

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.’”¹

“[M]illions of people tuning in to ESPN watched [a 25-year old extreme snowmobiler] essentially kill himself on live television.”²

“Emergency rooms now treat 175,000 kids each year for sports-related brain injuries”³

Multiple Choice Question: Which three of the following four organizations may enjoy all the tax benefits⁴ available to public charities like the Red Cross and the Salvation Army?

- (a) An organization sponsoring Evel Knievel Days at which participants perform daredevil motorcycle stunts.⁵
- (b) An organization promoting weekend auto races at which members of the general public can race their own unmodified cars.⁶ The organization awards cash prizes to the fastest drivers.⁷
- (c) An organization sponsoring an annual college football bowl game between top ranked teams.⁸
- (d) An organization promoting chess with public chess exhibitions, chess tournaments, and chess instruction.⁹

1. David Leon Moore, *Head Games: Despite Gains in Concussion Awareness, “Tough-Guy” Mentality Often Wins Out*, USA TODAY, Oct. 12, 2012, at 1C.

2. John Smallwood, *In Extreme Sports, the X-Factor Is Death*, PHILA. DAILY NEWS, Feb. 3, 2013, at 12, available at 2013 WLNR 2702612.

3. J.R. Moehringer, *Football Is Dead. Long Live Football.*, ESPN THE MAG., Sept. 3, 2012, at 46, 52 (discussing statistics from the Centers for Disease Control and Prevention).

4. See *infra* notes 25–26 and accompanying text (listing the tax benefits).

5. See Evel Knievel Days, I.R.S. Form 990-EZ, Return of Organization Exempt from Income Tax (OMB No. 1545-1150) (2011) (on file with author), available at <http://www.guidestar.org/FinDocuments/2011/460/511/2011-460511839-0892da42-Z.pdf> (reporting Evel Knievel Days is organized as a tax-exempt organization under section 501(c)(3) of the Internal Revenue Code (IRC)); George Plaven, *Injury Cancels EK Finale*, MONT. STANDARD, July 24, 2011, available at 2011 WLNR 14657748 (discussing motorcycle stunts planned to be performed at the Evel Knievel Days festival); EVEL KNIEVEL DAYS, <http://www.knieveldays.com> (last visited May 12, 2014) (providing details regarding the three-day festival held in Butte, Montana).

6. See, e.g., *Lions Associated Drag Strip v. United States*, No. 63-45-WM Civil, 1963 U.S. Dist. LEXIS 9608, at *12–13, 15, 13 A.F.T.R.2d (RIA) 973, 976–77, 64-1 U.S. Tax Cas. (CCH) ¶ 9283, 91,673–75 (S.D. Cal. Nov. 26, 1963).

7. *Id.* at *16, 13 A.F.T.R.2d (RIA) at 977–78, 64-1 U.S. Tax Cas. (CCH) at 91,674–75.

8. See Rev. Rul. 80-295, 1980-2 C.B. 194.

9. *Minn. Kingsmen Chess Ass’n v. Comm’r*, 46 T.C.M. (CCH) 1133, 1135 (1983).

- (e) A court noted that the chess activities increased participants' knowledge.¹⁰

You are correct if you chose (a), (b), and (c).¹¹ These organizations qualify for most favored tax status despite the risks they pose of causing debilitating injuries.¹² In contrast, the IRS and the Tax Court rejected the chess organization's application because it was not promoting a sport.¹³

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 benefits. The historic rationale for 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 effect¹⁴ and cultural cover,¹⁵ 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.¹⁶ Removing governmental tax benefits for excessively dangerous sports may encourage schools and other sponsors to implement safety precautions or eliminate sports that they cannot reform.¹⁷

10. *Id.* at 1135.

11. *See supra* notes 5–10.

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 (citing a National Highway Traffic Safety Administration statistic on the increasing number of motorcycle deaths); Moore, *supra* note 1, at 1C (discussing auto racing concussions); Nate Ryan, *NASCAR: Concussion Tests Could Be Imposed*, USA TODAY, Feb. 15, 2013, at 6C (discussing potential mandatory concussion testing for NASCAR drivers in race accidents); *infra* notes 199–207 and accompanying text (regarding the risk of brain injuries for football players).

13. *Minn. Kingsmen Chess Ass'n*, 46 T.C.M. (CCH) at 1135 (concluding that the chess club's activities were too recreational).

14. *See* 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 public perception of . . . charitable organizations[] known as the ‘halo effect’”).

15. *See* Ben Shpigel, *Football Faces “Turning Point” on the Risk of Injuries*, N.Y. TIMES, June 21, 2012, at B12.

16. *See infra* notes 27–28 and accompanying text.

17. *See infra* notes 338–42 and accompanying text. *But see* *Championship Wrestling, Inc. v. State Boxing Comm'n*, 477 N.E.2d 302, 307–08 (Ind. Ct. App. 1985) (concluding that imposing a tax on wrestling tickets would have no impact on its popularity).

Part I of this Article describes the historic rationale for granting nonprofit sports organizations the most favored 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 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 a sports organization may have a substantial recreational or social purpose that would disqualify it from maximum tax benefits.¹⁸ Recent psychological research demonstrates that thrill seekers are genetically hardwired to derive great pleasure from high risk activities.¹⁹ Others seek dangerous activities to enjoy the social pleasure of membership in a clique.²⁰

Part III, in conclusion, observes that cultural norms and medical understanding can change over time and asserts that tax laws should be responsive to change. Although cigarette smoking was once considered glamorous,²¹ when medical researchers later revealed the risks, policymakers increased cigarette taxes.²² Collegiate boxing was once more popular than basketball, but the National Collegiate Athletic Association (NCAA) reversed course and refused to sanction boxing in response to injury concerns.²³ Even the Guinness World Records organization refuses to

18. See *infra* notes 244–55 (discussing the rule under current law that an organization with a substantial recreational or social purpose will not qualify under section 501(c)(3) of the IRC).

19. See *infra* notes 269–71 and accompanying text.

20. See *infra* note 291 and accompanying text.

21. See Stephen Frank, *Hazardous Habits: How the Images Have Changed Social History of Smoking*, TIMES UNION (ALBANY), July 28, 1986, at B7, available at <http://albarchive.merlinone.net/mweb/wmsql.wm.request?oneimage&imageid=5448525> (“[C]igarette smoking began to take hold with social trendsetters in the 1920s and 1930s.”).

22. See FED. EX. TAX REP. (CCH) ¶ 36,620.012, at 16,607-3 (1992) (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, available at 2013 WLNR 17252127 (“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.”).

23. See Dave McKenna, *Reading, Writing, Right Hooks*, WASH. CITY PAPER, Mar. 13, 2009, at 12, available at 2009 WLNR 6014975; see also *infra* notes 338–42 and accompanying text (discussing the changing attitude toward collegiate boxing).

recognize some activities because they are too dangerous.²⁴ Tax exemption laws should also 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 (IRC), such as the Red Cross and the Salvation Army, are exempt from federal income tax²⁵ and typically enjoy a slew of other valuable tax benefits, including the ability to receive tax deductible contributions, sales tax exemptions, property tax exemptions, state income tax exemptions, preferred mailing rates, and the ability to raise capital with bonds paying tax-exempt interest.²⁶ These tax benefits function as government subsidies, encouraging the organizations' exempt activities.²⁷ As one organization

24. See Editorial, *Stupid Yes, Record No: There Is No Doofus Book of Records. Yet.*, ST. PETERSBURG TIMES, Jan. 8, 2009, at 6A, available at 2009 WLNR 369706 (reporting that Guinness World Records declined to acknowledge the achievements of a man who "pulled cars tethered to his body by hooks lodged in his eye sockets").

25. I.R.C. § 501(a) (2013); see also I.R.C. § 513(i) (2013) (exempting profits from the sale of sponsorship rights to college football bowl games and basketball tournaments and other qualified sponsorship arrangements from the unrelated business income tax); Rev. Rul. 80-295, 1980-2 C.B. 194 (exempting a college football conference's profits from the sale of broadcast rights for college football games from the unrelated business income tax); Rev. Rul. 80-296, 1980-2 C.B. 195 ("College and university athletic organizations that promote certain aspects of athletic competition have generally been held to be educational and thus exempt from federal income tax.").

26. See I.R.C. § 145(a) (2013) (detailing tax-exempt "qualified 501(c)(3) bonds"); I.R.C. § 170(c) (2013) (listing organizations described in section 501(c)(3) of the IRC, in addition to certain war veteran organizations, domestic fraternal societies, and cemetery companies, as eligible to receive "charitable contributions"); I.R.S. Priv. Ltr. Rul. 201313033 (Mar. 29, 2013) (discussing that a minor league football team could reduce its expenses "by not having to pay sales taxes for purchases as a section 501(c)(3) organization"); BRUCE R. HOPKINS, THE LAW OF TAX-EXEMPT ORGANIZATIONS 41-48 (7th ed. 1998) (discussing the many benefits derived from section 501(c)(3) status); John D. Colombo, *The Marketing of Philanthropy and the Charitable Contributions Deduction: Integrating Theories for the Deduction and Tax Exemption*, 36 WAKE FOREST L. REV. 657, 703 (2001) (mentioning several benefits of section 501(c)(3) status, including receiving tax-deductible charitable donations and tax-exempt bonds).

27. See Rob Atkinson, *Theories of the Federal Income Tax Exemption for Charities: Thesis, Antithesis, and Syntheses*, 27 STETSON L. REV. 395, 403-04 (1997) ("[T]he charitable exemption is an indirect subsidy by which the government encourages [charitable] organizations This view . . . is pretty much the foundation of present law"); Carl J. Schramm, *Law Outside the Market: The Social Utility of the Private Foundation*, 30

stated in an IRS ruling request, obtaining section 501(c)(3) status would allow players to make tax-deductible donations to the organization, which would provide the organization money to buy equipment for the players and otherwise “open a lot of doors for [the organization] on different levels.”²⁸

At least since 1894, the federal government has required that nonprofit organizations provide significant public benefits to enjoy tax-exempt status and other tax subsidies.²⁹ The U.S. Supreme Court endorsed this quid pro quo approach,³⁰ and scholars view this as the most defensible rationale.³¹ 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 or charitable purposes.³² 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.”³³

HARV. J.L. & PUB. POL’Y 355, 388 (2006) (quoting Donna D. Adler, *The Internal Revenue Code, the Constitution, and the Courts: The Use of Tax Expenditure Analysis in Judicial Decision Making*, 28 WAKE FOREST L. REV. 855, 858 (1993) (“It is as if the taxpayer incurred and paid a tax liability, and the government gave the taxpayer a direct subsidy for the same amount.”)); see also Jeffery L. Yablon, *As Certain as Death—Quotations About Taxes*, 110 TAX NOTES 103, 139 (2006) (quoting Justice William J. Brennan in *Texas Monthly, Inc. v. Bullock*, 489 U.S. 1, 14 (1989) (“Every tax exemption constitutes a subsidy.”)).

28. I.R.S. Priv. Ltr. Rul. 2013-13-033 (Mar. 29, 2013).

29. See Treas. Reg. § 1.501(c)(3)-1(d)(1)(ii) (2013) (requiring an organization to “serve[] a public rather than a private interest” to gain section 501(c)(3) tax-exempt status); William H. Byrnes, IV, *The Private Foundation’s Topsy Turvy Road in the American Political Process*, 4 HOUS. BUS. & TAX L.J. 496, 525 (2004) (discussing 1894 legislation granting federal tax exemptions to charities and other entities organized and operated exclusively for specified purposes, and stating that “Congress rationalized that charitable institutions provided desirable public [benefits], thus justifying the exemption”); *id.* at 529 (reporting that in 1909, Congress denied tax-exempt status if “[any] part of the [entity’s] net income . . . inures to the benefit of any . . . individual.”).

30. See *Bob Jones Univ. v. United States*, 461 U.S. 574, 591 (1983) (“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 benefit [that] the public derives from . . . [the] activities of the [organizations] named, and is intended to aid them . . .”).

31. See, e.g., Colombo, *supra* note 26, 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) (noting that the “charitable deduction may be a relatively clever tool”).

32. I.R.C. § 501(c)(3) (2013). The other six exempt purposes include “religious, . . . scientific, testing for public safety, literary, . . . to foster national or international amateur sports competition . . . or for the prevention of cruelty to children or animals.” *Id.*

33. *Better Bus. Bureau v. United States*, 326 U.S. 279, 283 (1945).

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.”³⁴ The Kentucky court observed that schools maintain athletic facilities³⁵ and “football and other athletic sports are encouraged.”³⁶ The court cited cases from 1887 and 1871, indicating that the perfect education cultivates the mind, improves the students’ morals and religious nature, and develops the students’ “physical faculties.”³⁷ 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 choose to develop just one of those areas.³⁸ In that situation, where “one [institution] seek[s] . . . to cultivate the mind, [another] one . . . to improve students’ . . . moral conditions, and [the third] to . . . produce better physical development, [the court concluded] *each is an institution of education.*”³⁹

The IRS used this 1904 rationale to conclude that a sports organization is educational,⁴⁰ even though many educational leaders throughout the twentieth century and into the twenty-first century question the role of sports in higher education, particularly football.⁴¹ With this base, the IRS has issued a series of rulings establishing that all youth sports organizations,

34. German Gymnastic Ass’n v. City of Louisville, 80 S.W. 201, 201 (Ky. 1904).

35. The court used the term *gymnasium*. *Id.*

36. *Id.*

37. *Id.* (citing Mt. Hermon Boys’ Sch. v. Inhabitants of Gill, 13 N.E. 354, 357 (Mass. 1887); Ruohs v. Backer’s Next Friend, 53 Tenn. (6 Heisk.) 395, 399–400 (1871)).

38. German Gymnastic Ass’n, 80 S.W. at 201.

39. *Id.* (emphasis added).

40. See Rev. Rul. 64-275, 1964-2 C.B. 142 (relying on *German Gymnastic Ass’n* to conclude that an organization conducting sailboat racing symposiums was educational).

41. 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”); see also Taylor Branch, *The Shame of College Sports*, ATLANTIC, Oct. 2011, at 80, 82 (criticizing the idea of the “student-athlete” as a cynical hoax in the age of modern college football).

as well as adult sports organizations that provide instruction, can be educational and therefore, eligible for maximum tax benefits.⁴²

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,⁴³ in the category for organizations fostering national or international amateur sports competition,⁴⁴ or arguably in the category for organizations that lessen the burdens of government.⁴⁵ 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 v. United States*, the organization built a drag strip for the use of the general public and asserted that it was “promot[ing the] . . . educational betterment of the hot rod activities.”⁴⁶ An average of 200 motorists with unaltered cars participated in races each weekend along with 100 to 200 motorists with modified cars.⁴⁷ The fastest drivers received cash and

42. Rev. Rul. 77-365, 1977-2 C.B. 192 (concluding that an organization providing instruction on a particular sport qualifies 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)); I.R.S. Priv. Ltr. Rul. 2013-13-033 (Mar. 29, 2013) (concluding that an organization that sponsored an amateur football team for persons age seventeen and older did not qualify under section 501(c)(3)); I.R.S. Gen. Couns. Mem. 39,459 (Dec. 26, 1985) (stating that the promotion of recreational sports among adults is not educational under section 501(c)(3)).

43. See *Hutchinson Baseball Enters., Inc. v. Comm’r*, 696 F.2d 757, 761 (10th Cir. 1982) (quoting *Peters v. Comm’r*, 21 T.C. 55, 59 (1953) (“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.”)).

44. I.R.C. § 501(c)(3) (2013); see also STAFF OF JOINT COMM. ON TAXATION, 94TH CONG., GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1976 423–24 (Comm. Print 1976), reprinted in 1976-3 C.B. 435–36, 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); JAMES J. FISHMAN & STEPHEN SCHWARZ, *TAXATION OF NONPROFIT ORGANIZATIONS: CASES AND MATERIALS* 193 (3d ed. 2010) (“Several of these additional exempt purposes were included in an abundance of caution.”).

45. See *Lions Associated Drag Strip v. United States*, No. 63-45-WM Civil, 1963 U.S. Dist. LEXIS 9608, at *18–19, 13 A.F.T.R.2d (RIA) 973, 978, 64-1 U.S. Tax Cas. (CCH) ¶ 9283, 91,675 (S.D. Cal. Nov. 26, 1963).

46. *Id.* at *10, 13 A.F.T.R.2d (RIA) at 976, 64-1 U.S. Tax Cas. (CCH) at 91,673.

47. *Id.* at *15, 13 A.F.T.R.2d (RIA) at 977, 64-1 U.S. Tax Cas. (CCH) at 91,674.

other prizes.⁴⁸ 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 strip⁴⁹ and concluded that the organization qualified for most favored tax status as either an educational or charitable organization.⁵⁰

For another example, when evaluating an organization conducting skydiving exhibitions and competitions, the Tax Court never considered the safety risks.⁵¹ 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).⁵² Ultimately, the Tax Court denied section 501(c)(3) status, not because the skydiving organization promoted an excessively dangerous activity but because the organization used its funds for the personal benefit of its creators.⁵³

II. PROPOSAL TO CONSIDER INJURY RISKS

The risks of strains, sprains, broken bones, and even an extremely rare fatality are nothing new in sports,⁵⁴ 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

48. *Id.* at *16, 13 A.F.T.R.2d (RIA) at 978, 64-1 U.S. Tax Cas. (CCH) at 91,675.

49. *See id.* at *16–17, 13 A.F.T.R.2d (RIA) at 978, 64-1 U.S. Tax Cas. (CCH) at 91,675. (noting only that “each participating vehicle and driver must undergo rigorous safety inspections and must follow rules . . . promulgated by the drag strip and the National Hot Rod Association”).

50. *Id.* at *18–19, 13 A.F.T.R.2d (RIA) at 978, 64-1 U.S. Tax Cas. (CCH) at 91,675.

51. *See* N. Am. Sequential Sweepstakes v. Comm’r, 77 T.C. 1087, 1093–96 (1981).

52. *Id.* at 1088.

53. *Id.* at 1096.

54. *See* SMITH, *supra* note 41, at 3 (“The brutal nature of football, with a few deaths and many severe injuries [during 1905–06] was reformed through major changes by the [NCAA]”); *see also* Michelle Healy, *Young Athletes Sidelined 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 department.”); Shpigel, *supra* note 15, at B12 (quoting former professional football player Gary Fencik stating, “We’ve accepted the knees and the other ailments, but we really never thought about the deterioration of [our] brains as a result of concussions in football.”); *Sports Injuries Statistics*, UNIV. OF ROCHESTER MED. CTR. HEALTH ENCYCLOPEDIA, <http://www.urmc.rochester.edu/Encyclopedia/Content.aspx?ContentTypeID=90&ContentID=P01650> (last visited May 12, 2014) (“[A]ll 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.”).

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.⁵⁵

Second, regarding 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.⁵⁶ Although other injury risks also may merit increased attention,⁵⁷ 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,
Heli-Skiing, and Other Sports*

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,⁵⁸ and the current culture has a propensity to develop new sports⁵⁹ and push beyond established boundaries.⁶⁰ “‘Extreme sports’ or ‘alternative sports’ . . . are moving into the mainstream . . . and [p]articipation . . . is increasing.”⁶¹ 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

55. See Ed Caesar, “When You See the Ground Coming Up Very Fast—It’s More Like a Suicide Than a Sport”: Base Jumping Was the Thrill of Hervé Le Gallou’s Life. It Is Also What Killed Him, N.Y. TIMES MAG., July 28, 2013, at 20, 23 (discussing the late BASE jumper Hervé Le Gallou who attained “near-mythic status among European base jumpers” and describing BASE jumping as “more like a suicide than a sport”); Eli Saslow, *A Heightened Chance of Death: Despite the Gravity of Their Situation, BASE Jumpers Take the Plunge at West Virginia Event*, WASH. POST, Nov. 4, 2007, at A1, available at 2007 WLNR 21838244.

56. See LINDA CARROLL & DAVID ROSNER, THE CONCUSSION CRISIS: ANATOMY OF A SILENT EPIDEMIC 26 (reporting that by the fall of 2003, concussion research had begun to take off).

57. See Bill Pennington, *Hidden Threats to Young Athletes: Heart Defects and Heat Stroke Draw Focus of Safety Advocates*, N.Y. TIMES, May 12, 2013, at SP1 (reporting that “the No. 1 killer of young athletes is sudden cardiac arrest” and “a young athlete dies from a cardiac incident once every three days in the United States”).

58. 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 WLNR 19820093 (“Since Adam and Eve’s slip-up in the Garden of Eden . . . we have been fascinated by risk and its consequences. The instinct to confront danger . . . propels day hikers to slippery granite peaks.”).

59. See *id.* (observing that some people “are more easily excited by a new toy, and more quickly bored by it”).

60. See Smallwood, *supra* note 2, at 12 (“The very essence of [extreme] sports is to push things as far as possible and then try to take them farther.”).

61. Emilie Beau, *Sports Evolve to the Extreme*, SUN HERALD (Biloxi, MS), June 7, 2005, at B5, available at 2005 WLNR 22881796.

more dangerous [But] extreme sports haven't yet reached their final frontier of possibility."⁶² "[A]s life becomes more predictable, riskier forms of excitement will emerge."⁶³

BASE jumping may be the most dangerous established sport.⁶⁴ It "is an amusement rooted in the possibility of death."⁶⁵ Commentators report that perhaps one in every 1000 attempts results in the jumper's death;⁶⁶ a study of jumps from one particularly jumper-friendly location in Norway concluded that one in every 2317 jumps there results in death.⁶⁷ A BASE jumper "dies somewhere in the world about once every three weeks."⁶⁸ Only estimates are possible because many successful jumpers never report their exploits, "especially . . . those in high-profile jobs."⁶⁹

62. Smallwood, *supra* note 2, at 12.

63. Richard A. Friedman, *What's the Lure of the Edge? The Answer Is All in Their Heads*, N.Y. TIMES, June 20, 2005, at F7.

64. See Cynthia Dizikes, *BASE Jumpers Fall for Thrill-Seeking Lifestyle: Parachutist Arrested in Chicago Sheds a Bit of Light on Clandestine Culture: "I Can't Resist It."* CHI. TRIB., Apr. 22, 2011, at 1, available at 2011 WLNR 7870772; Kerri Pepoy, *Off Base: On Bridge Day, Take a Flying Leap*, PITT. POST-GAZETTE, Oct. 11, 2009, at DD, available at 2009 WL 20058852; Saslow, *supra* note 55, at A1.

65. Duhigg, *supra* note 58, at 1.

66. See Mary Slaughter, *Burning Bridges*, BOISE WKLY., Jan. 2, 2008, at 26, available at 2008 WLNR 1030077; see also David Zizzo, *Leap of Faith: Enthusiasts Are Falling for Extreme Sport*, OKLAHOMAN, May 19, 2008, at 1A, available at 2008 WLNR 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").

67. Kjetil Soreide et al., *How Dangerous Is BASE Jumping? An Analysis of Adverse Events in 20,850 Jumps from the Kjerag Massif, Norway*, 62 J. TRAUMA 1113, 1115 (2007). The study included only jumps from the Kjerag Massif in Norway, which is 3300 feet high, *id.* at 1114, and therefore, provides jumpers with a greater margin of error than lower jumping points, *compare id.* at 1116 (acknowledging that "the Kjerag Massif, although highly challenging, may not pose near as high a risk as BASE jumps from other sites"), with Scott Willoughby, *Adrenaline Rush at BASE of It All: The High-Risk, High-Reward Aspect Is What Draws Many to the Far Reaches of Extreme Sports*, DENV. POST, May 10, 2005, at D12, available at 2005 WL 7374942 (noting that BASE jumpers do not have a lot of time to make decisions when jumping from low points such as the frequently jumped from cliffs in Moab, Utah, which are only 300 to 400 feet high). In addition, the Norwegian study only included jumps "registered and supervised by leaders of the Stavanger BASE club" during the regular jumping season from June 1st to August 31st. Soreide et al., *supra*, at 1114.

68. Saslow, *supra* note 55, at A1 (quoting experienced BASE jumper Tom Aiello).

69. See Caesar, *supra* note 55, at 23; see also Dizikes, *supra* note 64, at 1 ("[T]hey remain a clandestine society, obeying an outlaw code of honor: Don't talk about BASE jumping."); Pepoy, *supra* note 64, at DD (discussing BASE jumping's "code of secrecy of sorts").

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.⁷⁰ Hervé 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.⁷¹ He was known as the Eagle of Arabia, but he crashed and died in a 2012 BASE jump.⁷² Mario Richard founded Moab B.A.S.E. Adventures, which was the first commercial operation to offer tandem BASE jumps.⁷³ Richard had many years of experience when he jumped to his death in August of 2013.⁷⁴ Dwaine Weston, “one of BASE jumping’s pioneers,” died instantly when he hit a bridge railing during a jump.⁷⁵

BASE jumping has its roots in skydiving.⁷⁶ The word BASE is an acronym for building, antenna, span (bridge), and earth (cliff).⁷⁷ BASE jumpers leap from these fixed locations, sometimes less than 400 feet from the ground.⁷⁸ Hollywood stunt doubles performed the equivalent of BASE jumps earlier,⁷⁹ but a group jumping in Yosemite National Park invented the term *BASE* and established BASE jumping as a regular activity in the late 1970s.⁸⁰ BASE jumping “began to coalesce into a sport”

70. John Branch, *Mario Richard Felt Rush of Extreme Sky Diving*, N.Y. TIMES, Aug. 21, 2013, at B14, available at 2013 WLNR 20744024; accord John Heilprin & Jill Lawless, *Mark Sutton, Stuntman from London Olympics in 2012, Dies in Wingsuit Jump*, WASH. POST, Aug. 17, 2013, available at 2013 WLNR 20423155.

71. Caesar, *supra* note 55, at 22–23.

72. *Id.*

73. Branch, *supra* note 70, at B14.

74. *Id.*

75. Duhigg, *supra* note 58 at 1.

76. Zizzo, *supra* note 66, at 1A.

77. Dizikes, *supra* note 64, at 1.

78. See Willoughby, *supra* note 67, at D12 (reporting that Moab, Utah, has a “seemingly endless expanse of vertical cliffs between 300 and 400 feet [and] is among the most popular destinations for BASE jumpers”). 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).

79. See, e.g., Clay Latimer, *Jumping Off Cliff, Willingly: Exhilaration of Taking Flight Makes Facing Danger Worth It for Intrepid Ski-BASE Jumpers*, ROCKY MTN. NEWS, Jan. 20, 2009, at 8, available at 2009 WLNR 1101793 (regarding a stunt performed by Rick Sylvester for actor Roger Moore in the 1977 James Bond movie *The Spy Who Loved Me*).

80. See Caesar, *supra* note 55, at 23; see also Roger Rosenblatt, *The Whole World Is Jumpable*, TIME, July 1999, at 154 (noting that BASE jumping was invented in 1980).

in the 1980s and early 1990s.⁸¹ “[BASE] schools now offer[] classes at popular jumping spots [In 2012], Red Bull sponsored the first-ever ‘World Wingsuit League’ in China”⁸² Participation in BASE jumping has risen sharply since 2008 with the popularity of the wingsuit,⁸³ which allows for flights at speeds of 100 miles per hour or more before deploying the parachute.⁸⁴ However, fatalities have increased substantially,⁸⁵ perhaps because jumpers are now attempting more intricate midair maneuvers.⁸⁶

Unlike a typical skydive where the participant falls thousands of feet, has three or more minutes from jump to landing,⁸⁷ deploys the parachute at least 1800 feet in the air,⁸⁸ and has two parachutes in the event one fails,⁸⁹ the BASE jumper frequently has little or no chance to make adjustments.⁹⁰ Many things can go wrong. “Guy wires, rock outcroppings, building faces, bridge trestles or other obstacles can” catch the delayed chute’s line or canopy⁹¹ or the jumper may simply catch the wind wrong and smash back into the building, cliff, or other object.⁹² In other situations, equipment fails, the jumper fumbles reaching for the cord, or the jumper

81. Caesar, *supra* note 55, at 23.

82. *Id.* at 26.

83. See Mark Jenkins, *Yosemite’s Superclimbers*, NAT’L GEOGRAPHIC MAG., May 2011, at 98.

84. Caesar, *supra* note 55, at 22; see Branch, *supra* note 70, at B14 (“[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.”).

85. Caesar, *supra* note 55, 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 summers of 2012 and 2013], 22 other base jumpers have died; 18 were wearing wingsuits.”).

86. See *id.* at 22 (describing the gliding moves needed to land a particular jump safely).

87. *Extreme Sports Statistics*, EXTREME SPORTS NEWS (May 22, 2012), <http://www.uwpfarmhouse.org/extreme-sports-statistics>.

88. Duhigg, *supra* note 58, at 1.

89. Saslow, *supra* note 55, at A1.

90. See Caesar, *supra* note 55, at 23 (stating that “one mistake can be fatal”); see also Saslow, *supra* note 55, at A1 (quoting BASE jumper Heather Loughlin) (“By the time I even know something is going wrong, . . . I’ll basically be hitting the ground.”); Zizzo, *supra* note 66, at 1A (noting that BASE jumpers do not have time to deploy a second parachute if something goes wrong).

91. Zizzo, *supra* note 66, at 1A.

92. See Caesar, *supra* note 55, at 23.

simply miscalculates and fails to release the parachute at the right time.⁹³ BASE jumping also can be hazardous for bystanders, pedestrians, and motorists.⁹⁴

The federal government effectively prohibits BASE jumping in all national parks in response to many fatal jumps.⁹⁵ BASE jumping also 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,⁹⁶ may be fined and jailed for disorderly or reckless conduct,⁹⁷ and may trespass when landing.⁹⁸ Some localities, however, allow BASE jumping one or two days annually,⁹⁹ and officials allow BASE jumping at all times from the 486-foot high Perrine Memorial Bridge in Twin Falls, Idaho,¹⁰⁰ and from numerous cliffs in Moab, Utah.¹⁰¹

93. See *id.* at 23–25 (summarizing arguments that legendary BASE jumper Hervé Le Gallou died on impact from a BASE jump because he failed to release his parachute at the right time).

94. See Dizikes, *supra* note 64, at 1; see Hector Gutierrez, *Base Jumper Posed Danger: Prosecution Says Bystander Came Close To Being Hit by Glass When Man Fell Through Hotel Window*, ROCKY MTN. NEWS, Mar. 21, 2001, at 4A, available at 2001 WLNR 828861 (explaining an incident where a BASE jumper fell through a hotel window, nearly injuring bystanders).

95. See 36 C.F.R. § 2.17(a)(3) (2013) (prohibiting “[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” on public lands managed by the National Parks Service); see also NAT’L PARKS SERV., U.S. DEP’T OF INTERIOR, Management Policies 2006 § 8.2.2.7 (2006) (regarding issuing permits for BASE jumping, the policy states that BASE jumping “is generally prohibited by 36 C.F.R. 2.17(a)(3) [But it may be allowed only] if determined through a park planning process to be an appropriate activity”); *United States v. Oxx*, 56 F. Supp. 2d 1214, 1216–17 (D. Utah 1999) (holding BASE jumping constitutes delivery of a person by parachute in violation of 36 C.F.R. section 217(a)(3)). But see Alison Brooke Rubenstein, “*The Whole World Is Jumpable*,” *Except for the National Parks*, 8 U. BAL.T. J. ENVTL. L. 150, 153 (2001) (citing *United States v. Albers*, 226 F.3d 989, 992 n.1 (9th Cir. 2000) (noting that BASE jumping is prohibited in all national parks with the exception of the New River Gorge National Park, where BASE jumpers are permitted to jump from the New River Gorge Bridge on the third Saturday of every October)).

96. See Zizzo, *supra* note 66, at 1A.

97. See Dizikes, *supra* note 64, at 1.

98. See Zizzo, *supra* note 66, at 1A.

99. See, e.g., *id.* (discussing legal BASE jumping permitted on Bridge Day in West Virginia); *Royal Gorge Bridge: BASE Jumping in Colorado*, THIRST FOR ADRENALINE, <http://thirstforadrenaline.com/base-jumping/location/colorado/royal-gorge-bridge.shtml> (last visited May 12, 2014) (regarding legal BASE jumping during Go Fast! weekend in Canon City, Colorado).

100. Zizzo, *supra* note 66, at 1A.

101. *Id.*; Willoughby, *supra* note 67, at D12.

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, Idaho, so he could jump year round and said, "We think quality of life is better than quantity"¹⁰² A thirty-six-year-old real estate developer said her "best memories often were her most terrifying: ... riding her motorcycle on wet mountain roads [and] revel[ing] in the implicit danger of [BASE jumping]"¹⁰³ As part of the process of releasing organizers from liability, BASE jumpers at Bridge Day in West Virginia must read aloud a statement that says, "I know that BASE jumping is an extreme sport, which involves a high risk of injury or death."¹⁰⁴ An instructor says, "[W]e take what is essentially a tent, throw it in the air and expect it to work every time. That's not going to happen."¹⁰⁵

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."¹⁰⁶ 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."¹⁰⁷ Apparently, free falling is not enough for some. One ski-BASE jumper says, "I prefer to do a big front flip [Other ski-BASE jumpers] do double back flips [or] quadruple back flips."¹⁰⁸

Second, one daredevil has introduced the sport of indoor BASE jumping. Miles Daisher described his feat as the "Jason Bourne of BASE jumping" when celebrating his successful leap from the nineteenth floor of the indoor atrium of the Gaylord National Hotel in Maryland.¹⁰⁹ 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,

102. Nate Poppino, *Jumping Community Reacts to Accidents: No Regulations Expected in Response to Death, Injuries*, TIMES NEWS (TWIN FALLS, IDAHO), May 31, 2006, available at 2006 WLNR 9322572.

103. Saslow, *supra* note 55, at A1.

104. *Id.*

105. *Id.*

106. Latimer, *supra* note 79, at 8 (reporting approximately "a dozen or so incorrigible daredevils" ski-BASE jumping).

107. *Id.*

108. *Id.*

109. Jason Koebler, *Daredevil Pulls Off 'Jason Bourne of BASE jumping' Inside a Hotel*, U.S. NEWS & WORLD REP., Apr. 4, 2013, available at 2013 WLNR 8360374.

some 180 feet beneath his takeoff point.”¹¹⁰ During the less than thirteen-second fall, he had to avoid overhead girders and indoor trees.¹¹¹

Several other sports invite crippling injury or death. In heliskiing, “mountain climbing or whitewater rafting, death is never far away.”¹¹² In heli-skiing, a helicopter can transport an intrepid skier or snowboarder to a remote location not accessible by a ski lift, far away from the monitored environment of a ski resort.¹¹³ The skier or snowboarder can experience a variety of conditions and terrains including powder, corn, or sugar snow.¹¹⁴ One enthusiast attests that heli-skiing and other extreme sports can send the “adrenalin[e] 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 heli-skiers complain that the heli-ski industry is “not governed or overseen by any monitoring agency.”¹¹⁹

Courts and commentators have recognized the inherent dangers of heli-skiing. In one case, a court noted that an insurer would have more than doubled the annual premium on a life insurance policy if the applicant disclosed that he took heli-skiing vacations; the court held the applicant’s failure to disclose his avocation of taking heli-skiing vacations to the insurance company voided the life insurance policy.¹²⁰ One parent compares heli-skiing to Russian roulette.¹²¹ A documentary focusing on the death of a heli-skier and the implications for his family asks, “Is living the dream worth risking it all?”¹²²

110. *Id.*

111. *Id.*

112. Tom Gardner, *Heliski: Danger vs. Thrills*, DENV. POST, Apr. 17, 1994, at B02, available at 1994 WLNR 402405.

113. Larry Olmsted, *Why You Need To Try Heli-Skiing This Winter*, FORBES (Dec. 20, 2012, 7:58 AM), <http://www.forbes.com/sites/larryolmsted/2012/12/20/why-you-need-to-try-heli-skiing-this-winter>.

114. See *id.*; *Heli Skiing*, THRILLOPHILIA, <http://www.thrillophilia.com/blog/heli-skiing> (last visited May 12, 2014).

115. Julie Keller, *Brolin Takes Extreme Pleasure in Role as Rescuer*, COLUMBUS DISPATCH (OHIO), Jan. 29, 1995, at O1G, available at 1995 WLNR 5411175.

116. See Gardner, *supra* note 112, at B02.

117. See Neil Amdur, *Extreme Grief*, N.Y. TIMES, Mar. 6, 2013, at B11, available at 2013 WLNR 5503840.

118. Gardner, *supra* note 112, at B02.

119. Amdur, *supra* note 117, at B11.

120. See *W. Coast Life Ins. Co. v. Hoar*, 505 F. Supp. 2d 734, 750–51, 754–55 (D. Colo. 2007), *aff’d*, 558 F.3d 1151 (10th Cir. 2009).

121. Amdur, *supra* note 119, at B11.

122. See *id.*

Climbing sports demonstrate that some segments within a sport may pose great injury risks whereas other segments do not. Urban climbing, also known as *buildering*, generally refers to scaling city buildings.¹²³ Practitioners risk death or serious injury from falling to the ground, or from electrocution 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 former editor of *Urban Climber* magazine stressed that urban climbing is dangerous, and more importantly, “it’s illegal.”¹²⁶ An organization promoting an illegal sport would not be eligible for most favored tax status,¹²⁷ but presumably, a municipality could authorize urban climbing for a day or a weekend in the same way that some places allow BASE jumping.¹²⁸

Freestyle rock climbing is performed with no harnesses, ropes, or other safety equipment, just climbing shoes and a chalk bag.¹²⁹ It is an “inherently dangerous sport,” and some have died.¹³⁰ The risks in climbing, however, vary wildly based on the conditions and tasks undertaken. The American Alpine Club reported 185 accidents and thirty-four fatalities in 2010 from climbing, and similar numbers were reached in 2009.¹³¹ With

123. Ian Ith & Michael Ko, *Urban Climber Electrocuted Scaling Drugstore Building*, SEATTLE TIMES, Aug. 28, 2003, at A1, available at 2003 WLNR 2406517.

124. See *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 Sears Tower in Chicago and the Petronas Towers in Kuala Lumpur, Malaysia).

126. *Id.* (reporting that two urban climbers in New York City “faced charges of reckless endangerment, criminal trespass and disorderly conduct”).

127. Rev. Rul. 75-384, 1975-2 C.B. 204.

128. See *supra* notes 99–101 and accompanying text.

129. *In Brief: Climber’s Body Found Near Donner Lake*, LAS VEGAS REV. J., July 26, 2003, at 2B, available at 2003 WLNR 816210; see also Joseph Ditzler, *Los Alamos Student Dies Climbing*, ALBUQUERQUE J., May 9, 2003, at 2, available at 2003 WLNR 3330371 (discussing student who fell to his death while freestyle climbing without ropes or other climbing equipment).

130. Chris Harris, *Rock Climbers React to Death of Woman*, 22, N. J. REC., May 2, 2012, at L03, available at 2012 WLNR 9229677; accord *In Brief: Climber’s Body Found Near Donner Lake*, *supra* note 129, at 2B.

131. Harris, *supra* note 130, at L03; see also Irene Wanner, *Climbing Stories Illustrate Glory and Foolishness*, SEATTLE TIMES, Jan. 14, 2000, at I10, available at 2000 WLNR 1399230 (“On average, 35 climbers die in the U.S. annually. Hundreds are hurt . . .”).

approximately seven million people engaged in wall climbing,¹³² it seems likely the risk of a fatality in freestyle rock climbing greatly exceeds the risk from wall climbing.

Regarding skydiving, although nonindustry sources report higher fatality rates, the U.S. Parachute Association optimistically reports “the risk of dying in a skydiving accident is [only] about one in 111,607 every year.”¹³³ 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.”¹³⁴

B. Evolving Understanding of Hidden Brain Injuries in Traditional Contact 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.”¹³⁵ If a head injury “didn’t result in a trip to the hospital [it] could be ignored.”¹³⁶ “Soldier on. Shake it off. You just had your bell rung”¹³⁷ This attitude is not entirely surprising. “It’s hard to take seriously an invisible injury with subtle symptoms that often seem to pass quickly.”¹³⁸

However, in the last decade, medical experts have raised serious concerns about head injuries.¹³⁹ In 2010, the American Academy of Pediatrics

132. Emilie Le Beau, *The Height of Competition: 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 WL 23464179.

133. Jose Pagliery, *Sky Diver With Damaged Chute ‘Lucky To Be Alive’: A Sky Diver Whose Parachute Was Damaged as He Jumped from the Plane Was Saved by Some Avocado Trees*, MIAMI HERALD, Dec. 9, 2008, at A1, available at 2008 WLNR 23585064. But see Jason Blevins, *Death in the Drop Zone*, DENV. POST, June 8, 2008, at A01, available at 2008 WLNR 10882922 (putting the fatality rate at one in every 82,400 jumps); Soreide et al., *supra* note 67, at 1113 (citing Thomas H. Barrows et al., *The Epidemiology of Skydiving Injuries: World Freefall Convention, 2001*, 28 J. EMERGENCY MED. 63, 66 (2005); N. Ellitsgaard, *Parachuting Injuries: A Study of 110,000 Sports Jumps*, 21 BRIT. J. SPORTS MED. 13, 14 (1987)) (“Risk in skydiving has been estimated to be about 5 deaths and 140 to 170 injuries per 100,000 parachute jumps.”).

134. Blevins, *supra* note 133, at A01.

135. CARROLL & ROSNER, *supra* note 56, at xi.

136. *Id.*

137. Moore, *supra* note 1, at 1C; see also Sean Gregory, *The Problem with Football: How To Make It Safer*, TIME, Jan. 28, 2010, available at <http://content.time.com/time/magazine/article/0,9171,1957459,00.html> (“The euphemistic lexicon that pervades locker-room culture ... has contributed to a perception that the problem isn’t serious.”).

138. CARROLL & ROSNER, *supra* note 56, at 10; Moore, *supra* note 1, at 1C (quoting a veteran racecar driver discussing the temptation to keep driving with a concussion because “you can hide it”).

139. See CARROLL & ROSNER, *supra* note 56, at xi, 26.

reported that in the previous ten years, trips to the emergency room for sports-related brain injuries doubled for persons age eight through thirteen, and tripled for persons age fourteen through nineteen.¹⁴⁰

Players and parents are changing their views.¹⁴¹ In 2013, President Obama said, “If I had a son, I’d have to think long and hard before I let him play football.”¹⁴² America’s favorite spectator sport,¹⁴³ football, is “under attack,” with one advocate stating 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 don’t know yet how to prevent it.”¹⁴⁴ In 2012, youth football participation dropped for the first time since statistics have been kept.¹⁴⁵ In the same year, a reporter asked a veteran racecar driver about NASCAR’s concussion policy, and the driver said, “Ten years ago, we [were not] having this conversation, because you just went on.”¹⁴⁶

The doubling and tripling of emergency room 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.¹⁴⁷

140. *Id.* at xii (discussing Lisa L. Bakhos et al., *Emergency Room Visits for Concussion in Young Child Athletes*, 126 PEDIATRICS e550, e554 (2010)).

141. See Rachel George, *Head Injuries Soar on Halfpipe*, USA TODAY, Feb. 26, 2013, at 1C, available at <http://www.usatoday.com/story/sports/olympics/2013/02/25/snowboarders-skiers-kevin-pearce-concern-concussions/1947593>.

142. Editorial, *Nagging Concerns Before the Big Game*, N.Y. TIMES, Feb. 3, 2013, at SR10 (quoting Franklin Foer & Chris Hughes, “*Let Me Be Clear . . .*”: A Feisty Beginning to the Second Term, NEW REPUBLIC, Feb. 11, 2013, at 22, 29); accord Mike Garafolo, *Obama’s Football Stance Debated*, USA TODAY, Jan. 29, 2013, at 1C; see also 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 have everyone’s . . .”).

143. CARROLL & ROSNER, *supra* note 56, at 41.

144. MARK FAINARU-WADA & STEVE FAINARU, *LEAGUE OF DENIAL: THE NFL, CONCUSSIONS, AND THE BATTLE FOR TRUTH* 264 (2013) (quoting Christopher Nowinski, a former college football player and professional wrestler); Gary Mihoces, *USA Football Puts Focus on Safety*, USA TODAY, Mar. 4, 2013, at 3C; see also Editorial, *Injuries Cast Shadow Over the NFL’s Success*, USA TODAY, Jan. 31, 2013, at 6A (arguing that “[w]ith scientific studies increasingly linking head injuries with degenerative brain diseases, fans and young people could turn away from [football]”).

145. See Mihoces, *supra* note 144, at 3C; see also Shpigel, *supra* note 15, at B12 (discussing a professional football player who will not allow his seven-year-old son to play football).

146. Moore, *supra* note 1, at 1C.

147. See CARROLL & ROSNER, *supra* note 56, 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”).

Football and many other sports demonstrate Newton's Second Law: force equals mass times acceleration.¹⁴⁸ 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 [This possibly generates an] impact ... [of] ninety-eight times the force of gravity."¹⁴⁹ One national commentator concludes, "[A]ccumulating evidence about ... the human body [and especially] the brain ... compel[s] 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."¹⁵⁰

The medical community has acknowledged concussions since at least 900 A.D., but understanding and appreciation have come slowly for "the most common and most confusing of head injuries."¹⁵¹ Experts only arrived at a uniform description of a concussion 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."¹⁵² Neither loss of consciousness nor even a bump on the head is a necessary element.¹⁵³ 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."¹⁵⁴ In dramatizing concussions, some describe the brain as being like JELL-O rather than a snow globe.¹⁵⁵ If a snow globe is shaken, all the pieces eventually fall back to the bottom where they started; in contrast, if JELL-O 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]."¹⁵⁶

Many factors make concussion research challenging and conclusions elusive. Frequently, symptoms do not appear for days¹⁵⁷ and may be

148. *Id.*

149. *Id.* at 42–43.

150. George Will, *Would We Have To Kill Football In Order To Fix It?*, SUN HERALD (Biloxi, Miss.), Aug. 6, 2012, at A17, available at 2012 WLNR 16493051.

151. CARROLL & ROSNER, *supra* note 56, at 10–11.

152. *Id.*

153. *Id.* at 11.

154. Moore, *supra* note 1, at 1C.

155. See Moehring, *supra* note 3, at 52.

156. *See id.*

157. See Jeff Z. Klein & Stu Hackel, *N.H.L. Grapples with Applying Its Own Concussion Protocols*, N.Y. TIMES (Feb. 3, 2013, 2:21 PM), http://slapshot.blogs.nytimes.com/2013/02/02/n-h-l-grapples-with-applying-its-own-concussion-protocols/?_php=true&_type=blogs&_r=1&pagewanted=print.

“very understated” when they finally arrive.¹⁵⁸ “[C]oncussion damage can remain hidden for years only to show up later as early-onset dementia.”¹⁵⁹ Evaluating and categorizing concussions is challenging. “Concussions are like snowflakes: every one is different” and symptoms “can last for days, weeks or months, and the recovery time varies from patient to patient.”¹⁶⁰

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 Football League players, only nineteen percent of those who had a concussion realized it; in a study of Canadian hockey players ages eleven through seventeen, approximately only one out of every 100 concussions were reported to youth hockey authorities.¹⁶¹

Even when players realize they are injured, many will not complain because they want to stay in the game or view complaining as a sign of weakness.¹⁶² A survey showed that fifty-six percent of National Football League (NFL) players “said they would hide concussion symptoms to stay on the [playing] field.”¹⁶³

Considering these factors, it is not surprising that “nobody knows exactly how many concussions occur.”¹⁶⁴ “[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 United States annually.”¹⁶⁵

Recent research reveals several disturbing features about brain trauma. Once a player has one concussion, a subsequent concussion becomes

158. Howard Beck, *Concussion Policy Has Major Role in Series*, N.Y. TIMES, May 18, 2013, at D1 (noting that having no symptoms for two days is not unusual).

159. CARROLL & ROSNER, *supra* note 56, at xiii.

160. Beck, *supra* note 158, at D1; *see also* Ken Belson, *New Concussion Guidelines Stress Individual Treatment*, N.Y. TIMES, Mar. 19, 2013, at B11, available at <http://www.nytimes.com/2013/03/19/sports/new-guidelines-for-handling-athletes-with-concussions.html> (“[C]oncussions are too idiosyncratic to be categorized neatly.”).

161. CARROLL & ROSNER, *supra* note 56 at 56–57.

162. *See* Jarrett Bell, *Getting Inside Their Heads: Brain Studies Shed Light As Players Ponder Risks*, USA TODAY, Jan. 31, 2013, at 1C (noting that many players seem “conditioned to down play risks”); *see, e.g.*, Moore, *supra* note 1, at 1C (repeating quarterback Robert Griffin III’s remark, “I still refuse to say I had a concussion. I had temporary memory loss.”).

163. Jarrett Bell, *Discussing Safety Not Enough: Concussion Protocol Must Be Enhanced*, USA TODAY, Nov. 14, 2012, at 9C.

164. CARROLL & ROSNER, *supra* note 56, at xii.

165. *Id.*; *see also* Belson, *supra* note 160, at B11 (noting that studies show “that more than a million American athletes experienced concussions each year”).

much more likely.¹⁶⁶ “College players with three or more concussions [are] three times more likely to sustain a new concussion”¹⁶⁷ Also, multiple concussions can cause damage strikingly similar to the damage from a single severe head injury from a car crash or a battlefield injury.¹⁶⁸ 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.¹⁶⁹

The consequences of brain trauma can be debilitating. “Nothing can convey the menace of concussions more clearly than the heartrending stories of people whose lives have been irrevocably changed by these seemingly minor injuries.”¹⁷⁰ Consequences may include early-onset Alzheimer’s disease,¹⁷¹ suicide,¹⁷² death from CTE,¹⁷³ depression,¹⁷⁴

166. See CARROLL & ROSNER, *supra* note 56 at 25.

167. *Id.*

168. See *id.* at xiii.

169. See *id.* at xiii; FAINARU-WADA & FAINARU, *supra* note 144, at 358; Judy Battista, *N.F.L. Joins with G.E. in Effort To Detect Concussions*, N.Y. TIMES, Feb. 3, 2013, at SP6, available at <http://www.nytimes.com/2013/02/03/sports/football/nfl-and-ge-team-up-in-effort-to-detect-concussions.html?pagewanted=all>; Moehringer, *supra* note 3, at 50.

170. CARROLL & ROSNER, *supra* note 56, at xii.

171. See *id.* at xiii (“[C]oncussion damage can remain hidden for years only to show up later as early-onset dementia.”); see also FAINARU-WADA & FAINARU, *supra* note 144, at 277; Ken Belson, *N.F.L. Doctor Says Disease Is Overstated*, N.Y. TIMES, Mar. 28, 2013, at B14, available at <http://www.nytimes.com/2013/03/28/sports/football/doctor-for-nfl-says-study-overstates-effects-of-cte.html?pagewanted=all> (reporting that chronic traumatic encephalopathy, which has been found “posthumously in dozens of football players,” is believed to be caused by repeated head trauma and “is closely related to Alzheimer’s disease”).

172. See, e.g., Gary Mihoces & Erik Brady, *News of Seau’s Brain Damage Hits Home in NFL*, USA TODAY, Jan. 11, 2013, at 3C, available at <http://www.usatoday.com/story/sports/nfl/2013/01/10/junior-seau-brain-disease/1822603> (discussing that professional football linebacker Junior Seau “showed signs of chronic traumatic encephalopathy” at the time he committed suicide); Moehringer, *supra* note 3, at 50–52 (reporting that six professional football players committed suicide in two years, and that “each reportedly suffered some combination of the classic symptoms of chronic traumatic encephalopathy, or CTE”); Will, *supra* note 150, at A17 (discussing suicides of multiple former professional football players).

173. See Janice Lloyd & Gary Mihoces, *Brain Disease Study Not Without Its Flaws*, USA TODAY, Sept. 6, 2012, at 10C, available at http://usatoday30.usatoday.com/SPORTS/usaedition/2012-09-06-NFL-study-inside06_ST_U.htm. But see FAINARU-WADA & FAINARU, *supra* note 144, at 405 (quoting Kevin Guskiewicz, Professor at the University of North Carolina and winner of the MacArthur Fellowship, or “Genius Grant”) (“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”); Gary Mihoces, *Documentary Says NFL Is a “League of Denial”*; *PBS Film Claims League Did an End-Around on Concussion Evidence*, USA TODAY, Oct. 8, 2013, at 3C (quoting Michael Collins, Director of the Sports Medicine Concussion Program at the University

inability to work,¹⁷⁵ and inability to function without a caregiver.¹⁷⁶ Research often identifies CTE in the brains of deceased football players.¹⁷⁷ Technology tested in 2013 may allow researchers to test for CTE in the living.¹⁷⁸ “For all [professional football] players who play five or more years, life expectancy is less than 60; for linemen it is much less.”¹⁷⁹

C. Risk of Brain Injuries in Various Sports

Many sports carry risks of concussions for participants; in particular those that involve forceful jolts to the head.¹⁸⁰ Sports in which players travel at artificially high speeds, such as auto racing, motorcycle racing, snowmobiling, and powerboat racing, can involve some of the hardest hits.¹⁸¹ A study of major sports determined that auto racing crashes can

of Pittsburgh Medical Center) (“There’s no proof at this point in time determining that concussion is an isolating fa[ct]or in causing CTE.”).

174. See FAINARU-WADA & FAINARU, *supra* note 144, 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”); see also Gregory, *supra* note 137 (“Common symptoms of CTE include . . . depression during middle age”); Gary Mihoces, *Test Can Find CTE in Living People*, USA TODAY, Jan. 23, 2013, at 8C (noting CTE is linked to depression).

175. Judy Battista, *A Player’s Concussion, a Family’s Ordeal*, N.Y. TIMES, Sept. 16, 2012, at SP1, available at <http://www.nytimes.com/2012/09/16/sports/football/former-nfl-player-mitch-white-learns-to-adjust-to-postconcussion-life.html>; see Ken Belson, *Brain Injuries Drew Millions from N.F.L., Report Says*, N.Y. TIMES, Nov. 17, 2012, at D4, available at <http://www.nytimes.com/2012/11/17/sports/football/nfl-paid-millions-over-brain-injuries-article-says.html> (discussing the case of former Pittsburgh Steeler player Mike Webster who was “certainly disabled when he stopped playing football . . .”); *Chronic Traumatic Encephalopathy*, SPORTS LEGACY INST., <http://www.sportslegacy.org/research/cte> (last visited May 12, 2014) (stating that the symptoms of chronic traumatic encephalopathy include “memory loss, confusion, impaired judgment, paranoia, impulse control problems, aggression, depression, and eventually, progressive dementia”).

176. See Battista, *supra* note 175, at SP1 (discussing the ordeal of former NFL player Mitch White).

177. See Mihoces, *supra* note 174, at 8C.

178. *Id.*

179. Will, *supra* note 150, at A17.

180. See CARROLL & ROSNER, *supra* note 56, at 42 (noting that in football, the greater the impact, the greater the possibility for concussion).

181. See, e.g., RACHEL GEORGE, *Snowmobile Athletes Defend Risks: Safety Draws New Scrutiny After Crashes*, USA TODAY, Jan. 30, 2013, at 8C, available at <http://www.usatoday.com/story/sports/olympics/2013/01/29/snowmobile-athletes-x-games-caleb-moore-levi-lavallee/1875447> (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).

generate the highest impacts, with forces measured above 100 times the force of gravity.¹⁸²

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.¹⁸³ Hockey players also engage in bare-knuckle fighting,¹⁸⁴ which in other contexts is illegal.¹⁸⁵ According to one report, National Hockey League (NHL) players are five times more likely to suffer a concussion than NFL players.¹⁸⁶

In addition, regarding artificially high-speed sports, the risks of brain injuries from halfpipe skiing and snowboarding have grabbed headlines. Halfpipe skiing and snowboarding are extreme sports where athletes “hurtle themselves three stories in the air to perform tricks [and eventually land] on a hard-packed [curved sheet of ice and snow].”¹⁸⁷ Halfpipe skiing and snowboarding are popular among athletes “in their teens and early 20s ... [with] a sense of invincibility.”¹⁸⁸ Even the elite participants suffer multiple concussions at an early age.¹⁸⁹ Because the sport is relatively new and the participants are young, it will take decades for researchers to evaluate the consequences of halfpipe skiing and snowboarding brain injuries.¹⁹⁰ Therefore, the sport inspiring the most research and offering the best opportunities for analysis is football.¹⁹¹

182. See Moore, *supra* note 1, at 1C (noting that by 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).

183. See *Ice Hockey Injuries*, ST. VINCENT HEALTH SYS., <https://www.saintvincenthealth.com/services/sports-medicine/sports-injuries/ice-hockey-injuries/default.aspx> (last visited, May 12, 2014).

184. See, e.g., John Branch, *In Suit Over Death, Boogaard’s Family Blames the N.H.L.*, N.Y. TIMES, May 13, 2013, at D1, available at http://www.nytimes.com/2013/05/13/sports/hockey/derek-boogaards-family-sues-nhl-for-wrongful-death.html?_r=0 (discussing the chronic fighting of Derek Boogaard, an NHL “enforcer” who died at 28 of an accidental overdose of painkillers and alcohol after suffering a concussion his family believes resulted from a fight with another player).

185. See, e.g., *Championship Wrestling, Inc. v. State Boxing Comm’n*, 477 N.E.2d 302, 306 (Ind. Ct. App. 1985) (outlining an Indiana Code provision criminalizing “fighting” and “tumultuous conduct” in public).

186. CARROLL & ROSNER, *supra* note 56, at 56.

187. George, *supra* note 141, at 1C.

188. *Id.*

189. By age 27, the two-time Olympic Gold Medalist Shaun White had suffered nine concussions. See *id.* (citing THE CRASH REEL: THE RIDE OF A LIFETIME (Julian Cautherley & Lucy Walker 2013)).

190. See *id.*

191. See *id.*

Football brain injuries have been the subject of extensive research, commentary, debate,¹⁹² action,¹⁹³ and highly publicized litigation.¹⁹⁴ Although other sports pose greater risks,¹⁹⁵ research on football provides the most information.¹⁹⁶ In contrast to halfpipe skiing and snowboarding, football researchers can study players of almost any age.

Football has been known as a dangerous game since at least the early 1900s,¹⁹⁷ but the general public has only started to appreciate the hidden risks of brain injuries in the last decade.¹⁹⁸ 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.”¹⁹⁹ Football “produce[s] nearly two-thirds of all concussions among high school boys.”²⁰⁰ Among high school students visiting emergency rooms every year with sports-related brain injuries, the majority are football players.²⁰¹ Even with all the factors tending to understate the number of concussions, one report concluded that thirty-four percent of college football players have had one concussion, and

192. See, e.g., Editorial, *supra* note 144, at 6A (“With scientific studies increasingly linking head injuries with degenerative brain diseases, fans and young people could turn away from the sport . . .”). But see Steve Deace, *Don’t Ruin the Game We Love*, USA TODAY, Jan. 31, 2013, at 6A, available at <http://www.usatoday.com/story/opinion/2013/01/30/football-super-bowl-steve-deace/1879063/> (celebrating football’s “masculinity” and “rugged individualism”).

193. See *infra* notes 208–19 and accompanying text (regarding rule changes to reduce risks).

194. See *infra* notes 206–07 and accompanying text (regarding the case of over 4500 former players suing the NFL).

195. Moore, *supra* note 1, at 1C (reporting that a car crash in an auto race can generate an impact of more than 100 Gs, although a helmet to helmet hit in football may generate a force of 80 to 100 Gs).

196. George, *supra* note 141, at 1C.

197. SMITH, *supra* note 41, at 3, 42–44 (stating that the principal reason for creating the NCAA was to reform the violence in football during 1905–1906); see also Mihoces, *supra* note 144, at 3C (discussing a 1905 article on football referring to the brutality of the game as the “death harvest”).

198. See CARROLL & ROSNER, *supra* note 56, at 42.

199. *Id.* at 26; see also Gregory, *supra* note 137 (stating that in 2010, 1.2 million students played high school football and high school football players suffer 43,000 to 67,000 concussions per year, “though the true incidence is likely much higher [because] more than 50% of concussed athletes are suspected of failing to report their symptoms”).

200. CARROLL & ROSNER, *supra* note 56, at 27.

201. *Id.* at 52.

thirty percent have had two or more.²⁰² Former professional football players over fifty years old are “five times as likely as the national population to receive a memory-related diagnosis” and “[p]layers [ages] 30 to 49 [a]re 19 times as likely to be debilitated.”²⁰³ In one pee wee game in 2012, “five preadolescent boys suffered concussions,” and the “winning coach declared, ‘This is a football game, not a Hallmark moment.’”²⁰⁴ In comparing microscopic images of a normal brain and the brain of a deceased football player afflicted with CTE, one player remarked, “This is your brain, and this is your brain on football.”²⁰⁵ Over 4500 former players sued the NFL, arguing that the NFL deliberately understated the risks of head injuries for decades.²⁰⁶ The parties settled, and the NFL agreed to pay \$765 million but made no admission of guilt.²⁰⁷

Football leagues at various levels are taking steps to reduce the risks of brain injuries. In youth football, approximately three million children younger than fourteen play tackle football.²⁰⁸ At this level, instructors are stressing tackling with the arms and shoulders as part of programs such as Heads Up Football and Safe Football, which discourage the use of the helmet as a weapon.²⁰⁹ In 2012, Pop Warner, “the sport’s largest youth organization,”²¹⁰ adopted new rules “limiting full contact drills to no more than one-third of a team’s practice time and banning head-on blocking or tackling drills that begin with players lined up more than three yards apart.”²¹¹ Additionally, some Illinois legislators proposed a bill to prohibit more than two full contact practices per week in youth and high school football, but its critics argued that Illinois would become

202. Jim Thomas, *Frequency of Injury Among College Athletes*, LIVESTRONG.COM, <http://www.livestrong.com/article/513231-frequency-of-injury-among-college-athletes> (last updated Feb. 4, 2014).

203. Gregory, *supra* note 137.

204. Editorial, *supra* note 142, at SR10.

205. Gregory, *supra* note 137.

206. Ken Belson, *Concussion Suit to Cost N.F.L. \$765 Million*, N.Y. TIMES, Aug. 30, 2013, at A1, available at 2013 WLNR 21571871.

207. *See id.*

208. FAINARU-WADA & FAINARU, *supra* note 144, at 211; *see also* Editorial, *supra* note 142, at SR10 (confirming the three million figure); Gregory, *supra* note 137 (same); Mihoces, *supra* note 144, at 3C (same).

209. *See* Mike Garafolo, *Good Hands Could Help Protect Head*, USA TODAY, Feb. 25, 2013, at 4C, available at 2013 WLNR 4715585; Gary Mihoces, *NFL Keeps Heads 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; Mihoces, *supra* note 144, at 3C.

210. Shpigel, *supra* note 15, at B12.

211. Jonathan Tamari, *New Pop Warner Football Rules Aimed at Reducing Head Injuries*, PHILLY.COM (June 14, 2012), http://articles.philly.com/2012-06-14/sports/32236320_1_head-injuries-sports-football-practices.

known as the “nanny state” and the bill failed.²¹² At the college level, there are approximately 70,000 football players.²¹³ One college league has changed its rules to allow only two contact practices per week.²¹⁴ The NFL downplayed head injuries as recently as 2009²¹⁵ but subsequently adopted several safety measures. It has “stiffened penalties for hits to the head,” and in 2011 it moved kickoffs up five yards to “reduce ... violent collisions.”²¹⁶ Before the 2012 season, the NFL adopted a postinjury sideline concussion assessment requirement to help determine if players should be removed from games.²¹⁷ In late 2012, the NFL Commissioner announced that “medical decisions override everything else.”²¹⁸ In 2013, the NFL “plan[ned] to have independent neurological consultants on the sideline during each game to assist the team physician in diagnosing and treating players.”²¹⁹

Nevertheless, national commentator George Will and former Super Bowl quarterback Terry Bradshaw have opined that unless drastic steps are taken, football will fade from the most popular spectator sport to a

212. See Hannah Douglas, *Limits on Youth Football Sideline: Proponents Say They’re Hardly Finished*, S. ILLINOISAN, Mar. 21, 2013, at 1B, available at http://thesouthern.com/news/local/limits-on-youth-football-sidelined-proponents-say-they-re-hardly/article_15612_726-91da-11e2-80a0-0019bb2963f4.html; John Keilman, *Bill To Limit Tackling Stalls*, CHI. TRIB., Mar. 22, 2013, at 9, available at 2013 WLNR 7131789.

213. FAINARU-WADA & FAINARU, *supra* note 144, at 211 (stating that there are “68,000 college players”).

214. Calder Silcox, *Ivy League Puts in Strict Concussion Rules*, USA TODAY (July 21, 2011), available at <http://content.usatoday.com/communities/campusrivalry/post/2011/07/ivy-league-concussion-rule-changes/1#.UwqiOfldWyU>. See generally Shpigel, *supra* note 15, at B12 (reporting that the NCAA allows a college football team to have five full-contact practices every week).

215. See Gregory, *supra* note 137; see also Battista, *supra* note 174, at SP6 (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, *supra* note 206, at A1 (reporting that the plaintiffs in the lawsuit alleged that the “N.F.L. took until 2010 to properly warn players”).

216. Shpigel, *supra* note 15, at B12.

217. Judy Battista, *N.F.L. Will Expand Concussion Efforts During Games*, N.Y. TIMES, Feb. 27, 2013, at B14, available at <http://www.nytimes.com/2013/02/27/sports/football/nfl-will-use-ipads-to-expand-in-game-concussion-testing.html>.

218. Belson, *supra* note 175, at D4.

219. See Battista, *supra* note 217, at B14; see also Battista, *supra* note 169, at SP6 (“[B]eginning next season, independent neurological consultants will be on the sidelines at every game to help detect head injuries.”); Gary Mihoces, *supra* note 173, at 3C (“This season, a league directive added independent neurological consultants to the sideline during games.”).

niche sport followed by only a fringe group willing to accept or overlook the violence.²²⁰ A sports sociologist predicts that in fifteen years “[w]e may see [football] . . . in pretty much the same place as boxing or ultimate fighting.”²²¹ Another commentator speculates that just one death on the football field may lead football to obsolescence like boxing.²²²

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].”²²³ For decades, the public has observed charismatic boxers, such as Muhammad Ali, deteriorate over time with severe cognitive impairments.²²⁴ 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.”²²⁵

Football’s risks dominate the public debate, but a high percentage of women also suffer concussions in hockey, soccer, and basketball. In hockey, women suffer concussions at double the rate of men, and women playing college hockey suffer more than double the rate of concussions of men playing college football.²²⁶ In high school soccer, girls suffer approximately fifty percent more concussions than boys.²²⁷ In college soccer, women sustain approximately thirty percent more concussions than men.²²⁸ In high school basketball, “girls sustain three times as many

220. See Shpigel, *supra* note 15, at B12 (reporting that on the *Tonight Show with Jay Leno*, Bradshaw said he believed football would “be eclipsed in popularity by soccer and other sports within 10 years”); Will, *supra* note 150, at A17 (“Football is entertainment in which the audience is expected to delight in gladiatorial action 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.”); see also Moehringer, *supra* note 3, at 50 (“George F. Will . . . recently declared that football is going bye-bye.”).

221. Shpigel, *supra* note 15, at B12 (quoting Jay Coakley of the University of Colorado).

222. See Moehringer, *supra* note 3, at 46, 50.

223. CARROLL & ROSNER, *supra* note 56, at 185 (discussing a paper presented by pathologist Harrison Martland titled “Punch Drunk”); FAINARU-WADA & FAINARU, *supra* note 144, at 158–59.

224. *Id.* at 200–01.

225. Moehringer, *supra* note 3, at 50; accord Editorial, *supra* note 144, at 6A (concluding that “boxing is now regarded as a brutal niche”).

226. CARROLL & ROSNER, *supra* note 56, at 56.

227. *Id.* at 27.

228. *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.”).

concussions as boys,” and in college basketball, women sustain sixty percent more concussions than men.²²⁹

The future may bring more risky contact sports seeking tax benefits. Although researchers have focused on youth, college, and professional football, they may soon pay attention to the exploding sport of alumni football. In alumni football, players ranging in age from eighteen to at least sixty-four “craving the brawny contact and burly self-assessment that golf cannot provide” attempt to relive their youth by playing full contact football on the field of their alma mater or of an archrival.²³⁰ The players must sign waivers releasing the promoters from liability.²³¹ Absent “is the rigorous and professional monitoring of concussions during and after games that has become so urgent in organized football.”²³²

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 to prevent granting tax benefits to such an organization. However, an analysis of congressional, administrative, and judicial developments 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 even though participants can suffer diminished mental capacity.²³³ 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.”²³⁴ An attempt to narrow the educational category would represent a major shift with many consequences. Specifically, current law

229. CARROLL & ROSNER, *supra* note 56, at 27.

230. Jere Longman, *Clinging to Youth, at a Cost*, N.Y. TIMES, Jan. 20, 2013, at SP1.

231. *Id.*

232. *Id.*

233. See Rev. Rul. 80-295, 1980-2 C.B. 194; Rev. Rul. 80-296, 1980-2 C.B. 195.

234. Treas. Reg. § 1.501(c)(3)–1(d)(3) (2013).

generally does not judge the content presented by an organization;²³⁵ instead, it focuses on the organization's methodology.²³⁶

Second, existing law disqualifies an organization whose "purpose ... violate[s] established public policy."²³⁷ A court or the IRS might conclude that sponsoring an excessively dangerous sport is a violation of public policy. However, established public policy for this purpose has been defined very narrowly. Existing authorities indicate public policy is only violated in situations involving racial discrimination.²³⁸

Third, existing law disqualifies an organization that operates for a substantial commercial purpose.²³⁹ This test might disqualify some sports organizations, including college football sponsors.²⁴⁰ This approach, however, would be underinclusive 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.²⁴¹ This Article asserts that the courts and the IRS should use this test to consider injury risks. The U.S. Supreme Court developed this test,²⁴² 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.²⁴³ Regardless of the number or importance of truly exempt purposes, the organization will not qualify if it has at least one substantial

235. See *Big Mama Rag, Inc. v. United States*, 631 F.2d 1030, 1040 (D.C. Cir. 1980). But see *Nat'l Alliance v. United States*, 710 F.2d 868, 871–73, 875 (D.C. Cir. 1983) (refusing to allow most favored tax status if the organization engages in hate speech).

236. See Rev. Proc. 86-43, 1986-2 C.B. 729 (adopting the four-part methodology test proposed by the IRS in *Nat'l Alliance*, 710 F.2d at 870); see also *Nationalist Movement v. Comm'r*, 102 T.C. 558, 583, *aff'd*, 37 F.3d 216 (5th Cir. 1994) (approving the methodology test).

237. *Bob Jones Univ. v. United States*, 461 U.S. 574, 591 (1983).

238. See Iris J. Goodwin, *Donor Standing To Enforce Charitable Gifts: Civil Society vs. Donor Empowerment*, 58 VAND. L. REV. 1093, 1124 n.91 (2005) ("It is not clear . . . whether this [public policy] limitation extends beyond racial discrimination in education.").

239. *Fed'n Pharmacy Servs., 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").

240. See *supra* note 233.

241. See *infra* notes 253–55 and accompanying text.

242. See *Better Bus. Bureau v. United States*, 326 U.S. 279, 283 (1945).

243. I.R.C. § 501(c)(3) (2012).

nonexempt purpose.²⁴⁴ In applying this test, a court or the IRS identifies the organization's activities and then determines whether those activities "accomplish one or more exempt purposes."²⁴⁵ The courts emphasize that one activity "may be directed toward multiple purposes, both exempt and nonexempt," and if one of the nonexempt purposes is substantial, the organization does not qualify.²⁴⁶ In determining the purpose that an activity accomplishes when multiple people participate, the government considers the expected impact on participants.²⁴⁷

This test is extremely flexible; a court or the IRS makes the determination by looking at all the particular facts of the case.²⁴⁸ 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—the percentage of time spent on the activity, the percentage of dollars earned, and the percentage of total expenditures. For example, in *Minnesota Kingsmen Chess Ass'n v. Commissioner*, the Tax Court denied most favored tax status because the organization spent at least half of its *time* on activities furthering nonexempt purposes.²⁴⁹ In contrast, in *Church in Boston v. Commissioner*, the Tax Court denied the requested status because the organization spent twenty percent of its *revenue* on activities furthering nonexempt purposes.²⁵⁰ Although the Tax Court concluded that an organization spending up to ten percent of its *expenditures*

244. *Better Bus. Bureau*, 326 U.S. at 283; *see also* Copyright Clearance Ctr. v. Comm'r, 79 T.C. 793, 804 (1982) (noting that the term *exclusively*, as specified in I.R.C. section 501(c)(3), "places a definite limit on the 'purpose' at issue," and a disqualifying nonexempt purpose is one that is "substantial in nature"); *Fed'n Pharmacy*, 625 F.2d at 807 (quoting Treas. Reg. § 1.501(c)(3)-1 (1979)) (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'").

245. *St. Louis Sci. 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.").

246. *See Copyright Clearance*, 79 T.C. at 803–04.

247. *See* I.R.S. Priv. Ltr. Rul. 201031035 (Aug. 6, 2010) (advising that although an activity had a normally exempt overall purpose to fundraise, the activity was not exempt because the participants benefitted from a "more than incidental non-exempt social networking purpose").

248. *See Church in Boston v. Comm'r*, 71 T.C. 102, 108 (1978); *see e.g.*, *St. Louis Sci. Fiction*, 49 T.C.M. (CCH) at 1129; *N. Am. Sequential Sweepstakes v. Comm'r*, 77 T.C. 1087, 1094–95 (1981).

249. 46 T.C.M. (CCH) 1133, 1135 (1983).

250. 71 T.C. at 107–08.

on activities furthering exempt purposes qualified for nonexempt status,²⁵¹ 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.²⁵²

Several cases hold that a recreational purpose is a nonexempt purpose. A chess association,²⁵³ a science fiction society,²⁵⁴ and an airplane club²⁵⁵ have all been denied the most favorable tax status because they had a substantial recreational purpose. But none of those decisions provided a comprehensive definition of the term *recreational*. Recreation “[i]n its popular sense . . . is of very comprehensive signific[ance] and includes in its general meaning games, *sports*, and plays[.]”²⁵⁶ that “provide diversions or amusements.”²⁵⁷ Courts in nontax situations have concluded that boxing,²⁵⁸ motorcycling,²⁵⁹ riding all-terrain vehicles,²⁶⁰ playing catch with a football,²⁶¹ weightlifting,²⁶² playing on a swing,²⁶³ and sometimes bicycling,²⁶⁴ are all forms of recreation.

This Article proposes that the approach for determining whether a sports organization has a substantial recreational purpose for tax benefits must differ from the analysis in other contexts. As a preliminary matter, the popular meaning of the term *recreation* quoted in the preceding

251. See *World Family Corp. v. Comm’r*, 81 T.C. 958, 958, 965–66 (1983).

252. See I.R.S. Priv. Ltr. Rul. 201031035 (Aug. 6, 2010) (noting that the determination must be “based on all the facts and circumstances”).

253. *Minn. Kingsmen Chess Ass’n*, 46 T.C.M. (CCH) at 1135.

254. *St. Louis Sci. Fiction Ltd. v. Comm’r*, 49 T.C.M. (CCH) 1126, 1126 (1985).

255. *Syrang Aero Club, Inc. v. Comm’r*, 73 T.C. 717, 722 (1980).

256. *McKinney v. Bd. of Zoning Adjustment*, 308 S.W.2d 320, 325 (Mo. Ct. App. 1957) (emphasis added) (quoting 3 C.J.S. 1060 n.70); see also *Denmark v. State*, 954 P.2d 624, 626 (Colo. App. 1997) (defining the phrase *recreation area* to include a place where an individual could play sports).

257. WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY 1899 (2002); see also *Comptroller of Treasury v. M.E. Rockhill, Inc.*, 107 A.2d 93, 96 (Md. 1954) (noting that recreation “may come from any pleasant and diverting exercise . . .”).

258. *E.g.*, *Diamond v. Springfield Metro. Exposition Auditorium Auth.*, 44 F.3d 599, 601 (7th Cir. 1995).

259. *E.g.*, *Myers v. Atchison, Topeka & Santa Fe Ry. Co.*, 274 Cal. Rptr. 122, 127 (Ct. App. 1990); *Johnson v. Sunshine Mining Co.*, 684 P.2d 268, 270 (Idaho 1984).

260. *E.g.*, *Reid v. Kawasaki Motors Corp., U.S.A.*, 592 N.Y.S.2d 496, 498 (App. Dist. 1993).

261. *E.g.*, *Taylor v. City of Appleton*, 433 N.W.2d 293, 294 (Wis. Ct. App. 1988).

262. *E.g.*, *White v. Indus. Claim Appeals Office*, 8 P.3d 621, 623 (Colo. App. 2000).

263. *E.g.*, *Martinez v. Harris Cnty.*, 808 S.W.2d 257, 259 (Tex. Ct. App. 1991); *Kruschke v. City of New Richmond*, 458 N.W.2d 832, 832–33 (Wis. Ct. App. 1990).

264. *E.g.*, *DiMino v. Borough of Pottstown*, 564 A.2d 1329, 1334 (Pa. Commw. Ct. 1989), *vacated*, 598 A.2d 357 (Pa. Commw. Ct. 1991). But see *Domingue v. Presley of S. Cal.*, 243 Cal. Rptr. 312, 318 (Ct. App. 1988) (concluding that not all bicycle riding is recreational).

paragraph includes all sports.²⁶⁵ 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 sports organizations qualify.²⁶⁶ In sorting out this apparent conflict, it is appropriate to recall that a sports organization is considered educational because it promotes “physical development.”²⁶⁷ This Article asserts that a sports organization should not qualify for tax benefits if it has a recreational purpose, such as the pursuit of enjoyment or pleasure, that is substantial in light of the purpose of promoting physical development. 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 . . .”²⁶⁸ It turns out “[t]he root of the thrill-seeking experience . . . is intimately involved in pleasure . . .”²⁶⁹ Psychologists have studied thrill seekers for half a century, and they can now link the way people process dopamine, the brain chemical responsible for pleasure, with participation in dangerous sports.²⁷⁰ “Sex, food and recreational drugs

265. See *supra* notes 256–57 and accompanying text.

266. See, e.g., STAFF OF JOINT COMM. ON TAXATION, 94TH CONG., GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1976 (Comm. Print 1976), *reprinted in* 1976-3 C.B. 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 [I.R.C.] section 501(c)(3)”; Rev. Rul. 80-295, 1980-2 C.B. 194 (noting that an organization promoting amateur athletics has a purpose allowing for tax benefits); Rev. Rul. 80-296, 1980-2 C.B. 195 (“College and university athletic organizations that promote certain aspects of athletic competition have generally been held to be educational and thus exempt from federal income tax.”); see also *supra* notes 34–42 and accompanying text (noting cases in which the courts and the IRS concluded that sports organizations qualified).

267. See *supra* notes 37–42 and accompanying text.

268. Alice Park, *Why We Take Risks—It’s the Dopamine*, TIME (Dec. 30, 2008), <http://www.time.com/time/printout/0,8816,1869106,00.html>.

269. Friedman, *supra* note 63, at F7 (statement of Richard A. Friedman, M.D., director of psychopathology at Cornell Medical College).

270. See 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); Glenn Zorpette, *Extreme Sports, Sensation Seeking and the Brain*, SCIENTIFIC AMERICAN, SUMMER 1999, at 56, 57.

all flood the brain with dopamine—and [for some people] so does thrill seeking.”²⁷¹

Sensation seekers, also called thrill seekers, are described as having a “Type T personality”²⁷² and tend to pursue “novel, intense and complex sensations and experiences, and [are] willing[] to take risks for the sake of such experience[s].”²⁷³ They tend to be creative, decisive, energetic, self-confident, and “feel in control of their fate.”²⁷⁴

“Sensation seekers constitute the majority of those engaged in risk-taking behavior”²⁷⁵ On personality tests, risky sports participants record high sensation seeking scores, high extraversion scores, and low conscientiousness scores.²⁷⁶ A survey of participants in a variety of sports determined sensation seeking scale (SSS) scores for the participants in the different sports.²⁷⁷ In the survey, expedition climbers who scaled the tallest peaks, including Mount Everest, recorded the highest SSS scores.²⁷⁸ The following table provides the number of participants in each sport group tested, their average SSS scores, and how their average scores compared with the expedition climbers.

271. Friedman, *supra* note 63, at F7.

272. Angela Haupt, *Why Some of Us Are Thrill-Seekers: Skydiving? Zip-Lining? Volcano-Boarding? Yes, Say Thrill-Seekers, and There’s a Reason*, U.S. NEWS & WORLD REP., Aug. 6, 2012, available at 2012 WLNR16603441 (identifying Frank Farley, professor of educational psychology at Temple University, as the creator of the phrase).

273. Marvin Zuckerman, *Are You a Risk Taker?* PSYCHOL. TODAY, Dec. 2000, at 52, 54 [hereinafter Zuckerman Psychology Today], available at <http://www.psychologytoday.com/articles/200011/are-you-risk-taker>; accord ZUCKERMAN 1994, *supra* note 270, 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”).

274. Haupt, *supra* note 272 (quoting Frank Farley).

275. MARVIN ZUCKERMAN, SENSATION SEEKING AND RISKY BEHAVIOR XV (2007) [hereinafter ZUCKERMAN 2007].

276. See ZUCKERMAN 2007, *supra* note 275, at 70–71 (“[M]ountain climbers and rock climbers are high sensation seekers”); Serdar Tok, *The Big Five Personality Traits and Risky Sport Participation*, 39 SOC. BEHAV. & 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”); see also Dominika Kupciw & Alexandra MacGregor, *High-Risk Sport Research*, SPORT & EXERCISE SCIENTIST, Spring 2012, at 28, 29 (stating that with regard to high-risk sports, “conscientious individuals engaged in precautionary behaviours, whereas less conscientious individuals engaged more in deliberate risky behaviors”).

277. See ZUCKERMAN 2007, *supra* note 275, at 89 (stating that the researchers collected the data in Norway).

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

SPORT/ACTIVITY	NUMBER OF PARTICIPANTS	TOTAL AVERAGE SSS SCORE ²⁷⁹	COMPARED TO EXPEDITION CLIMBERS ²⁸⁰
Expedition Climbers	9	28.66	100%
Parachutists/Skydivers	20	26.65	93%
Elite Mountain Climbers	36	25.30	88%
White Water Canoeists	32	24.78	86%
Karate Practitioners (male)	17	22.29	78%
Karate Practitioners (female)	14	22.22	78%
Ice Hockey Players	19	21.95	77%
Male Teachers (Control)	12	21.41	75%
Volleyball Players (male)	13	18.46	64%
Volleyball Players (female)	16	17.19	60%
Female Teachers (Control)	17	14.38	50%

The teachers were the control groups in this study.²⁸¹

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.²⁸² 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 sensation seeking animals “had fewer dopamine-regulating receptors than those who were more cautious [in the group].”²⁸³ In the human study, the researchers used a questionnaire to separate the thrill seekers from the more cautious and then scanned each individual’s brain for dopamine-regulating receptors.²⁸⁴ “[T]he data came out essentially

279. *Id.* (reporting the total average SSS score for each group, based on the average scores for four separate attributes that were combined to arrive at the total average SSS score. The four attributes include (i) thrill and adventure seeking; (ii) experience seeking; (iii) disinhibition; and (iv) boredom susceptibility).

280. *See id.* The author calculated the percentages in this column by dividing each total average SSS score by 28.66, the total average SSS score for the expedition climbers.

281. *Id.*

282. Park, *supra* note 268.

283. *Id.* (quoting David Zald, a professor of psychology and psychiatry at Vanderbilt University).

284. *Id.*

perfect[] [Just like the animals the] humans who were more ... eager to take risks had fewer dopamine-regulating receptors²⁸⁵ The study found that thrill seekers “get an unusually big hit of dopamine each time they have a novel experience [And t]hat blast makes them feel good, so they keep returning for the rush.”²⁸⁶ In contrast, “[t]hose 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 i]n fact, these [people] are likely to be thrill-averse.”²⁸⁷ “[T]he difference seems to be hard-wired in our brains²⁸⁸

Genetics typically only explain approximately thirty percent of most personality traits, but several studies indicate that genetics explain almost sixty percent of risk seeking behavior.²⁸⁹ One study involving 442 pairs of twins separated at birth found that “58% of the general sensation-seeking trait is heritable [And t]he remaining variation (42%) is due to ... [noninherited] environmental influences and error of the trait measurement.”²⁹⁰ Nongenetic factors for playing risky sports include desires to impress friends and coworkers, discover limits, and overcome deeply rooted fears.²⁹¹ Also, a person’s upbringing can promote or inhibit risk taking.²⁹² “[P]arents play a powerful role by rewarding risk-taking with praise or squelching it with frequent warnings about potential dangers.”²⁹³

Additionally, researchers identify age as a predictive factor. Teenage brains are more sensitive to dopamine, and teenagers tend to be risk takers.²⁹⁴ An individual’s SSS score tends to peak in late adolescence or in the person’s early twenties²⁹⁵ and then decline steadily with age.²⁹⁶ At age sixty, an individual’s SSS score typically is half of their peak score.²⁹⁷

285. *Id.*

286. *Id.*

287. Friedman, *supra* note 63, at F7.

288. *Id.*

289. See ZUCKERMAN 1994, *supra* note 270, at xi, 291–95 (discussing various studies).

290. ZUCKERMAN 1994, *supra* note 270, at 291–92.

291. See Tracey Middlekauff, *Risky Business: For Most Teens, Making Risky Decisions Comes Naturally*, CURRENT HEALTH, Mar. 1, 2009, at 2 *available at* 2009 WLNR 29793256 (“The group is a powerful risk-taking motivator; in fact, impulsive, emotional risk taking often occurs in group settings.”); Zorpette, *supra* note 270 (listing the desire to know your limits, impress your friends and co-workers, and to confront deeply rooted fears).

292. See Michael O’Connor, *Thrill Junkies Get a Fix From Halloween Tricks*, OMAHA WORLD-HERALD, Oct. 31, 2011, at 1A, *available at* 2011 WLNR 2251666.

293. *Id.* (citing Frank Farley).

294. See Middlekauff, *supra* note 291.

295. ZUCKERMAN 1994, *supra* note 270, at 17–18.

296. ZUCKERMAN 2007, *supra* note 273, at 14.

297. *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,²⁹⁸ and courts must analyze all the particular facts of a case in applying the test.²⁹⁹ In deciding whether a particular sports organization promotes excessively dangerous activities and has a substantial recreational purpose, courts and the IRS should view information from interested parties with suspicion. For example, one boxing organization claims that fewer injuries occur in amateur boxing than in bowling.³⁰⁰

There are many factors the courts and the IRS should consider in determining whether a sports organization qualifies for most favored tax status. These factors include (i) the frequency and severity of injuries in the sport, both generally and for the particular organization; (ii) whether other jurisdictions have declared the activity illegal;³⁰¹ (iii) whether life insurers increase premiums for participants of the sport,³⁰² refuse to pay death benefits if an insured dies while participating in the sport,³⁰³ or otherwise refuse to insure the activity;³⁰⁴ and (iv) whether a reputable national or international association has established standards for the

298. See *Better Bus. Bureau v. United States*, 326 U.S. 279, 283 (1945).

299. See *supra* note 248 and accompanying text.

300. See John Brown, *Amateur Boxing is Safe*, BOUND BOXING ACAD., <http://academy.boundboxing.com/amateur-boxing-is-safe> (last visited May 12, 2014); see also Earl Gustkey, *The Day in Sports; Countdown to 2000 / A Day-By-Day Recap of Some of the Most Important Moments of the 20th Century: May 19, 1995; He Lost the Weight, Then Lost His Life*, L.A. TIMES, May 19, 1999, at D10, 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.”).

301. See *supra* notes 95–98 and accompanying text (discussing that most jurisdictions outlaw BASE jumping); see also Associated Press, *Connecticut Lifts Ban on Mixed Martial Arts Fights*, N.Y. TIMES, July 12, 2013, at B10, available at 2013 WLNR 16905475 (lifting the ban on mixed martial arts effective October 1, 2013).

302. See *supra* note 120 and accompanying text (discussing that an insurance company may charge significantly higher premiums if an applicant takes heli-skiing vacations).

303. See Hazel Beh & Jeffrey W. Stempel, *Misclassifying the Insurance Policy: The Unforced Errors of Unilateral Contract Characterization*, 32 CARDOZO L. REV. 85, 128 n.170 (2010) (stating that life insurers often exclude coverage if the insured dies while skydiving or doing some other high risk activity).

304. See Gregg Easterbrook, Op-Ed., *Deal Offers Neither Clarity Nor Closure*, USA TODAY, Sept. 5, 2013, at 8A (speculating that health insurers may refuse to cover high school and college football if they start paying brain-damage awards).

sport and whether the particular organization adopts or follows those standards.³⁰⁵

If the courts and the IRS adopt this Article's proposal, excessively dangerous sports organizations still may qualify for federal and state income tax exemptions as social clubs,³⁰⁶ but they likely would not qualify for the other generous tax benefits typically available to section 501(c)(3) organizations.³⁰⁷ The loss of these tax benefits could significantly increase the costs of carrying on the activities.

An old maxim provides, "If you want more of something, subsidize it; if you want less, tax it."³⁰⁸ The actual impact of withholding tax benefits, 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 elasticity of demand.³⁰⁹ Sometimes the demand for an item is relatively constant over a broad range of prices.³¹⁰ For example, people likely will continue to buy a lifesaving 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.³¹¹ 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 indicates that, at least for some BASE jumpers, increased costs, such as the risk of prosecution, do not change the participant's decision.³¹² However, the drop in young children starting to play organized football as newspaper headlines publicize concussion risks may signal that the demand for football is more easily impacted.³¹³

Additionally, colleges, universities, and other section 501(c)(3) organizations that sponsor excessively dangerous sports would jeopardize their most favored tax status if carrying on the sports is a substantial purpose. Faced with the potential loss of lucrative tax benefits, these

305. See *supra* note 119 and accompanying text (discussing the absence of national or international rules from a neutral organization for heli-skiing).

306. See I.R.C. § 501(c)(7) (2013) (allowing country clubs to be exempt from federal income tax).

307. See *supra* note 26 and accompanying text (regarding the other tax benefits).

308. See Yablon, *supra* note 27, at 108.

309. See 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) (discussing the elasticity of demand for sugary beverages and tobacco).

310. See, e.g., *Championship Wrestling Inc. v. State Boxing Comm'n*, 477 N.E.2d 302, 306–08 (Ind. Ct. App. 1985) (summarily holding that a tax on wrestling tickets would have absolutely no impact on the popularity or violence of wrestling).

311. See George Steven Swan, *The Law and Economics of ERISA and Fiduciary Duty*: *LaRue v. DeWolff, Boberg & Associates, Inc.*, 36 OHIO N.U. L. REV. 403, 446 (2010) ("Elasticity of demand turns, primarily, upon availability of substitutes.").

312. See *supra* notes 142–45 and accompanying text.

313. See *supra* notes 142–45 and accompanying text.

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.³¹⁴

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

This Article's proposal extends an existing test that requires a factual analysis based on the circumstances of the case. This type of analysis frequently poses multiple problems, including the following: (i) different decisionmakers may reach different results in similar situations,³¹⁵ thereby failing to achieve horizontal equity;³¹⁶ (ii) decisionmakers may not be "equipped by training or experience" to make the particular factual determinations;³¹⁷ 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.³¹⁸

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

In addition, supporters of risky sports may raise counterarguments based on the positive societal impacts of the activities. First, at least historically, risk-taking has benefitted civilization generally and the United States in particular. "Some psychologists contend that sensation

314. See *infra* notes 338–42 and accompanying text.

315. 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 law").

316. See JOEL S. NEWMAN, *FEDERAL INCOME TAXATION* 23 (5th ed. 2012) (describing horizontal equity as treating "people in similar circumstances [in] similar ways"); see also Kelly A. Moore, *Previously Taxed Property Credit and the 2035(B) Gross Up*, 34 S. ILL. U. L.J. 275, 285 (2010) ("The doctrine of horizontal equity provides that similarly situated taxpayers should be treated, generally, in the same manner under the tax code.").

317. *Exacto Spring Corp. v. Comm'r*, 196 F.3d 833, 835 (7th Cir. 1999).

318. See *id.*

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.”³¹⁹ “In years gone by, risk-takers might have been explorers or adventurers. They might have come west with the Donner Party Risk-taking ... is the trait that advances human beings: ‘Every great person who changed the world ... was a risk-taker.’”³²⁰ Those who chose to immigrate to the United States generally were risk takers; “America is literally the home of the brave.”³²¹ A former NFL lineman remarked, “Contact sports will go away when we completely roll over and go toes up as a people.”³²²

Second, if the science is correct and some people are hardwired to invariably seek thrills, arguably it is better for society if they pursue risky sports than if they pursue other dangerous activities.³²³ Risky physical activities outside of sports are “mostly disturbing—alcoholism, drug addiction, compulsive gambling, reckless driving, and some kinds of violent criminality and suicide.”³²⁴ Amphetamines or cocaine may be especially attractive because they “artificially squeeze more dopamine out of the nerve cells in our brain[s].”³²⁵

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. “[I]n 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

319. Zorpette, *supra* note 270; *see also* Kupciw & MacGregor, *supra* note 276, at 29 (stating that “the caveman would not have emerged from the cave to feed his family if he hadn’t taken risks”).

320. Carol M. Ostrom, *The Risk Takers—In Search of the Next Thrill: Bravery and Biochemistry*, SEATTLE TIMES, Oct. 20, 1996, available at 1996 WLNR 1341978 (quoting Professor Frank Farley of Temple University).

321. *See* Michael Segell, *T Stands for Crazy as Hell*, ESQUIRE, Apr. 1, 1998, at 129, 129, available at 1998 WLNR 7687253.

322. Shpigel, *supra* note 15, at B12 (quoting Randy Cross).

323. *See* SEGELL, *supra* note 321, at 129 (quoting David Lykken, a psychologist at the University of Minnesota) (“The hero and the psychopath are two twigs on the same genetic branch.”); *see also* ZUCKERMAN 1994, *supra* note 270, at xi (“[C]ertain kinds of psychopathology are associated with high sensation seeking including ... substance abuse, and bipolar disorder.”).

324. Zorpette, *supra* note 270 (including those who seek barroom brawls); *see also* Zuckerman PSYCHOLOGY TODAY, *supra* note 273, at 52 (discussing “risky behavior” such as smoking, drinking, and drug use).

325. Park, *supra* note 268; *see also* ZUCKERMAN 2007, *supra* note 273, at 49 (listing getting high on drugs, wild partying, and sleeping with strangers as additional, attractive risky activities).

but deadening and culturally homogeneous and bland.”³²⁶ 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 recogni[ze] and maintain the element of risk that many participants specifically [seek].”³²⁷

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.”³²⁸ An expert has written that “for some people, drugs and thrills are more powerfully self-reinforcing than even food and sex. So the very design of our brain that promotes survival also makes us vulnerable.”³²⁹ Several commentators stress that thrill seeking cannot be eliminated. “[R]isk takers ... must take risks.”³³⁰ The debate is complicated in part because more cautious individuals cannot appreciate the needs of thrill seekers.³³¹ “This is why high and low sensation seekers cannot understand each other”³³²

One researcher suggests as a practical application of this learning that young people take a personality test. When a young person has a high SSS score, a parent might suggest participation in a risky sport in hopes of avoiding other risky choices such as illegal drugs or gambling.³³³ An expert observes that “personality traits are difficult if not impossible to change, but their forms of expression should be malleable.”³³⁴

In response, this Article’s proposal would not outlaw any sports; it would only eliminate government subsidies to those that are excessively

326. Zorpette, *supra* note 270; *see also* Friedman, *supra* note 63, at F7 (predicting that “as life becomes more predictable, riskier forms of excitement will emerge”); SEGELL, *supra* note 321, at 129 (“We’re just trying to feel *alive*.”).

327. *See* Kupciw & MacGregor, *supra* note 276, at 29.

328. SEGELL, *supra* note 321, at 129.

329. Friedman, *supra* note 63, at F7.

330. Ostrom, *supra* note 320, at 20.

331. *See* ZUCKERMAN 2007, *supra* note 273, at 53 (“[H]edonistic rewards of sensation seeking are perceived as benefits only by high sensation seekers.”).

332. ZUCKERMAN 1994, *supra* note 270, at 27.

333. *See* Middlekauff, *supra* note 291, at 2 (noting that if you do not like sports “find something [else] you think is thrilling and challenging, whether that’s acting in a school play, learning a musical instrument, or playing chess”).

334. ZUCKERMAN 2007, *supra* note 273, at xiv–xv.

dangerous.³³⁵ 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,³³⁶ just as if the organization paid the tax and the government paid a grant to the organization in the same amount.³³⁷ Consequently, 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. However, sports and medical understanding have evolved 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 and through the mid-1950s.³³⁸ At times, college boxing was even more popular than college basketball.³³⁹ Nevertheless, eventually many institutions relegated boxing to a club sport.³⁴⁰ The NCAA initially changed its rules to address safety concerns,³⁴¹ 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 1960.³⁴²

335. See *supra* notes 306–07 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).

336. *Walz v. Tax Comm’n*, 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.”).

337. *Id.* at 709 (“Tax exemption, no matter what its form, is essentially a government grant or subsidy.”) (internal citation omitted).

338. See J. Krajewski, *Boxing: Fans’ Enthusiasm, Support Makes Them Nevada’s First Family of Sports*, RENO GAZETTE-J., Mar. 24, 2013, available at 2013 WLNR 7279799; see also Dave McKenna, *supra* note 23, at 12 (discussing early support for college boxing at the University of Maryland); Robert Stewart, *Former Boxers Relive Fighting for LSU*, BATON ROUGE ADVOC., Nov. 13, 2011, at B4, available at 2011 WLNR 23485789 (discussing boxing at Louisiana State University between 1929 and 1956).

339. See McKenna, *supra* note 23, at 12; see also Budd Schulberg, *The Bengal Bouts*, SPORTS ILLUSTRATED, Apr. 4, 1955, available at <http://sportsillustrated.cnn.com/vault/article/magazine/MAG1129521/index.htm> (stating that in 1955 at Notre Dame, boxing outdrew all other sports except King Football).

340. See Stewart, *supra* note 338, at B4.

341. See *id.* (reporting that the NCAA “prevented freshmen from fighting” in 1953); McKenna, *supra* note 23, 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.”).

342. McKenna, *supra* note 23, at 12; see also Krajewski, *supra* note 338 (reporting that the National Collegiate Boxing Association became the sanctioning body in 1976).

The Guinness World Records organization acknowledges achievements in an amazing array of activities,³⁴³ but it has rejected some as too dangerous.³⁴⁴ For example, in the 1950s and 1960s, individuals established records for sleep deprivation.³⁴⁵ But, when medical research revealed that contestants consistently developed serious neurological problems, Guinness World Records refused to recognize further record attempts.³⁴⁶ More recently, the organization refused to recognize record setters using their eye sockets to lift weights or pull cars.³⁴⁷

BASE jumping and some other extreme sports invite death. Medical evidence showing that certain contact sports pose extremely serious brain injury risks is mounting. At the same time, psychological research is demonstrating that participants have recreational motivations, rather than educational motives, for engaging in these dangerous activities. 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 courts and the IRS 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 courts and the IRS examine the facts and respond responsibly.

343. See GUINNESS WORLD RECORDS 2013 xiv (2012).

344. See *Questions About Guinness World Records: What Kind of Records Should I Not Try To Break?*, GUINNESS WORLD REC., <http://www.guinnessworldrecords.com/set-a-record/faq/> (last visited May 12, 2014) (excluding activities “which could cause potential harm”).

345. See Rebecca Turner, *Sleep Deprivation: From Insomnia to World Records*, WORLD OF LUCID DREAMING, <http://www.world-of-lucid-dreaming.com/sleep-deprivation.html> (last visited May 12, 2014) (reporting that Peter Tripp went over eight days without sleep in 1959, and Randy Gardner went over eleven days without sleep in 1964).

346. See *id.*; see also Martin Evans, *Wakey Wakey!*, EXPRESS (U.K.), May 26, 2007, available at 2007 WLNR 11225310 (reporting that the Guinness Book of World Records would not recognize a man who beat Gardner’s record).

347. See Editorial, *Stupid Yes, Record No: There Is No Doofus Book of Records. Yet.*, ST. PETERSBURG TIMES, Jan. 8, 2009, at 6A, available at 2009 WLNR 369706; see also Paul Dean, *Taking a Walk on the Safe Side; Dangerous Stunts Won’t be Making It into the Guinness Book of Records*, WASH. POST, Mar. 15, 1996, available at 1996 WLNR 6589417 (reporting that Guinness World Records will not recognize records relating to smoking or gluttony).

