bodily injury under circumstances manifesting extreme indifference to human life. Model Penal Code § 2.11 (2)(a) and (b)

¹¹⁸ Vera Bergelson *The Right to be Hurt – Testing the Boundaries of Consent* GEORGE WASHINGTON LAW REVIEW May 2006; Heidi Hurd. *Was the frog prince sexually molested?: A review of Peter Westen's The logic of consent.* UNIVERSITY OF MICHIGAN LAW REVIEW 103, 2005: 1329; Joel Feinberg HARMLESS WRONGDOING: THE MORAL LIMITS OF THE CRIMINAL LAW. New York; Oxford: Oxford University Press 1988.

argument is that these sports inculcate manly virtues which are otherwise in short supply. University of Michigan football coach Jim Harbaugh opined that football is “the last bastion of hope for toughness in America in men.”¹¹⁹ A more cynical view is that the “virtue” is not so much to the players as to the fans, whose enjoyment of the game supports an industry at the college and professional level worth many billions of dollars.

In any event, it is difficult to imagine a persuasive empirical study that compared the cultural effects of compensated kidney donation, to those of professional violent sports, and none exists as far as we know. Our intuition is that a program of compensation for kidney donors would not degrade the culture, but rather affirm a cultural commitment to respond to disability and sustain life – and that in any event it would be more positive than the effects of compensating the deliberate brutality of football and other violent sports.

C. Cognitive Biases and Limitations

The belief that adults are able to discern and act on their true interests when faced with complex choices is basic to JS Mill’s argument for freedom from government interference. During the last half-century, economists and behavioral scientists have explored the limitations and biases in decision making, demonstrating that even sane and sober adults tend to make systematic errors in decision-making.¹²⁰ When the stakes are high, as they are in choosing to donate a kidney or play professional football, even a free-choice advocate may accept that some limits are warranted. Here we very briefly consider the relevant issues and conclude that if NOTA were amended to allow payments to donors, potential kidney donors could be protected against being unduly tempted through the existing structure of screening, counseling, and delay. On the other hand, it is not clear that NFL recruits have such protections in place.

In the ideal, a rational person faced with an important decision (donate a kidney, sign a contract to play professional football) would want to proceed as a decision analyst would

¹¹⁹ Angelique S. Chengelis, *HBO Piece Reveals Harbaugh’s Burning Will to Win*, DETROIT NEWS, Apr. 20, 2015.

¹²⁰ See generally Daniel Kahnemann *Thinking Fast and Slow* 2011. For an analysis of the kidney donation decision in these terms, see Beard & Leitzel *supra*; Beard and Leitzel *Compensate live kidney donations* 2016 (unpublished draft)

instruct.¹²¹ The goal is to combine the objective consequences of the option with the individual's subjective valuation of these consequences, including timing (now versus later) and likelihood:

- List all possible consequences over the life course
- Estimate the probability of each consequence
- Assess the utility gain or loss of each consequence according to the decision maker's own preferences
- Calculate whether the expected value in terms of utility gains and losses is positive.

Needless to say, that is not how such decisions are made in practice, although in the case of kidney donation (and not football) much of the relevant information will at least be provided as part of the counseling required of potential donors.¹²² The difficulty of making an informed decision is greater because the decider can only go down that path once.

The issue is actually not whether individuals should be trusted to act like well-informed decision analysts, but rather whether they could benefit from legal restrictions on the menu of possibilities available to them. This challenge has become better focused as research in behavioral science has documented the tendency of adults to make systematic errors in their decisions. Much of this research has focused on choices that have uncertain outcomes, or outcomes that are distributed over time, or require the decision maker to predict her sense of well-being under the scenarios implied by the available choices. For example, people tend to discount the value of delayed consequences according to how far in the future they would be experienced, and can make sensible choices between prospects that offer a payoff in one year or larger payoff in two years. However, prospects with immediate payoffs are often tempting out of proportion to their objective value, and induce impulsive choices that are later regretted.¹²³ The

¹²¹ James W. Vaupel and Philip J. Cook LIFE, LIBERTY AND THE PURSUIT OF SELF-HAZARDOUS BEHAVIOR Duke U. Working Paper 1978; Robert D. Behn & James W. Vaupel QUICK ANALYSIS FOR BUSY DECISIONMAKERS 1983.

¹²² The law requires that every transplant center to have an independent donor advocate or advocacy team, that is charged with ensuring that donors are well informed at the time they consent (Beard & Leitzel 2016 *supra*). See for example D. Choudhury, F. Jotterand, G. Casenave et al. *Independent Donor Ethical Assessment: Aiming to Standardize Donor Advocacy*. PROGRESS IN TRANSPLANTATION 24(2). 2014.

¹²³ David Laibson *Golden Eggs and Hyperbolic Discounting*. QUARTERLY JOURNAL OF ECONOMICS 112(2): 443-477, May 1997. Shane Frederick, George Loewenstein, & Ted O'Donoghue. *Time Discounting and Time Preference: A Critical Review*. JOURNAL OF ECONOMIC LITERATURE 40 (2): 2002 351-401.

difficulty of self-regulation is well reflected in the famous “marshmallow” test in delayed gratification.¹²⁴

It is helpful to deconstruct the decision to donate a kidney under both the current regime (no compensation) and a hypothetical regime (in which the donor would be financially compensated). Living donation is an arduous process that would not be undertaken by a well-informed person without a substantial reward of some sort (whether monetary or emotional). Under the current regime, only about 6,000 living donors volunteer each year. Almost all of these donors specify who is to receive their kidney, and as a consequence the donor has the satisfaction of saving the life of a family member or friend, and presumably enjoys their gratitude as well. Potential donors undergo screening, both medical and psychological. While donors do not have to pay the expense of the screening and operation, they may have lost earnings at the time that are not reimbursed. If they experience medical consequences years later no financial help will be forthcoming from the beneficiaries of their gift, or the kidney-donation system.

Everything about this process leans against making an impulsive decision to donate. Indeed, those who choose to become a donor may typically see it as an obligation rather than an opportunity. They may be under pressure by family members, or may not see any acceptable alternative to the unpleasant prospect of donating. There is nothing of the “temptation” in this scenario, given the delays, the counseling, and the fact that much of the pain and risk precede the usually rewarding event of donation.

If the system for screening potential donors were preserved, but now with the possibility of compensation (for the sake of argument, say, worth \$50,000) then many more donors would come forward, especially for non-directed donations. For the additional donors, the payment would be a stronger incentive than the psychic rewards of a pure altruistic act. (In fact, in this regime some would-be family donors may decide to refrain, given the knowledge that other suitable kidneys are available.) The increase in donations would save many lives and reduce costs to taxpayers. But the question remains of whether the promise of payment would tend to encourage donations that are not in the donors’ true interest, as a decision analyst would define that interest.

¹²⁴ Walter Mischel, Ebbe B. Ebbesen & Antonette Raskoff Zeiss (1972). *Cognitive and Attentional Mechanisms in Delay of Gratification*. *Journal of Personality and Social Psychology*. **21** (2): 204–218.

For the potential donor, the prospect of financial reward may overcome concerns about the temporary pain and disability, not to mention the slight risk of death, stemming from the operation, as well as the small probability of medical problems years or decades later. There is nothing intrinsically irrational about a willingness to assume medical risk in exchange for a substantial amount of money. But the quality of the choice may be influenced by the sequence of events. If donors were offered a \$50,000 check on the day that they volunteered to donate, but did not have to actually go on the operating table for a year, impulsive ill-considered donations might be the norm. But the disproportionate temptation of an immediate payoff could be managed if the payment were not made until after the operation, which in the normal course of events would be put off for weeks or even months while the donor underwent screening and matching.¹²⁵

The delayed payoff would have the effect of protecting potential donors against impulsive decisions while respecting their underlying preferences for the value of the money vis-à-vis the medical risks of donation. The delay is in the spirit of the “nudge” approach to policy design popularized by Richard H. Thaler and Cass Sunstein.¹²⁶ It is in contrast to a paternalistic approach which in effect denies the validity of the donor’s preferences. A recent survey, for example, found a sizable group that thought it was unacceptable to offer potential subjects in a risky medical experiment as much as \$10,000.¹²⁷ The authors speculated that these respondents thought that a large payoff would induce people to participate who placed “too much” value on money (or too little on their health). These respondents were in effect privileging their own values over those of others.

The same concerns that apply to the quality of kidney donor decisions also apply, and more obviously, to the decision to sign a contract to play in the NFL. Players are provided with little information about the risks, and indeed, the longer-term risks (including the risk of CTE in middle age) have not been well quantified, but appear to be far higher than for kidney donation. The payoff in both financial terms and status is also very high, and in part conveyed immediately. Any counseling or screening that might occur is up to the player to pursue.

¹²⁵ To further ensure that donors’ decisions were made in prudent fashion, the payment could be made in kind, in the form, say, of lifetime disability and medical insurance policies. Of course, that form of compensation may mute the supply response simply because it would be less alluring.

¹²⁶ *Nudge: Improving Decisions about Health, Wealth, and Happiness* 2008

¹²⁷ Sandro Ambuehl, Muriel Niederle, and Alvin E. Roth 2015.

D. EXPLOITATION, COERCION, RACE & CLASS

Living kidney donors in the United States have above-average incomes (after adjusting for sex and age),¹²⁸ perhaps as one reflection of the financial losses experienced by donors.¹²⁹ In a new regime in which donors were paid a substantial fee, it is predictable that the influx of volunteers would have below-average incomes. The prospect of financially stressed individuals attempting to make ends meet by “selling” a kidney raises a red flag for some ethicists.¹³⁰ A compensation regime would expand the choice set for those in comfortable circumstances, but those in desperate circumstances might feel compelled to sell a kidney; in that sense, the option of selling could be seen as “coercive.” Furthermore, a system that in part depended on the poor to supply kidneys could be seen as “exploiting” the poor. This line of thought is represented in a 2001 report of the National Bioethics Advisory Commission in a related circumstance, paid participation in medical experiments: “benefits threaten ... the voluntary nature of the choice, ... raise the danger that the potential participant’s distributional disadvantage could be exploited [and] ... lead some prospective participants to enroll ... when it might be against their better judgment and when otherwise they would not do so.”¹³¹

We believe that using words like “coercion” and “exploitation” to characterize the introduction of a new option by which poor people (and others) could earn a substantial amount of money provides more heat than light on this situation. The legitimate ethical concern is that so many Americans are poor, with inequality increasing over time. But that observation does not support a ban on compensation, which in fact limits the options available to the poor and thereby makes a bad situation (their lack of marketable assets) worse. But for anyone not persuaded by this argument, we note that these social-justice concerns apply with at least equal force to

¹²⁸ Jagbir Gill, James Dong, Caren Rose, Olwyn Johnston, David Landsberg, and John Gill. *The Effect of Race and Income on Living Kidney Donation in the United States*. *J Am Soc Nephrol* 24: ccc–ccc, 2013

¹²⁹ Rodrigue et al. 2013, *supra*

¹³⁰ Capron, 2014, *supra* note XX; Debra Satz, *The Moral Limits of Markets: The Case of Human Kidneys*, 108 *PROC. ARISTOTELIAN SOC’Y* 2008;

¹³¹ ETHICAL AND POLICY ISSUES IN RESEARCH INVOLVING HUMAN PARTICIPANTS. National Bioethics Advisory Commission, 2001; quoted as shown in Ambuehl, Niederle, and Roth 2015, *supra* note XX, p. 357.

compensating boxers; most American professional boxers were raised in lower-income neighborhoods, and are either black or Hispanic.¹³²

As more has become known about the dangers of the repeated head trauma, similar arguments regarding football have become more prominent. About 70% of NFL players are black, and Pacific Islanders are also overrepresented as compared to the American population.¹³³ Accordingly, much attention has been paid to the concussion crisis as a race and class problem. As one observer recently noted, “What’s a little permanent brain damage when you’re facing a life of debilitating poverty?”¹³⁴ In reality, however, NFL players are better educated themselves, and come from better educated homes, than is average for Americans, in part because the NFL typically recruits college students. Still, some NFL players, like some would-be kidney donors, come from poverty.

V. CONCLUSION

Our claim is that there is a stronger case for compensating kidney donors than for compensating participants in violent sports. If this proposition is accepted, one implication is that there are only three logically consistent positions: allow compensation for both kidney donation and for violent sports; allow compensation for kidney donation but not for violent sports; or allow compensation for neither. Our current law and practice is perverse in endorsing a fourth regime, allowing compensation for violent sports but not kidney donation.

A common argument in support of the ban on kidney donation is that if people were offered the temptation of substantial compensation, some would volunteer to donate against their own “true” best interests. This argument is often coupled with a social justice concern, namely that if kidney donors were paid, a large percentage of volunteers would be poor and financially stressed, and for them the offer of a substantial financial inducement would be coercive. In sum, a system of compensated donation would provide an undue temptation, and end up exploiting the poor.

¹³² Can we support a statement of this sort? What about MMA?

¹³³ NFL Census 2016, ProFootballLogic, April 19, 2017), available at <http://www.profootballlogic.com/articles/nfl-census-2016/>

¹³⁴ Mychal Denzel Smith, For Black Boys, the NFL – and Traumatic Brain Injury – Can Be Lottery Tickets, *The Nation* (Jan. 28, 2013.)

To these arguments we offer both a direct response, and a response by analogy with violent sport. A fundamental norm of our culture and legal tradition is to respect the choices of (sane, sober, well informed, adult) individuals. That norm serves to limit government interference with private choices. It is supported by the right to liberty from undue government interference. A well-developed organ procurement process in the American system seeks to ensure that potential donors are fully capable of making a good decision. Potential kidney donors are not only provided with full information, but also screened for mental and physical disability. While there is the possibility of “mistakes” (a decision to donate against the true best interests of the individual) under a compensated system, the screening, consent process, and delays should minimize the chance for the kind of errors that behavioral economics has demonstrated are common. Under such circumstances, the opportunity to be paid for donating a kidney is not exploitative or coercive, but rather welfare-enhancing.

We also argue by analogy with professional football, boxing, and other legal but violent sports. The medical risks to a professional career in these sports are much greater both in the near and long term than the risks of donating a kidney. On the other hand, the consent and screening process in professional sports is not as developed as in kidney donation. The social justice concerns stem from the fact that most players are black and some come from impoverished backgrounds. In sum, the arguments against compensating kidney donors apply with equal or greater force to compensating athletes in these sports.

Note that these arguments focus on the donors’ welfare, and ignore the welfare of people in need of a kidney. A comprehensive evaluation of amending NOTA to allow compensation requires that both groups be considered. Such an evaluation, conducted by PJ Held and colleagues, reached the following conclusion about a regime in which living donors were offered enough compensation (\$45,000) to end the kidney shortage: “From the viewpoint of society, the net benefit from saving thousands of lives each year and reducing the suffering of 100,000 more receiving dialysis would be about \$46 billion per year, with the benefits exceeding the costs by a factor of 3. In addition, it would save taxpayers about \$12 billion each year.”¹³⁵ The present value of this flow of benefits would exceed \$1300 billion.¹³⁶

¹³⁵ PJ Held et al 2016, at 877.

¹³⁶ This is a conservative estimate, since it assumes that the net benefit would remain constant over time, and that the appropriate social discount rate is 3.5%. See Moore, Boardman, and Vining *The choice of the social discount rate and the opportunity cost of public funds* JOURNAL OF BENEFIT-COST ANALYSIS 4(3) Dec. 2013.

As far as we know, there has been no cost-benefit analysis of the analogous reform in football, namely to ban professional compensation. But a first cut is the market value of NFL teams, since that value reflects the present value of future ticket sales and broadcast payments, net of costs, under the current legal regime. Presumably a ban on compensation would end professional football and drive the value of the 32 current teams to zero. That value, according to Forbes Magazine, is currently about \$56 billion.¹³⁷ That amount should be modified to take account of subsidies by host cities, and in the other direction to take account of consumers surplus, but by any stretch, the monetized value of allowing compensation for professional football players is far less than for allowing compensation for kidney donors.

¹³⁷ <https://www.forbes.com/forbes/welcome/?toURL=https://www.forbes.com/nfl-valuations/&refURL=https://www.google.com/&referrer=https://www.google.com/>