Should Organizations Promoting Dangerous Sports Enjoy Maximum Tax Benefits?

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“[T]he feedback from players [is] . . . ‘You’ve got to protect us from ourselves.’”

“[M]illions of people tuning in to ESPN watched [a 25-year old extreme snowmobiler] essentially kill himself on live television.”

“Emergency rooms now treat 175,000 kids each year for sports-related brain injuries.”

ABSTRACT: Perhaps one in every 1,000 BASE jumps results in death, and the fatality and injury rate for BASE jumping may be forty-three times higher than for standard skydiving. Some other new sports are extremely dangerous.

Also some medical researchers are finding that repeated jolts to the head in traditional contact sports correlate to midlife Alzheimer’s, suicide, depression, and inability to work or function without a caregiver, and early death from the brain disease chronic traumatic encephalopathy (CTE). “[N]early a quarter of a million new patients turn up each year with long-term deficits resulting from . . . so-called mild traumatic brain injuries.”

Nevertheless our tax laws still treat injury risks as totally irrelevant and may grant maximum tax benefits to any nonprofit organization teaching and promoting any legal sport. The current approach helps grant cultural cover for dangerous sports and provides government subsidies through tax benefits. This Article challenges the current approach and addresses the very practical question of which current doctrine a court or the IRS should use in determining whether an organization promoting dangerous activities deserves most favored tax status. Recent psychological research on risky behavior supports this Article’s proposal.

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1 David Leon Moore, Head Games, USA TODAY, Oct. 12, 2012, at 1C.


Multiple Choice Question: Which three of the following four organizations may enjoy all the tax benefits available to public charities like the Red Cross and the Salvation Army?

(a) An organization sponsoring Evel Knievel Weekend at which participants perform daredevil motorcycle stunts.
(b) An organization promoting weekend auto races at which members of the general public can race their own unmodified cars. The organization awards cash prizes to the fastest drivers.
(c) An organization sponsoring an annual college football bowl game between top-ranked teams.
(d) An organization promoting chess with public chess exhibitions, chess tournaments, and chess instruction. A court noted that the chess activities increased participants’ knowledge.

You are correct if you chose (a), (b), and (c). These organizations can qualify for most favored tax status despite the risks of debilitating injuries. In contrast, the IRS and the Tax Court rejected the chess organization’s application because it was not promoting a sport.

This Article asserts that courts and the IRS should consider injury risks when deciding whether a sports organization provides a sufficient public benefit to deserve maximum tax

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5 See infra notes 25 to 28 and accompanying text (listing the tax benefits).
6 Evel Knievel Days 2011 IRS Form 990-EZ, page 1, line J (reporting that the organization is a section 501(c)(3) organization), available at www.guidestar.org (and on file with the author); see also Kevin Barry & Marcy Karin, Law Clinics and Lobbying Restrictions, 84 U. COLO. L. REV. 985, 1021 n.175 (2013) (describing the procedure for locating the IRS Form 990 for an organization at www.guidestar.org); see also Welcome to KnievelDays.com, http://www.knieveldays.com (regarding the three-day festival in Butte Montana); George Plaven, Injury cancels EK finale, MONTANA STANDARD, July 24, 2011, available at 2011 WLNR 14657748.
8 Id.
11 Id. at 1135.
12 See Natalie Diblasio, Vroom! It’s Ride to Work Day for Motorcyclists, USA TODAY, June 20, 2011, at 3A, available at 2011 WLNR 12263309; NASCAR: Concussion Tests Could Be Imposed, USA TODAY, Feb. 15, 2013, at 6C; Moore, supra note 1, at 1C, 2C (discussing auto racing concussions); see infra notes 205-12 and accompanying text (regarding the risk of brain injuries for football players).
13 Minnesota Kingsmen Chess Ass’n, Inc. v. Comm’r., 46 T.C.M. (CCH) at 1135 (concluding that the chess club’s activities were too recreational).
benefits. The historic rationale automatically granting these tax benefits predates the rise of ultra-risky modern extreme sports, recent medical research on brain injuries in sports, and psychological studies on thrill-seeking. Review is overdue. Most favored tax status provides risky sports a halo effect and cultural cover, perhaps clouding the judgment of potential players and their parents about the advisability of participation. Most favored tax status also provides a substantial government subsidy at the expense of all other taxpayers. Removing governmental tax benefits for excessively dangerous sports may encourage schools and other sponsors to implement safety precautions or eliminate sports which they cannot reform.

Part I of this Article describes the historic rationale for granting nonprofit sports organizations the most advantageous tax status and ignoring the injury risks.

Part II makes the case for considering injury risks before granting maximum tax benefits. It discusses the apparent and immediate injury risks associated with some extremely dangerous sports including BASE jumping, heli-skiing, and urban climbing, and it discusses the previously hidden risks of brain injuries associated with several traditional sports including auto racing, boxing, ice hockey, and football. After rejecting other doctrinal options, this Article recommends that the courts and the IRS treat substantial injury risks as an indication that the organization may have a substantial recreational or social purpose which would disqualify the organization from maximum tax benefits. Recent psychological research demonstrates that thrill-seekers are genetically hard-wired to derive great pleasure from high-risk activities. Others seek dangerous activities to enjoy the social pleasure of membership in a clique.

Part III, in conclusion, observes that cultural norms and medical understanding can change over time and asserts that tax laws should be responsive. Although cigarette smoking was once considered glamorous when medical researchers later revealed the risks, policymakers increased cigarette taxes. Collegiate boxing was once more popular than basketball, but the NCAA reversed course and refused to sanction boxing in response to injury

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14 Nancy J. Knauer, The Paradox of Corporate Giving: Tax Expenditures, the Nature of the Corporation, and the Social Construction of Charity, 44 DEPAUL L. REV. 1, 7 n.27 (1994) (describing the “generally favorable perception of . . . charitable organizations known as the ‘halo effect’”).


16 See infra notes 29-30 and accompanying text.

17 See infra notes 350-54 and accompanying text: but see Championship Wrestling, Inc. v. State Boxing Comm’n, 477 N.E.2d 302 (1985) (concluding that imposing a tax on wrestling tickets would have no impact on its popularity).

18 See infra notes 251-62 (discussing the rule under current law that an organization with a substantial recreational or social purpose will not qualify under IRC § 501(c)(3)).

19 See infra notes 276-78 and accompanying text.

20 See infra note 300 and accompanying text.


22 See FED. EXCISE TAX RPRTR. (CCH) ¶ 36,620.012, page 16,607-3 (reporting that the Children’s Health Insurance Program Reauthorization Act of 2009 more than doubled the cigarette taxes effective April 1, 2009). see also Michelle Andrews, Smokers will pay more in some states, but not in D.C., WASH. POST, July 16, 2013, at E06 (“Under the . . . Affordable Care Act, health insurers are allowed to charge smokers 50 percent higher premiums than nonsmokers for new policies sold to individuals and small employer groups.”); available at 2013 WLNR 17252127.
concerns.\textsuperscript{23} Even the Guinness Book of World Records refuses to recognize some activities because they are too dangerous.\textsuperscript{24} Tax exemption laws also should be flexible enough to respond to cultural shifts and medical developments.

I. CURRENT LAW: MOST FAVORED TAX STATUS FOR NONPROFIT SPORTS ORGANIZATIONS

Organizations classified under section 501(c)(3) of the Internal Revenue Code, such as the Red Cross and the Salvation Army, are exempt from Federal income tax\textsuperscript{25} and typically enjoy a slew of other valuable tax benefits including the ability to receive tax deductible contributions,\textsuperscript{26} sales tax exemptions, property tax exemptions, state income tax exemptions, preferred mailing rates,\textsuperscript{27} and the ability to raise capital with bonds paying tax-exempt interest.\textsuperscript{28} These tax benefits function as government subsidies encouraging the organization’s exempt activities.\textsuperscript{29} As one organization stated in an IRS ruling request, obtaining section 501(c)(3) status would allow players to make a tax-deductible donations to the organization which would then use the money to buy equipment for the players, and otherwise “open a lot of doors for the organization on different levels.”\textsuperscript{30}

At least since 1894,\textsuperscript{31} the federal government has required that nonprofit organizations provide significant public benefits to enjoy tax-exempt status and other tax subsidies.\textsuperscript{32} The U.S.
Supreme Court endorsed this quid pro quo approach, and scholars view this as the “most defensible rationale.” Tests in the statutes, regulations, and cases implement this fundamental concept. One test is that the organization must be organized and operated exclusively for one of eight listed purposes, including educational purposes or charitable purposes. Another test provides that “the presence of a single [nonexempt] purpose, if substantial in nature, will destroy the exemption regardless of the number or importance of truly [exempt] purposes.”

Based in part on a century-old generalization of debatable accuracy, the government has consistently ruled that an organization teaching and promoting any legal sport can be educational and therefore eligible for the maximum tax benefits enjoyed by section 501(c)(3) organizations. In 1904, a Kentucky court endorsed the view that an organization promoting a sport is educational because “[t]hose in charge of colleges and institutions of learning recognize this to be true.” The Kentucky court observed that schools maintain athletic facilities, and “football and other athletic sports are encouraged.” The court cited cases from 1887 and 1871 which indicated that the perfect education cultivates the mind, improves the students’ morals and religious nature, and develops the student’s “physical faculties.” After stating that a single institution provides the perfect education if it develops all three areas of mind, morals, and physique, the court considered a hypothetical situation in which three separate institutions each chose to develop just one of those areas. In that situation in which “one [institution] seek[s] to cultivate the mind, [another] one to inspire students’ . . . moral conditions, and [the third] to . . . produce better physical development, [the court concluded] each is an institution of education.”

The IRS used this 1904 rational to conclude that a sports organization was educational, even though many educational leaders throughout the twentieth century and into the twenty-first century have disagreed with the view that athletic competition allows for “complete development.”

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33 Bob Jones Univ. v. United States, 461 U.S. 574, 591 (“Charitable exemptions are justified on the basis that the exempt entity confers a public benefit . . . .”); Trinidad v. Sagrada Orden de Predicadores, 263 U.S. 578, 581 (1924) (“Evidently the exemption is made in recognition of the benefits which the public derives from . . . [the] activities of the [organizations] named, and is intended to aid them . . . .”).
34 See e.g., Colombo, supra note 28, at 682 (stating that the public benefit theory is the “most widely accepted rationale”); Mark P. Gergen, The Case for a Charitable Contributions Deduction, 74 VA. L. REV. 1393, 1397-98 (1988); see also Saul Levmore, Taxes as Ballots, 65 U. CHI. L. REV. 387, 409 (1998).
35 IRC § 501(c)(3) (listing the other six exempt purposes as “religious . . . scientific, testing for public safety, literary . . . or to foster national or international amateur sports competition . . . or for the prevention of cruelty to children or animals”).
37 See Rev. Rul. 75-384, 1975-2 C.B. 204 (demonstrating that a court or the IRS will deny tax benefits if the organization encourages illegal activities).
38 German Gymnastics Ass’n of Louisville v. City of Louisville, 80 S.W. 201 (Ky App. 1904).
39 The court used the term “gymnasium.” Id. at 201.
40 Id. at 201.
42 German Gymnastics, 80 S.W. at 201 (emphasis added).
43 See Rev. Rul. 64-275, 1964-2 C.B. 142, 145 (relying on German Gymnastics to conclude that an organization conducting sailboat racing symposiums was educational).
century question the role of sports in higher education, particularly football. With this base, the IRS has issued a series of rulings establishing that all youth sports organizations, as well as adult sports organizations that provide instruction, can be educational and therefore eligible for maximum tax benefits.

In addition to the educational purpose category of section 501(c)(3), some nonprofit sports organizations can enjoy the same maximum tax benefits in the charitable category, or in the category for organizations fostering national or international amateur sports competition, or in the category for organizations that lessen the burdens of government. Accordingly, an appropriate approach to evaluate organizations teaching and promoting excessively dangerous sports will need to impose the same restrictions whether the organization seeks tax favored status as an educational organization or under one of the other three categories.

Court cases demonstrate that under current law, the risk of injury from playing a legal sport is irrelevant in determining the availability of the various tax subsidies. For example, in *Lions Associated Drag Strip*, the organization built a drag strip for the use of the general public and asserted that it was “promot[ing] the . . . educational betterment of hot rod activities.” An average of 200 motorists with unaltered cars participated in races each weekend along with 100 to 200 motorists with modified cars. The fastest drivers received cash and other prizes. Although the drag strip had operated for three years at the time of trial, the court made no mention of the safety record at the drag strip and concluded that the organization qualified for most favored tax status as either an educational or charitable organization.

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44 *See* RONALD A. SMITH, PAY FOR PLAY: A HISTORY OF BIG-TIME COLLEGE ATHLETIC REFORM 39 (2011) (reporting that as early as the 1880s, “[s]ome of the [college] presidents wanted to ban athletics, or at least football, or reform them to better meet the educational goals or in some cases the moral or religious goals of institutions of higher learning”).


46 Rev. Rul. 77-365, 1977-2 C.B. 192 (concluding that an organization providing instruction on a particular sport qualified under section 501(c)(3) even though its programs were available to individuals of all ages); Rev. Rul. 65-2, 1965-1 C.B. 227 (concluding that an organization teaching a particular sport to children in a community qualifies under section 501(c)(3)); IRS Gen. Coun. Memo 39459 (Dec. 26, 1985) (stating that the promotion of recreational sports among adults is not educational under section 501(c)(3)); IRS Priv. Ltr. Rul. 201310303 (Mar. 29, 2013) (concluding that an organization that sponsored an amateur football team for persons age 17 and older did not qualify under section 501(c)(3)).

47 *See* Hutchinson Baseball Enterprises, Inc. v. Comm’t., 696 F.2d 757, 761 (10th Cir. 1982) (“In its broader meaning charity . . . embraces any benevolent or philanthropic objective not prohibited by law or public policy which tends to advance the well-doing and well-being of man.”).

48 *See* I.R.C. § 501(c)(3); *see also* General Explanation of the Tax Reform Act of 1976, 94th Cong. 1st Sess. pp. 423-4, reprinted in 1976-3 C.B. (Vol. 2) 434-36, quoted in Hutchinson Baseball, 696 F.2d at 761 n.2 (indicating that although Congress concluded these organizations qualified as educational organizations, it added this category to section 501(c)(3) because the IRS did not consistently grant exempt status to these organizations). *See* JAMES J. FISHER AND STEPHEN SCHWARZ, TAXATION OF NONPROFIT ORGANIZATIONS 431 (4th ed. 2010) (“Several of these exempt purposes were included in an abundance of caution.”).


50 *Id.*

51 *Id.* (the court merely noted that each vehicle and driver “must undergo rigorous safety inspections and must follow rules . . . promulgated by the drag strip and the National Hot Rod Association”).

52 *Id.*
Also, when evaluating an organization conducting skydiving exhibitions and competitions, the Tax Court never considered the risks. The IRS stipulated that the organization’s stated purpose of promoting skydiving satisfied the requirement that the entity be organized exclusively for an exempt purpose under section 501(c)(3). Ultimately the Tax Court denied section 501(c)(3) status, not because the organization promoted an excessively dangerous activity, but because the skydiving organization used its funds for the personal benefit of its creators.

II. PROPOSAL TO CONSIDER INJURY RISKS

The risks of strains, sprains, broken bones, and even an extremely rare fatality are nothing new in sports, but two developments call for reevaluation of the rule granting most favored tax status to sports organizations regardless of injury risks. First, some new and evolving extreme sports invite crippling injuries and death. These injuries are immediate and apparent, and observers ask whether some of these activities are sports or suicide attempts.

Second, in regards to delayed and hidden injury risks, in the last decade medical researchers have discovered that an alarming number of players in contact sports suffer serious brain ailments that initially were symptomless and undetectable. Although other injury risks also may merit increased attention, the medical community and the general public have focused great attention on concussions in particular and brain trauma in general.

A. Apparent and Immediate Injury Risks: BASE Jumping, Heliskiing, and Other Sports

54 Id. at 1088.
55 Id. at 1096.
56 See SMITH, supra note 44, at 3 (“The brutal nature of football, with a few deaths and many severe injuries [during 1905-6] was reformed through major changes by the [NCAA]”); see also Michelle Healy, Young athletes sidetracked in ER: Serious sports injuries befall 1.35M kids a year, USA TODAY, Aug. 6, 2013, at 3A (“Occasional bumps and bruises are expected when kids play sports, but for more than 1.35 million children last year, a sports-related injury was severe enough to send them to a hospital emergency room.”); University of Rochester Medical Center, Health Encyclopedia, http://www.rochester.edu/Encyclopedia/Content.aspx?ContentTypeID = 90&Content (“All types of sports have a potential for injury, whether from the trauma of contact with other players or from overuse or misuse of a body part.”); Shpigel, supra note 15, at B16 (quoting former professional football player Gary Fencik stating “We’ve accepted the knees and the other ailments, but we never really thought about the deterioration of [our] brain[s] as a result of concussions in football.”).
58 CARROLL & ROSNER, supra note 4, at 26 (reporting that by the fall of 2003, concussion research had begun to take off).
59 Bill Pennington, Hidden Threats to Young Athletes; Safety Advocates Focus on Heart Defects and Heat Stroke, N.Y. TIMES, May 12, 2013, at Sports 1 (reporting that the No. 1 killer of young athletes is sudden cardiac arrest, and that “a young athlete dies from a cardiac incident once every [three] days in the U.S.”).
The world of sports now features an amazing and dangerous array of daredevil activities. People have been “fascinated by risk and its consequences” since ancient times, and the current culture has a propensity to develop new sports and push beyond established boundaries. “Extremely sports’ or ‘alternative sports’ . . . are moving into the mainstream . . . and [p]articipation . . . is increasing.” Part of the risk with newer sports is that the boundaries are uncharted. “There are no new innovations or skills coming to football, hockey or boxing that would make them more dangerous . . . [but] extreme sports haven’t yet reached their final frontier of possibility.” [A]s life becomes more predictable, riskier forms of excitement will emerge.

BASE jumping may be the most dangerous established sport. It “is an amusement rooted in the possibility of death.” Commentators report that perhaps one in every 1,000 attempts results in the jumper’s death; a study of jumps from one particularly jumper-friendly location in Norway concluded that one in every 2,317 jumps there results in death. A BASE jumper “dies somewhere every three weeks.” Only estimates are possible because many successful jumpers never report their exploits “especially . . . those in high-profile jobs.”

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60 See Charles Duhigg, Risk addicts: Is it a feeling of power or fear that makes some people challenge death?, CHI. TRIB., July 8, 2004, at 1, available at 2004 WLN 19820093 (“Since Adam and Eve’s slip-up in the Garden . . . we have been fascinated by risk and its consequences. The instinct to confront danger . . . propels day hikers to slippery granite peaks.”).

61 Id. (observing that some people “are more easily excited by a new toy, and more quickly bored by it”).

62 Smallwood, supra note 2, at 12.

63 Emilie Beau, Sports evolve to the extreme, SUN HERALD (BILOXI, MS), June 7, 2005, at B5, available at 2005 WLN 22881796.

64 Smallwood, supra note 2, at 12.


67 Duhigg, supra note 60, at 1.

68 Mary Slaughter, Burning Bridges, BOISE W.K.L.Y., Jan. 2, 2008, at 26, available at 2008 WLN 1030077; David Zizzo, Leap of Faith; Enthusiasts are falling for extreme sports in state, OKLAHOMAN, May 19, 2008, at IA, available at 2008 WLN 9502156 (estimating the “number of deaths over the more than three decades of BASE jumping at between 95 and 120” but stating that “the covert nature of accessing things to jump from means those jumpers don’t talk much about it, making any statistics suspect”).

69 K. Soreide, C.L. Ellingsen & Vibeke Knutson, How dangerous is BASE jumping? An analysis of adverse events in 20,850 jumps from the Kjerag Massif, Norway, 62 J. OF TRAUMA 1113-7; Risk of Dying and Sports Activities, http://www.medicine.ox.ac.uk/bandolier/booth/Risk/Sports.html. The study included only jumps from the Kjerag Massif in Norway, which is 3,300 feet high, id. at 1114, and therefor provides jumpers with a greater margin of error than lower jumps. See supra note 81 (regarding cliffs in Utah frequently used for jumping that are only 400 feet high). The study’s authors state, “We acknowledge . . . that the Kjerag massif, although highly challenging, may not pose near as high a risk as BASE jumps from other sites.” Id. at 1116. In addition, the Norwegian study included “only jumps registered and supervised by leaders of the Stavanger BASE club” during the regular jumping season from June 1 to August 31. Id.

70 Saslow, supra note 57, at A1.

71 Caesar, supra note 57, at 22; see also Pepoy, supra note 66, at DD (discussing BASE jumping’s “code of secrecy of sorts”); Dizikes, supra note 66, at 1 (“They remain a clandestine society, obeying an outlaw code of honor: Don’t talk about BASE jumping.”).
Even the greatest practitioners can die in a BASE jump because of environmental conditions, equipment failure, mistiming or foreign objects. “Mark Sutton, who wore a James Bond costume while parachuting into the opening ceremony of the 2012 Olympics in London with a jumper dressed as Queen Elizabeth II” died in a 2013 jump. Herve Le Gallou “gained near mythic status among European BASE jumpers” as the first person to jump from the world’s tallest skyscraper in 2009, the 155-story Burj Khalifa in Dubai. He was known as the Eagle of Arabia, but he crashed and died in a 2012 base jump. Mario Richard founded Moab B.A.S.E. Adventures which was the first commercial operation to offer tandem BASE jumps. Richard had many years of experience when he jumped to his death in August of 2013. Dwaine Weston, “one of BASE jumping’s pioneers” died instantly when he hit a bridge railing during a jump.

BASE jumping has its roots in skydiving. The word BASE is an acronym for building, antenna, span (bridge) or earth (cliff). BASE jumpers leap from these fixed locations sometimes less than 400 hundred feet from the ground. Hollywood stunt doubles performed the equivalent of BASE jumps earlier, but a group jumping in Yosemite National Park invented the term “BASE” and established BASE jumping as a regular activity in the late 1970s. BASE jumping “began to coalesce into a sport” in the 1980s and early 1990s. “[BASE] schools now offer classes at popular jumping sites, [and in 2012] Red Bull [energy drinks] sponsor[ed] the first-ever ‘World Wingsuit League in China.’” BASE jumping’s participation has risen sharply since 2008 with the popularity of the wingsuit. The wingsuit allows for flights at speeds of 100

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74 Caesar, supra note 57, at 23.
75 Id. at 22.
76 Id. at 23.
77 Branch, supra note 72, at B10.
78 Duhigg, supra note 60, at 1.
79 Zizzo, supra note 68, at 1A (“BASE jumping is, of course, a form of skydiving.”).
80 Dizikes, supra note 66, at 1.
81 Scott Willoughby, Adrenaline rush at BASE of it all, DENVER POST, May 10, 2005, at D12, available at 2005 WLNR 7374942 (reporting that Moab Utah has a “seemingly endless expanse of vertical cliffs between 300 and 400 feet [and] is among the most popular destinations”); but see Martha Bellisle, Cop accused in illegal parachute leap to fight charges, RENO GAZETTE-J., June 3, 2004, at A1, available at 2004 WLNR 23299276 (reporting that the jump from Half Dome in Yosemite National Park is over 4,000 feet).
84 Caesar, supra note 57, at 23.
85 Id. at 26.
miles per hour or more before deploying the parachute,\textsuperscript{87} but fatalities have increased substantially\textsuperscript{88} perhaps because jumpers are now attempting more intricate mid-air maneuvers.\textsuperscript{89}

Unlike a typical skydive when the participant falls thousands of feet, has three or more minutes from jump to landing,\textsuperscript{90} deploys the parachute at least 1,800 feet in the air,\textsuperscript{91} and has two parachutes in case one fails,\textsuperscript{92} the BASE jumper frequently has little or no chance to make adjustments.\textsuperscript{93} Many things can go wrong. “Guy wires, rock outcroppings, building faces, bridge trestles or other obstacles can . . . snag lines or a canopy after the chute deploys,”\textsuperscript{94} or the jumper may simply catch the wind wrong and smash back into the building, cliff, or other object.\textsuperscript{95} In other situations, equipment fails, the jumper fumbles reaching for the cord, or the jumper simply miscalculates and fails to release the parachute at the right time.\textsuperscript{96} BASE jumping also can be hazardous for bystanders, pedestrians and motorists.\textsuperscript{97}

The federal government effectively prohibits BASE jumping in all national parks in response to many fatal jumps.\textsuperscript{98} Also, BASE jumping presents legal issues in most other locations. The BASE jumper may trespass, violate breaking and entering laws, and be guilty of vandalism in connection with reaching the jump-off point, may be fined and jailed for disorderly or reckless conduct,\textsuperscript{99} and may trespass when landing.\textsuperscript{100} Some localities, however, allow BASE jumping one or two days annually,\textsuperscript{101} and officials allow BASE jumping at all times from the

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\item \textsuperscript{87} Caesar, supra note 57, at 22; Branch, supra note 45, at B10 (“[W]ingsuits, sometimes called squirrel suits . . . extend their flights . . . and give more experienced users some ability to maneuver through the air before pulling the parachute.”).
\item \textsuperscript{88} Caesar, supra note 57, at 26 (“[O]f some 200 people who have died base jumping since 1981, nearly half have died in the last five years, after wingsuits became popular. [Between the summer of 2012 and the summer of 2013] 22 other base jumpers have died; 18 were wearing wingsuits.”).
\item \textsuperscript{89} Id. at 22 (describing the gliding moves needed to safely land a particular jump).
\item \textsuperscript{90} Extreme Sports Statistics, http: \/www.awpfarmhouse.org/extreme-sports-statistics.
\item \textsuperscript{91} Duhigg, supra note 60, at 1.
\item \textsuperscript{92} Saslow, supra note 57, at A1.
\item \textsuperscript{93} Caesar, supra note 57, at 23 (stating that “one mistake can be fatal”); Zizzo, supra note 68, at 1A; Saslow, supra note 57, at A1 (“By the time I even know something is going wrong . . . . I’ll basically be hitting the ground.”).
\item \textsuperscript{94} Zizzo, supra note 68, at 1A.
\item \textsuperscript{95} Caesar, supra note 57, at 23.
\item \textsuperscript{96} Id.at 23-25 (summarizing arguments that legendary BASE jumper Herve le Gallou died on impact from a BASE jump because he failed to release the parachute at the right time).
\item \textsuperscript{97} Dizikas, supra note 66, at 1; Hector Gutierrez, Base Jumper Posed Danger, Prosecutor Says Bystander Came Close to Being Hit by Glass When Man Fell Through Hotel Window Oct. 2, DENVER ROCKY MOUNTAIN NEWS, Mar. 21, 2004, at 4A, available at 2001 WLNR 828861.
\item \textsuperscript{98} 36 C.F.R. § 2.17(3) (prohibits “[d]elivering or retrieving a person or object by parachute, helicopter, or other airborne means, except in emergencies involving public safety or serious property loss, or pursuant to the terms and conditions of a permit”); 2001 NPS Management Policy 8.2.2.7 (in regards to issuing permits for BASE jumping, the policy states that BASE jumping “is not an appropriate public use activity within national park areas”); see Alison Brooke Rubenstein, Comment, “The Whole World Is Jumpable,” Except for National Parks, 8 U. BALT. J. ENVTL. L. 150, 153 (2001); United States v. Oxx, 56 F.Supp.2d 1214, 1216-7 (D. Utah 1999).
\item \textsuperscript{99} Dizikes, supra note 66, at 1.
\item \textsuperscript{100} See Zizzo, supra note 68, at 1A.
\item \textsuperscript{101} See e.g., id, at 1A (discussing Bridge Day in West Virginia); Pepoy, supra note 66, at DD (stating that 450 BASE jumpers registered for Bridge Day in 2009); Thirst for Adrenaline, Royal Gorge Bridge, Base Jumping in Colorado, http:// thirstforadrenaline .com /basejumping/ location/colorado/ royalgorgebridge. html (regarding legal base jumping during Go Fast Weekend! in Canon City Colorado).
\end{itemize}
876-foot high Perrine Memorial Bridge in Twin Falls Idaho\(^\text{102}\) and from numerous cliffs in Moab Utah.\(^\text{103}\)

The risks in BASE jumping are obvious, frequently discussed, and celebrated by many participants. Some jumpers’ comments are disturbing. One man moved to Twin Falls Iowa so he could jump year round and said “We think quality of life is better than quantity . . . .”\(^\text{104}\) A 36-year old real estate developer said her “best memories often were her most terrifying; . . . riding her motorcycle on wet mountain roads [and] reveling in the implicit danger of [BASE] jumping.”\(^\text{105}\) As part of the process of releasing organizers from liability, BASE jumpers at Bridge Day in West Virginia must read aloud a statement that “I know BASE jumping is an extreme sport, which involves a high risk of injury or death.”\(^\text{106}\) An instructor says, “We take what is essentially a tent, throw it up in the air, and expect it to work every time. That’s not going to happen.”\(^\text{107}\)

Pioneering thrill-seekers are establishing two new incredibly dangerous sports founded on BASE jumping. First, ski-BASE jumping “combines two extreme activities, free skiing and BASE jumping, into one dangerous, endorphin-releasing package.”\(^\text{108}\) One reporter described a participant “skiing off a 400-foot cliff and into a free fall, tumbling past plunging walls and jagged ledges toward a bloody ending.”\(^\text{109}\) Apparently free falling is not enough for some. One ski-jumper says “I prefer to do a big front flip . . . [other ski-jumpers] do double back flips [or] quadruple back flips.”\(^\text{110}\)

Second, one daredevil has introduced the sport of indoor BASE jumping. Miles Daisher described his feat as the “Jason Bourne of BASE jumping”\(^\text{111}\) when celebrating his successful leap from the 19\(^\text{th}\) floor of the indoor atrium of the Gaylord National Hotel in Maryland.\(^\text{112}\) Daisher fell six stories in two seconds before releasing his parachute, then “made a 90 degree right turn, glided forward several hundred feet, and landed some 180 feet beneath his takeoff point.”\(^\text{113}\) During the 13-second fall, he had to avoid overhead girders, and indoor trees.

\(^{102}\) Zizzo, supra note 68, at 1A.
\(^{103}\) Id.; Willoughby, supra note 81, at D12 (reporting that BASE jumping is allowed from many peaks in Moab Utah year round).
\(^{104}\) Nate Poppino, Jumping community reacts to accidents; No regulations expected in response to death, injuries, TIMES NEWS, May 31, 2006, available at 2006 WLNR 9322572.
\(^{105}\) Saslow, supra note 57, at A1.
\(^{106}\) Id.
\(^{107}\) Id.
\(^{108}\) Id.
\(^{109}\) Id.
\(^{110}\) Saslow, supra note 82, at 8 (reporting approximately “a dozen or so incorrigible daredevils” ski-BASE jumping).
\(^{111}\) Id.
\(^{112}\) Id.
\(^{113}\) Id.

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Several other sports invite crippling injury or death. “[I]n heliskiing . . . mountain climbing or whitewater rafting, death is never far away.”¹¹⁴ In heliskiing, a helicopter can transport an intrepid skier or snowboarder to a remote location not accessible by a ski lift, away from the monitored environment of a ski resort. The skier or snowboarder can experience a variety of conditions and terrains including powder, corn, or sugar snow. One enthusiast attests that heliskiing can send the “adrenaline surging like Old Faithful.”¹¹⁵ Death can result from “plung[ing] into a drift-filled bowl and suffocat[ing],”¹¹⁶ triggering an avalanche,¹¹⁷ crashing the helicopter, or simply skiing off a cliff. “There [are] inherent hazards in this activity.”¹¹⁸ Survivors of deceased heliskiers complain that the “heli-ski industry [is] . . . not governed or overseen by any monitoring agency.”¹¹⁹

One parent compares heliskiing to Russian roulette.¹²⁰ In one case a court noted that an insurer would more than double the annual premium on a life insurance policy if the applicant takes heliskiing vacations, and the court held the applicant’s failure to disclose his avocation for heliskiing vacations to the insurance company voided the life insurance policy.¹²¹ A documentary focusing on the death of a heliskier and the implications for his family asks “Is living the dream worth risking it all?”¹²²

Climbing sports demonstrate that some segments within a sport may pose great injury risks, but other segments do not. Urban climbing, also known as building, generally refers to scaling city buildings.¹²³ Practitioners risk death or serious injury from falling to the ground, or they can be electrocuted if they hit power lines.¹²⁴ “The perilous thrills of climbing urban structures [including] the Eiffel Tower [and] the Empire State Building with no safety gear has drawn thousands of enthusiasts—both practitioners and fans.”¹²⁵ The editor of Urban Climbing Magazine says that statistics are unavailable because “it’s illegal.”¹²⁶ An organization promoting an illegal sport would not be eligible for most favored tax status,¹²⁷ but presumably a

¹¹⁶ Gardiner, supra note 114, at B02.
¹¹⁸ Gardiner, supra note 114, at B02.
¹¹⁹ Amdur, supra note 117, at B11.
¹²⁰ Id.
¹²¹ West Coast Life Ins. Co. v. Hoar, 505 F. Supp. 2d 734 (D. Colo. 2007), aff’d 558 F.3d 1151 (10th Cir. 2009).
¹²² Amdur, supra note 117, at B11.
¹²⁴ Id.
¹²⁵ Eric White, NYC stunt spotlights dangers of urban climbing, INTELLIGENCER, June 7, 2008, at 2, available at 2008 WLNR 11479683 (reporting that urban climbers have also summited the Chicago Sears Tower and the Petronas Tower in Kuala Lumpur, Malaysia).
¹²⁶ Id. at 2 (reporting that two urban climbers in New York City “face[] charges of reckless endangerment, criminal trespass and disorderly conduct.”).
municipality could authorize urban climbing for a day or a weekend in the same way that some places allow BASE jumping.\textsuperscript{128}

Freestyle rock climbing is performed with just climbing shoes and a chalk bag,\textsuperscript{129} with no harnesses, ropes, or other safety equipment.\textsuperscript{130} It is an “inherently dangerous sport,”\textsuperscript{131} and some have died.\textsuperscript{132} The risks in climbing, however, vary wildly based on the conditions and the task undertaken. The American Alpine Association reports approximately 185 accidents and 34 fatalities annually from climbing.\textsuperscript{133} With approximately 7 million people engaged in wall climbing,\textsuperscript{134} it seems likely that the risk of a fatality in freestyle rock climbing greatly exceeds the risk from wall climbing.

In regards to skydiving, although non-industry sources report higher fatality rates, the U.S. Parachute Association optimistically reports “the risk of dying in a skydiving accident [at only] about one in 111,607 every year.”\textsuperscript{135} In spite of the industry-generated statistic, one veteran skydiver maintains, “The danger is every bit as real as it seems, and the margin for error is slim . . . It is fun and exciting in part because you really can die doing it.”\textsuperscript{136}

B. Evolving Understanding of Hidden Brain Injuries in Traditional Contract Sports

Our “culture . . . celebrated hard knocks as a rite of passage, [and] we didn’t think twice when our kids got banged around on the ballfield.”\textsuperscript{137} If it “didn’t result in a trip to the hospital, [it] could be ignored.”\textsuperscript{138} “Soldier on. Shake it off. You just had your bell rung . . . .”\textsuperscript{139} This

\textsuperscript{128} See supra notes 101-103 and accompanying text.


\textsuperscript{130} Joseph Ditzler, Los Alamos Student Dies Climbing, ALBUQUERQUE J., May 9, 2003, at 2, available at 2003 WLNR 3330371.

\textsuperscript{131} Chris Harris, Rock Climbers React to Death of Woman, 22, N. J. RECORD, May 2, 2012, at L03, available at 2012 WLNR 9229677.

\textsuperscript{132} Id.; In Brief, supra note 129, at 2B.

\textsuperscript{133} See Harris, supra note 131, at L03; Irene Wanner, Climbing stories illustrate glory and foolishness, SEATTLE TIMES, Jan. 14, 2000, at 110, available at 2000 WLNR 1399230 (“On average, 35 climbers die in the U.S. annually. Hundreds are hurt.”).

\textsuperscript{134} Emilie Le Beau, Extreme sports have moved into the mainstream, but athletes still need plenty of dedication to score big, CHI TRIB., Apr. 5, 2005, at 10, available at 2005 WLNR 23464179.

\textsuperscript{135} Jose Pagliery, Sky diver with damaged chute ‘lucky to be alive’, MIAMI HERALD, Dec. 9, 2008, at A1, available at 2008 WLNR 23585064; but see Jason Blevins, Death in the Drop Zone, DENVER POST, June 8, 2008, at A01 (putting the fatality rate at one in every 82,400), available at 2008 WLNR 10882922; Soreide et al, supra note 69, at 1113 (“Risk in skydiving has been estimated to be about 5 deaths and 140 to 170 injuries per 100,000 parachute jumps.”).

\textsuperscript{136} Blevins, supra note 135, at A01.

\textsuperscript{137} CARROLL & ROSNER, supra note 4, at xi.

\textsuperscript{138} Id. at xi.

\textsuperscript{139} Moore, supra note 1, at C1; Sean Gregory, The Problem with Football: How to Make It Safer, TIME, Jan. 28, 2010 (“The euphemistic lexicon that pervades locker-room culture . . . has contributed to a perception that the problem isn’t serious.”).
attitude is not entirely surprising. “It’s hard to take seriously an invisible injury with subtle symptoms that often seem to pass quickly.”

But in the last decade medical experts have raised serious concerns about head injuries. In 2010 the Centers for Disease Control and Prevention reported that in the previous ten years trips to the emergency room for sports-related brain injuries doubled for persons age 8 through 13, and tripled for persons age 14 through 19.

Players and parents are changing their views. In 2013, President Obama said “if I had a son, I’d have to think long and hard before I let him play football.” America’s favorite spectator sport, football, is “under attack,” with one advocate stating that the medical reports “should be a wake-up call, especially to parents, coaches, and league administrators . . . . We’re exposing more than 1 million [high school] kids to early-onset brain damage, and we didn’t know yet how to prevent it.” In 2012 youth football participation dropped for the first time since statistics have been kept. In the same year a reporter asked a veteran racecar driver about NASCAR’s concussion policy, and the driver said “Ten years ago, we [are not] having this conversation, because you just went on.”

The doubling and tripling of E.R. visits for head injuries may be due in part to players becoming bigger, stronger, and faster thanks to sophisticated strength training programs and nutrition regimes. Football and many other sports demonstrate Newton’s Second Law: force equals mass times acceleration. With stronger and faster players, a big football collision may involve “each player banging the other with fifteen hundred pounds of force at speeds approaching twenty-five miles per hour . . . [possibly generating an] impact . . . [of] ninety-eight times the force of gravity.” One national commentator concludes, “[A]ccumulating evidence

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140 CARROLL & ROSNER, supra note 4, at 10; id. at xii (discussing the “invisible nature of the injury”); Moore, supra note 1, at 1C, 2C (quoting a veteran race car driver discussing the temptation to keep driving with a concussion because “you can hide it”).
141 CARROLL & ROSNER, supra note 4, at xi; id. at 26.
142 Id. at xii.
143 Rachel George, Head injuries soar on halfpipe, USA TODAY, Mar. 2, 2013, at 1C, 2C.
144 Editorial, Nagging Concerns Before the Big Game, N.Y. TIMES, Feb. 3, 2013, at BW 10 (quoting from an interview with The New Republic); Mike Garafolo, Obama’s football stance debated, USA TODAY, Jan. 29, 2013, at 1C; Mike Lopresti, President has valid concern, USA TODAY, Jan. 28, 2013, at 8C (“The carnage of concussions has Barack Obama’s attention, as it should everyone’s.”).
145 CARROLL & ROSNER, supra note 4, at 41.
147 Mihoces, supra note 146, at 3C; see also Shigel, supra note 15, at A1 (discussing a professional football player who will not allow his seven-year old son to play football).
148 Moore, supra note 1, at 1C, 2C.
149 CARROLL & ROSNER, supra note 4, at 42 (reporting that in three decades “the average weight of NFL players grew by 25 pounds . . . [and] the average offensive lineman ballooned a full 60 pounds to 310”).
150 Id. at 42.
151 Id. at 42-43.

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about . . . the human body [and] especially the brain . . . compel the conclusion that football is a mistake because the body is not built to absorb, and cannot be adequately modified by training or protected by equipment to absorb, the game’s kinetic energies.” 152

The medical community has acknowledged concussions since at least the year A.D. 900,153 but understanding and appreciation have come slowly for “the most common and most confusing of head injuries.”154 Experts only arrived at a uniform description around the year 2000, and the description includes “any change in mental status such as confusion, disorientation, headache, or dizziness following a hit or jolt.”155 Neither loss of consciousness, nor immediate dizziness, is a necessary element.156 Concussions occur when the “brain accelerates and strikes the skull wall, [and] nerve endings and blood vessels stretch and tear as the brain rotates and rebounds,”157 In dramatizing concussions, some describe the brain as being like jello rather than a snow globe.158 If a snow globe is shaken, all the pieces eventually fall back to the bottom where they started; in contrast, if jello is shaken violently enough, it will not return to its original shape. And “[n]o helmet can prevent the head from stopping short, nor keep the cortex [and other parts of the brain] from sloshing forward and banging into bone [and causing damage].”159

Many factors make concussion research challenging and conclusions elusive. Frequently symptoms do not appear for days160 and may be “very understated”161 when they finally arrive. “[C]oncussion damage can remain hidden for years only to show up later as early-onset dementia.”162 Evaluating and categorizing concussions is challenging. “Concussions are like snowflakes; everyone is different [and symptoms] can last for days, weeks or months, and the recovery time varies from patient to patient.”163

Another complication is that players often do not realize they have a concussion. Many do not believe they have a concussion unless they are rendered unconscious or dizzy. In a study of Canadian hockey players age eleven through seventeen, only twenty percent of those who had a concussion realized it,164 and they reported only one out of every 100 concussions to youth hockey authorities.165

152 George Will, Would we have to kill football to fix it? SUN HERALD (BILOXI, MS), Aug. 6, 2012, at 11, available at 2012 WLNR 16493051.
153 CARROLL & ROSNER, supra note 4, at 11.
154 Id. at 10.
155 Id.
156 Id.
157 Moore, supra note 1, at C1, C2.
158 Moehringer, supra note 3, at 52.
159 Id.
161 Howard Beck, Concussion Protocols Loom Large in Series, N.Y. TIMES, May 18, 2013, at B9 (noting that having no symptoms for two days is not unusual).
162 CARROLL & ROSNER, supra note 4, at xiii.
163 Beck, supra note 161, at B9; see also Ken Belson, Concussion Guidelines Are Revised to Stress Individual Treatment, N.Y. TIMES, Mar. 19, 2013, at B9 (“[C]oncussions are too idiosyncratic to be categorized neatly”).
164 CARROLL & ROSNER, supra note 4, at 57.
165 Id. at 56.
Even when players realize they are injured, many will not complain because they want to stay in the game, or they view complaining as a sign of weakness. A survey showed that fifty-six percent of NFL players “said they would hide concussion symptoms to stay on the [playing] field.”

With these factors, it is not surprising “[n]obody knows exactly how many concussions occur.” “[E]stimates by the Centers for Disease Control and Prevention range anywhere from 1.6 million to 3.8 million sports-related brain injuries in the U.S. annually.”

Recent research reveals several disturbing features about brain trauma. Once a player has a concussion, a subsequent concussion becomes much more likely. “College players with [three] or more concussions are over [three] times more likely to sustain a new concussion.” Also multiple concussions can cause the same damage as a single severe head injury such as from a car crash or a battlefield injury. Furthermore, even jolts to the head that do not rise to the level of a concussion, called “subconcussive” impacts, can add up over time and cause catastrophic injuries.

The consequences of brain trauma can be debilitating. “Nothing can convey the menace of concussions more clearly than the heart-rendering stories of people whose lives have been irrevocably changed by these seemingly minor injuries.” Consequences can include early-onset Alzheimer’s, suicide, death from the brain disease chronic traumatic encephalopathy, depression, inability to work, and inability to function without a care-

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166 See e.g., Moore, supra note 1, at 1C, 2C (repeating quarterback Robert Griffin III’s remark, “I still refuse to say I had a concussion. I had temporary memory loss”).
167 Jarrett Bell, Getting Inside Their Heads, USA TODAY, Jan. 31, 2013, at 1C, 5C (noting that many players seem “conditioned to down play risks”).
168 Jarrett Bell, Discussing safety not enough, USA TODAY, Nov. 14, 2012, at 9C.
169 CARROLL & ROSNER, supra note 4, at xii.
170 Id. at xii; see also Belson, supra note 163, at B9.
171 CARROLL & ROSNER, supra note 4, at 25.
172 Id. at xiii.
174 CARROLL & ROSNER, supra note 4, at xii; FAINARU-WADA, supra note 146, at 268.
175 Ken Belson, N.F.L. Director Says Disease Is Overstated, N.Y. TIMES, Mar. 28, 2013, at B14 (reporting that chronic traumatic encephalopathy, which has been found “posthumously in dozens of football players,” is caused by repeated head trauma, and “is closely related to Alzheimer’s disease”); CARROLL & ROSNER, supra note 4, at xiii (“[C]oncussion damage can remain hidden for years only to show up later as early-onset dementia.”); FAINARU-WADA, supra note 146, at 277.
176 Will, infra note 152, at 11; Moehringer, supra note 3, at 46, 50 (reporting that six professional football players committed suicide in two years, and “each suffer[ed] some combination of the classic symptoms of chronic traumatic encephalopathy, or C.T.E.”); Gary Mihoces & Erik Brady, News of Seau’s brain damage hits home in N.F.L., USA TODAY, Jan. 11, 2013, at 3C (All-pro football linebacker Junior Seau killed himself, and the National Institute of Health reported he had “signs of chronic traumatic encephalopathy (C.T.E.”)).
177 Gary Mihoces & Janice Lloyd, NFL players at greater risk from brain disease, USA TODAY, Sept. 6, 2012, at 1A (regarding a report from the National Institute for Occupational Safety and Health finding that ex-players were three or four times more likely to die from brain diseases”); but see Gary Mihoces, Documentary says NFL is a ‘League of Denial,’ Oct. 8, 2013, at 3C (“There’s no proof at this point in time in determining that concussion is an
Research often identifies the disease chronic traumatic encephalopathy, known as C.T.E., in the brains of deceased football players. Technology tested in 2013 allows researchers to test for C.T.E. in the living for the first time. “For all [professional football] players who play five years or more, life expectancy is less than [sixty]; for linemen it is much less.”

C. Risk of Brain Injuries in Various Sports

Forceful jolts to the head cause concussions, and Newton’s Second Law holds that force equals mass times acceleration. Accordingly, sports in which players travel at artificially high speeds such as auto racing, motorcycle racing, snowmobiling, and power boat racing can involve some of the hardest hits. A study of major sports determined that auto racing crashes can generate the highest impacts, with forces measured above 100 times the force of gravity.

Other sports involving artificially high speeds also pose significant brain injury risks. Hockey is both a high speed sport and a collision sport in which an objective of the game is intentionally knocking over other players, frequently by slamming them into the boards or knocking them to the hard ice. Hockey players also engage in bare-knuckles fighting, which in other contexts is illegal. National Hockey League (NHL) players are five times more likely to suffer a concussion than National Football League (NFL) players.

isolating factor in causing CTE.”) (quoting Michael Collins, Director of the Sports Medicine Concussion Program at the University of Pittsburgh Medical Center); FAINARU-WADA, supra note 146, at 343 (“The vast majority of the neuroscience community does not believe that research has established a causal relationship linking repetitive head trauma in football and CTE . . . .”) (quoting Kevin Guskiewicz, Professor at the University of North Carolina and winner of a MacArthur genius award).

Gary Mihoces, Test can find CTE in living people, USA TODAY, Jan. 23, 2013, at 8C; Gregory, supra note 139 (“Common symptoms of CTE include . . . depression during middle age”); FAINARU-WADA, supra note 146, at 170 (describing a “seminal depression study, which showed that [football] players who sustained at least three concussions were far more likely to be clinically depressed later in life.”); id. at 271-72.

Ken Belson, Millions Paid Over Injuries, Report Says, N.Y. TIMES, Nov. 17, 2012, at B10 (discussing the case of Pittsburgh Steeler linebacker Mike Webster who was “certainly disabled when he stopped playing football . . . .”); Chronic Traumatic Encephalopathy, SPORTS LEGACY INSTITUTE, http://sportslegacy.org/?page_id=160 (last visited Sept. 18, 2013) (stating that the symptoms of chronic traumatic encephalopathy include “memory loss, confusion, impaired judgment, paranoia, impulse control problems, aggression, depression, and eventually, progressive dementia.”).


Mihoces, supra note 179, at 8C (stating that C.T.E. is a “conclusion related brain disease linked to depression and dementia . . . [and] evidence[d] . . . [by] the accumulation of tau protein in brain cells”).

id.

Will, supra note 152, at 11.

CARROLL & ROSNER, supra note 4, at 42.

Rachel George, Snowmobile athletes defend risks, USA TODAY, Jan. 30, 2013 (reporting that when snowmobiler Caleb Moore crashed during the 2013 X Games, responders initially announced he had a concussion, but shortly thereafter a medical team announced that he died from internal injuries).

Moore, supra note 1, at 1C, 2C (“Using G-force—the gravitational force associated with the acceleration of an object relative to a free fall—we can compare head impacts in various activities.”).

See John Branch, In Suit Over Death, Boogaard’s Family Blames the N.H.L., N.Y. TIMES, May 17, 2013, at D1.


CARROLL & ROSNER, supra note 4, at 56.
Also in regards to artificial speed sports, the risks of brain injuries from halfpipe have grabbed headlines. Halfpipe is an X-Games sport involving snowboarders “hurl[ing] themselves three stories in the air to perform tricks [and eventually landing] on a hard-packed [curved sheet of ice and snow].” Halfpipe is popular among athletes “in their teens and early twenties . . . [with] a sense of invincibility.” Even the elite participants suffer multiple concussions at an early age. The two-time Olympic Gold Medalist Shaun White, age 27, estimates he has suffered nine concussions. Because the sport is relatively new and the participants are young, “it will take researchers decades [to evaluate the consequences of halfpipe brain injuries].” The same commentators observe that in contrast to halfpipe the sport inspiring the most research and offering the best opportunities for analysis is football.

Football brain injuries have been the subject of extensive research, commentary, debate, action, and highly-publicized litigation. Although other sports pose greater risks, “what we’re learning from is football.” In contrast to halfpipe, football researchers can study players who have attained almost any age.

Football has been known as a dangerous game since at least the early 1900s, but the general public has only started to appreciate the hidden risks of brain injuries in the last decade. A 2001 study found that over one million boys played high school football, and during the four years of high school “half of them were sustaining concussions with over a third suffering more than one.” “Football produces nearly two-thirds of all concussions among high school boys.” Among high-school students visiting emergency rooms every year with sports-related brain injuries, the majority are football players. Even with all the factors tending to underestimate the number of concussions, one report concluded that thirty-four percent of college

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191 Rachel George, Head Injuries Soar on Halfpipe, USA TODAY, Feb. 26, 2013, at 1C, 2C.
192 Id.
193 Id.
194 Id.
195 Id.
196 Id.
197 See e.g., Our View, supra note 146, at 6A (“With scientific studies increasingly linking head injuries with degenerative brain diseases, fans and young people could turn away from the sport.”); contra Opposing View, Don’t ruin the game we love, USA TODAY, Jan. 31, 2013, at 6A (celebrating football’s “masculinity and rugged individualism”).
198 See supra notes 213-25 and accompanying text (regarding rule changes to reduce risks).
199 See supra note 211-12 (regarding the case of over 4,500 former players suing the NFL).
200 Moore, supra note 1, at C1, C2 (reporting that a car crash in an auto race can generate an impact of more than 100 Gs, while a helmet to helmet hit in football may generate a force of 80 to 100 Gs).
201 George, supra note 143, at C1, C2.
202 SMITH, supra note 44, at 3, 42-44 (stating that the principal reason for creating the NCAA was to reform the violence in football during 1905-6); see also Mihoce, supra note 16, at 3C (discussing a 1905 article on football referring to the “death harvest”).
203 CARROLL & ROSNER, supra note 4, at 42.
204 Id. at 26 (2011); Gregory, supra note 139 (stating in 2010 that 1.2 million students play high school football, and each year 43,000 to 67,000 report having a concussion “though the true incidence is likely much higher [because] more than [fifty percent] of concussed athletes are suspected of failing to report their symptoms”); FAINARU-WADA, supra note 146, at 211 (reporting that 1.1 million students play high school football).
205 Id.
206 Id. at 52.

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football players have had one concussion, and thirty percent have had two or more.\textsuperscript{207} Ex-professional football players over fifty years old are “five times as likely as the national population to receive a memory-related diagnosis” and” players [ages thirty to forty-nine are] nineteen times as likely to be debilitated.”\textsuperscript{208} In one peewee game in 2012, “five preadolescent boys suffered concussions . . . [and the] winning coach declared, ‘This is a football game, not a Hallmark moment.’”\textsuperscript{209} In comparing microscopic images of a normal brain and the brain of a deceased football player afflicted with chronic traumatic encephalopathy, one player remarked, “This is your brain, and this is your brain on football.”\textsuperscript{210} Over 4,500 former players sued the National Football League (NFL) arguing that the NFL deliberately understated the risks of head injuries for decades.\textsuperscript{211} The parties settled, and the NFL agreed to pay $765 million, but the NFL made no admission of guilt.\textsuperscript{212}

Football leagues at various levels are taking steps to reduce the risks. In youth football approximately three million children younger than fourteen play tackle football,\textsuperscript{213} and instructors are stressing tackling with the arms and shoulders as part of “heads up football”\textsuperscript{214} to discourage the use of the helmet as a weapon.\textsuperscript{215} In 2012, Pop Warner Football adopted new rules limiting full contact drills to one-third of a team’s practice time and banning head-on blocking or tackling drills that begin with players more than three yards apart.\textsuperscript{216} At the college level there are “70,000-plus football players,”\textsuperscript{217} and one league has changed its rules to allow only two contact practices per week.\textsuperscript{218} Some Illinois legislators proposed a bill to prohibit more than two full contact practices per week, but its critics argued that Illinois would become known as the “nanny state,” and the bill failed.\textsuperscript{219} The NFL downplayed head injuries as recently as 2009,\textsuperscript{220} but subsequently adopted several safety measures. They have “stiffened penalties for


\textsuperscript{208} Gregory, \textit{ supra} note 139.

\textsuperscript{209} Editorial, \textit{ supra} note 144, at BW 10.

\textsuperscript{210} Gregory, \textit{ supra} note 139.


\textsuperscript{212} Id.

\textsuperscript{213} Mihoces, \textit{ supra} note 146, at 3C; Editorial, \textit{ suprad} note 144, at BW 10; Gregory, \textit{ supra} note 139 (confirming the three million figure); FAINARU-WADA, \textit{ supra} note 146, at 211 (confirming the three million figure).

\textsuperscript{214} Gary Mihoces, \textit{NFL keeps head up on youth league says safety, not business, key to support of tackling program}, USA TODAY, Aug. 28, 2013, at 1C, available at 2013 WLNR 21375722.

\textsuperscript{215} Mihoces, \textit{ supra} note 146, at 3C; Mike Garafolo, \textit{Good Hands Could Help Protect Head}, USA TODAY, Feb. 25, 2013, at 4C.


\textsuperscript{217} Mihoces, \textit{ supra} note 146, at 3C; see also FAINARU-WADA, \textit{ supra} note 146, at 211 (stating that there are “68,000 college players”).

\textsuperscript{218} Calder Silcox, \textit{Ivy League Puts in Strict Concussion Rules}, USA TODAY, July 21, 2011; Shpigel, \textit{ supra} note 15, at B16 (reporting that the N.C.A.A. allows a college football team to have five full-contact practices every week).


\textsuperscript{220} Gregory, \textit{ supra} note 139; see also Battista, \textit{ supra} note 173, at Y6 (stating that the NFL “insist[ed for years] there was no link between head injuries sustained on the field and long-term cognitive impairment”); Belson, \textit{ supra} note 210, at A1 (reporting that the plaintiffs in the lawsuit alleged that the “N.F.L. took until 2010 to properly warn players”).

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hits to the head,"\textsuperscript{221} and for 2011 they moved kickoffs up five yards to “reduce the violent collisions.”\textsuperscript{222} For the 2012 season the NFL adopted a post-injury sideline concussion assessment requirement.\textsuperscript{223} In late 2012, the NFL Commissioner announced that “[m]edical decisions override everything else.”\textsuperscript{224} In 2013, the NFL “plans to have independent neurological consultants on the sidelines during each game.”\textsuperscript{225}

Nevertheless, national commentator George Will and former Super Bowl quarterback Terry Bradshaw have opined that unless drastic steps are taken, football will fade from being the most popular spectator sport to becoming a niche sport followed by only a fringe group willing to accept or overlook the violence.\textsuperscript{226} A sports sociologist predicts that in fifteen years “[w]e may see [football] . . . in pretty much the same place as boxing or ultimate fighting.”\textsuperscript{227} Another commentator speculates that just one death on the football field may lead football to obsolescence like boxing.\textsuperscript{228}

Professional boxing actually encourages a boxer to concuss the opponent. Knocking out the competitor means victory. A substantial part of the early terminology regarding brain injuries involved boxing. A pathologist in 1928 described certain injured boxers as “punch drunk” and “estimated that nearly half of all veteran fighters had some form of the syndrome [later described as dementia pugilistica and accepted as irrefutable science in 1973].”\textsuperscript{229} For decades, the public has observed charismatic boxers deteriorate over time with severe cognitive impairment including Muhammad Ali.\textsuperscript{230} In 2012 a commentator observed, “Boxing once stood at the center of American cultural life . . . now it slouches punch drunk on the tattered fringes . . . [wearing] the pall of obsolescence.”\textsuperscript{231}

Football’s risks dominate the public debate, but a high percentage of women suffer concussions in hockey, soccer, and basketball. In hockey, women suffer concussion at double the rate of men playing hockey, and women playing college hockey suffer more than double the rate of concussions of men playing college football.\textsuperscript{232} In youth soccer, girls have

\textsuperscript{221} Shpigel, \textit{supra} note 15, at B16.
\textsuperscript{222} \textit{Id.}
\textsuperscript{224} Belson, \textit{supra} note 180, at B12.
\textsuperscript{225} Battista, \textit{supra} note 173, at Y6; Battista, \textit{supra note} 223, at B14; \textit{see also} Gary Mihoces, \textit{Documentary says NFL is a ‘League of Denial,’} \textit{USA TODAY}, Oct. 8, 2013, at 3C (listing “an array of player safety policies over the last four years”).
\textsuperscript{226} Will, \textit{supra} note 152, at 11 (“Football is entertainment in which the audience is expected to delight in gladiatorial actin that a growing portion of the audience knows may cause the players degenerative brain disease. Not even football fans . . . can forever block that fact from their excited brains.”); Shpige, \textit{supra} note 15, at A1, B16 (reporting that on the \textit{Tonight Show} with Jay Leno, Bradshaw said he believed football would “be eclipsed in popularity by soccer and other sports within [ten] years”); \textit{see also} Moehringer, \textit{supra} note 3, at 50.
\textsuperscript{227} Shpigel, \textit{supra} note 15, at A1 (quoting Jay Coakley of the University of Colorado).
\textsuperscript{228} Moehringer, \textit{supra} note 3, at 46, 50.
\textsuperscript{229} CARROL & ROSNER, \textit{supra} note 4, at 185 (discussing a paper presented by pathologist Harrison Martland titled “Punch Drunk”); FAINARU-WADA, \textit{supra} note 146, at 158-59.;
\textsuperscript{230} \textit{Id.} at 200-201.
\textsuperscript{231} Moehringer, \textit{supra} note 3, at 50; \textit{see also} Editorial, Our View, \textit{supra} note 146, at 6A (concluding that “boxing is now regarded as a brutal niche”).
\textsuperscript{232} CARROLL & ROSNER, \textit{supra} note 4, at 56.
approximately fifty percent more concussions than boys,\textsuperscript{233} and in college soccer women have approximately thirty percent more concussions than men.\textsuperscript{234} In youth basketball, “girls sustain [three] times as many concussions as boys,”\textsuperscript{235} and in college basketball, women sustain sixty percent more concussions than men.\textsuperscript{236}

The future may bring more risky contact sports seeking tax benefits. While researchers have focused on youth, college and pro football, they may soon pay attention to the exploding sport of alumni football. In alumni football, players ranging in age from 18 to at least 64 “craving the brawny contact and burly self-assessment . . . which . . . golf . . . cannot provide”\textsuperscript{237} attempt to relive their youth by playing full contact football on the field of their alma mater or the field of an archrival. The players must sign waivers releasing the promoters from liability.\textsuperscript{238} “Absent is the rigorous and professional monitoring of concussions during or after the game that has become so urgent in organized sports.”\textsuperscript{239}

D. Practical Proposal: Choosing a Test to Consider Injury Risks

A court or the IRS concerned that a sports organization seeking most favored tax status puts players in too much danger would need to choose from at least four doctrines that conceivably might apply. An analysis of Congressional, administrative, and judicial developments, however, eliminates all but one.

First, it might be argued that dangerous sports are not truly educational if a significant percentage of participants die or suffer brain injuries. Under current law, organizations promoting football and various other contact sports may be classified as educational\textsuperscript{240} even though participants can suffer diminished mental capacity. The definition of educational for tax purposes is extremely broad, including “[t]he instruction . . . of the individual for the purpose of improving . . . his capabilities; or [t]he instruction of the public on subjects useful to the individual and beneficial to the community.”\textsuperscript{241} An attempt to narrow the educational category would represent a major shift with many consequences. Specifically, current law generally does not judge the content presented by an organization,\textsuperscript{242} instead it focuses on the organization’s methodology.\textsuperscript{243}

\textsuperscript{233} Id. at 27.
\textsuperscript{234} Id.; see also Christine Brennan, Years After Head Injury, Scurry Has Hope Amid Haze, USA TODAY, Sept. 19, 2013, at 3C ("[S]tudies show that women and girls are more likely than men and boys to suffer concussions in sports they both play, such as soccer, basketball and baseball/softball.").
\textsuperscript{235} CARROL & ROSNER, supra note 4, at 27.
\textsuperscript{236} Id.
\textsuperscript{237} Jere Longman, Clinging to Youth, at a Cost, N.Y. TIMES, Jan. 20, 2013, at Sports 1.
\textsuperscript{238} Id.
\textsuperscript{239} Id.
\textsuperscript{241} Treas. Reg. § 1.501(c)(3)-1(d)(3) (describing when an organization qualifies as “educational”).
\textsuperscript{242} See Big Mama Rag, Inc. v. United States, 631 F.2d 1030 (D.C. Cir. 1980); but see National Alliance v. United States, 710 F.2d 868 (D.C. Cir. 1983) (refusing to allow most favored tax status if the organization engages in hate speech).
\textsuperscript{243} Rev. Proc. 86-43, 1986-2 C.B. 729 (adopting the four-part methodology test); see Nationalist Movement v. Comm’r, 102 T.C. 558 (1994) (approving the methodology test), aff’d 37 F.3d 216 (5th Cir. 1994).
Second, existing law disqualifies an organization whose “purpose . . . violate[s] established public policy.” 244 Perhaps a court or the IRS might conclude that sponsoring an excessively dangerous sport is a violation of public policy. Established public policy for this purpose, however, has been defined very narrowly. Existing authorities indicate it is only violated in situations involving racial discrimination.245

Third, existing law disqualifies an organization that operates for a substantial commercial purpose. 246 This test might disqualify some sports organizations including college football sponsors.247 This approach, however, would be under-inclusive because there could be many organizations promoting dangerous sports without commercial activities.

Fourth, an organization will not qualify for most favored tax status if it has a substantial recreational or social purpose.248 This Article asserts that the courts and the IRS should use this test to consider injury risks. The U.S. Supreme Court developed this test249 and applying the test as described in this proposal would not require Congressional action.

1. Excessive Risks Indicate a Substantial Recreational or Social Purpose

An entity must be organized and operated exclusively for an exempt purpose, such as promoting education, to qualify for maximum tax benefits.250 Regardless of the number or importance of truly exempt purposes, the organization will not qualify if it has a single substantial nonexempt purpose.251 In applying this test, a court or the IRS identifies the organization’s activities. The court or the IRS then determines whether those activities “accomplish one or more exempt purposes.”252 The courts emphasize that one activity “may be directed toward multiple purposes, both exempt and nonexempt,”253 and if one of the nonexempt purposes is substantial, the organization does not qualify. In determining the purpose which an activity accomplishes when multiple people participate, the government considers the expected impact on participants.254

244 See Bob Jones Univ. v. United States, 461 U.S. 574, 591 (1983) (rejecting an organization if its “purpose . . . violates[s] established public policy”).
246 Federation Pharmacy Services, Inc. v. Comm’r, 625 F.2d 804, 809 (8th Cir. 1980) (concluding that the organization does not qualify because it “operates for a substantial commercial purpose”).
247 See supra note 240.
248 See infra notes 260-61 and accompanying text.
250 IRC § 501(c)(3).
251 Better Business Bureau, 326 U.S. at 283; Copyright Clearance Center v. Comm’r, 79 T.C. 797, 804 (1982); see also Federation Pharmacy, 625 F.2d at 807 (phrasing the test as “exempt status will be lost ‘if more than an insubstantial part of its activities is not in furtherance of an exempt purpose.’”).
252 St. Louis Science Fiction Ltd. v. Comm’r, 49 T.C.M. (CCH) 1126, 1129 (1985) (“[O]ne activity may be exempt and nonexempt, and in such situations it is necessary to determine whether the nonexempt purposes “are more than insubstantial.”).”
253 See e.g., Copyright Clearance Center, Inc. v. Comm’r, 79 T.C. 793, 803 (1982).
254 See e.g., I.R.S. Priv. Ltr. Rul. 201031035 (Aug. 6, 2010).
This test is extremely flexible. A court or the IRS makes the determination on all the particular facts. Courts have failed to clearly specify a single criterion for determining whether a nonexempt activity or purpose is substantial. Instead, the courts have used a variety of criteria including the percentage of time, the percentage of dollars earned, and the percentage of total expenditures. For example, in Minnesota Kingsmen Chess Association, the Tax Court denied most favored tax status because the organization spent at least half of its time on activities furthering nonexempt purposes. In contrast, in Church of Boston, the Tax Court denied the requested status because the organization spent twenty percent of its revenue on activities furthering nonexempt purposes. Although the Tax Court concluded an organization spending up to ten percent of its expenditures on activities furthering nonexempt purposes qualified, the IRS has rejected the argument that an activity or purpose is automatically insubstantial if the organization devotes less than five percent of its resources to the activity or purpose.

Several cases hold that a recreational purpose is a nonexempt purpose. A chess association, a science fiction convention sponsor, and an airplane club have all been denied the most favorable tax status because they had a substantial recreational purpose, but none of those decisions provide a comprehensive definition of the term recreational. “[R]ecreation [i]n its popular sense . . . is of very comprehensive significance and includes in its general meaning games, sports, and plays,” that “give[e] pleasure and enjoyment.” Courts in nontax situations have concluded that boxing, motorcycling, riding all-terrain vehicles, playing catch with a football, weightlifting, playing on a swing, and sometimes bicycling are all forms of recreation.

This Article proposes that the approach for determining whether a sports organization has a substantial recreational purpose must differ from the analysis in other contexts. As a

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263 McKinney v. Board of Zoning Adjustment of Kansas City, 308 S.W.2d 320, 325 (Mo. App. 1957) (emphasis added); see also Denmark v. State, 954 P.2d 624 (Colo. App. 1997) (defining the phrase “recreational area” to include a place where an individual could play sports).
264 WEBSTER’S THIRD NEW INT’L DICTIONARY 1899 (1993); see also Comptroller of Treasury v. M.E. Rockhill, Inc., 107 A.2d 93, 96 (Md. 1954) (“Recreation . . . may come from any pleasant and diverting exercise.”).
preliminary matter, the popular meaning of the term recreational quoted in the preceding paragraph, includes all sports.\footnote{272 See supra note 263-64 and accompanying text.} Although this might suggest that sports organizations should never be entitled to most favored tax status because they are all recreational, Congress, the courts, and the IRS have consistently declared that many sport organizations qualify.\footnote{273 See e.g. Joint Comm. on Taxation, 94th Cong., 2d Sess., General Explanation of the Tax Reform Act of 1976, reprinted in 1976-3 C.B. (Vol. 2) 435 (summarizing the law prior to the 1976 amendments as holding that “organizations which teach youth or which are affiliated with charitable organizations have been able to qualify [under IRC §§ 501(c)(3) and 170(c)(2)]; see also supra notes 38-46 and accompanying text (in which the courts and the IRS concluded that sports organizations qualified); Rev. Rul. 80-295, 1980-2 C.B. 194; Rev. Rul. 80-296, 1980-2 C.B. 195.} In sorting out this apparent conflict it is appropriate to recall that a sports organization is considered educational because it promotes “physical development.”\footnote{274 See supra note 65, at F7 (statement by Richard A. Friedman, M.D., director of psychopathology at Cornell Medical College).} This Article asserts that a sports organization should not qualify if it has a recreational purpose, such as the pursuit of enjoyment or pleasure, that is substantial in light of the physical development purpose. It is essential to analyze the participants’ purposes for engaging in the dangerous sport and whether those purposes are for physical development or for pleasure.

2. Evidence that Players in Dangerous Sports Seek Pleasure

“Reason can’t explain why people . . . jump[] out of planes . . . for little or . . . no reward.”\footnote{275 Alice Park, Why We Take Risks–It’s the Dopamine, TIME, Dec. 30, 2008, available at http://www.time.com/time/printout/0,8816,1869106,00.html.} It turns out, “[t]he root of the thrill-seeking experience . . . is intimately involved in pleasure.”\footnote{276 Friedman, supra note 65, at F7 (statement by Richard A. Friedman, M.D., director of psychopathology at Cornell Medical College).} Psychologists have studied thrill seekers for half a century,\footnote{277 Marvin Zuckerman, Behavioral Expressions and Biosocial Bases of Sensation Seeking ix (1994) [hereinafter Zuckerman 1994] (discussing the development of the first sensation seeking scale in 1964); see Glenn Zorpette, Extreme Sports, Sensation Seeking and the Brain, SCIENTIFIC AMERICA PRESENTS 56 (1999), https://login.proxy.lib.siu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=20935713&site=ehost-live&scope=site.} and they can now link the way people process dopamine, the brain chemical responsible for pleasure, with participation in dangerous sports. “Sex, food and recreational drugs all flood the brain with dopamine—and [for some people] so does thrill seeking.”\footnote{278 Friedman, supra note 65, at F7.} Sensation seekers, also called thrill seekers, and described as having a “Type T personality,”\footnote{279 Angela Haupt, Why Some of Us Are Thrill-Seekers, U.S. NEWS & WORLD REP., Aug. 6, 2012, available at 2012 WLNR 16603441 (identifying Professor Frank Frawley of Temple University as the creator of the phrase).} tend to pursue “novel, intense and complex sensations and experiences, and [are] willing[] to take risks for the sake of such experiences.”\footnote{280 Marvin Zuckerman, Are You a Risk Taker? PSYCHOLOGY TODAY, Nov. 1, 2000, http://www.psychologytoday.com/articles/200011/are-you-risk-taker [hereinafter Zuckerman Psychology Today]; Zuckerman 1994, supra note 277, at 27 (describing sensation seeking as a personality trait defined by the “seeking of varied, novel, complex, and intense sensations and experiences, and the willingness to take physical, social, legal, and financial risks for the sake of such experiences”); Marvin Zuckerman, Sensation Seeking and Risky [Type text]
“Sensation seekers constitute the majority of those engaged in risk-taking behavior.”

On personality tests, participants in risky sports record high sensation-seeking scores, high extraversion scores, and low conscientiousness scores. A survey of participants in a variety of sports determined their sensation-seeking scale scores. In the survey, expedition climbers who scaled the tallest peaks including Mount Everest recorded the highest scores. The following list provides the number of participants in each sport group tested, their average sensation-seeking scores, and how their average scores compared with the expedition climbers.

<table>
<thead>
<tr>
<th>Sport/Activity</th>
<th>Number of Participants</th>
<th>Total SSS Score</th>
<th>Compared to Expedition Climbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expedition Climbers</td>
<td>9</td>
<td>28.66</td>
<td>100%</td>
</tr>
<tr>
<td>Skydivers</td>
<td>20</td>
<td>26.65</td>
<td>93%</td>
</tr>
<tr>
<td>Elite Mountain Climbers</td>
<td>36</td>
<td>25.30</td>
<td>88%</td>
</tr>
<tr>
<td>White Water Canoeists</td>
<td>32</td>
<td>24.78</td>
<td>86%</td>
</tr>
<tr>
<td>Karate Practitioners (male)</td>
<td>17</td>
<td>22.29</td>
<td>78%</td>
</tr>
<tr>
<td>Karate Practitioners (female)</td>
<td>14</td>
<td>22.22</td>
<td>78%</td>
</tr>
<tr>
<td>Ice Hockey Players</td>
<td>19</td>
<td>21.95</td>
<td>77%</td>
</tr>
<tr>
<td>Male Teachers (Control)</td>
<td>12</td>
<td>21.41</td>
<td>75%</td>
</tr>
<tr>
<td>Volleyball Players (male)</td>
<td>13</td>
<td>18.46</td>
<td>64%</td>
</tr>
<tr>
<td>Volleyball Players (female)</td>
<td>16</td>
<td>17.19</td>
<td>60%</td>
</tr>
<tr>
<td>Female Teachers (Control)</td>
<td>17</td>
<td>14.38</td>
<td>50%</td>
</tr>
</tbody>
</table>

The teachers were the control groups in this study.

In 2008 researchers at Vanderbilt University and the Albert Einstein College of Medicine adapted a prior animal study to humans and discovered a link between risky sports and pleasure for sensation seekers. In the animal study, the researchers first determined which animals in the group tended to “explore and take more risks in new environments” and then found that these

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*See Serdar Tok, *The Big Five Personality Traits and Risky Sport Participation, 39 Social Behavior and Personality 1105, 1105 (2011) (concluding that “[i]n these studies it has been revealed that there are significant associations between risky sport participation and [sensation seeking] facets”); ZUCKERMAN 2007, supra note 280, at 70-71 (“mountain climbers and rock climbers are high sensation seekers”).

*Id.* at 89 (noting that of the nine expedition climbers in the survey, four were on a climb in which two of their fellow climbers died).

*Id.* (reporting the average total score for each group and also providing the average scores for four separate attributes which are combined to arrive at the “total” score; the four attributes are (i) thrill and adventure seeking; (ii) experience seeking; (iii) disinhibition; and (iv) boredom susceptibility).

*Id.* The percentages in this column equal the total reported in the previous column divided by 28.66, which was the average total score for the expedition climbers.

*Id.*

Park supra note 275, at 1 (quoting David Zald, a professor of psychology and psychiatry at Vanderbilt University).
Sensation-seeking animals “had fewer dopamine-regulating receptors than those who were more cautious [in the group].” In the human study the researchers separated the thrill seekers from the more cautious based on a questionnaire, and then scanned their brains for dopamine-regulating receptors. “[T]he data came out essentially perfect . . . [just like the animals the] humans who were more . . . eager to take risks had fewer dopamine-regulating receptors.” The study found that thrill seekers “get an unusually big hit of dopamine,” and “[t]hat blast makes them feel good, so they keep returning for the rush.” In contrast, “those with more dopamine receptors at baseline are probably less likely to . . . seek any thrill because their brains already have more dopamine activity to start with, [and] in fact, these [people] are likely to be thrill-averse.” “[T]he difference is hard-wired in our brains.”

Typically genetics explain only approximately thirty percent of most personality traits, but several studies indicate that genetics explain almost sixty percent of risk-seeking behavior. One study involving 442 pairs of twins separated at birth found that “58% of the general sensation-seeking trait is inheritable . . . [and the] remaining . . . 42% is due to . . . noninherited environmental influences and errors of the trait measurement.” Non-genetic factors for playing risky sports include desires to impress friends and coworkers, discover limits, and overcome deeply rooted fears. Also, upbringing can promote or inhibit risk taking. “[P]arents play a powerful role by rewarding risk-taking with praise or squelching it with frequent warnings about potential dangers.”

Researchers identify age as a predictive factor. Teenage brains are more sensitive to dopamine, and teenagers tend to be risk takers. An individual’s sensation-seeking scale tends to peak in late adolescence or in the person’s early 20s, and then decline steadily with age. At age 60 an individual’s sensation-seeking scale score typically is half of the individual’s peak score.

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291 Id.
292 Id.
293 Id.
294 Id.
295 Id.
296 Id.
297 ZUCKERMAN 1994, supra note 273, at xi.
298 Id. at 291-95 (discussing various studies); Carol M. Ostrom, The Risk Takers in Search of the Next Thrill: Bravery and Biochemistry, SEATTLE TIMES, Oct. 20, 1996, at 20, available at 1996 WLNR 1341978.
300 Tracey Middlekauff, Risky business: for most teens, making risky decisions comes naturally, CURRENT HEALTH 2, Mar. 1, 2009, available at 2009 WLNR 29793256 (“The group is a powerful risk-taking motivator; in fact, impulsive, emotional risk taking often occurs in group settings.”).
301 Zorpette, supra note 277, at 2 (listing the desire to know your limits, impress your friends and co-workers, and to confront deeply rooted fears).
303 Id.
304 Id.
305 Id.
306 ZUCKERMAN 1994, supra note 277, at 18.
308 Id.
E. Application of the Proposal and Some Consequences

The U.S. Supreme Court established the test that an organization with a substantial nonexempt purpose cannot qualify for most favored tax status, and courts must analyze all the particular facts in applying the test. In deciding whether a particular sports organization promotes excessively dangerous activities and has a substantial recreational purpose, the IRS and the courts will want to view information from interested parties with suspicion. One boxing organization claims that fewer injuries occur in amateur boxing than in bowling.

There are many factors the IRS and the courts would want to consider, including (i) the frequency and severity of injuries in the sport generally and for the particular organization; (ii) whether other jurisdictions have declared the activity illegal; (iii) whether life insurers increase premiums for participants, or otherwise refuses to insure the activity; and (iv) whether a reputable national or international association has established standards for the sport and whether the particular organization adopts or follows those standards.

In regards to the consequences if the IRS and the courts adopt this Article’s proposal, excessively dangerous sports organizations still may qualify for federal and state income tax exemption as social clubs, but they likely would not qualify for the other generous tax benefits typically available to section 501(c)(3) organizations. The loss of these tax benefits could significantly increase the costs of carrying on the activities.

An old maxim provides that “If you want more of something, subsidize it; if you want less, tax it.” The actual impact, however, likely will depend on the sport. Economists refer to the responsiveness of the level of demand for a good or service with changes in price as the

310 See supra note 255 and accompanying text.
311 *Amateur Boxing is Safe*, http://turnerboxingks.com/?page id=103 (last visited Sept. 17, 2013); see also Earl Gustkey, *The Day in Sports: Countdown to 2000*, L.A. TIMES, May 19, 1999, at 10, *available at 1999 WLNR 6652135* (“[Boxing’s] defenders . . . point[] out that boxing’s fatality rate is actually low when compared to activities such as motorcycle racing, sky diving, horse racing, hang gliding and mountaineering.”).
312 See supra notes 98-100 and accompanying text (discussing that most jurisdictions outlaw BASE jumping); see also Associated Press, *Connecticut Lifts Ban on Mixed Martial Arts Fighting*, N.Y. TIMES, July 12, 2013, at 10, *available at 2013 WLNR 16905475* (lifting the ban on mixed martial arts effective October 1, 2013).
313 See supra note 121 and accompanying text (discussing that an insurance company may charge significantly higher premiums if an applicant takes heliskiing vacations).
315 See Other Views: *Deal offers neither clarity nor closure*, USA TODAY, Sept. 5, 2013 (speculating that health insurers may refuse to cover high school and college football) (comment by Gregg Easterbrook of ESPN.com).
316 See supra note 120 and accompanying text (discussing the absence of national or international rules from a neutral organization for heliskiing).
317 See I.R.C. § 501(c)(7) (allowing country clubs to be exempt from federal income tax).
318 See supra notes 26-28 and accompanying text (regarding the other tax benefits).
elasticity of demand.\textsuperscript{320} Sometimes the demand for an item is relatively constant over a broad range of prices.\textsuperscript{321} For example, people likely will continue to buy a life-saving drug even if the price increases significantly. On the other hand, if there is a ready substitute, people may switch their buying habits in response to relatively small changes in price.\textsuperscript{322} For example, people likely would switch from buying one aspirin-based pain reliever to another if the price of one rises even slightly. The continued popularity of illegal BASE jumping\textsuperscript{323} indicates that at least for some BASE jumpers increased costs, such as the risk of prosecution, does not change the participation decision. On the other hand, the drop in young children starting to play organized football\textsuperscript{324} when newspaper headlines publicize the concussion risks\textsuperscript{325} may signal that their demand for football is more easily impacted.

Also, colleges, universities, and other section 501(c)(3) organizations that sponsor excessively dangerous sports would jeopardize their most favored tax status if carrying on those sports is a substantial purpose. Faced with a potential loss of lucrative tax benefits, these organizations may either adopt safety precautions, or terminate their sponsorship of those sports. This reevaluation would not be unprecedented; many prestigious educational institutions have struggled with the decision to maintain or drop boxing programs.\textsuperscript{326}

F. Concerns About the Factual Analysis, and the Arguments to Preserve Risky Sports

This Article’s proposal extends an existing test which requires a factual analysis. This type of analysis frequently poses multiple problems including (i) different decisionmakers may reach different results in similar situations\textsuperscript{327} thereby failing to achieve horizontal equity,\textsuperscript{328} (ii) decisionmakers may not be “equipped by training or experience”\textsuperscript{329} to make the particular factual determinations, and (iii) the lack of clarity and the absence of predictability may cause organizations to artificially adjust their operations and incur legal fees and other expenses in attempting to comply with the unclear standards.\textsuperscript{330}

Despite these complaints about factual tests, it is the role of the IRS and the courts to decide which organizations are worthy of tax subsidies and which are not. Certain sports and

\textsuperscript{320}Jennifer L. Pomeranz, Taxing Food and Beverage Products: A Public Health Perspective and a New Strategy for Prevention, 46 U. MICH. J.L. REFORM 999, 1009 (2013).
\textsuperscript{321}See e.g. Championship Wrestling Inc. v. State Boxing Comm’n, 477 N.E.2d 302 (Ct. App. Ind. 1985) (court summarily held that a tax on wrestling tickets would have absolutely no impact on the popularity or violence of wrestling).
\textsuperscript{322}See George Steven Swan, The Law and Economics of ERISA and Fiduciary Duty, 36 OHIO N.U. L. REV. 403, 446 (2010) (“Elasticity of demand turns, primarily, on availability of substitutes.”).
\textsuperscript{323}See supra notes 26-29 and accompanying text.
\textsuperscript{324}See supra note 147 and accompanying text.
\textsuperscript{325}See supra notes 144-51 and accompanying text.
\textsuperscript{326}See infra notes 350-54 and accompanying text.
\textsuperscript{327}See Comm’r v. Duberstein, 363 U.S. 278, 297 (1960) (Frankfurter, J., dissenting) (complaining that the U.S. Supreme Court majority’s adoption of a factual test “can hardly fail to invite, if indeed not encourage, too individualized diversities in the administration of the income tax laws”).
\textsuperscript{329}Exacto Springs Corp. v. Comm’r., 196 F.3d 833, 835 (7th Cir. 1999).
\textsuperscript{330}Id.
their sponsoring organizations may place participants at excessive risks, and therefore do not provide sufficient public benefits to justify most favored tax status. Decisionmakers need to analyze the facts to make these determinations.

Also, supporters of risky sports may raise counterarguments based on the positive societal impacts of risky sports. First, at least historically, risk-taking has benefitted civilization generally, and the United States in particular. “Some psychologists contend that sensation-seekers were crucial to primitive societies, because they could be counted on to [explore] areas no one else would visit, taste things that no one else would eat and pursue animals others would just as soon let alone.”331 “In years gone by, risk-takers might have been explorers or adventurers. They might have come west with the Donner Party . . . [r]isk-taking . . . is the trait that advances human beings. ‘Every great person who changed the world . . . was a risk taker.’”332 Those who chose to immigrate to the United States generally were risk takers; “America is literally the home of the brave.”333 A former NFL lineman remarked, “Contact sports will go away when we completely roll over and go toes up as a people.”334

Second, if the science is correct and some people are hardwired to invariably seek thrills,335 arguably it is better for society if they pursue risky sports than if they pursue other dangerous activities. Risky physical activities outside of sports are “mostly disturbing—alcoholism, drug addiction, compulsive gambling, reckless driving and some kinds of violent criminality and suicide.”336 Amphetamines or cocaine may be especially attractive because they “artificially squeeze more dopamine out of the nerve cells in our brain[s].”337

Third, if sensation seekers must seek thrills, arguably we should promote risky sports now more than ever because society no longer provides positive outlets for these impulses. “In the First World societies [the] endless suburbs, comfortable routines, ubiquitous television and often oppressive liability laws seem to have created a way of life that is safe but deadening and culturally homogeneous and bland.”338 For the benefit of thrill seekers, some researchers contend that “when proposing any preventative or safety strategies for high-risk sports participation it is important to recognize and maintain the element of risk that many participants specifically [seek].”339

331 Zorpette, supra note 277, at 3; see also Kupciw, supra note 280 (stating that “the caveman would not have emerged from the cave to feed his family if he hadn’t taken risks”).
332 Ostrom, supra note 298 at 20 (quoting Professor Frank Farley of Temple University).
333 T stands for crazy as hell, ESQUIRE, Apr. 1, 1998 [hereinafter ESQUIRE], available at 1998 WLNR 7687253.
335 ESQUIRE, supra note 333 (“The hero and the psychopath are two twigs on the same genetic branch.”); see also ZUCKERMAN 1994, supra note 273, at xi (“[C]ertain types of psychopathologies are associated with high sensation seeking including . . . substance abuse, and bipolar disorder.”).
336 Zorpette, supra note 277, at 1; see also id. at 2 (including those who seek barroom brawls); Zuckerman, PSYCHOLOGY TODAY, supra note 280.
337 Park, supra note 275, at 1; ZUCKERMAN 2007, supra note 280 (also listing snorting cocaine, wild partying, and sleeping with strangers).
338 Zorpette, supra note 277, at 2; see also Friedman, supra note 65, at F7 (predicting that “as life becomes more predictable, riskier forms of excitement will emerge”); ESQUIRE, supra note 333.
339 See Kupciw, supra note 280.
Connected to these arguments is the view that thrill-seekers should not be punished for following impulses that society historically admired. One commentator asserted that “[t]he hero and the psychopath are two twigs on the same genetic branch.” 340 An expert has written that “for some people, drugs and thrills are more powerfully self-reinforcing than even food and sex . . . [s]o the very design of our brain that promotes survival also makes us vulnerable.” 341 Several commentators stress that thrill seeking cannot be eliminated. “[R]isk takers must take risks.” 342 The debate is complicated in part because more cautious individuals cannot appreciate the needs of thrill seekers. 343 “This is why high and low sensation seekers cannot understand each other.” 344

One researcher suggests as a practical application of this learning that young people take a personality test. When a young person has a high sensation-seeking score, a parent might suggest participation in a risky sport in hopes of avoiding other risky choices such as illegal drugs or gambling. 345 An expert observes that “personality traits are difficult if not impossible to change, but their form of expression should be malleable.” 346

In response, this Article’s proposal would not outlaw any sports; it would eliminate government subsidies. 347 In a case involving a property tax exemption for a religious organization, U.S. Supreme Court Justice William O. Douglas stressed that the exemptions are government subsidies just as if the organization paid the tax and the government paid a grant to the organization in the same amount. 348 The removal of a government subsidy does not prohibit the activity; it increases the cost.

III. CONCLUSION

Based on a 1904 rationale about sports and education, tax laws allow all organizations promoting legal sports to qualify for most favored tax status regardless of injury risks. Sports and medical understanding evolve over time, and the courts and the IRS should reevaluate this tax approach. Other systems typically resistant to change have switched course in the face of evidence that certain sports are too dangerous. College boxing was very popular in the 1930s

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340 ESQUIRE, supra note 333.
341 Friedman, supra note 65, at F7 (written by Richard A. Friedman, M.D., Director of Psychopathology at the Cornell Medical College).
342 See e.g., Ostrom, supra note 298; ESQUIRE, supra note 333.
343 ZUCKERMAN 2007, supra note 280, at 53 (“[H]edonistic rewards of sensation seeking are perceived as benefits only by high sensation seekers.”).
344 ZUCKERMAN 1994, supra note 273, at 27.
345 Middlekauff, supra note 300, at 2 (also noting that “if sports aren’t your thing . . . find something [else] you think is thrilling and challenging, whether that’s acting in a school play, learning a musical instrument, or playing chess”).
346 ZUCKERMAN 2007, supra note 280, at xiv-xv.
347 See supra notes 317-18 and accompanying text (explaining that some organizations sponsoring dangerous sports could maintain their federal and state income tax exemptions but could lose other tax benefits).
348 Walz v. Tax Comm’n. of City of N.Y., 397 U.S. 664, 701 (1970) (Douglas, J., dissenting) (“[I]n common understanding, one of the best ways to ‘establish’ one or more [organizations] is to subsidize them, which a tax exemption does.”).
349 Id. at 709 (“Tax exemption, no matter what its form, is essentially a government grant or subsidy.”) (quoting the Brookings Institution).

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and through the mid-1950s.\textsuperscript{350} At times, college boxing was even more popular than college basketball.\textsuperscript{351} Nevertheless, eventually many institutions relegated boxing to a club sport.\textsuperscript{352} The NCAA initially changed rules to address safety concerns,\textsuperscript{353} but then it completely ceased sanctioning collegiate boxing after a defending NCAA national champion died from brain injuries within a week of a fight in 1960.\textsuperscript{354}

The Guinness Book of World Records organization acknowledges achievements in an amazing array of activities,\textsuperscript{355} but it has rejected some as too dangerous.\textsuperscript{356} For example, in the 1950s and 1960s, individuals established records for sleep deprivation.\textsuperscript{357} But when medical research revealed that contestants consistently developed serious neurological problems, the Guinness organization refused to recognize future record attempts.\textsuperscript{358} More recently the Guinness organization refused to recognize record setters using their eye sockets to lift weights or pull cars.\textsuperscript{359}

BASE jumping and some other extreme sports invite death. Also, medical evidence is mounting that certain contact sports pose extremely serious brain injury risks. At the same time psychological research is demonstrating that participants have recreational motivations for engaging in these dangerous activities, rather than educational motives. If a court or the IRS someday determines that an organization sponsoring dangerous activities fails to provide a sufficient public benefit to justify most favored tax status, it should declare that the organization is ineligible because it has a substantial recreational or social purpose. The IRS and the courts have a duty to determine which organizations are worthy of tax subsidies and the related cultural cover, and it is important to players, their families, and all taxpayers that the IRS and the courts examine the facts and respond responsibly.


\textsuperscript{351} See e.g., McKenna, supra note 350, at 12 (discussing boxing at the University of Maryland in the 1930s); Budd Schulberg, The Bengal Bouts, SPORTS ILLUSTRATED, Apr. 4, 1955 (discussing boxing at the University of Notre Dame in the 1950s), \textit{available at} http://sportsillustrated.cnn.com/vault/article/magazine/MAG1129521/index.htm.

\textsuperscript{352} See Stewart, supra note 350, at B4.

\textsuperscript{353} \textit{Id.} at B4 (reporting that the NCAA “prevented freshman from fighting” in 1953); McKenna, supra note 350, at 12 (“[S]chools began dropping boxing out of concerns about mismatches between inexperienced students and older returning servicemen or even ringers from the pro ranks.”).

\textsuperscript{354} McKenna, supra note 350, at 12; see also Krajewski, supra note 350 (reporting that the National Collegiate Boxing Association became the sanctioning body in 1976).

\textsuperscript{355} See GUINNESS BOOK OF WORLD RECORDS 2013 xiv (2013).


\textsuperscript{357} See Rebecca Turner, Sleep Deprivation: From Insomnia to World Records, \textit{http://www.world-of-lucid-dreaming.com/sleep-deprivation.html} (last visited Sept. 11, 2013) (reporting that Peter Tripp went over 8 days without sleep in 1959, and Randy Gardiner went over 11 days without sleep in 1964).

\textsuperscript{358} \textit{Id.;} Mark Evans, Wakey Wakey!, EXPRESS, May 26, 2007, \textit{available at} 2007 WLNR 11225310.

\textsuperscript{359} Stupid Yes, Record No, ST. PETERSBURG TIMES, Jan. 8, 2009, at 6A, \textit{available at} 2009 WLNR 369706; see also Paul Dean, Taking a Walk on the Wild Side: Dangerous Stunts Won’t be Making it into the Guinness Book of Records, WASH. POST, Mar. 15, 1996, \textit{available at} 1996 WLNR 6589417 (reporting that Guinness will not recognize records relating to smoking or gluttony).